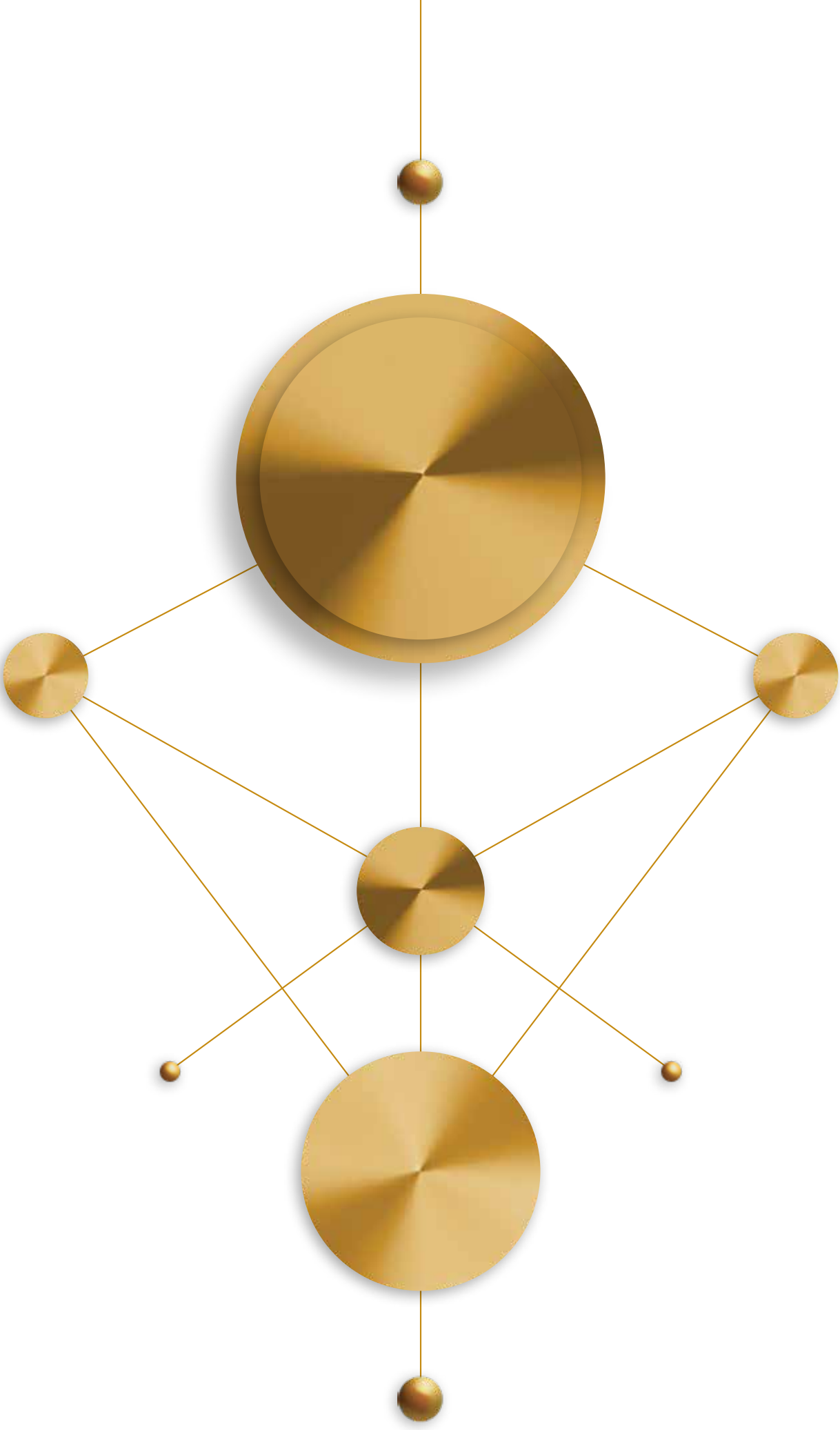
nmisa

National Metrology Institute of South Africa

ANNUAL REPORT 2024/25



CONTENTS

LIST OF TABLES

LIST OF FIGURES

PART A
GENERAL INFORMATION

1 PUBLIC ENTITY'S GENERAL INFORMATION

Registered Name:	National Metrology Institute of South Africa (NMISA)
Physical Address:	Building 5, CSIR Campus Meiring Naude Road Brummeria, Pretoria
Postal Address:	Private Bag X34 Lynnwood Ridge 0040
Telephone Number/s:	+27 (12) 947 2874
Email Address:	info@nmisa.org
Website Address:	www.nmisa.org
External Auditors:	Nexia SAB&T 119 Witch-Hazel Avenue Highveld Technopark Centurion
Bankers:	Standard Bank Lynnwood Ridge Pretoria
Company/Board Secretary:	Ms Busisiwe Mkhize

2 LIST OF ABBREVIATIONS/ACRONYMS

AfCFTA	African Continental Free Trade Area
AFRIMETS	Intra-Africa Metrology System
AFS	Annual Financial Statements
APP	Annual Performance Plan
ARC	Audit and Risk Committee
ARI	Africa Reference Institute
AVE	Advertising Value Equivalent
B-BBEE	Broad-Based Black Economic Empowerment
BIPM	Bureau International des Poids et Mesures (International Bureau of Weights and Measures)
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIPM	International Committee for Weights and Measures
CMC	Calibration and Measurement Capabilities
CRM	Certified Reference Material
CSIR	Council for Scientific and Industrial Research
DCC	Digital Calibration Certificate
DMPR	Department of Mineral and Petroleum Resources
DTIC	Department of Trade, Industry and Competition
ERP	Enterprise Resource Planning
EWP	Employee Wellness Programme
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GUM	Guide to the Expression of Uncertainty in Measurement
HCD	Human Capital Development
HR	Human Resources
IAEA	International Atomic Energy Agency
ILC	Inter-laboratory Comparison
ISO	International Organization for Standardization
KCDB	Key Comparison Database
KPI	Key Performance Indicator
LED	Light-emitting Diode

MoU	Memorandum of Understanding
MRA	Mutual Recognition Arrangement
MTEF	Medium-Term Expenditure Framework
NHLS	National Health Laboratory Service
NLA	National Laboratory Association
NMI	National Metrology Institute
NMISA	National Metrology Institute of South Africa
NMS	National Measurement Standard
NNR	National Nuclear Regulator
NPL	National Physical Laboratory
NRCS	National Regulator for Compulsory Specifications
PFMA	Public Finance Management Act (Act No. 1 of 1999)
PJVS	Programmable Josephson Voltage Standard
PT	Proficiency Testing
PTB	Physikalisch-Technische Bundesanstalt – German NMI
PTS	Proficiency Testing Scheme
QHRS	Quantum Hall Resistance Standard
QI	Quality Infrastructure
RTMC	Road Traffic Management Corporation
SADC	Southern African Development Community
SADCMET	SADC Cooperation in Measurement Traceability
SANAS	South African National Accreditation System
SAWS	South African Weather Service
SEZ	Special Economic Zone
SI	International System of Units
SLA	Service Level Agreement
SMME	Small, Medium and Micro Enterprise
SOE	State-Owned Enterprise
TIC	Testing, Inspection, and Certification
UK	United Kingdom
UTC	Coordinated Universal Time

> **“Measurement science is not only a technical necessity; it is a foundation for industrial competitiveness, environmental sustainability, and inclusive economic growth.”**

3 FOREWORD BY THE MINISTER

The year under review demonstrates how measurement science continues to underpin South Africa’s industrialisation, trade readiness, and environmental stewardship. Through the work of the National Metrology Institute of South Africa (NMISA), we see the tangible benefits of building and maintaining a strong national measurement system that responds to the evolving needs of our economy and society.

The development of South Africa’s first locally designed Coordinate Measuring Machine, in collaboration with Stellenbosch University and the CSIR, is an important step in strengthening advanced manufacturing in this field. This project reflects a deliberate effort to localise key technologies, reduce reliance on imports, and build capabilities that enable long-term industrial competitiveness.

Equally important is NMISA’s role in supporting South Africa’s transition to a low-carbon economy. By improving the accuracy of greenhouse gas measurements, particularly in areas such as methane emissions from agriculture, NMISA is helping to enhance the integrity of our national emissions inventory. These contributions will be vital as we navigate new international trade requirements, such as the European Union’s Carbon Border Adjustment Mechanism, and as we seek to ensure that South Africa’s industries remain competitive in a decarbonising global market.

Beyond national borders, NMISA has also strengthened regional cooperation through training and technical support to 13 African countries, advancing the harmonisation of measurement systems under the African Continental Free Trade Area. This work supports intra-African trade, enabling our continent to compete more effectively in global markets.

I extend my appreciation to NMISA’s management, staff, and partners for their dedicated efforts. Their work exemplifies how science and innovation can contribute to industrial growth, environmental sustainability, and inclusive economic development, in alignment with the Department of Trade, Industry and Competition’s strategic priorities.

Mr Parks Tau, MP
Minister of Trade, Industry and Competition

31 August 2025

> **“By modernising services and supporting local enterprises, NMISA is helping to build a more efficient, resilient, and competitive economy.”**

4 FOREWORD BY THE DEPUTY MINISTER

During 2024/25, the National Metrology Institute of South Africa (NMISA) made notable progress in modernising our national measurement system and extending its benefits to key sectors of the economy. This progress reflects a steady focus on ensuring that metrology is still a practical enabler of industrial growth, innovation, and public value.

A key focus during the year was exploring how digital tools can improve the delivery of measurement services, and NMISA completed a feasibility study on introducing digital calibration certificates and began testing innovative approaches to enhance the reliability and efficiency of selected laboratory calibration processes. These initiatives form part of NMISA’s objectives to reduce red tape and improve the efficiency of service delivery to clients, aligning with one of the Department of Trade, Industry and Competition’s key priorities.

In materials science, NMISA provided essential measurement support to projects that advance local innovation in high value sectors, this included research into radiation shielding for space and nuclear applications and the development of biomaterials for medical implants. By offering unique measurement capabilities, NMISA enabled South African researchers to meet stringent international standards and reduce reliance on foreign laboratories.

The Institute also played a strong role in supporting inclusive economic development. By providing training and technical help to 32 small, medium, and micro enterprises, NMISA more than doubled its original target, strengthening local competitiveness and contributing to enterprise growth. Regionally, its coordination of inter-laboratory comparisons and proficiency testing schemes through AFRIMETS supported harmonised measurement systems across 13 African countries, laying the groundwork for improved cross-border trade under the African Continental Free Trade Area.

I extend my gratitude to NMISA’s leadership, staff, and collaborators for their dedicated work. Their efforts are ensuring that South Africa’s measurement capabilities keep pace with the needs of a modern economy, while also building capacity and resilience across industries and communities.

Mr Zuko Godlimpi, MP

Deputy Minister of Trade, Industry and Competition

31 August 2025

> **“Trusted measurements are the invisible architecture of industrial development, and NMISA ensures they are credible, comparable, and future-ready.”**

5 FOREWORD BY THE CHAIRPERSON

The 2024/25 financial year was one of consolidation and steady progress for the National Metrology Institute of South Africa (NMISA). Operating in a complex and demanding environment, the Board maintained strong oversight to ensure the Institute stayed true to its legislative mandate – delivering internationally benchmarked measurement standards that support trade, technological advancement, public health, safety, and environmental stewardship.

Despite internal challenges, including a staff turnover rate of 16 %, NMISA achieved 71 % of its institutional performance targets, meeting 15 of the 21 targets outlined in the Annual Performance Plan. When including the broader DTIC targets, the overall achievement amounted to 63 %. Among the year's notable achievements were high client satisfaction ratings – 88 % for technical services and 89 % for training – as well as achieving a sales revenue of R26,98 million. The Institute also increased its visibility and stakeholder engagement. These outcomes highlight the commitment and professionalism of NMISA's leadership and technical personnel, and affirm the organisation's ongoing contribution to national development.

Governance efforts during the year focused on stabilising internal operations and strengthening NMISA's strategic posture amid changing global and domestic priorities. In alignment with the Department of Trade, Industry and Competition's (DTIC) broader industrial policy, NMISA supported key national objectives such as industrial diversification, digital transformation, and climate resilience. Its measurement services spanned a range of sectors – from manufacturing and mining, to energy, health, and food safety – ensuring quality, traceability, and compliance with market and regulatory demands.

The feasibility study on Digital Calibration Certificates (DCCs) marked a significant step toward supporting South Africa's industrial digitalisation. Additionally, the development of reference gas mixtures for environmental monitoring, along with NMISA's growing role in climate-related measurements under the new Climate Change Act, positioned the Institute as a technical enabler of the just energy transition. These efforts underscore NMISA's expanding relevance across both established and emerging sectors.

Partnerships remained a cornerstone of NMISA's success. The Institute continued to play a prominent role in regional metrology through initiatives such as the Intra-Africa Metrology System (AFRIMETS) and the Southern African Development Community Cooperation in Measurement Traceability (SADCMET), extending technical support to 13 African nations. Eight new cooperation agreements were signed, facilitating collaboration across public and private sectors, promoting knowledge exchange, and strengthening local technical capacity. The hosting of technical workshops, training sessions, and international visits reinforced NMISA's standing as a leader and convenor in the metrology space.

Challenges during the year, particularly the loss of skilled personnel, placed strain on operational capacity and highlighted the urgency of implementing an effective staff retention strategy. While most audit-related issues were resolved promptly, some delays occurred due to limited capacity. In response, the Board approved the filling of several key posts and closely monitored progress on internal improvements to support organisational resilience and performance recovery.

Looking to the future, the Board's strategic oversight will be directed toward several key areas: strengthening digital systems, broadening NMISA's footprint beyond urban centres, expanding its involvement in climate measurement initiatives, and advancing the Africa Reference Institute (ARI) as a continental centre of excellence. Realising these priorities will require continued alignment between governance, technical expertise, and sustainable financial planning.

The Board also wishes to acknowledge, with deep sorrow, the untimely passing of our colleague, Ms Senamile Masango, who joined the NMISA Board in October 2023. A pioneering nuclear physicist and tireless advocate for women in science and engineering, Ms Masango brought wisdom, vision, and inspiration to her role. Her legacy as a scientist, mentor, and role model will continue to influence and empower future generations. In closing, I extend the Board's heartfelt appreciation to NMISA's management and staff for their continued professionalism and dedication. We are thankful for the support and guidance of the DTIC, as well as the collaboration of our partners at home and abroad. The Board reaffirms its commitment to responsible governance and strategic direction, enabling NMISA to deliver excellence in all areas where accurate measurement underpins national progress.

"Trusted measurements are the invisible architecture of industrial development, and NMISA ensures they are credible, comparable, and future-ready."

Dr Precious Gugulethu Motshwene
Chairperson of the NMISA Board of Directors

31 August 2025

> **“These figures are not just metrics; they are evidence of our ability to deliver technical excellence and sustained national impact, even in the face of uncertainty.”**

6 CHIEF EXECUTIVE OFFICER’S OVERVIEW

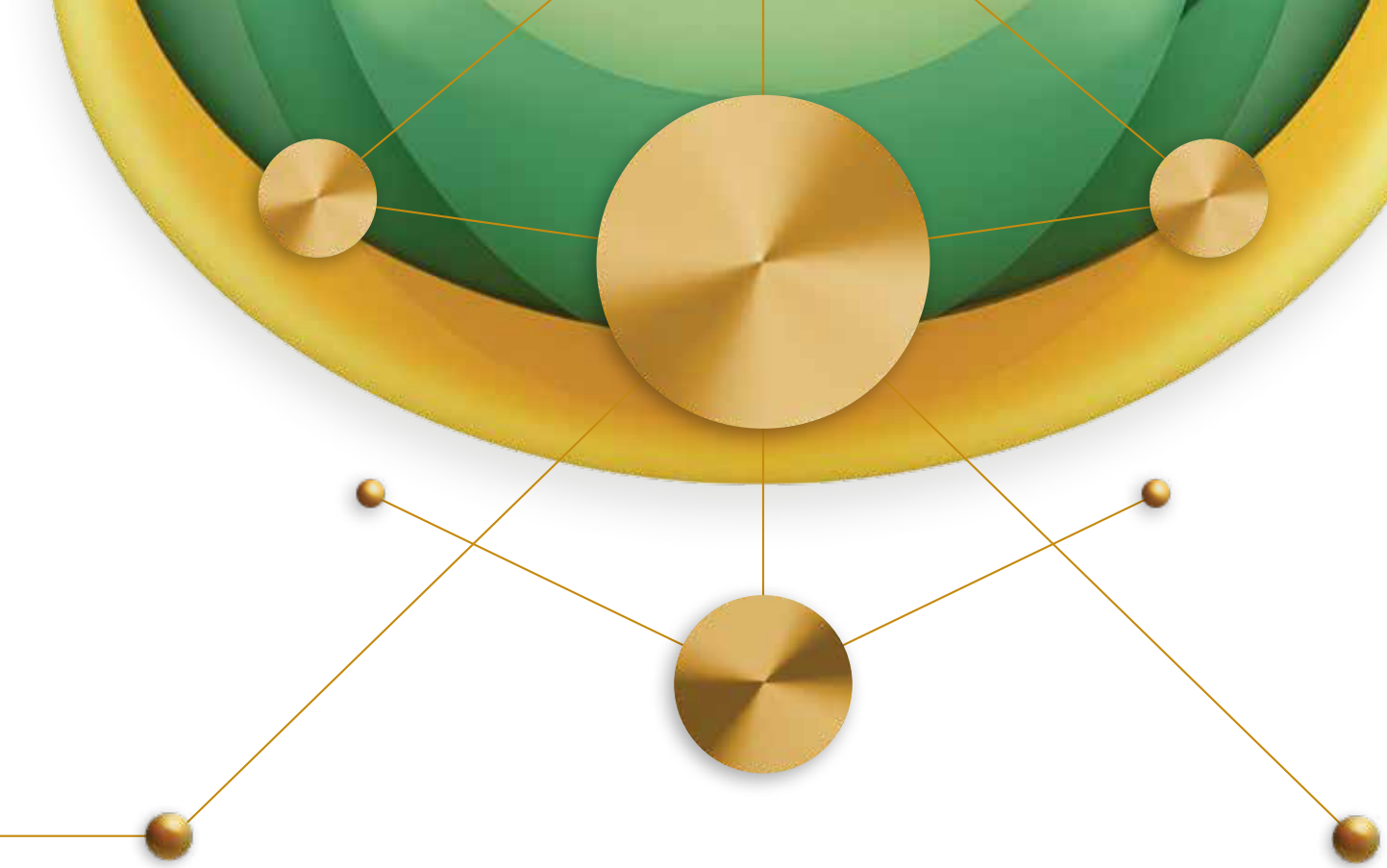
The 2024/25 financial year marked a pivotal chapter in NMISA’s journey of transformation, resilience, and strategic repositioning. It was a year in which we not only confronted persistent operational and fiscal constraints but also demonstrated that a focused and committed team can deliver results that matter. I am pleased to report that NMISA achieved 71 % of its institutional performance targets, meeting 15 of the 21 targets outlined in the Annual Performance Plan. When including the broader DTIC targets, our achievement stood at 63 %, a commendable outcome considering the macroeconomic pressures and constrained budget environment within which we operated. These figures are not just metrics; they are evidence of our ability to deliver technical excellence and sustained national impact, even in the face of uncertainty.

Throughout the year, NMISA maintained its position as a cornerstone of South Africa’s quality infrastructure, delivering credible, internationally recognised measurement services that empower industry, protect public health and safety, and enhance our global competitiveness. Our teams demonstrated resilience by stretching themselves in pursuit of revenue targets, increasing stakeholder engagement, and expanding the reach of our services beyond urban centres. The Institute’s visibility grew, new partnerships were established, and client satisfaction remained exceptionally high, a reflection of the trust placed in NMISA by our partners and the industries we serve.

Internally, however, the year presented significant structural and operational constraints. A major challenge was the staff turnover rate, which reached an unprecedented 16 %, directly affecting laboratory output, audit closure, and turnaround times. Many of the skills lost were in critical technical areas, placing pressure on continuity and institutional memory. In response, we initiated a succession and continuity strategy to safeguard critical competencies, supported by a revitalised Human Capital Development (HCD) pipeline. These efforts included hosting interns and in-service trainees, strengthening partnerships with universities, and investing in professional growth for existing staff. Our goal is to ensure long-term capacity sustainability, anchored in a culture of mentorship, internal promotion, and structured career progression.

From a financial perspective, the Institute concluded the year with achieving an annual revenue of R26,98 million. This was made possible through consistent demand for our high-accuracy services and increased uptake across strategic industries. However, spending trends reflected a cautious fiscal posture. Several initiatives were postponed or scaled down to accommodate budget constraints. Requests for the rollover of funds will be submitted to National Treasury to preserve value in key procurement and infrastructure projects delayed by cash flow limitations.

Audit findings from the previous year were largely addressed, with 96 % cleared within designated timeframes. Delays in some areas were linked to limited capacity, but internal recovery plans have since been implemented. Recruitment of permanent technical and support staff is underway.



In parallel, digital systems are being introduced to improve process efficiency and resilience, including real-time laboratory environmental monitoring, which ensures critical measurement conditions are maintained and protected from infrastructure disruptions.

During the year, we also initiated a review of the internal cost structure, with reconfiguration plans aimed at improving functional efficiency. This includes the integration of technical support with business development, and the streamlining of roles to minimise duplication and unlock workflow improvements. Several non-core initiatives were discontinued or deferred, allowing us to refocus efforts on programmes that align directly with NMISA's national mandate and deliver measurable economic impact.

No material post-reporting events have affected the viability or sustainability of the Institute. However, the outlook remains cautious. NMISA's medium-term economic viability will depend on improved baseline funding, reduced vacancy rates, and targeted investment in infrastructure and modernisation. These factors are critical to advancing our strategic goals including the full implementation of Digital Calibration Certificates, operationalisation of the Africa Reference Institute, and deeper regional engagement in environmental measurement services.

In closing, I extend my sincere appreciation to every member of the NMISA team for their dedication, innovation, and resilience throughout this demanding year. I would like to express my sincere appreciation to Dr Jayne de Vos for her leadership during her tenure as Acting CEO. I also extend my gratitude to the Board for its continued guidance, and to the DTIC for its ongoing support. As we look ahead, NMISA remains committed to scientific excellence, public value, and enabling South Africa's growth and development through trusted measurement.

Dr Jeseelan Pillay
Chief Executive Officer (Acting)

31 August 2025

7 STATEMENT OF RESPONSIBILITY AND CONFIRMATION OF ACCURACY FOR 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 Annual Financial Statements audited by Nexia SAB&T.
- The Annual Report is complete, accurate and is 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 Standards of Generally Recognised Practice (GRAP), including any interpretation, guidelines and directives, issued by the Accounting Standards in accordance with Section 91(1) of the Public Finance Management Act (Act 1 of 1999) applicable to the National Metrology Institute of South Africa.

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 that 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 public entity for the financial year ended 31 March 2025.

Dr Jeseelan Pillay
Chief Executive Officer (Acting)

31 August 2025

Dr Precious Gugulethu Motshwene
Chairperson of the NMISA Board of Directors

31 August 2025

8 STRATEGIC OVERVIEW

8.1 VISION

To enable regional and global market access for our clients, and enhance the quality of life for all South Africans, through internationally accepted measurement systems.

8.2 MISSION

To consistently deliver outstanding innovative and internationally accepted measurement systems that support regional and international trade, and people's quality of life, and enable the protection of the environment.

8.3 VALUES

Forward thinking

Evolving and adapting with new technologies to deliver innovative measurement solutions for niche markets.

Trustworthy

Inspiring confidence in stakeholders that our commitments are consistently met and that their satisfaction is our priority.

Knowledge sharing

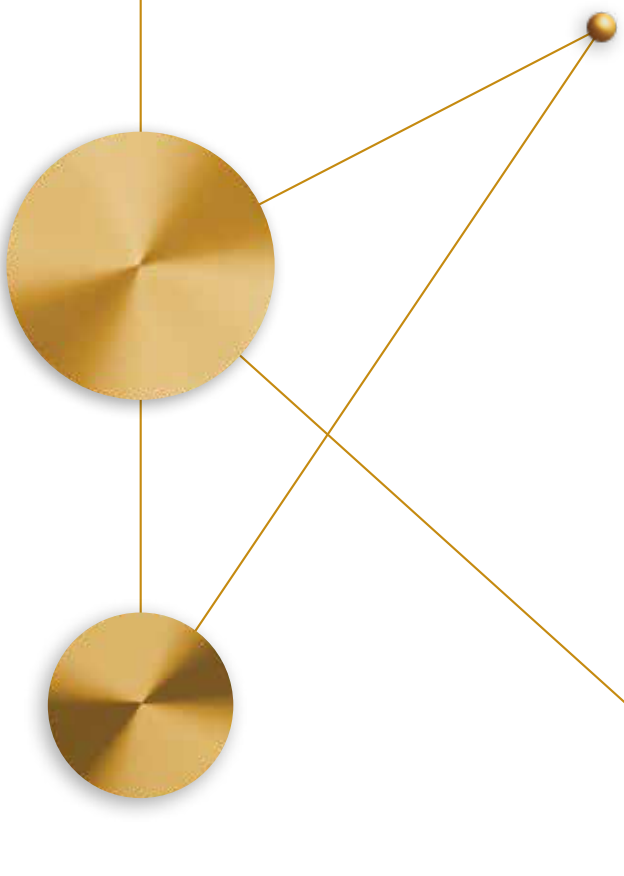
Achieving more through networking, collaboration and partnerships to build a better future together.

Accountability

Acting ethically and responsibly in all aspects of work and taking ownership of our actions and their outcomes.

Respect

Embracing diversity and different perspectives, with consideration for our social and physical environment.



9 LEGISLATIVE AND OTHER MANDATES

The National Metrology Institute of South Africa (NMISA) was established and operates in accordance with its legal mandate under the Measurement Units and Measurement Standards Act (Act No. 18 of 2006). This Act provides for the use of the International System of Units (SI) as the basis for all measurements in South Africa. It also authorises the designation of other measurement units for use where necessary, and outlines provisions for the designation, development, maintenance, and dissemination of the National Measurement Standards (NMS), which include reference measurements, reference standards, and reference materials.

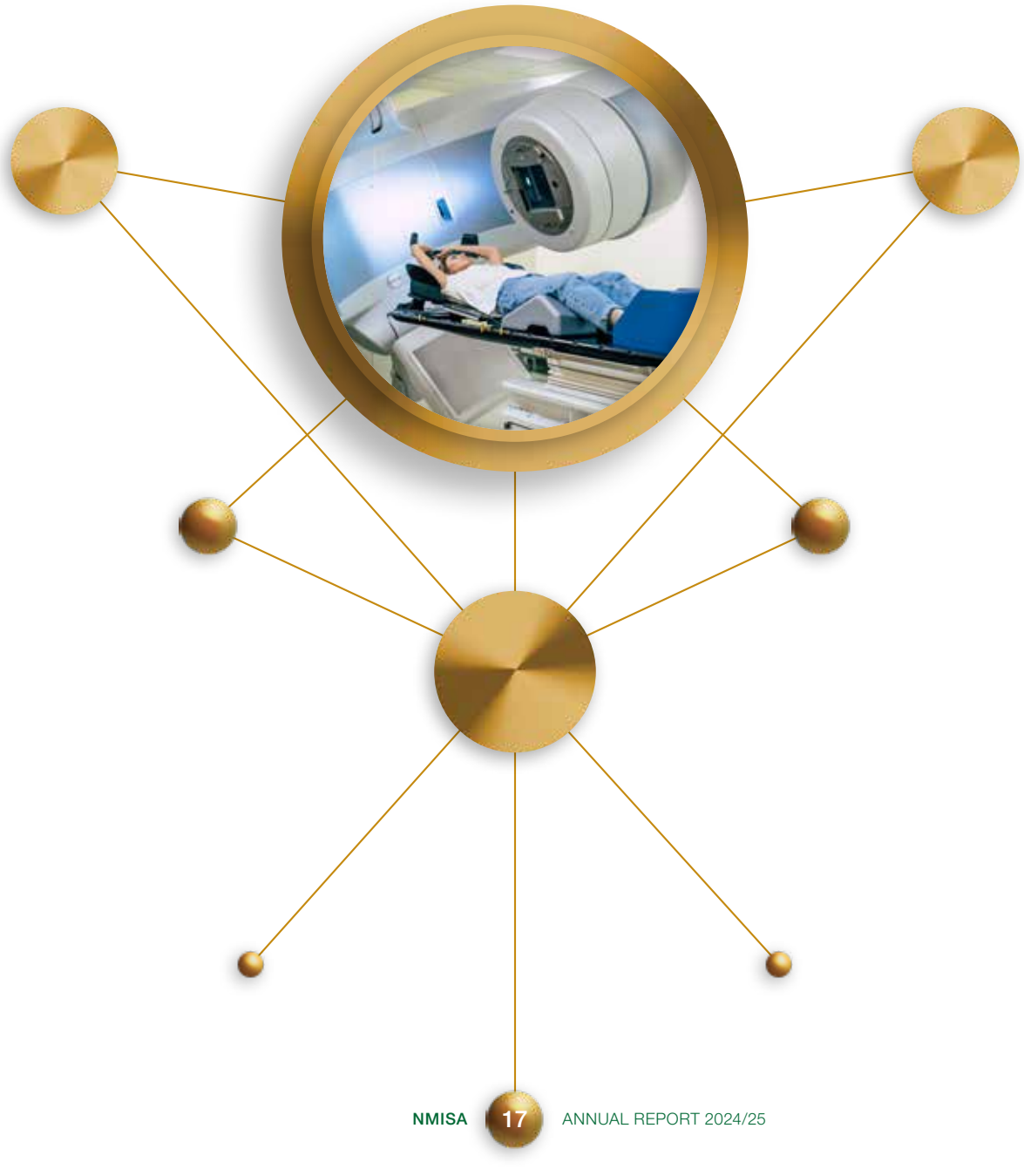
9.1 APPLICABLE ACTS

ACT	PURPOSE
Measurement Units and Measurement Standards Act, (Act No. 18 of 2006)	• To provide for the use of measurement units of the SI and certain other measurement units; • To provide for the designation of national measurement units and standards; • To provide for the keeping and maintenance of NMS and units; • To provide for the establishment and functions of the National Metrology Institute (NMI); • To provide for the repeal of certain laws; and • To provide for matters connected therewith.
Legal Metrology Act, (Act No. 9 of 2014)	The Legal Metrology Act provides for the administration and maintenance of legal metrology technical regulations to promote fair trade, for public health and safety, for the protection of the environment and for matters connected therewith. NMISA has extensive metrology laboratories, standards, and equipment, together with a solid base of scientific metrology skills, knowledge, and capacity to support legal metrology in health, safety, and environment measurements.
Public Finance Management Act (PFMA), (Act No.1 of 1999) as amended	The Act regulates financial management in the national government and provincial governments to ensure that all revenue, expenditure, assets and liabilities of those governments are managed efficiently and effectively; to provide for the responsibilities of persons entrusted with financial management in those governments; and to provide for matters connected therewith. NMISA is an extension to government and therefore prescribes to the PFMA.
Hazardous Substances Act, (Act No. 15 of 1973), Regulation No. R. 247, 26 February 1993	NMISA provides measurement traceability and calibration of equipment used for monitoring of ionising radiation.
The Civil Aviation Act, (Act No. 13 of 2009)	NMISA provides measurement traceability to the civil aviation industry as well as measurement training courses for aviation technicians. Calibration services are provided in the following fields: pressure, torque and dimensional metrology.
The Foodstuffs, Cosmetics and Disinfectant Act, (Act No. 54 of 1972) as amended	NMISA value assigns elements in food matrices and provides proficiency testing schemes (PTS) in support of food safety and food labelling as required and published by the Department of Health regulations relating to hazardous contaminants in foodstuffs and the labelling and advertising of foodstuffs.
National Road Traffic Act, (Act No. 93 of 1996)	NMISA supports Section 59 of the Act in that it offers speed measurement calibrations including calibration to the new specification.
Air Quality Act, (Act No. 39 of 2004)	NMISA supports the Act through the provision of reference gas mixtures for air pollution and environmental monitoring.
Road Traffic Management Corporation Act, (Act No. 20 of 1999)	The Act is supported through the calibration of breathalysers for law enforcement.
Occupational Health and Safety Act, (Act No. 85 of 1993 – regulations)	The Act is supported through calibration of noise, illuminance, and air monitoring devices.

9.2 LEGISLATIVE FRAMEWORK

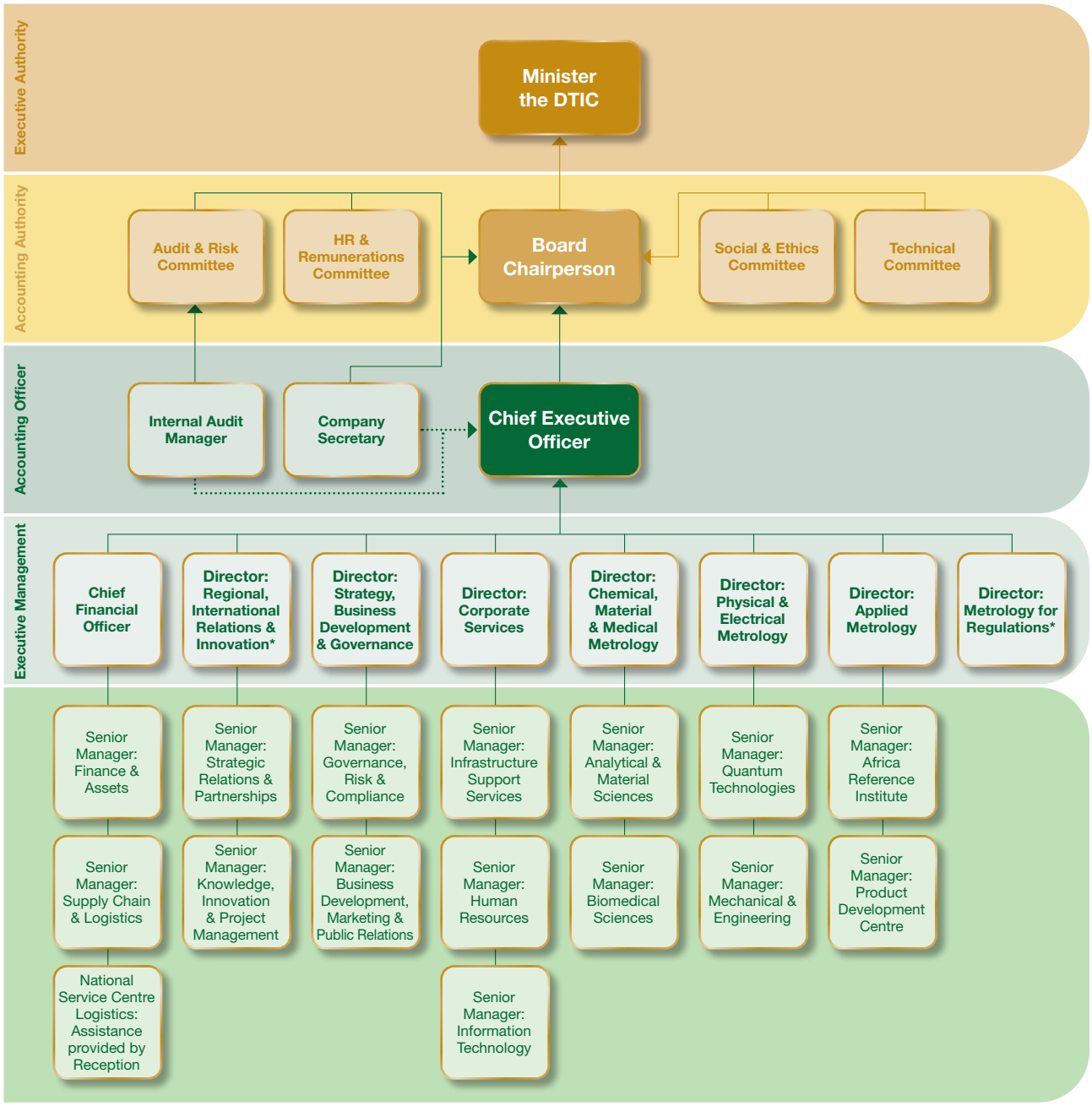
The legislative framework applicable to NMISA as a Schedule 3A entity is as follows:

FRAMEWORK	PURPOSE
King Code	Provides a benchmark of best practices and accountability standards for organisations.
Frameworks for Managing Programme Performance Information	Sets out the planning processes as mandated in Section 215 and 216 of the Constitution of South Africa; Strategic Plans and Annual Performance Plans.
National Treasury Regulations	Provide guidance to NMISA on matters of compliance and good governance in an evolving economy.
ISO 45001: 2018	Requires calibration of measurement and monitoring equipment used by accredited approved inspection authorities to evaluate organisational health and safety performance in workplaces.
ISO 14001: 2015	The use of calibrated measuring equipment for measuring key characteristics of operations that can have significant environmental impact.



10 ORGANISATIONAL STRUCTURE

NMISA is a Schedule 3A public entity, managed by a chief executive officer (CEO), supported by an executive management team, and governed by the NMISA Board. The organisational structure comprises the governance structure and the functional structure shown in the following figure.



* The organisational structure is currently under review by the NMISA Board

Figure 1: The organisational structure of NMISA

PART B
PERFORMANCE INFORMATION

1 AUDITOR'S REPORT: PREDETERMINED OBJECTIVES

The auditor, Nexia SAB&T, currently performs the necessary audit procedures on the 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 in the Report on Other Legal and Regulatory Requirements section of the Auditor's Report.

Refer to pages 103 to 105 of the Auditor's Report, published in Part F: Financial Information.

2 OVERVIEW OF PERFORMANCE

2.1 SERVICE DELIVERY ENVIRONMENT

Delivering impact: NMISA's performance in service of industry and stakeholders

NMISA's performance in the 2024/25 financial year reflects ongoing efforts to deliver high-quality metrology services and maintain impact in a changing national and regional landscape. The Institute achieved 71 % of its institutional key performance targets for the year, continuing to prioritise responsiveness to client needs, quality service delivery, and strategic partnerships, while addressing capacity challenges that affected some operational targets.

Client satisfaction remained consistently high across NMISA's service offerings. A satisfaction score of 88 % was achieved for measurement services, while training courses presented by the Institute received a satisfaction score of 89 %. These results indicate that, despite internal constraints, the quality and relevance of technical and training services were well received by clients.

However, the delivery of measurement services within targeted turnaround times fell short of the planned 80 % target, with only 60 % of services delivered within the set timelines. This shortfall was largely due to a shortage of skilled personnel resulting from high staff turnover, which limited capacity across some laboratories. In response, NMISA has initiated internal process reviews and prioritised digital and operational improvements to improve turnaround times.

Client retention and expansion remained steady. Returning clients accounted for 74 % of the total, while 23 % of clients were new, indicating a healthy degree of continuity alongside expansion into new market segments. The Institute achieved a revenue of R26,98 million, reflecting sustained demand for core services.

NMISA continued to strengthen external engagement, concluding eight new collaborations or SLAs with entities across the private, non-profit, and public sectors. Of all open agreements, 80 % were active during the reporting period. Market visibility targets were met, with an achieved Advertising Value Equivalent (AVE) of R1,64 million — well above the target of R1 million. Social media engagement also grew, with a 12,8 % increase in followers, primarily on LinkedIn.

Support to industry and regional stakeholders included services to 32 Small, Medium and Micro Enterprises (SMMEs) and the hosting of 47 international visitors. Metrology support was extended to 13 African countries, while 14 inter-laboratory and proficiency testing schemes were organised and completed by NMISA under the Intra-Africa Metrology System (AFRIMETS). Although only two emerging farmers were supported (below the target of five) lessons from these engagements will inform future outreach strategies, with planned marketing and awareness campaigns set to focus more actively on this market, as well as on entities located within Special Economic Zones (SEZs) and Industrial Parks, in order to extend NMISA's impact beyond the five main metropolitan areas.

In terms of international recognition, 91 % of NMISA's metrological services were supported by Calibration and Measurement Capabilities (CMCs) published in the International Committee for Weights and Measures' Mutual Recognition Arrangement (CIPM MRA) database – known as the key comparison database (KCDB) – and four new

or improved national measurement standards, reference materials, or reference methods were delivered. These outputs contribute directly to the integrity of the national measurement system and help ensure the traceability and international comparability of measurements in key sectors.

Regional progress in harmonising metrology for trade and industry

South Africa's metrology activities continued to be influenced by developments within AFRIMETS and broader continental priorities. Key regional trends included:

- *Technical Harmonisation to Support AfCFTA:* The African Continental Free Trade Area (AfCFTA) drove increased demand for harmonised measurement standards, particularly in priority sectors such as agriculture, pharmaceuticals, and energy. AFRIMETS facilitated capacity building and inter-laboratory comparisons across member states to support mutual recognition and cross-border trade.
- *Infrastructure and Capability Development:* Several African NMIs continued to scale up their measurement capabilities with donor and technical support, enhancing regional self-sufficiency in key areas such as food safety, health, and environmental monitoring. South Africa, as a leader in regional metrology, played a key role in mentoring and knowledge-sharing through bilateral and multilateral engagements.

International metrology: Developing solutions for sustainability and digitalisation

During the reporting period, significant progress was made globally in aligning metrology with digital transformation, sustainability goals, and industrial innovation. Key international developments included:

- *Advancing the Digital SI*: Momentum continued to build around the implementation of the Digital International System of Units (Digital SI), with a growing number of NMIs piloting and adopting Digital Calibration Certificates (DCCs). These machine-readable certificates are designed to support seamless data exchange and traceability in automated systems, which is increasingly important for emerging digital industries.
- *Measurement for Sustainability*: NMIs, under the coordination of the Bureau International des Poids et Mesures (BIPM), intensified collaboration in environmental and climate-related measurement science. Activities during this period focused on improved measurement capabilities for greenhouse gases (GHGs), water quality, and air pollutants. These initiatives support the growing demand for reliable, comparable climate data to guide evidence-based environmental policy.
- *Global Comparisons and Capacity Building:* Global measurement comparability is a cornerstone of international trade, scientific research, and industrial quality. During the 2024/2025 financial year, NMISA participated in several high-priority Key Comparisons and Supplementary Comparisons, coordinated under the CIPM MRA. These comparisons validate the equivalence of South Africa's measurement standards with those of other leading NMIs and maintain international recognition of NMISA's calibration and measurement capabilities (CMCs).

Notable outcomes during the 2024/25 financial year include the following:

South Africa, through NMISA, contributed meaningfully to the BIPM's Young Metrologists' 2050+ Vision initiative, which seeks to shape the long-term future of metrology through the input of early-career professionals. A young engineer from NMISA served as the regional coordinator for AFRIMETS, supporting Africa's engagement in this initiative. This event brought together around 80 young metrologists from across the continent to discuss future opportunities and challenges for the field.

The insights gathered from this workshop were consolidated with contributions from other global regions to form a shared 2050+ Vision report. This vision highlights how metrology can adapt to future technological and societal demands and will contribute to shaping the CIPM Strategy 2030+. NMISA's involvement ensured that perspectives from Africa's emerging metrology professionals were well represented in this global strategic dialogue.

Practical metrology solutions for a changing local market environment

In 2024, South Africa's testing services sector remained the largest component of the Testing, Inspection, and Certification (TIC) market, reflecting strong demand across key industries. Certification services showed the fastest growth within the sector, driven by increasing requirements for internationally recognised quality standards in areas such as manufacturing, mining, agriculture, and healthcare. The overall TIC market in South Africa is projected to grow at a compound annual growth rate of 2,8 % from 2025 to 2030, indicating a steady upward trend.[1]

[1] Grand View Research, *"South Africa Testing, Inspection, and Certification Market Size & Outlook"*, 2024

During the past year, local calibration laboratories in South Africa appeared to increasingly adopt emerging technologies to improve service delivery to the domestic market. The introduction of more advanced calibration equipment, such as automated pressure calibrators and multifunction electrical testers, enabled some laboratories to expand the range of services they can offer and accommodate more specialised instruments. In certain cases, this helped reduce the need to send equipment abroad, as local capabilities aligned more closely with the technical requirements of sectors like manufacturing, healthcare, and agriculture.

A number of laboratories also began making greater use of digital systems to support operational efficiency and enhance client interaction. These systems often include automated tools for certificate generation, asset tracking, and compliance record-keeping. Some service providers introduced web-based platforms that allow clients to access calibration histories, track instrument schedules, and request services more easily. At the same time, industries such as food processing and pharmaceuticals continued to make use of smart sensors and data loggers, prompting laboratories to explore more responsive calibration models based on actual equipment performance rather than fixed service intervals.

There were also some movement toward more flexible service models, particularly with the wider use of on-site and remote calibration capabilities. Improved portable technologies and better connectivity support these approaches, allowing laboratories to service clients in more remote or operationally demanding environments. For example, mobile calibration units were deployed to conduct standard procedures directly at client sites, helping to minimise downtime. In parallel, remote verification tools supported by cloud-based platforms offered an alternative where physical servicing was less practical. Together, these developments suggest a gradual shift in the sector toward more adaptable and accessible calibration services in line with evolving client needs.

NMISA has committed to implementing at least one new or enhanced digital solution each year to improve operational efficiency and enhance client service. In the past financial year, the Institute introduced a digital environmental monitoring system for its laboratories. This system enables real-time, remote monitoring of critical laboratory conditions, with automated alerts when parameters deviate from specified tolerances. By allowing timely corrective action, the system helps minimise disruptions caused by factors such as power outages or heating, ventilation, and air conditioning failures – issues that can compromise measurement stability and lead to extended downtime. The primary objective of this development is to preserve productive laboratory time, which supports improved turnaround times for client services.

In parallel, NMISA completed a feasibility study on the implementation of DCCs in South Africa, representing a first step toward digital transformation in national metrology infrastructure. This initiative is particularly relevant to the evolving needs of local commercial calibration laboratories, which are increasingly adopting digital tools to streamline service delivery and regulatory compliance. DCCs could support these efforts by facilitating the seamless transfer of calibration data into clients' internal systems, reducing manual data handling, and enhancing traceability.

As the sector continues to shift toward more integrated and efficient service models, DCCs may contribute to improved accuracy and administrative efficiency – particularly in regulated industries such as pharmaceuticals, food safety, and utilities. Although the path to implementation will require careful planning, including considerations of interoperability, training, and cost, the feasibility study lays the groundwork for future collaboration with industry stakeholders. NMISA aims to support phased adoption strategies that are practical and aligned with the needs and capacities of the local market.

2.2 ORGANISATIONAL ENVIRONMENT

During the 2024/25 financial year, NMISA operated in a challenging organisational environment, primarily characterised by a high staff turnover rate. At the close of the reporting period, staff turnover stood at 16 %, significantly exceeding the organisational target of maintaining turnover at or below a maximum of 7 %. The departure of experienced scientists and engineers, many of whom moved to more financially competitive opportunities in industry, reduced NMISA's available capacity and placed pressure on operational performance.

These constraints were most notably reflected in the delayed completion of some internal processes and in meeting turnaround time targets for measurement services. In response to the staffing pressures, the NMISA Board authorised the filling of selected priority positions as part of broader efforts to stabilise capacity. Recruitment processes for these posts are underway.

The impact of constrained staffing was also evident in the closure of audit non-conformances. While NMISA aims to resolve 100 % of audit findings within the designated timeframes, 96 % were cleared during the year, with the remaining few delayed due to resource limitations. Similarly, although six internship appointments were planned as part of skills pipeline development, only five could be finalised before the end of the financial year.

Despite these challenges, NMISA continued to meet its core mandate. The realisation and maintenance of the six SI base units was sustained. In addition, NMISA maintained active international scientific engagement. A notable highlight was the successful delivery of a technical study commissioned by the Saudi Space Agency. This Earth Observation Payload Study focused on satellite sensor development for the detection of atmospheric methane gas and was delivered by a senior NMISA scientist. The completion of this project illustrates NMISA's continued contribution to global measurement science, despite the internal operational constraints experienced during the year.

2.3 KEY POLICY DEVELOPMENTS AND LEGISLATIVE CHANGES

Metrology implications of new medical device regulations

Updates to the regulatory framework for medical devices in South Africa, particularly the General Regulations made under the Medicines and Related Substances Act, (Act No. 101 of 1965) as amended in 2024, introduced more stringent requirements for device quality, safety, and performance. These changes align local regulations more closely with international standards and have implications for the measurement traceability and calibration of equipment used in the development, manufacture, and testing of medical devices. In this context, NMISA's role in providing traceable measurement standards and ensuring the scientific accuracy of calibrations becomes increasingly important in supporting public health and regulatory compliance. These developments reinforce the importance of NMISA's functions in underpinning regulatory frameworks and ensuring confidence in measurement across regulated sectors.

Supporting the energy sector under new electricity regulations

The Electricity Regulation Amendment Act, (Act No. 38 of 2024), which was assented to on 16 August 2024 and came into effect on 1 January 2025, introduces a multi-market electricity sector in South Africa aimed at promoting competition and improving efficiency within the energy industry. While NMISA has already established national measurement standards for power and energy, the anticipated increase in measurement and calibration demands resulting from the new regulatory framework will require careful consideration of capacity to effectively support the sector. In line with its mandate, NMISA is positioned to ensure measurement accuracy and traceability, thereby supporting compliance and confidence in the evolving energy market.

Enhancing consumer protection through food safety regulation and metrological services

During 2024/25, the Food Safety Act, 2024 introduced stricter requirements for food businesses, including spaza shops and informal food handlers, mandating registration with local municipalities by 28 February 2025. Compliance with health and safety standards, such as proper food storage and hygiene, became compulsory, with penalties for non-compliance. The Act's Trading Permit Regulations also require registered food outlets to obtain permits, legitimising their operations and enabling access to government support. NMISA supports these developments by providing certified reference materials and proficiency testing schemes to food testing laboratories, helping ensure accurate and reliable test results to aid regulatory enforcement and protect consumers.

Climate legislation driving demand for environmental measurement standards

The Climate Change Act, (Act No. 16 of 2024), established a legal framework for climate change mitigation and adaptation in South Africa, including binding emission reduction targets for sectors and entities identified as high emitters. The Act reinforces the need for accurate, reliable, and traceable GHG measurements to support emission measurement, reporting, and verification (MRV) obligations.

This regulatory shift directly impacts metrology by increasing the demand for high-quality reference standards and measurement services to ensure data integrity in environmental monitoring. NMISA plays a key role in this context by developing and supplying primary reference gas mixtures for GHGs such as carbon dioxide and methane. These reference materials support compliance with both national climate obligations and international reporting standards, ensuring that South Africa's emissions data are credible and comparable globally.

Regulatory developments in the cannabis sector

During the reporting period, South Africa enacted the Cannabis for Private Purposes Act, (Act No. 7 of 2024), which provides a legal framework for the private use, cultivation, and possession of cannabis by adults. However, the Act had not yet come into force by the close of the 2024/25 financial year, pending formal commencement through a proclamation in the Government Gazette and the finalisation of supporting regulations.

In response to the evolving regulatory environment, NMISA has been developing measurement (analytical) capabilities to support the cannabis sector through the provision of certified reference materials from 2025/26 onwards. This project, which will assist laboratories and regulators in ensuring the accuracy and reliability of cannabis-related testing, is nearing completion.

3 ACHIEVEMENT OF INSTITUTIONAL IMPACTS AND OUTCOMES

3.1 NMISA'S IMPACT: THE ECONOMIC MULTIPLIER EFFECT

Introduction

Metrology, the science of measurement, underpins virtually every economic sector. South Africa's National Metrology Institute (NMISA) provides the national measurement standards and calibration services that ensure accuracy and global comparability of measurements. These services form a critical part of the country's quality infrastructure, enabling everything from fair trade and industrial productivity to health diagnostics and law enforcement. International studies have shown that public investment in metrology yields exceptionally high returns to the economy. In fact, countries that devote sufficient resources to metrology (in the order of 0,006 % of GDP) tend to achieve more advanced industrial development, with each unit of metrology investment "leveraging" 1000×–2000× its value in industrial output. This analysis shows how NMISA's measurement services multiply economic benefits across major sectors including manufacturing, mining, agriculture, energy, health, trade, and public safety, contributing to GDP growth, job creation, trade facilitation, public well-being, and regulatory compliance.

High ROI of Metrology and GDP Growth

Accurate measurement is a foundation for productivity and Gross Domestic Product (GDP) growth. By providing traceable calibration and testing, NMISA enables manufacturers and producers to improve quality, reduce waste, and innovate efficiently. For example, NMISA maintains national standards that support high-tech manufacturing, food production, pharmaceuticals, and environmental monitoring, which are all growth industries. The quality of national infrastructure also hinges on metrology; the safety of drinking water is verified via tests traceable to NMISA's standards, and maintaining the electric grid relies on calibrated electrical measurements for components and meters. Precise power measurements ensure fair billing and grid stability as South Africa expands towards renewable energy and expanding current power stations, a key enabler for a competitive economy. In mining and minerals, NMISA's calibrations ensure accurate assays and weighing, so that exports of critical minerals such as uranium, gold, diamonds, and bulk commodities are properly valued. These activities collectively bolster GDP by supporting efficient production and preventing costly inaccuracies. Notably, international benchmarks underscore metrology's outsized returns; studies in the US, UK, Canada and EU have found benefit-to-cost ratios for national measurement programmes often in the double or triple digits. For instance, certain NIST (USA) programmes in energy and materials yielded a 113:1 benefit-cost ratio and over 1 000 % social rate of return. In the UK, the national measurement system generates at least £426 million in annual benefits, a net return of ~270 % on investment. By comparison, South Africa's investment in NMISA (a small fraction of GDP) safeguards billions of rand worth of economic activity, a leveraging effect similar to those global norms. In short, metrology is among the most cost-effective public investment, fuelling GDP growth through improved industrial output and technological advancement.

Job creation and SMME support

Metrology services also contribute to employment and SMME development. Modern economies devote significant human capital to measurement-related work – in the UK about 6,3 % of the workforce has occupations which involve taking measurements, a proportion likely mirrored in South Africa's industrial workforce. By ensuring local access to calibration and testing, NMISA helps SMMEs participate in high-value supply chains that demand certified measurements. Many SMMEs in sectors like agro-processing, machinery, and electronics rely on NMISA's services to certify their products and processes, which in turn allows them to expand production and hire more staff. NMISA actively supports skills development; it runs training/HCD programmes for young metrologists and engineers, and it trains SMMEs on quality standards to help them comply with regulations and access markets. This capacity-building raises the productivity of smaller entities, translating into job retention and creation as they grow. Additionally, NMISA's existence supports a broader metrology and calibration industry (e.g. private calibration laboratories, testing laboratories, instrument manufacturers) which employs technicians and scientists across South Africa. In an earlier assessment, the country's testing and laboratory sector – bolstered by NMISA and the National Laboratory Association – was noted as providing significant GDP value and over one million jobs in South Africa. While that encompasses the entire quality infrastructure, it underscores the scale of employment tied to measurement services. By improving SMME competitiveness and sustaining skilled jobs in calibration, NMISA's multiplier effect extends into the labour market, aligning with national goals to create decent work.

Trade facilitation and export competitiveness

One of the clearest economic multipliers of NMISA is in facilitating trade. In export markets, "meeting measurement requirements" can make or break access. NMISA ensures that South African export goods meet international standards and specifications, which reduces border rejections and technical barriers to trade. For example, NMISA provides calibration of weighing instruments used in export supply chains, traceable chemical analysis for food exports (to comply with EU/US safety limits), and certified reference materials (CRMs) that prove the quality of local products. These services build confidence that South African commodities and manufactured goods are exactly as labelled – from the purity of minerals to the pesticide residues in fruit – so overseas customers and regulators accept them. Indeed, South Africa's participation in the International Committee for Weights and Measures (CIPM) Mutual Recognition Arrangement (through NMISA) means its measurement certificates are internationally recognised, preventing costly duplication of testing abroad. This has tangible benefits. Globally it is estimated that even a 0.1 % increase in trade enabled by harmonised metrology equates to a $4 billion boost across participating nations. In South Africa's context, with manufacturing exports in the order of hundreds of billions of rand, the avoidance of even a few percent of rejections or delays saves the economy billions. NMISA explicitly supports government's export-driven growth agenda by removing technical barriers to trade and ensuring global recognition of South African products. For instance, in agriculture, NMISA's measurements help local producers meet strict foreign limits on things like antibiotic residues in meat or aflatoxins in peanuts, preventing shipment refusals that would cost farmers dearly. In sum, by underpinning product quality certification and compliance, NMISA amplifies South Africa's trade potential. Its multiplier effect here is seen in greater export earnings and market access that feed back into GDP growth. The reference materials created for the essential oils industry have opened access to markets by SMMEs that were not available before and would not have been available without these critical CRMs. This new service, developed because of large-scale rejection of South African essential oils by international markets, has resulted not only in international revenue increasing but led to sustainable job creation.

Public health and safety benefits

Accurate measurements are critical to public health and safety, and NMISA's role in this area yields substantial social and economic returns. In healthcare, NMISA maintains standards for medical measurements that directly impact patient outcomes – for example, ensuring accurate radiation doses in cancer treatment and calibration of radiotherapy equipment. This prevents deadly errors and avoids the costs of misdiagnosis or re-treatment. NMISA also provides reference materials and calibrations for clinical laboratories (e.g. for cholesterol or glucose measurements), contributing to reliable diagnostics and efficient healthcare spending. In environmental health, NMISA supplies gas and pollutant standards used to monitor air quality, water purity, and soil contamination, supporting regulatory actions that protect communities. A notable example is NMISA's analysis of samples for asbestos or toxic gases from derelict mines, which guides remediation efforts and prevents chronic illnesses. On the public safety front, legal metrology interventions save lives; the use of calibrated speed radar and alcohol breathalysers has "markedly reduced the road toll" by deterring dangerous driving. NMISA underpins this by calibrating breathalysers, speed cameras, and other forensic instruments, ensuring that law enforcement measurements are accurate and court admissible. The economic value of such prevention is enormous – fewer accidents and injuries alleviate burdens on the healthcare system and productivity losses. (For perspective, economists value the prevention of a single road fatality in the millions of dollars.) Moreover, NMISA's support to food safety (testing for contaminants, verifying product labels) protects consumers from health risks and costly outbreaks. Whether it is verifying the concentration of a pharmaceutical drug or the accuracy of a home electricity meter, NMISA's services build a safer society. The multiplier effect is seen in avoided healthcare costs, longer productive lives, and trust in safety that allows normal economic activity to flourish.

Regulatory compliance and consumer protection

Through its metrology services, NMISA is a backbone of regulatory compliance regimes, which in turn sustains fair markets and consumer confidence. Many government regulations rely on measurements to enforce rules in environmental protection, occupational health, trade, and consumer rights. NMISA provides the traceability and calibration that make these regulatory measurements credible and legally enforceable. For example, South Africa's trade measurements (scales, fuel pumps, etc.) must be accurate so that businesses and customers get what they pay for. Without traceability to national standards, measurements could drift, leading to systematic under- or over-charging. Studies in Canada and Australia have shown that legal metrology oversight of weighing and measuring instruments yields benefit-cost ratios of up to 28:1 by correcting inaccuracies in a huge volume of transactions. In fact, roughly 50 to 60 % of GDP in advanced economies involves transactions by weight or measure, meaning half the economy depends on trusted measurements. NMISA

supports the accuracy of these transactions in South Africa by calibrating standards used by the National Regulator for Compulsory Specifications (NRCS), regulators and other verification laboratories. This protects consumers from shortfalls (e.g. underfilled petroleum, mislabelled goods) and protects honest businesses from unfair competition. In law enforcement, NMISA's certified standards provide a sound evidential basis so that measurements (like breath alcohol levels or speeding data) hold up in court. Proficiency testing programmes run by NMISA help private and public laboratories prove their competence in testing everything from food pathogens to forensic samples. By enabling regulators to enforce safety and quality laws effectively, NMISA prevents compliance failures that could lead to scandals, liability costs, or public harm. The economic benefit is seen in a well-functioning market where consumers trust products and services. Internationally, it is recognised that legal metrology and standards provide cost-effective solutions to social needs, often far cheaper than alternatives like heavy infrastructure. For instance, using calibrated speed devices and breathalysers to reduce accidents is much more economical than building new roads for safety. In summary, NMISA's contributions to regulatory compliance ensure consumer protection and fair trade, yielding a stable commercial environment essential for sustainable growth.

Economic impact of a service disruption scenario

To appreciate the multiplier effect of NMISA, it is instructive to consider a scenario where NMISA's services are disrupted or ceased. The consequences would span all sectors and likely carry a hefty economic price tag. First, South Africa would lose its international metrology recognition. Without NMISA, local calibration certificates and test reports might no longer be accepted by trading partners. Exporters would face costly re-testing overseas or outright rejection of goods, cutting off markets. Even a modest drop in exports would have large effects; for example, a mere 5 % loss of manufacturing exports (in the order of R700 billion annually) would translate to ~R35 billion lost per year in revenue. Key industries like mining could suffer if assay results or weight measurements from South Africa were deemed untrustworthy, buyers might discount prices or choose suppliers from countries with reputable metrology systems. Overall, the technical barriers to trade would rise sharply, undermining South Africa's competitiveness.

Domestically, compliance failures would become more common. Measurement equipment would drift out of tolerance without regular calibration. Examples are supermarket scales slowly misreading or fuel dispensers delivering inaccurate volumes. The cumulative impact of small errors across transactions (again, potentially half of GDP by value) could cost consumers and businesses billions. One analysis found that absent proper metrology control, the annual error in trade measurements could be equivalent to 0,5 – 1,0 % of GNP – a massive hidden "tax" on the economy. Additionally, industries would have to invest in their own makeshift measurement solutions. This duplication is inefficient – studies indicate that if a national metrology institute does not perform certain calibrations, industry must sink resources into parallel efforts, at much higher overall cost. Many smaller firms might simply forgo needed measurements, resulting in lower quality and productivity.

Infrastructure and public services would also feel the strain. Power utilities and transport systems could face greater inefficiencies or failures; for instance, if electrical grid instruments are not calibrated, billing disputes and energy losses would mount. In health, the lack of NMISA's radiation dosimetry standards could force hospitals to delay treatments or risk patient safety. Law enforcement capabilities would degrade – uncalibrated breathalysers or speed cameras are not legally reliable, meaning drunk drivers and speeders could escape sanction, with social and economic costs in increased accidents. Environmental monitoring and food safety oversight would weaken, raising the risk of incidents (pollution, food-borne illness) that carry major economic liabilities for cleanup and healthcare. Overall, the absence of NMISA would introduce frictions and risks throughout the economy. A 2016 Organisation for Economic Co-operation and Development (OECD) review noted that metrology and standards are deeply embedded in modern economic processes, such that gaps in the system can have outsized negative impacts on efficiency and innovation. In quantitative terms, South Africa could see compliance failures and trade losses easily running into the tens of billions of rand per year if its metrology infrastructure collapsed. The scenario underscores the value of NMISA's invisible guardian role; by preventing these failures, NMISA is effectively adding back those billions as a benefit to the economy.

From the factory floor to the fuel pump to the forensic laboratory, NMISA's metrology services exert a broad multiplier effect on South Africa's economy and society. They enable higher GDP by fostering efficient production and unlocking export markets, and they contribute to job creation by empowering SMMEs and sustaining skilled employment in science and industry. They facilitate trade by reducing technical barriers and product rejections, and they safeguard public health and safety by ensuring that measurements in medicine, the environment, and law enforcement are accurate and trusted. They also anchor regulatory compliance and consumer protection, which in turn maintains fair markets and public confidence.

These benefits are not abstract; they are evidenced by international benchmarks (high benefit-cost ratios and returns on investment for metrology) and by everyday outcomes (fewer defective products, safer roads, accurate utility bills, successful export deals). In essence, metrology is a force multiplier: a relatively small investment in NMISA yields outsized gains across diverse sectors, making it one of the most impactful components of the national technical infrastructure. Ensuring the strength and continuity of South Africa's measurement institute is therefore not just a scientific necessity but an economic imperative. The cost of losing or underfunding it (measured in lost trade, lost trust, and lost lives) would far exceed the cost of sustaining it. By upholding accurate measurements, NMISA keeps the gears of commerce, innovation, and safety turning smoothly, amplifying prosperity and well-being for the nation.

ECONOMIC MULTIPLIER OF METROLOGY SERVICES: SOUTH AFRICA AGRO-PROCESSING EXAMPLE

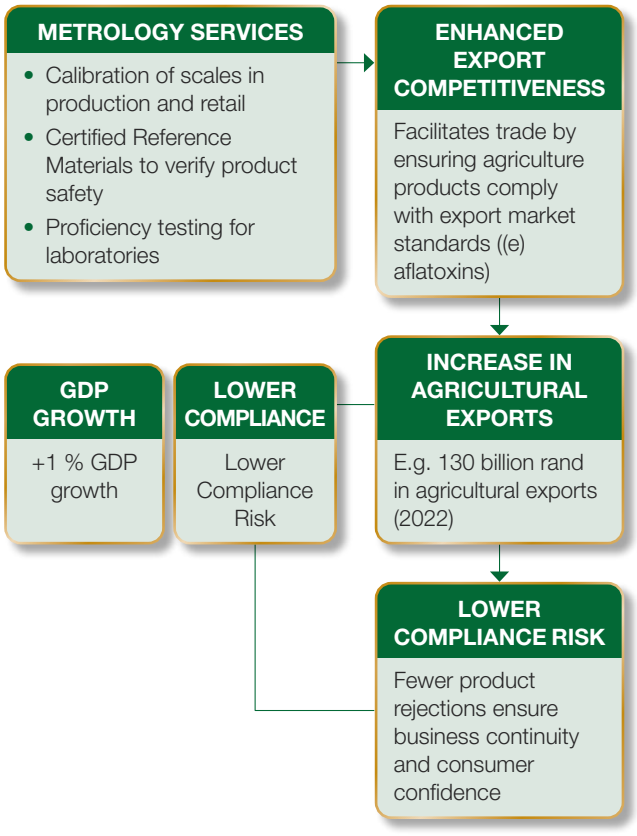


Figure 2: South African Agro-processing example

3.2 AMENDMENTS TO STRATEGIC PLAN

NMISA's Strategic Plan for 2024–2028 and Annual Performance Plan for 2024–2026 were revised after the second quarter of 2024/25 to align with the growth strategy set by the Department of Trade, Industry and Competition (DTIC) under the 7th Administration of the government of national unity, following the outcome of the 2024 election. As a result, NMISA's contributions to the DTIC are presented in this Annual Report as contributions to the DTIC Core Outputs for quarters 1 and 2, and to the DTIC Strategic Initiatives for quarters 3 and 4.

3.3 PROGRESS TOWARDS STRATEGIC PLAN 5-YEAR TARGETS

Although NMISA developed and submitted a Strategic Plan for 2024/25 to 2028/29, this Plan was not submitted to Parliament for approval by the previous administration. The Institute's performance is therefore only measured against the approved Annual Performance Plan for the period.

3.4 SIGNIFICANT ACHIEVEMENTS IN 2024/25

Metrology made local: Reducing dependence, growing capability

NMISA's coordinated efforts with Stellenbosch University and the Council for Scientific and Industrial Research (CSIR) have yielded a promising prototype for a locally developed Coordinate Measuring Machine (CMM) – a first for South Africa. CMMs are widely used across the manufacturing sector, especially in the automotive industry, which has invested over R1,5 billion in this technology nationally. The locally built prototype is being designed with traceability directly to the SI unit of length, the metre, and aims to meet stringent international compliance requirements.

Over the past year, the CMM's mechanical layout was successfully optimised using Multi-Objective Optimisation (MOO) simulations. While initial testing confirmed a stable mechanical structure, further refinement of the linear encoders is needed to meet final precision requirements. This project demonstrates how locally-led innovation can reduce long-term import reliance, cut calibration costs, and build high-value scientific and engineering skills. It contributes to the DTIC's priorities of industrial capability development, localisation of advanced technologies, and skills development in precision manufacturing.

Enabling better climate decisions through measurement science

Climate monitoring remains one of the world's most pressing priorities, and NMISA is contributing to the solution through high-accuracy greenhouse gas measurements. In partnership with a postgraduate researcher, NMISA is improving South Africa's data on methane emissions from agriculture – an important gap in the country's emissions reporting. This work will support South Africa's transition from Tier 2 to Tier 3 methodology under the Intergovernmental Panel on Climate Change (IPCC) framework, strengthening the integrity of the national greenhouse gas inventory.

The project not only supports environmental policy and planning but also contributes to skills development by supporting postgraduate training in environmental metrology. As this research matures, it may expand to other greenhouse gases, enhancing national and continental climate resilience.

Further afield, NMISA is part of an International Atomic Energy Agency (IAEA)-backed global initiative (INT7020) led by the Department of Mineral and Petroleum Resources (DMPR) to establish a stable isotope-based expert centre in South Africa. This centre will improve traceability of greenhouse gas origin measurements for the continent, enabling countries to access critical climate monitoring capabilities locally.

Complementing this, NMISA continues to support local ozone monitoring through reliable calibration services, ensuring air quality measurements align with global comparability standards. In a related international project, NMISA provided expert support to a Middle Eastern satellite mission for methane monitoring, demonstrating the Institute's relevance to both national climate goals and global measurement challenges.

Materials Science: From space to biomedical innovation

NMISA's has continued to support innovation in materials for key sectors, including rail, nuclear energy, and medical devices. During 2024/25, NMISA contributed to research on radiation shielding materials for space and nuclear applications, and to the development of advanced biomaterials for implants.

Through detailed microstructural analysis, NMISA helped researchers understand how factors like grain size and phase composition affect the performance of implants, such as hip and knee replacements. The insights gained are essential for designing safer, stronger, and longer-lasting devices. As the only local provider of this advanced measurement capability, NMISA is helping South African researchers meet international quality standards, accelerate innovation, and reduce reliance on foreign laboratories.

This work directly supports the DTIC's goals of localisation in health technologies and builds trust through technical excellence. The projects also support postgraduate research and serve as platforms for industry-academic collaboration.

Digital calibration for a modern economy

In a move to future-proof its calibration services, NMISA is developing Digital Calibration Certificates (DCCs) – machine-readable, digitally secure versions of traditional certificates. In 2024/25, the Institute completed a feasibility study on the development of these certificates. DCCs represent a significant innovation in the field of legal metrology, enabling easier integration with digital systems, reducing administrative overhead, and improving data accuracy.

This work supports the broader digitalisation of South Africa's economy and aligns with the DTIC's focus on enhancing industrial competitiveness through digital transformation. DCCs are expected to benefit a wide range of sectors – from mining and manufacturing to healthcare – by enabling real-time data exchange and seamless quality assurance.

The development of DCCs also supports the modernisation of the National Quality Infrastructure and positions NMISA as a forward-looking institution ready to support Industry 4.0. The potential to strengthen trade readiness and regulatory compliance through such innovations marks a meaningful shift toward smart, efficient public services that enable industrial growth.

4 INSTITUTIONAL PROGRAMME PERFORMANCE INFORMATION

4.1 PROGRAMME 1: ADMINISTRATION

The Administration Programme provides for overall management, administration, and operation of the organisation. It leads strategy development and implementation, including business development; manages stakeholder relationships; guides corporate governance; and provides operational support services (such as information technology, legal contracting, coordination of quality management activities, and marketing; and financial and human resource management).

Purpose

Provide strategic leadership management and support services to the entity for its financial, human, social, and environmental sustainability.

Sub-initiatives

- Finance and Supply Chain
- Human Resources, Facilities, and Information Technology Services
- Strategy, Business Development and Governance

Institutional outcome

Creating a high-performance culture by aligning people, processes, and systems to drive organisational excellence, operational efficiency, and ethical delivery across all functions.

4.1.1 Performance of Administration Programme against Targets

Despite challenges related to staff turnover, NMISA continued to strengthen its internal capacity through the Human Capital Development (HCD) Programme which remains central to its long-term skills pipeline. During the reporting period, five interns were appointed and hosted, receiving workplace-based training across scientific and administrative functions. The programme prioritises employment equity and transformation, with a focus on gender, youth, and disability inclusion. In addition, work commenced on a broader retention strategy aimed at improving professional growth opportunities and overall workplace experience. These efforts contribute to the strategic objective of building and sustaining a capable, high-performing workforce. Performance achievements related to these initiatives are reflected in Table 1.

Table 1: Outcomes, outputs, output indicators, targets and actual achievements for Programme 1 (Administration)

PROGRAMME 1: ADMINISTRATION								
OUTCOME	**OUTPUT**	**OUTPUT INDICATOR**	**AUDITED ACTUAL PERFORMANCE 2022/23**	**AUDITED ACTUAL PERFORMANCE 2023/24**	**PLANNED ANNUAL TARGET 2024/25**	**ACTUAL ACHIEVEMENT 2024/25**	**DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT 2024/25**	**REASONS FOR DEVIATIONS**
Improve financial stability and ensure sustainable growth	Creating awareness of NMISA's products and services in support of quality assurance in the manufacturing, mining, and related industries, to increase uptake	Maintain visibility of NMISA in South Africa and the region	34 % increase in visibility	12,5 % increase in visibility	Maintain AVE ≥ R1m Increase social media following ≥ 10 %	AVE: R1 634 715 12,8 % increase in followers	R634 715 2,8 %	Effective public relations and strategic selection of publications to maximise reach. Concerted effort to increase social media following for increased awareness.
Maintain fast and efficient service delivery to clients	Case studies of stakeholders impacted by products or services delivered by NMISA	Number of case studies submitted to the DTIC	New Key Performance Indicator (KPI)	21	8 (cumulative)	8	None	None
Develop and retain a capable workforce	Provide for the measurement needs of South Africa and the region	Staff turn-over rate	New KPI	New KPI	≤ 7,0 % (non-cumulative)	16,0 %	9,0 %	Development of a retention strategy that includes salary benchmarking, career development initiatives, and improved workplace conditions.
		Number of in-service trainees and interns hosted	34	19	6	5	-1	The recruitment process for the 6th intern was still in progress at the close of the the financial year, due to capacity constraints within the organisation.

PROGRAMME 1: ADMINISTRATION								
OUTCOME	**OUTPUT**	**OUTPUT INDICATOR**	**AUDITED ACTUAL PERFORMANCE 2022/23**	**AUDITED ACTUAL PERFORMANCE 2023/24**	**PLANNED ANNUAL TARGET 2024/25**	**ACTUAL ACHIEVEMENT 2024/25**	**DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT 2024/25**	**REASONS FOR DEVIATIONS**
Effectively engage and collaborate with stakeholders to develop and strengthen mutually beneficial relationships in fulfilment of the NMISA mandate	Provide for the measurement needs of South Africa and the region	New collaboration or service agreements with private, non-profit, or public entities	New KPI	New KPI	2 (cumulative)	8	6	New contracts from stakeholder engagements, SLA and MoU negotiations, tenders, RFQs.
		Percentage of active service/ collaboration agreements	New KPI	New KPI	≥ 70,0 % (non-cumulative)	80,0 %	10,0 %	None
	Collaboration firms within SEZs for the provision of measurement services	Number of outreach activities to entities within SEZs and outside main metropolitan areas	New KPI	New KPI	2 (cumulative)	3	1 (An additional opportunity to conduct an outreach jointly with SABS and SEDA was accepted)	1. North-West University Outreach 2. Outreach activity conducted by NMISA, SABS, and SEDA in Mpumalanga 3. Outreach to Sekgosese in Limpopo.

4.1.2 Strategy to overcome areas of under performance

Despite its investment in human capital development, NMISA experienced a staff turnover rate of 16 %, exceeding the target of a 7 % maximum. To address this, the organisation is developing a comprehensive retention strategy focusing on salary benchmarking, career development, and enhanced workplace conditions. These initiatives align with NMISA's strategic objective to develop and retain a capable workforce, able to effectively utilise world-class infrastructure in delivering innovative and specialised measurement solutions.

4.2 PROGRAMME 2: DISSEMINATION OF MEASUREMENT SERVICES AND PRODUCTS

NMISA delivers economically enabling products and services that underpin industrial competitiveness, regulatory compliance, and trade facilitation. These services are delivered through four key mechanisms: calibration; reference measurements and reference materials; advanced testing and analysis; and technical capacity building.

Calibration: Delivering direct traceability to the NMS, NMISA serves the accredited calibration and testing laboratories by performing calibration to the highest accuracy (smallest uncertainty). Calibration is also provided directly to the industry, mostly in cases where the service is not provided by commercial accredited calibration laboratories, or when the desired accuracy can only be provided by NMISA, or where a new or niche service is required.

Reference measurement and certification of reference materials: NMISA provides reference measurement and analysis according to its calibration range and services. In addition, NMISA has established the capability to value assign chemical samples and gas mixtures for clients, including purity assignment. This capability allows NMISA to produce certified (pure) reference materials (CRMs) as standards or calibration solutions for quality control purposes, and primary reference gas mixtures that are internationally recognised and accepted.

Measurements, testing and analysis: NMISA offers advanced measurement services to industry. These include method development for clients to assist with problem-solving, analytical services for research projects, specialised testing services to industry, and development of specific measurement solutions for clients on contract.

Training and consultancy: NMISA provides expertise in measurement science through training and consultancy, supporting the quality infrastructure both locally and on the rest of the continent. The expertise provided contributes to the national priorities of building a capable state and enhancing economic transformation.

4.2.1 Performance of Dissemination of Measurement Services and Products Programme against Targets

Table 2: Outcomes, outputs, output indicators, targets and actual achievements for Programme 2 (Dissemination of Measurement Services and Products)

PROGRAMME 2: DISSEMINATION OF MEASUREMENT SERVICES AND PRODUCTS								
OUTCOME	**OUTPUT**	**OUTPUT INDICATOR**	**AUDITED ACTUAL PERFORMANCE 2022/23**	**AUDITED ACTUAL PERFORMANCE 2023/24**	**PLANNED ANNUAL TARGET 2024/25**	**ACTUAL ACHIEVEMENT 2024/25**	**DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT 2024/25**	**REASONS FOR DEVIATIONS**
Ensure regional, continental, and international comparability of the South African measurement infrastructure	Implementation of the revised SI	Annual realisation of 6 base SI units	6 SI units realised	6 SI base units realised annually	Realisation of 6 SI Base Units (non-cumulative)	6	None	None
	Linking the national and regional measurement system internationally	Percentage of metrological services offered covered by CMCs	91 %	90,5 %	87,0 %	91,0 %	4,0 %	More metrological services offered for parameters that are linked to CMCs.
	Implementation of the revised SI	New and improved NMS and reference material and reference methods	23	15	2	4	2	The international draft A for report for SIM Zn-65 comparison was issued during Q4.
	Support the implementation of the AfCFTA agreement through active participation in the activities of regional metrology organisations	ILCs and PTS initiated, administered, or participated in by NMISA	23	22	20 (ILCs and PTS organised and completed)	26	6	Additional custom PTSs requested by clients.

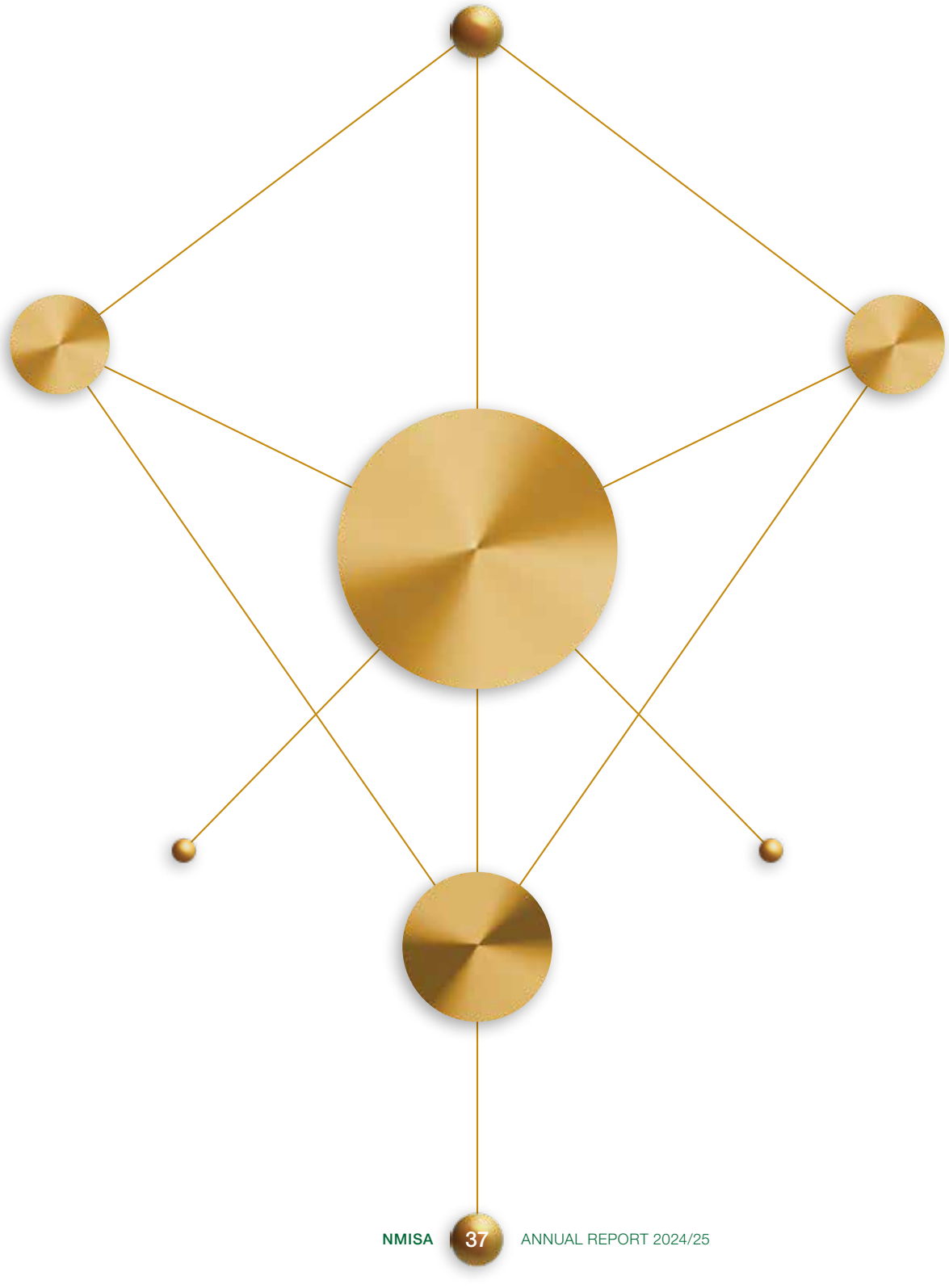
PROGRAMME 2: DISSEMINATION OF MEASUREMENT SERVICES AND PRODUCTS								
OUTCOME	**OUTPUT**	**OUTPUT INDICATOR**	**AUDITED ACTUAL PERFORMANCE 2022/23**	**AUDITED ACTUAL PERFORMANCE 2023/24**	**PLANNED ANNUAL TARGET 2024/25**	**ACTUAL ACHIEVEMENT 2024/25**	**DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT 2024/25**	**REASONS FOR DEVIATIONS**
Improve financial stability and ensure sustainable growth	Sustained revenue growth	Achieve the annual real revenue growth rate of 5 % (adjusted for inflation)	R24 653 025	Revised KPI	≥ 5,0 % of real revenue growth by year-end (cumulative)	R26 984 826, which represents an annual real revenue growth rate of -9,5 % (adjusted for inflation)	-14,5 %	A shortage of skilled personnel due to high staff turnover has resulted in reduced capacity to take on additional client work.
		Diversification of revenue streams: % revenue earned in new categories of sources	New KPI	New KPI	5,0 % (cumulative)	1,6 %	-3,4 %	Majority of revenue earned from established sources whilst collaborations with alternative sources have not yet materialised into contracts.
		Percentage of new clients serviced	New KPI	New KPI	5,0 % (cumulative)	23,0 %	18,0 %	High number of new clients (not serviced within at least 3 years in accordance with the Detailed Indicator Description).

PROGRAMME 2: DISSEMINATION OF MEASUREMENT SERVICES AND PRODUCTS								
OUTCOME	**OUTPUT**	**OUTPUT INDICATOR**	**AUDITED ACTUAL PERFORMANCE 2022/23**	**AUDITED ACTUAL PERFORMANCE 2023/24**	**PLANNED ANNUAL TARGET 2024/25**	**ACTUAL ACHIEVEMENT 2024/25**	**DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT 2024/25**	**REASONS FOR DEVIATIONS**
Maintain fast and efficient service delivery to clients	Cultivating a client-centric focus which prioritises the needs and satisfaction of our clients in all aspects of our interaction and service	Client Satisfaction Score	Revised KPI	Revised KPI	≥ 70,0 % (≥ 3,5 on a 5-point scale) (non-cumulative)	88,0 % (4,4 on a 5-point scale)	None	None
		Meeting target turnaround times for products and services	New KPI	New KPI	80,0 %	60,2 %	-19,8 %	Shortage of skilled personnel due to high staff turn-over resulting in reduced capacity to meet target turnaround times.
		Client satisfaction score for training courses presented	New KPI	New KPI	≥ 70,0 % (≥ 3,5 on a 5-point scale) (non-cumulative)	89,0 % (4,5 on a 5-point scale)	None	None
		Client retention (over 2 years)	New KPI	New KPI	70,0 % (non-cumulative)	74,0 %	4,0 %	Returning clients (after a 2-year period – to account for re-calibration intervals).
	Extend the reach of the national measurement system to increase support to districts outside the five main metros	Percentage of clients served in geographical areas outside main metros	New KPI	New KPI	3,0 % (non-cumulative)	30,0 %	27,0 %	Efforts to expand service reach outside the main metros of Cape Town, Johannesburg, Tshwane and eThekwini (in accordance with the Detailed Indicator Description). Many clients from Ekurhuleni were served during this period.
	Proactively eliminating non-compliance and enhancing governance, fostering a culture of accountability and adherence to regulatory standards	% of audit non-conformances cleared within target dates	New KPI	New KPI	100,0 % (non-cumulative)	96,0 %	-4,0 %	High staff turn-over reduced capacity to clear all non-conformances within the target dates.

PROGRAMME 2: DISSEMINATION OF MEASUREMENT SERVICES AND PRODUCTS								
OUTCOME	**OUTPUT**	**OUTPUT INDICATOR**	**AUDITED ACTUAL PERFORMANCE 2022/23**	**AUDITED ACTUAL PERFORMANCE 2023/24**	**PLANNED ANNUAL TARGET 2024/25**	**ACTUAL ACHIEVEMENT 2024/25**	**DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT 2024/25**	**REASONS FOR DEVIATIONS**
Develop and retain a capable workforce that is able to utilise world-class infrastructure to deliver specialised and innovative measurement solutions	Provide for the measurement needs of South Africa and the region	Number of staff leading new external collaborative agreements	New KPI	New KPI	1 (cumulative)	1	0	None

4.2.2 Strategy to overcome areas of under performance

The shortage of skilled personnel contributed to delays in meeting target turnaround times and in clearing audit non-conformances within the planned period. To address this, the organisation is developing a comprehensive retention strategy focusing on salary benchmarking, career development pathways, and enhanced workplace conditions, while also strengthening its talent pipeline through bursaries, internships, and graduate programmes. These interventions align with NMISA's strategic objective to develop and retain a capable workforce able to effectively utilise world-class infrastructure to deliver specialised and innovative measurement solutions.



4.2.3 Africa Reference Institute

ACHIEVEMENTS

Training Centre

8 Training courses in foundational metrology to develop local capacity per emerging industry demands:

- Basic Principles of Metrology
- Online GC-MS Analysis Course
- Introduction to Dimensional Metrology
- Fundamentals of Torque Metrology
- Reference Material Production Course
- RF & Microwave Metrology Fundamentals
- Advanced Dimensional Metrology
- ITC ISO 17034 training
- BSI Kenya Course
- SADCMET Uncertainty of Measurement Course
- Training Webinar with the United Nations Industrial Development Organization (UNIDO) (Global Quality and Standards Programme – South Africa Project)

3 NMISA-facilitated specialised winter schools on advanced food safety techniques:

- ICP-OES and Toxic Elements in Food
- LC and Mycotoxin Analysis
- Pesticide Analysis

2 Regional and international training engagements:

Tanzania and Saudi Arabia

5 SADCMET-sponsored courses and workshops:

- SADCMET Measurement Uncertainty course based on ISO GUM; 28 Technical professionals trained from 14 SADC member states
- Participated in the SADC Quality Infrastructure Strategy Plan workshop, supported by the German NMI, Physikalisch-Technische Bundesanstalt (PTB)
- Dimensional metrology training given to Lesotho's Department of Quality, Metrology and Technical Regulations
- Thermometry training provided to Uganda National Bureau of Standards; 20 metrologists were trained (also covered under Energy Efficiency)
- NMISA coordinated the SADCMET Temperature Inter-Laboratory Comparison Closing Workshop, hosted by the Malawi Bureau of Standards, involving 11 NMIs.

The Africa Reference Institute (ARI) was established to serve as a centre of expertise in measurement science for the continent. Its main purpose is to provide access to advanced measurement technologies and reliable technical information in areas that are important for economic growth and social development in Africa. Its services include reference measurements and analysis, consultation and specialist advice, as well as education and training.

Recognising the need to enhance the ability of local producers to compete in international markets, the ARI assists companies in improving the performance of their products, gain efficiencies in production, and develop reputable African brands. The ARI aims to play a key role in maintaining and enhancing a reliable African measurement framework linked to the international system of measurement. Its mission is to enhance sustainable development on the African continent.

Strategic engagements and sector support initiatives

During the reporting period, NMISA's Training Centre delivered eleven targeted metrology training courses, supporting human capital development across South African industry and the broader Southern African Development Community (SADC) region. These courses covered both foundational and advanced technical content aligned with emerging measurement needs in key sectors. NMISA specialists also contributed to National Laboratory Association (NLA) events, reinforcing the Institute's role in strengthening sector-wide competencies and supporting the broader quality infrastructure. In partnership with industry, three winter schools were hosted focusing on food safety measurement techniques, including the analysis of toxic elements, mycotoxins, and pesticides, key to compliance in agri-food value chains.

Regionally and internationally, NMISA facilitated a two-week practical training in mass metrology for the Tanzania Bureau of Standards and delivered a specialised course on Radio Frequency and Microwave Fundamentals to delegates from Saudi Arabia. These activities contributed to technical capacity-building and promoted regional integration in high-impact areas. Collectively, these initiatives support the development of a skilled workforce, improve technical self-sufficiency, and enhance the competitiveness of regional industries by ensuring access to reliable and up-to-date measurement expertise.

NMISA continued to extend its technical expertise through strategic training and stakeholder engagement initiatives during the reporting period. In March 2025, the Institute successfully hosted an online training workshop under the Global Quality and Standards Programme South Africa Project. The event focused on certified reference materials (CRMs), proficiency testing (PT) schemes, and metrological traceability in chemical testing laboratories – areas critical to laboratory quality assurance. The training received over 400 registrations, reflecting high national demand for capacity building in laboratory accreditation and compliance.

In collaboration with the Road Traffic Management Corporation (RTMC) and the National Regulator for Compulsory Specifications (NRCS), NMISA also hosted a workshop for national traffic police officers. The session emphasised the role of metrology in traffic law enforcement, particularly in the accurate use of speed measurement and breathalyser technologies. This initiative supports regulatory compliance and public safety by ensuring that measurement-based enforcement tools are applied reliably.

Separately, the African Reference Institute's planned support for the lighting sector, specifically related to compliance with compulsory specifications VC 9109 and VC 9110, was postponed due to internal resource constraints.

Measurement support for SMMEs in the essential oils value chain

NMISA supported the development of South Africa's essential oils sector and related agricultural value chains by providing ISO/IEC 17025-accredited laboratory testing and technical support. These services enabled producers to meet stringent quality and regulatory requirements for both domestic and export markets, contributing to improved product competitiveness and market access. Key technical advancements included the introduction of validated extraction and characterisation techniques, such as linalool analysis in dried lavender, enhancing quality assurance processes across the sector.

To meet rising demand for essential oil testing, NMISA expanded internal capacity by training additional scientists, ensuring sustained service delivery. A successful South African National Accreditation System (SANAS) reassessment reaffirmed the Institute's compliance with international quality standards. NMISA also participated in industry engagement activities, including a presentation at the South African Essential Oil Producers' Association (SAEOPA) conference, where it highlighted the critical role of measurement science in supporting product integrity, sector credibility, and broader agri-processing growth. These efforts demonstrate how metrology services can directly support value addition in niche export-oriented industries.

Regional quality infrastructure and integration

In support of regional economic integration and the objectives of the African Continental Free Trade Area (AfCFTA), NMISA continued to play a central role in strengthening metrology and quality infrastructure (QI) across the SADC region. By hosting and contributing to key capacity-building initiatives, NMISA has helped reduce technical barriers to trade and improve regional compliance with international standards.

Over the reporting period, NMISA facilitated several targeted interventions. These included the delivery of a SADCMET training course on the Estimation of Uncertainty in Measurement, based on ISO's Guide to the Expression of Uncertainty in Measurement (GUM) framework, attended by 28 participants from 14 SADC countries. NMISA also supported the delivery of dimensional metrology training for Lesotho's Department of Quality, Metrology, and Technical Regulations, funded through the SADC TRF programme.

NMISA participated in the SADC Quality Infrastructure Strategy Plan Workshop, aimed at addressing institutional misalignment and capacity constraints across the region's QI systems. The Institute further led the coordination of a closing workshop for a SADCMET Temperature Inter-Laboratory Comparison (ILC), hosted by the Malawi Bureau of Standards, which helped participating NMIs demonstrate measurement compatibility and competence.

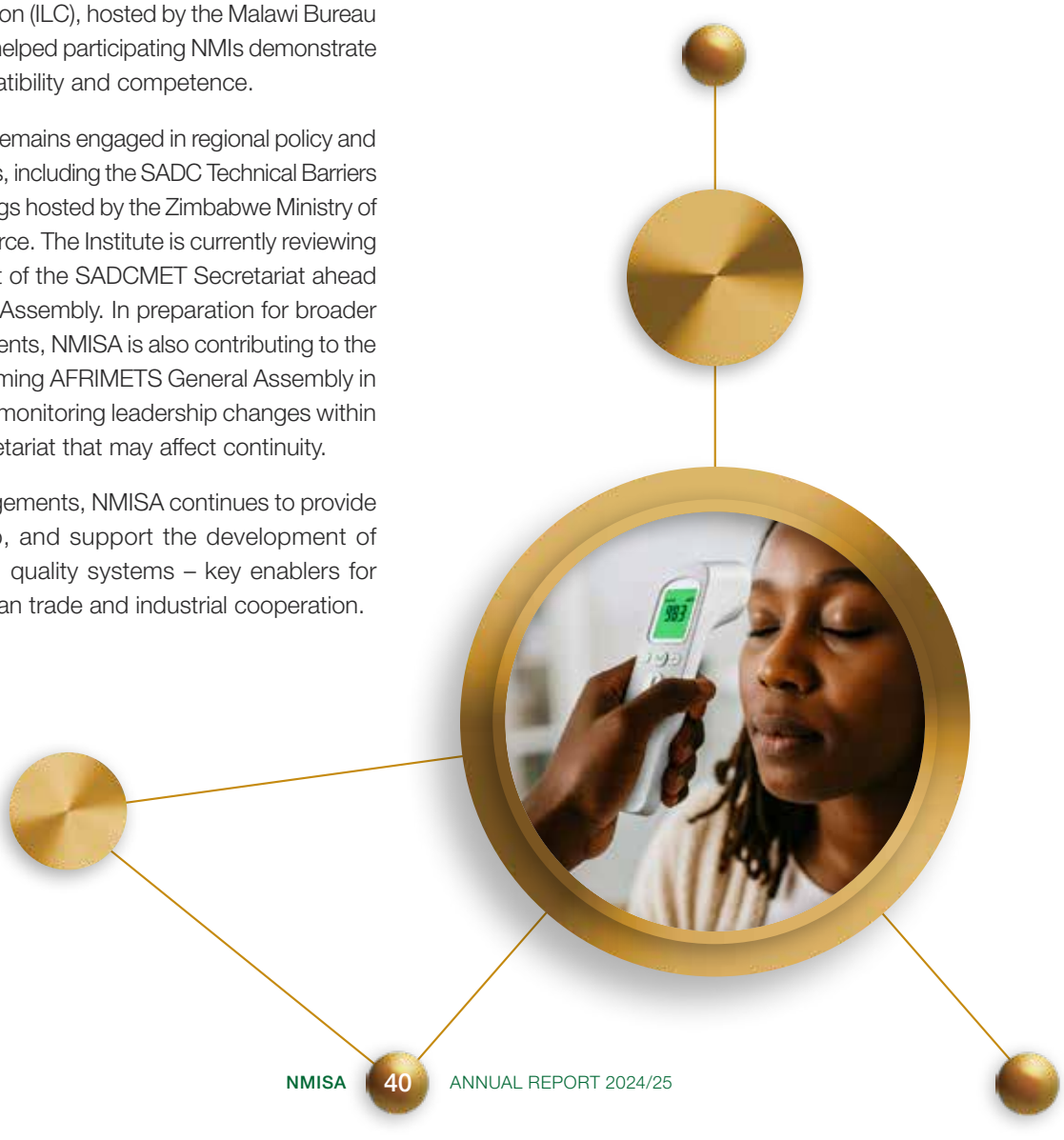
Strategically, NMISA remains engaged in regional policy and governance structures, including the SADC Technical Barriers to Trade (TBT) meetings hosted by the Zimbabwe Ministry of Industry and Commerce. The Institute is currently reviewing its future role as host of the SADCMET Secretariat ahead of the 2026 General Assembly. In preparation for broader continental engagements, NMISA is also contributing to the planning of the upcoming AFRIMETS General Assembly in Accra, Ghana, while monitoring leadership changes within the AFRIMETS Secretariat that may affect continuity.

Through these engagements, NMISA continues to provide technical leadership, and support the development of harmonised regional quality systems – key enablers for increasing intra-African trade and industrial cooperation.

Building regional metrology capacity through temperature metrology training and support

As part of its ongoing commitment to strengthening measurement capabilities across the continent, NMISA delivered high-level, on-site training and consultancy services in temperature metrology to national metrology institutes (NMIs) in Africa during the 2024/25 financial year. This support focused on fixed-point realisation, standard platinum resistance thermometers (SPRTs), thermocouples, and infrared thermometry. Training was conducted at the Uganda Bureau of Standards (UNBS) and the Kenya Bureau of Standards (KEBS), equipping 24 African metrologists with critical skills in these advanced temperature measurement techniques.

NMISA further contributed to regional collaboration and quality assurance by facilitating a workshop that concluded the SADCMET Inter-laboratory Comparisons (ILCs) initiated in 2019. These activities underscore NMISA's strategic objective to provide metrology leadership on the African continent and support the development of sustainable technical capacity within partner NMIs.



4.2.4 Law Enforcement

Law enforcement agencies need reliable measurement results to determine whether a law has been transgressed, for example accurate measurement of the speed at which a vehicle is travelling to determine if the speed limit is being adhered to, or blood alcohol analysis by a laboratory to determine whether the level of alcohol in a driver's blood was within the legal limit for driving. These agencies are dependent on the accurate, independently verified measurement results provided by NMISA to withstand legal scrutiny in court proceedings. Similarly, to protect the consumer, regulators such as the NRCS rely on measurement results traceable to the NMS maintained by NMISA to test whether consumer goods offered on the market meet the requirements of compulsory specifications.

ACHIEVEMENTS

Evidential Blood Alcohol Testing (EBAT), Forensic Blood Alcohol, Speed cameras

4 **PT scheme**

45 **Batches of CRMs prepared**
(30 for ethanol [~120 units each], 15 for sodium fluoride [9 units each])

Strengthening measurement accuracy in law enforcement: NMISA and RTMC collaboration

During the reporting period, NMISA and the Road Traffic Management Corporation (RTMC) formalised a partnership agreement to enhance the accuracy and legal reliability of alcohol testing instruments used in law enforcement. NMISA is currently the only ISO/IEC 17025-accredited facility in South Africa for the traceable calibration of evidentiary breath analysers, which are critical tools for municipal-level law enforcement. The agreement aims to improve measurement traceability to South Africa's National Measurement Standards through the calibration of instruments used to assess blood and breath alcohol levels. Accurate and reliable measurements are essential to ensure that results are legally defensible when presented in court.

In alignment with its mandate to maintain national measurement standards, NMISA will also provide training and technical support to RTMC personnel. These efforts will help ensure that measurement practices adhere to international standards, thereby supporting the RTMC's broader mandate of improving road safety and reducing traffic violations. The collaboration further includes joint research and outreach initiatives under the banner "*The Measurement Science behind Law Enforcement*," reflecting both organisations' commitment to evidence-based enforcement and enhanced public safety.

Improving reliability of speed simulation measurements for road safety enforcement

Speed simulation measurements are critical for the approval of light detection and ranging (LIDAR) speed measuring devices used in South Africa, directly contributing to the RTMC's efforts to enforce traffic laws and promote road safety. NMISA's operations in this area were affected by equipment malfunctions and power supply disruptions, impacting the Time and Frequency Laboratory. To enhance measurement reliability and minimise future disruptions, plans are underway to implement a backup power supply solution for the laboratory's precision timing clocks.

Quality assurance services for forensic blood alcohol analysis

NMISA continued to provide essential quality assurance services to support forensic blood alcohol analysis. Four proficiency testing (PT) schemes were conducted, including a newly introduced PT for evidentiary breath analyser calibrations. These services play a critical role in helping testing laboratories, such as those within the National Health Laboratory Services, demonstrate continued competence and ensure the accuracy and reliability of forensic measurements used in legal and public health contexts.

4.2.5 Health and Safety

ACHIEVEMENTS

25 **Hospitals provided with postal dosimetry audits**
to support cancer treatment

54 **Certificates of analysis**
of radioactivity in environmental samples

The purpose of Health and Safety is to provide reliable measurement traceability for medical and ionising radiation detection devices, supporting manufacturers, regulators, end users, and accreditation bodies. The programme exists to ensure the accuracy of measurements in the health and nuclear sectors, contributing to patient safety and regulatory compliance. It also aims to address gaps in measurement science through collaboration with stakeholders, the development of specialised metrology techniques, and the consolidation of traceability services for laboratories, hospitals, nuclear facilities, and related industries.

NMISA supports and promotes the safe use of nuclear technology

Clinical dosimetry audits

NMISA conducted postal dosimetry audits for 25 radiotherapy hospitals, helping to ensure patient safety in cancer treatment. These hospital audits assure the quality and effectiveness of radiotherapy in the healthcare sector, as treatment success relies heavily on accurate dosimetry measurements.

NMISA also participated in an international laboratory comparison exercise to ensure that the dosimetry audits provided are of the highest international standard. During this exercise, NMISA achieved results that support the increase in its scope of services for the dosimetry audits to include postal audits for high-energy electron beams. This added service provides the capability to audit radiotherapy hospitals on treatment of superficial cancers using electron beams.

Radioactivity analysis

NMISA completed radioactivity analysis of various environmental samples for the National Nuclear Regulator (NNR) as part of its environmental monitoring programme for the Koeberg Nuclear Power Station. Fifty-four Certificates of Analyses were issued to the NNR for Liquid Scintillation Counting (LSC), H-3 analyses and gamma-ray spectrometry analyses of environmental samples. Through these measurements, NMISA played an integral role in safeguarding public health and safety by providing accurate and precise measurements of radioactivity in food and the environment. By strictly adhering to global safety standards, the Institute effectively mitigated health risks posed by radioactive contamination, ensuring the safety and integrity of South Africa's food systems and public health and safety.

Support for nuclear medicine

NMISA calibrated Iodine-131 therapy capsules, which were used by local nuclear medicine hospitals for traceability to assure accuracy for activity-measuring instrumentation. Iodine-131 therapy is a radioactive iodine treatment used to target and destroy thyroid tissue, particularly in cases of hyperthyroidism or thyroid cancer, and NMISA played a critical role by ensuring, with this calibration, that the correct radiation dose was orally administered.

NMISA conducted an impurity analysis of water samples for Fluorine-18. This analysis was carried out for a radiopharmaceutical manufacturer and is a critical component of their quality assurance programme to ensure patient safety.

NMISA's role in harmonising dosimetry standards

The International Atomic Energy Agency (IAEA) invited NMISA's radiation dosimetry specialist to join a panel of experts to review the secondary standards of the dosimetry laboratory (SSDL) Network Charter, which supports over 90 countries in ensuring accurate dosimetry standards. This international recognition highlights NMISA's expertise, with the panel's work set to be featured in the IAEA SSDL Newsletter, increasing NMISA's visibility and reinforcing its role in global metrology.

NMISA ensures nuclear safety in the region

Calibration of over 400 radiation devices by NMISA has contributed to the safe use of radiation in various industrial applications. The calibration included area, contamination, and personnel monitoring. The industrial application included mining, nuclear energy, the health sector, and Non-Destructive Testing (NDT). These calibrations were performed for both local and regional industries, especially in the SADC region. The extensive use of NMISA's metrology services across these vital sectors in nuclear safety highlights the Institute's crucial role in maintaining and advancing industrial safety standards throughout South Africa and the region. The achievements demonstrate NMISA's commitment to ensuring safety and precision for industries that rely on nuclear technologies.

Successful accreditation reassessment of NMISA's Dosimetry Standards Laboratory

NMISA's Dosimetry Standards Laboratory successfully completed a re-assessment for accreditation following the expiry of its previous accreditation in February. Maintaining this accreditation is essential to ensure the continued provision of traceable measurement standards for nuclear applications in South Africa and the broader region. In addition to renewing formal recognition, the reassessment served as an important peer review, enabling international experts to evaluate the laboratory's capabilities. The favourable outcome reaffirmed confidence in the quality and reliability of the dosimetry services provided by NMISA.

4.2.6 Energy Efficiency

The purpose of this programme is to develop and provide the underpinning measurement solutions needed to facilitate and support energy-efficient light-emitting diode (LED) lighting, energy conversion processes (renewables and other alternative sources), and smart grids in support of the improvement of electrical energy efficiency. The Just Energy Transition Investment Plan (JET IP) for South Africa emphasises energy efficiency as an essential component of the country's transition to a low-carbon economy. It highlights the need for modernising infrastructure to support energy-efficient technologies and practices.

Advancing quality and energy transition through metrology

NMISA promoted the role of metrology in supporting quality, particularly in the context of South Africa's energy transition. At a seminar hosted by the Southern African Society for Quality (SASQ) and Eskom, NMISA delivered a presentation titled *"Metrology: A key driver of quality – supported by TQMS"*. The presentation highlighted how metrology contributes to quality assurance, using practical examples related to energy efficiency.

ACHIEVEMENTS

4 Research publications and presentations:

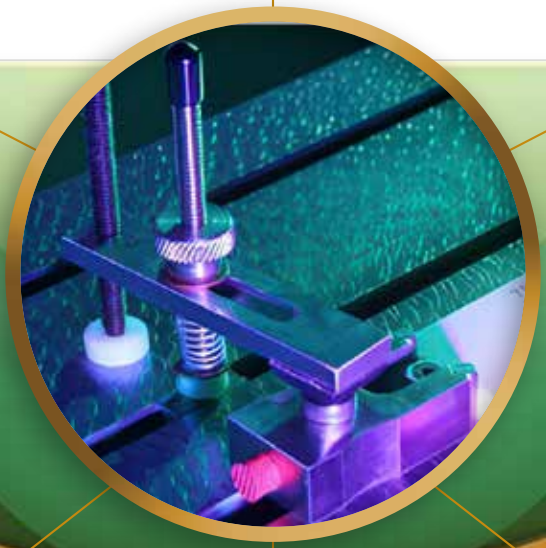
1. A paper on the water triple point key comparison (CCT K7 2021), published in the Proceedings of the Tenth International Temperature Symposium: Temperature — Its Measurement and Control in Science and Industry.
2. A research article by Efrem Ejigu on body infrared thermometers, published in the International Journal of Thermophysics.
3. An advertorial published in BusinessDay and Sunday Times Energy magazine and an article titled *Is it really "energy efficient?"* in June 2024.
4. A presentation titled *"Metrology: A key driver of quality – supported by TQMS"*, using energy efficiency related examples, at the Southern African Society for Quality (SASQ) hosted by Eskom.

In support of broader national objectives, NMISA also took on the leadership role as chair of the newly established Energy Working Group under the Multi-stakeholder Quality Forum (MSQF), coordinated by the DTIC. Two successful workshops were hosted during the reporting period, with the Terms of Reference for the group in the process of being finalised. Furthermore, NMISA and the South African Photovoltaic Association (SAPVIA) have agreed to a memorandum of understanding, currently being finalised, to collaborate on improving the quality and reliability of solar energy systems in the local market through metrology support.

The role of temperature metrology in industrial energy optimisation

Accurate temperature measurement, ensured through temperature metrology, is essential for effective control of industrial processes, and directly contributes to energy efficiency. When temperature measurements are accurate (that is, close to the true value), processes can be controlled more reliably, avoiding energy waste from deviations such as overheating or underheating. This leads to more efficient energy use, improved product quality, reduced operational costs, and a lower environmental impact through decreased carbon emissions.

As part of its efforts to support energy efficiency through accurate temperature measurement, the programme delivered key scientific contributions to the field of temperature metrology. These achievements reflect NMISA's ongoing commitment to advancing measurement science and sharing knowledge with both the scientific community and industry stakeholders.



4.2.7 Manufacturing

ACHIEVEMENTS

60 XPS samples analysed
in support of research projects, academia, and health risk assessments

The Manufacturing Programme provides reliable and advanced measurement and characterisation services that support quality assurance, product development, and innovation within South Africa's manufacturing sector. By offering fit-for-purpose solutions such as 3D printing, computed tomography, and surface analysis, the programme enables manufacturers to verify material properties, comply with technical standards, and improve product performance. Its purpose is to strengthen industrial competitiveness, facilitate market access, and contribute to the development of high-quality and internationally recognised South African products.

Measurement services supporting aircraft maintenance integrity

NMISA continued to provide essential calibration services to a key aviation maintenance provider in South Africa, contributing to the broader objective of ensuring the safety and reliability of air travel. These services are critical to maintaining the accuracy of measurement equipment used in aircraft maintenance and manufacturing.

A wide range of dimensional calibration services were delivered for instruments and standards such as gauge blocks, length bars, optical flats and parallels, steel rules, verniers, and callipers. Regular on-site calibration was also conducted for delicate tape and length measuring machines, along with servicing of more than 25 workshop machines equipped with two- and three-axis measurement systems. This work underscores NMISA's strategic role in supporting original equipment manufacturers (OEMs) within South Africa's aviation sector, ensuring accurate and reliable measurements that align with international quality and safety standards.

Improving industry performance through reliable materials testing

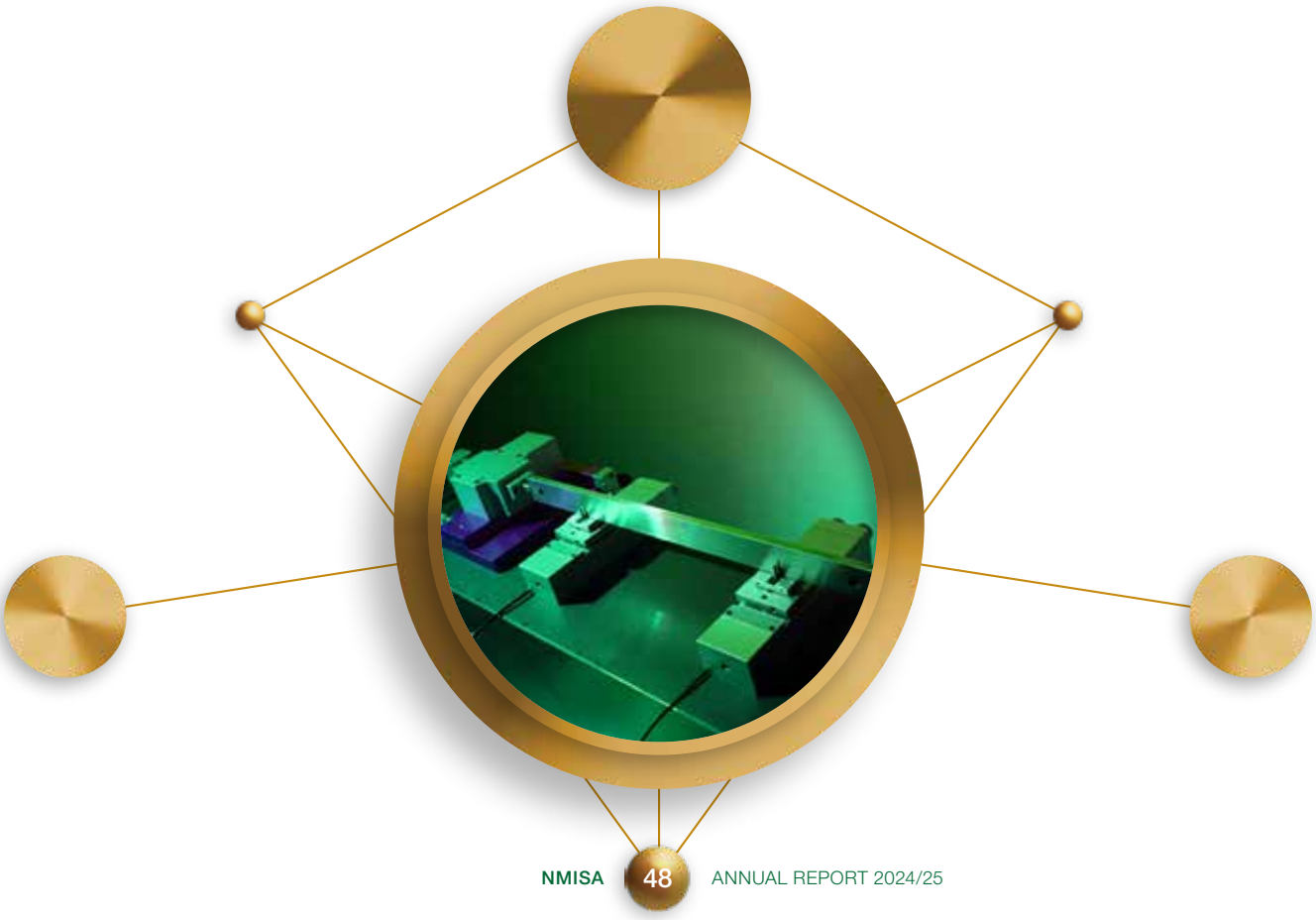
NMISA continued to help businesses and industries understand why materials and components fail, and how to improve them. Using very advanced tools, NMISA provided testing and analysis services that helped different sectors improve safety, prevent damage, and ensure product quality.

For example, NMISA worked with the transport sector to investigate problems with railway parts. By carefully examining how the parts were made and used, NMISA helped identify why they broke and what changes could be made to improve their safety and reliability.

In other areas, NMISA supported the automotive, mining, food production, and construction industries. Assistance included checking car body parts for quality, finding small pieces of glass or metal that had accidentally ended up in food products, and testing mining tools to establish why they failed. In many of these cases, NMISA used methods that go beyond those commonly available, providing companies with accurate answers that helped them avoid expensive damage and improve their products.

NMISA also supported healthcare by studying the materials used in medical implants such as titanium for joint replacements and dental implants. This work helps ensure that these devices are safe and last longer in the human body. In the energy sector, NMISA helped test special materials used in nuclear energy to make sure they are strong enough to protect against radiation in power plants like Koeberg.

By offering these specialised services, NMISA gave companies the information they needed to meet quality standards, avoid risks, and improve their products. This work supports better safety, higher reliability, and stronger performance in important sectors such as transport, health, energy, mining, and manufacturing.



4.2.8 Strategic Research

ACHIEVEMENTS

A Kibble balance is being developed in collaboration with NPL (UK) and NIST (USA) to independently realise the kilogram.

Traceability provided through calibrated reference standards to SADC member states and the broader region in mass, dimensional, temperature and humidity, direct current low frequency and radio frequency, time and frequency, and photometry and radiometry, strengthening regional measurement capabilities.

Research is undertaken to develop and implement the realisation of the new SI units to enable NMISA (as well as other NMIs on the African continent) to link its national measurement standards to the international measurement system following the redefinition of the international system of units in 2019. International equivalence of measurement results is a necessary condition for global trade and international acceptance of local measurement data for universal reporting and application.

Advancing quantum-accurate measurement capabilities: Kibble balance

The Kibble balance is one of the two internationally accepted methods for realising the new definition of the kilogram, and it has been the subject of extensive research over the past two decades. However, traditional Kibble balances currently in use by NMIs are large, not easily moved, and prohibitively expensive. To address these challenges, NMISA entered into a collaborative agreement with the National Physical Laboratory (NPL) in the UK in 2018 to develop a more compact and cost-effective next-generation Kibble balance system (tabletop Kibble balance).

The Kibble balance allows the kilogram to be realised by equating mechanical power to electrical power, ultimately linking mass to Planck's constant (*h*). It operates in two modes, the first being the weighing mode which compares the gravitational force on a mass to an electromagnetic force. This process therefore requires gravitational acceleration to be measured accurately and NMISA has since procured and commissioned an absolute gravimeter and is developing the capability to offer the measurement of "g" as a service to industry. The second mode is the moving/velocity mode where the induced voltage from the moving coil in the magnetic field is measured. NMISA has since procured and commissioned a Programmable Josephson Voltage Standard (PJVS) instrument to measure voltage accurately.

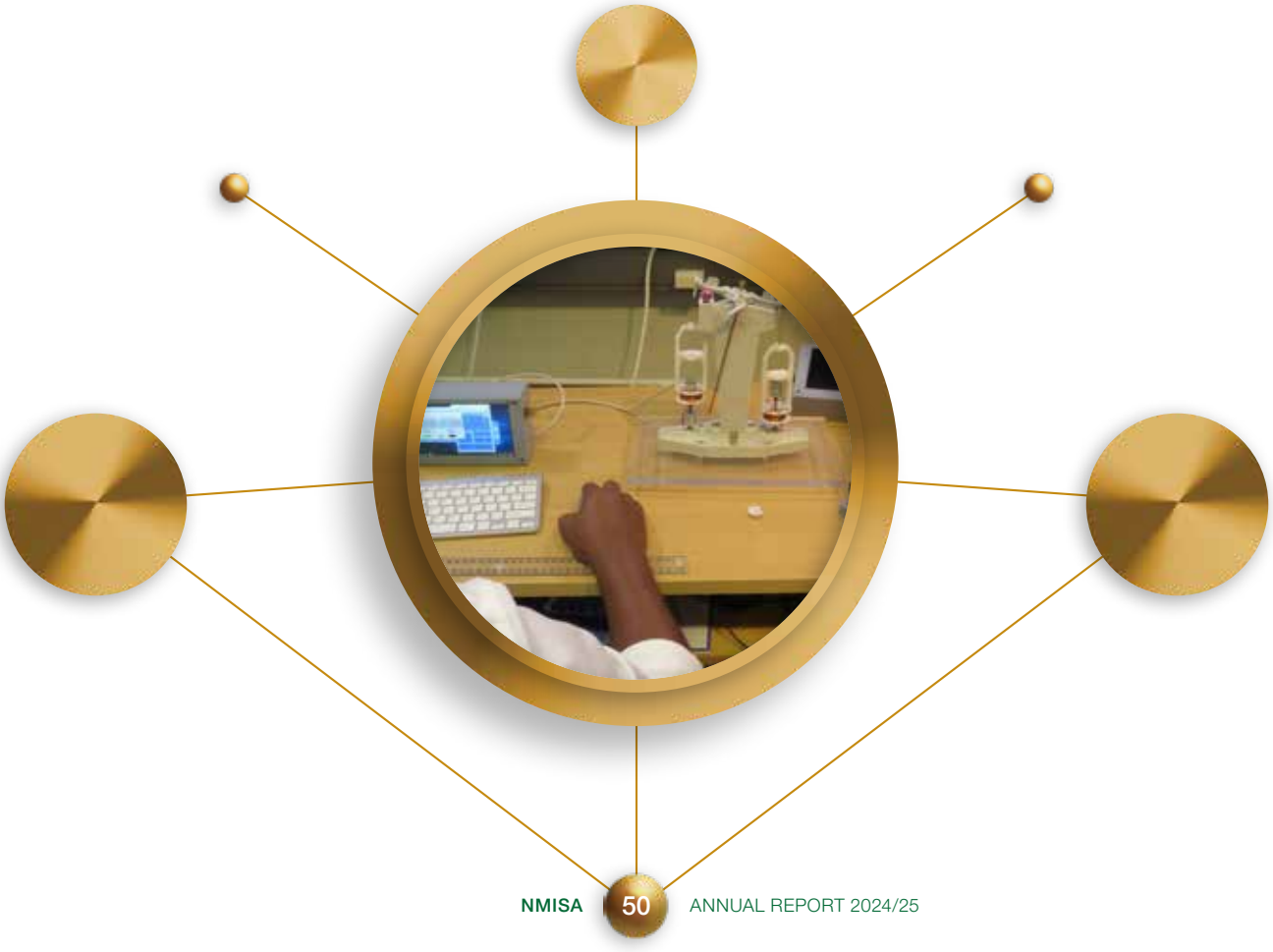
Accurate conversion of electrical power to mechanical units requires highly accurate measurements of voltage and resistance. The Quantum Hall Resistance Standard (QHRS) system provides a quantum-accurate and stable reference for resistance measurements. In collaboration with the NPL in the UK, NMISA is in the process of acquiring a Tabletop Quantum Hall Resistance Standard instrument to enhance its capacity for quantum-accurate resistance measurements. Delivery is expected in the 2025/26 financial year.

Together with the PJVS instrument, the QHR instrument will enable NMISA to realise the SI unit of current (Ampere) independently, thereby shortening traceability pathways within Africa and strengthening regional metrology infrastructure.

The project delivery timeline has been extended, with the current estimated completion set for 2029. In the meantime, NMISA is commissioning and utilising three ancillary systems associated with the Kibble balance. These systems provide robust traceability to units of voltage, resistance, and local gravitational acceleration, ensuring continued measurement accuracy and reliability.

Calibration of reference standards for regional NMIs

Calibration of reference standards is essential in ensuring accurate, consistent, and traceable measurements across scientific and industrial applications. Accurate reference standards form the foundation for reliable data collection, analysis, and decision-making in various sectors, including manufacturing, mining, earth observation, climate and air monitoring, pharmaceuticals, energy efficiency, and law enforcement. NMISA provided traceability through calibrated reference standards to SADC member states and the broader region in mass, dimensional, temperature and humidity, direct current low frequency and radio frequency, time and frequency, and photometry and radiometry, strengthening regional measurement capabilities. This contribution supports harmonisation of measurements, improves the quality of products, advances environmental monitoring programmes, enhances international comparability of results, and enables the region to meet global requirements with confidence and credibility.



4.2.9 Digital Economy

ACHIEVEMENTS

A study completed
to explore how digital certificates can replace traditional paper-based calibration documents.

A digital, real-time environmental monitoring system developed
to remotely track temperature and humidity deviations in sensitive laboratory and storage environments.

A custom mini software application developed
to restore and augment key functionality.

These projects all focus on applying metrology knowledge by enabling digital technologies as usable solutions for clients, and/or developing digital solutions to increase operational efficiency and/or improve client experiences. The focus areas, their purposes and application in industry are:

- Providing reference high-accuracy time and frequency signals for the South African Radio Astronomy Observatory (SARAO) as part of its time distribution infrastructure, which enables the Square Kilometre Array (SKA) telescope to make synchronous observations with antennas at diverse locations.
- Developing a metrology framework for digital technologies through technology demonstrators with applications in energy distribution and manufacturing.
- Investing in the digital transformation of metrology in line with global developments to support industrial digitalisation.

Modernising measurement through digital tools and automation

NMISA completed a study to explore how digital certificates can replace traditional paper-based calibration documents. These new digital certificates, called Digital Calibration Certificates (DCCs), are secure and easy for machines to read. They help reduce errors, save time, and connect directly to systems that many businesses already use, like digital laboratory and business software. A change to DCCs would especially benefit industries such as manufacturing, mining, healthcare, and energy, where accuracy and efficiency are critical.

The study looked at whether South Africa is ready to adopt these digital certificates. It found that while the technology exists, more work is needed to update systems, set national standards, and train people. Although there are some initial costs, switching to digital will save money and improve productivity over time. NMISA has recommended starting with trial projects in industries that would benefit the most and is prepared to lead the process by setting standards, raising awareness, and helping organisations make the shift.

In a related effort to improve efficiency, NMISA worked with the CSIR Robotics Group to automate a key piece of calibration equipment. What used to take two weeks can now be done overnight. This automation project shows how using modern technology can improve service speed and help South African industries stay competitive. Together, these efforts support the country's move toward smarter, faster, and more reliable measurement systems that can drive industrial growth and digital transformation.

NMISA's New smart monitoring system for laboratory conditions

NMISA successfully developed a digital, real-time environmental monitoring system to remotely track temperature and humidity deviations in sensitive laboratory and storage environments. This dual-purpose system integrates custom hardware and software for both local and networked data collection and alerting, significantly improving responsiveness and operational efficiency. A key focus was on advanced refridgeration temperature monitoring to safeguard sample quality, thus enhancing confidence in service reliability. The scalable, modular sensor hub system is fully operational and has been verified under real-world conditions. By enabling remote oversight and automated alerts, the system supports improved turnaround times and proactive issue resolution, ultimately contributing to a better customer experience. Future upgrades will include enhanced network resilience and SMS-based critical alerting.

Modernisation of dosimetry systems through custom software

To address compatibility issues caused by outdated back-end coding in complex spreadsheet-based tools used in dosimetry, NMISA developed a custom mini software application to restore and augment key functionality. The solution was implemented in response to platform updates that rendered legacy features unreliable or non-functional. The software has performed as expected, proving to be a reliable and effective proof of concept. Beyond restoring functionality, it also lays the foundation for future enhancements, including increased automation and streamlined report generation, ultimately improving efficiency and long-term sustainability of the dosimetry workflow.

4.2.10 Environmental Monitoring and Mining

ACHIEVEMENTS

2 **New service level agreements:**
- SLA with the South African Weather Service
- Eskom contract awarded for Air Quality Monitoring of primary reference gas mixtures (PRGMs) and PT schemes

2 **International inter-laboratory comparisons completed:**
- CCQM-K82.2023 comparison for methane in air
- BIPM.QM-K1 – ongoing comparison measuring equivalence for ozone

61 **Samples analysed**
for particle size distribution for air quality monitoring

These projects focus on developing the standards and reference methods needed to provide reference values, testing and analysis services for monitoring the baseline levels of various toxic environmental contaminants in South Africa and the region. Services are provided to enable mining and manufacturing companies (as well as regulators) to verify their compliance with environmental standards and regulations to ensure that air, water and soil conditions remain safe and free of harmful pollutants to protect human health.

In addition, new or improved existing measurement capabilities are developed to assist South African Industries (particularly manufacturing and agriculture) to reduce, quantify and/or validate their carbon footprint.

Accurate mass calibration for mineral research

Accurate and traceable mass measurement plays a fundamental role across all industry sectors, including mining and mineral research. NMISA provided specialised calibration services for diamond samples on behalf of a mining research organisation. These calibrations supported advanced mineralogical analysis, where small discrepancies in mass could influence material characterisation, research outcomes, and valuation.

By providing internationally traceable and reliable measurements, NMISA supported scientific research and helped maintain high standards in one of South Africa's most important economic sectors. This work demonstrates how trusted measurement services play a key role in both scientific progress and industrial development.

International collaboration on greenhouse gas measurement

NMISA met with the Department of Mineral and Petroleum Resources (DMPR) and the International Atomic Energy Agency (IAEA) to discuss a global project focused on improving how GHG emissions are measured. The project, called INT7020, aims to help countries use stable isotope analysis to identify where GHGs like methane and carbon dioxide are coming from in the atmosphere.

Methane will be the first gas to be studied, followed by carbon dioxide. As part of this initiative, the IAEA plans to open a regional expert centre for analysis and training in South Africa. This centre will allow African countries to access accurate reference material measurements locally, without relying on overseas facilities. The first training programme is expected to take place in 2026, where African scientists will learn how to apply these techniques in tracking and managing GHG emissions.

This collaboration strengthens Africa's ability to contribute to global climate science and supports more accurate and reliable data for climate action. NMISA's role in this partnership highlights its importance in supporting both national and continental environmental priorities.

NMISA supporting air quality monitoring with the South African Weather Service

Accurate tracking of air pollution is essential for protecting the environment, improving public health, and supporting South Africa's move toward cleaner energy. NMISA contributes to these efforts by providing precise measurement standards that help monitor harmful emissions in the air.

NMISA was appointed as the service provider to supply high-accuracy reference gas mixtures to the South African Weather Service (SAWS). These mixtures include carbon monoxide, sulphur dioxide, nitrogen monoxide, and hydrogen sulphide, which are key pollutants monitored at priority air quality stations across the country. This work supports SAWS in meeting its responsibilities under the Air Quality Act, helping to ensure that pollutant levels are measured accurately and consistently.

By supporting SAWS with reliable calibration gases, NMISA plays an important role in enforcing air quality regulations and strengthening South Africa's environmental monitoring systems. These efforts help protect communities from harmful emissions and contribute to the country's broader goal of building a healthier and more sustainable future.

Supporting climate goals through methane and ozone measurement

Accurate measurement of GHGs like methane and ozone is essential for understanding climate change, improving environmental policies, and supporting South Africa's green economy. NMISA plays a key role in providing reliable data to help track emissions and ensure South Africa meets international standards in environmental monitoring.

In June 2024, NMISA partnered with the University of Pretoria to analyse 84 methane samples from the agricultural sector. The results from this work will help improve South Africa's national estimates of methane emissions, which are currently based on limited information. This effort supports the move to a more advanced global reporting system known as Tier 3, which uses country-specific data to monitor GHG emissions more accurately. The project is expected to lead to further collaboration and will strengthen South Africa's position in global climate reporting.

Accurate methane data also supports climate-related policy under the new Climate Change Act and enables access to green funding opportunities. NMISA's recent participation in an international comparison confirmed the accuracy of its methane measurements, showing strong alignment with international standards.

In addition to methane, NMISA supports ozone monitoring by calibrating instruments used in air quality stations. These calibrations are performed using highly accurate reference equipment, ensuring that ozone levels measured in South Africa remain comparable with global benchmarks. NMISA has updated its systems in line with the latest scientific standards and continues to provide high-quality ozone calibration services for use across the country.

These efforts help ensure that South Africa has the measurement tools and data needed to support climate policy, protect the environment, and grow the green economy.

Supporting satellite technology for methane monitoring

NMISA contributed expert technical support to a satellite sensor development project led by a national space agency in the Middle East. The project focused on developing a satellite system to detect methane, a key GHG linked to climate change, in the atmosphere.

NMISA's role involved helping with the scientific and technical planning needed to make sure the satellite would

take accurate measurements. This included advising on how the sensors should be calibrated and how the data should be checked and validated. The study helped shape the technical design of the satellite system and provided recommendations for future improvements to how the sensor works and processes data. This collaboration highlights NMISA's ability to support international projects that advance global climate monitoring and environmental protection through accurate measurement science.

Improving the accuracy of air pollution measurements for NO and NO_2

In 2024/25, NMISA began a project to improve how nitrogen monoxide (NO) and nitrogen dioxide (NO_2) are measured in South Africa. These gases are common air pollutants, and because they are chemically reactive, it is difficult to measure them accurately. Ensuring that the measurement of these gases is correct is important for protecting public health and meeting environmental regulations.

NMISA completed the preparation and testing of updated reference standards for NO and NO_2. These reference gases are used to calibrate instruments that monitor air quality. By providing accurate, traceable gas mixtures, NMISA helps ensure that the data collected from air quality monitoring stations is reliable and meets national environmental laws set by the Department of Forestry, Fisheries and the Environment (DFFE). This ongoing work supports efforts to keep South Africa's air clean and helps environmental agencies and industries take informed actions to reduce pollution and protect communities.

Monitoring air pollution through particle size analysis

NMISA saw a growing demand from industry for particle size distribution (PSD) analysis, which helps understand the types and sources of air pollution. A total of 61 air filter samples were analysed using specialised microscopes to study the size and type of airborne particles.

This work plays an important role in improving how air pollution is monitored and managed. By identifying the size of particles, NMISA can help trace where the pollution is coming from. Smaller particles often come from burning fuel, while larger ones may come from dust or industrial activity. Knowing this helps authorities give more accurate public health advice, since smaller particles are more harmful to human health, especially for the lungs.

The information also supports better pollution control. Industries can use the data to improve filters and reduce harmful emissions. At the same time, it helps government regulators develop policies that focus on the most dangerous pollutants. NMISA's particle analysis services contribute directly to cleaner air, stronger health protection, and more effective environmental regulations.

4.2.11 Agriculture and Food

ACHIEVEMENTS

Food contaminants

126 **Certified reference materials for food safety and quality**

18 **Proficiency testing schemes coordinated**

3 **Peer-reviewed papers published**

NMISA provides quality assurance services that empower food and agricultural testing laboratories to deliver accurate results. The results confirm food safety and quality according to regulatory requirements and thus enable fair trade and protection of public health.

With the introduction of the AfCFTA, the risk to the food supply chain will increase through frictionless trade between countries, necessitating the strengthening of local and regional testing capabilities. An established quality infrastructure must be maintained to ensure mutual recognition of measurement results produced on the continent, to promote intra- and extra-African trade. NMISA therefore produces proudly (South) African reference measurements, reference materials and PTSs for Africa-relevant and indigenous commodities, towards replacing costly imports and to contribute towards economic sustainability of critical food testing services.

Expanding food and agriculture measurement support across Africa and beyond

NMISA continued to play a key role in improving food safety and measurement reliability across Africa and internationally. In 2024/25, a total of 126 certified reference materials (CRMs) were sold for use in food testing laboratories. Notably, the first batch of CRMs for detecting multiple mycotoxins in maize, released in 2019, sold out completely during this period, showing growing demand for accurate measurement tools in the food and agriculture sector.

NMISA's expertise is attracting attention from laboratories not only within Africa but also from countries like Colombia, Indonesia, and India. There is increasing interest in NMISA's training services in proficiency testing and reference material production, both of which follow international standards. The practical, hands-on nature of this training, combined with globally recognised accreditation, has helped position NMISA as a trusted leader in capacity building.

In terms of scientific contributions, NMISA published three peer-reviewed articles in the journal *Metrologia*. The Institute also coordinated 18 proficiency testing schemes during the year, with samples sent to around 25 countries and more than 190 participants involved. These efforts are helping laboratories across the continent strengthen their testing capabilities, improve measurement accuracy, and better protect food quality and public health.

Strengthening food safety testing in South Africa and beyond

During 2024/25, food testing laboratories officially recognised by the Department of Agriculture, Land Reform and Rural Development (DALRRD) continued to take part in NMISA's proficiency testing programmes. These tests help ensure that laboratories can accurately detect chemical residues such as pesticides in agricultural exports like fruit, grains, and nuts throughout the year. This is important for maintaining the quality and safety of South African agricultural products, especially those being exported.

NMISA's work in this area also attracted growing interest from other African countries. In Quarter 2, the Agriculture and Food Programme hosted specialised winter school training sessions focused on testing for pesticides, heavy metals, and mycotoxins in food products. The training was part of a broader capacity-building initiative for the continent, run on behalf of AFRIMETS and sponsored by PTB. Participants included staff from DALRRD's National Quality Assurance Laboratory, NHLS Food Control Laboratories, the Perishable Products Export Control Board, and the Johannesburg Market.

Feedback from attendees was very positive, showing that NMISA's training is well aligned with the needs of government laboratories and other stakeholders. These activities are helping to build stronger, more capable food testing systems across South Africa and the region, supporting food safety, trade, and public health.

Improving food safety in apple juice testing

NMISA successfully developed a new reference material to help test for patulin, a harmful toxin sometimes found in fruit, especially in apple juice. Patulin is strictly regulated in many countries, and accurate testing is important for both local consumption and export compliance.

By producing this testing material in South Africa, NMISA has made it easier and faster for local laboratories to check for patulin without needing to rely on expensive imported products. This shortens the time it takes to get results and reduces testing costs. It also strengthens South Africa's food safety system by supporting more reliable and timely testing. This development supports the food industry, protects consumers, and helps position South Africa as a leader in food safety testing across the continent.

4.2.12 Realisation, Development and Dissemination of the NMS for South Africa

Realisation of the SI units

Metrological traceability connects measurements to recognised standards, typically the International System of Units (SI). This connection ensures that measurements are accurate and reliable, as they can be traced back to a known reference point. Without traceability, world trade would fail and it would be difficult to perform accurate measurements in various fields, including manufacturing, healthcare, and scientific research.

In meeting the objective of shortening the traceability chain for Africa by maintaining the base units and NMSs at an internationally recognised level, NMISA has maintained the following six base units:

- **Length (metre):** *Realised through the stabilisation on hyperfine absorption lines of iodine, using a Helium-neon laser, No. 1008.* NMISA maintains this realisation and calibrates ten secondary laser systems derived from it. Over the past year, four of these systems were calibrated against the iodine-stabilised HeNe laser. These secondary systems are used to disseminate traceability to industry through the calibration of various dimensional artefacts, including end standards, diameters, and surface texture line measures.
- **Mass (kilogram):** *A cylinder of platinum-iridium, known as the national prototype, copy No. 56 of the International Prototype of the Kilogram (IPK).* The SI unit for mass is maintained by NMISA through a platinum-iridium cylinder, the national prototype (copy No. 56 of the International Prototype of the Kilogram – IPK), per the gazetted realisation. The last calibration was conducted at the BIPM in May 2015, with the next calibration planned for 2025. Traceability is disseminated from this primary standard through the calibration of mass artefacts and related quantities such as volume, density, force, pressure, and torque. These services are essential to key industries, particularly those in the trade and regulatory sectors. NMISA is also actively working towards independently realising the kilogram based on the fixed numerical value of the Planck constant. The Kibble balance, the instrument necessary for this realisation, is currently under development.
- **Time (second):** *South African Standard Time (SAST) is defined as Coordinated Universal Time plus two (2) hours (or UTC +02:00).* A local prediction of UTC, known as UTC(ZA), is realised from one of the clocks maintained at NMISA. Maintenance of the time standards is ongoing and the standards are operating within required limits. UTC(ZA) is steered to be within 20 nanoseconds (ns) of UTC, with the aim of being within 10 ns 80 % of the time (annually). The BIPM requires that national time scales remain within 100 ns of UTC to ensure international consistency in timekeeping.
- **Electric current (Ampere):** *Electric potential, resistance, capacitance, inductance, electric AC voltage, electric AC current, electric AC power, radio-frequency power, voltage radio attenuation, and radio-frequency impedance.* All electric current-related parameters are maintained. NMISA currently relies on the BIPM for resistance traceability and is in the process of procuring a cryo-cooled graphene-based Quantum Hall Resistance Standard (QHRS) system, which will serve as the primary standard for resistance. This will allow the Direct Current Low Frequency (DCLF) Laboratory to perform the realisation of Ampere at NMISA.
- **Temperature (Kelvin):** *Reproducing the International Temperature Scale of 1990 (ITS-90) by utilising suitable interpolation and extrapolation instruments in conjunction with a measuring array*. NMISA maintains the ITS-90 temperature scale. Participation in international comparisons (CCT.K4.2 and CCT K9.3) ensures that this realisation is maintained. In addition, the laboratory participated in several key comparisons to demonstrate international equivalence of the national measurement standards for Temperature. Notable comparisons included standard platinum resistance thermometers, the aluminium point, and thermocouple measurements using fixed-point cells. NMISA is involved in ITS-90 realisation capacity development in Africa. On-site training was provided to Uganda National Bureau of Standards (UNBS) for resistance thermometer ITS-90 fixed point realisation.
- **Luminous intensity (candela):** *Optical radiation: luminous intensity, luminous flux, radiant power, irradiance, spectral response, spectral irradiance, reflectance, transmittance, absorbance and wavelength*. The maintenance of the candela is essential for the support of measurement services in photometry. This includes illuminance responsivity, luminance responsivity, etc., for both internal and external calibrations.
- **Mole:** NMISA utilises the definition of the mole base unit but does not realise it internally. The *mise en pratique* for the realisation of the mole is defined in the ninth edition of the SI Brochure – Appendix 2 (2019)[2]. According to

2 BIPM, The International System of Units (SI Brochure), 9th edition, (2019), Available at: https://www.bipm.org/en/publications/mises-en-pratique

this definition, NMISA does not practically realise the definition of the mole with the smallest uncertainty possible, which is achieved by applying the silicon sphere and Avogadro's constant. However, common and practical realisation and dissemination of the mole is achieved with larger relative uncertainties applying gravimetric preparation of high purity gas, organic, and inorganic substances, where the mass fraction of the substance (purity) is accurately determined. These realisations are disseminated as high purity CRMs and primary reference gas mixtures at NMISA. CMCs for purity assignment are available in the KCDB.

Furthermore, the high purity substances are used as calibrators with higher order reference measurement procedures for the accurate quantification of analytes of interest in a range of different matrices, such as food, environmental samples, mining and advance materials. CMCs for these different measurement services of the NMISA are also available in the KCDB.

New and improved National Measurement Standards

Force metrology support to Industry

The 50 kN deadweight force machine and the amplified force machines were successfully restored to operational status in 2023, allowing NMISA to provide industry service support for force to local calibration laboratories and regional African NMIs, serving vital sectors such as construction, mining, materials testing, automotive, and manufacturing. As a result, the reliability and accessibility of services have been significantly improved. The laboratory's calibration range for tension force measurements has been expanded from 200 kN to 1,000 kN, with the potential for improved calibration and measurement capabilities (CMCs) upon completion of the enhancements, thus reducing calibration costs. The number of load cells sent to international NMIs for calibration decreased from ten to three per cycle, as these are now primarily used to validate internal standards, thus achieving in-house traceability.

Pressure and length metrology in the value chain

The Pressure Laboratory successfully regained its accreditation and Scope-of-Accreditation in July 2024. Following reinstatement, the laboratory resumed calibration services and reported a 50 % increase in the uptake of its services for the 2024/25 financial year compared to the previous period. This improvement was driven by calibration services provided to regional NMIs such as INNOQ Mozambique, Ethiopia's EMI, and Zimbabwe's SIRDC, as well as local industries and internal traceability support for NMISA's Mass, Dosimetry, Flow, and Radioactivity Standards laboratories.

4.3 LINKING PERFORMANCE WITH BUDGETS

Table 3: Linking performance with budgets

PROGRAMME	2024/25			2023/24		
	APPROVED BUDGET R'000	ACTUAL EXPENDITURE R'000	(OVER)/ UNDER EXPENDITURE R'000	APPROVED BUDGET R'000	ACTUAL EXPENDITURE R'000	(OVER)/ UNDER EXPENDITURE R'000
Administration	96 871	101 254	(4 383)	88 649	92 847	(4 198)
Dissemination of measurement services and products	105 621	153 071	(47 450)	98 809	158 973	(60 164)
Total	**202 492**	**254 325**	**(51 833)**	**187 458**	**251 820**	**(64 362)**

4.4 NMISA'S CONTRIBUTION TO THE DTIC OUTPUT TARGETS

In 2024/25, NMISA continued to align its technical work with the DTIC's key strategic priorities: digitalisation, decarbonisation, and diversification. Through targeted collaborations and high-impact initiatives, NMISA supported broader national development goals while also extending its reach across the African continent.

As part of South Africa's climate response and commitment to sustainability, NMISA partnered with the DMPR and the IAEA on a project focused on improving the accuracy of GHG measurements. This work, which began with methane and will expand to carbon dioxide, helps ensure reliable reporting of emissions and prepares South Africa for changing international trade requirements, including the EU's Carbon Border Adjustment Mechanism (CBAM).

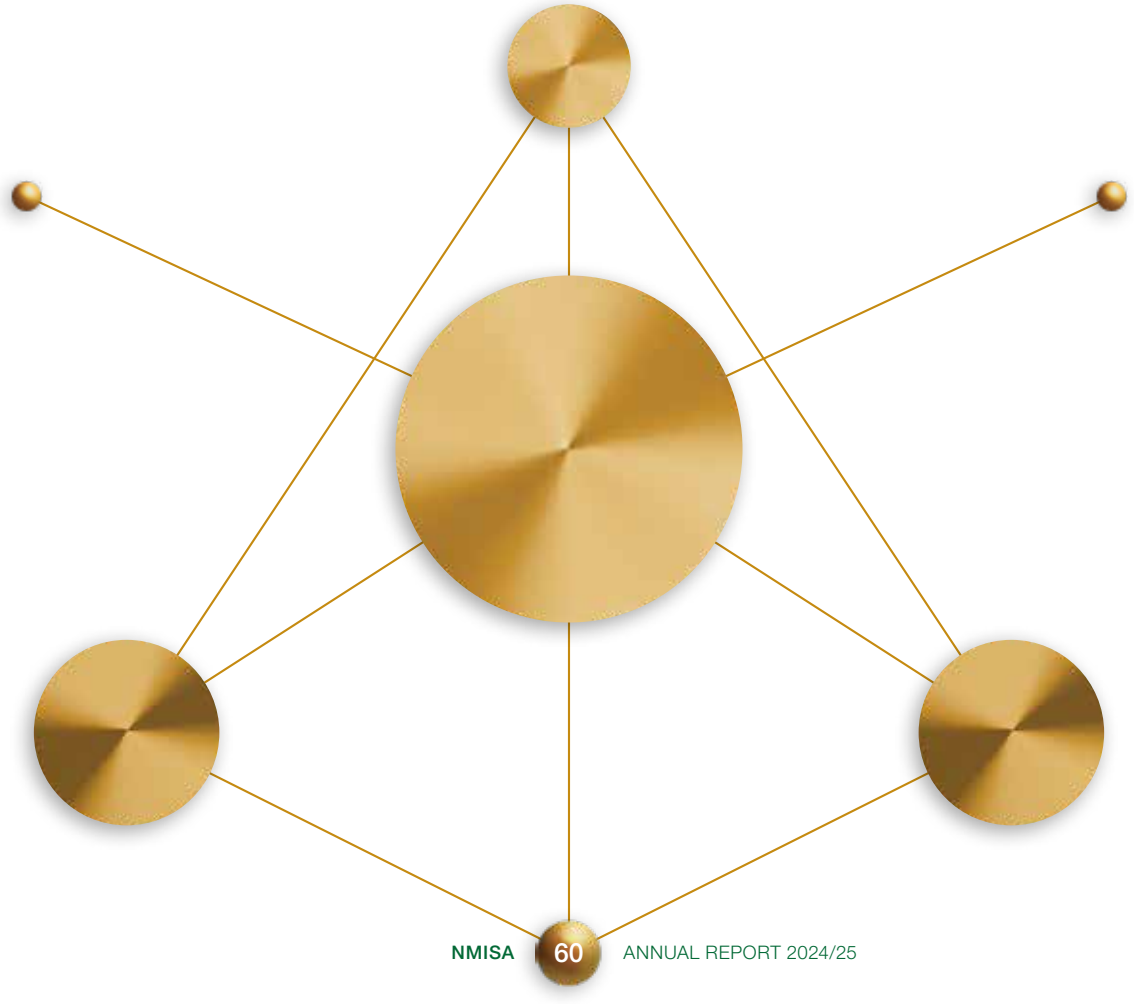
To support economic diversification and industrial growth, NMISA entered into discussions with MINTEK to work towards establishing a partnership to strengthen local capacity in advanced mineral analysis. This collaboration is expected to contribute to the beneficiation of critical minerals and to support value addition within South Africa's mining sector.

In terms of localisation and enterprise development, NMISA exceeded its target by supporting 32 SMMEs through measurement services and training. This achievement more than doubled the original goal and reflects NMISA's commitment to building local competitiveness and contributing to inclusive economic growth.

On a regional level, NMISA helped advance African integration under the African Continental Free Trade Area (AfCFTA) by providing metrology services and training to 13 African countries. It also coordinated nine inter-laboratory comparisons and proficiency testing schemes through AFRIMETS, promoting harmonised measurement systems and supporting cross-border trade.

In line with South Africa's digital transformation agenda, NMISA introduced two digital innovations: the Cal Exporter system and new condition-monitoring sensor hardware. These tools improve efficiency and support real-time measurement assurance. A successful feasibility study on Digital Calibration Certificates was also completed, laying the foundation for future digital services in the measurement sector.

Overall, NMISA achieved 50 % of its planned contributions to the DTIC's Strategic Interventions. This outcome highlights progress in strengthening measurement capabilities that support industry, trade, and public welfare. NMISA remains committed to advancing national priorities by providing reliable metrology services that enable compliance, drive innovation, and contribute to sustainable development.



4.3.1 Report on NMISA's contribution to the DTIC's Strategic Interventions

DTIC CORE OUTPUTS	NMISA OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGET 2024/25	ACTUAL ACHIEVEMENT	DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT FOR 2024/25	COMMENTS ON DEVIATION
Job training programmes	Create at least 45 sustainable jobs by securing the funding to employ additional scientists and/or engineers in fields relevant to metrology and its applications (Can be increased to account for additional support staff urgently needed)	Number of scientists and/or engineers permanently appointed	Secure the funding to appoint scientists and/or engineers beyond the current budget allowance	NMISA engaged the DTIC for additional funding assistance, a portion of which is to be used to fill key vacancies for scientists	NMISA has indicated that up to 45 additional scientists/ engineers can be accommodated if funded through DTIC interventions; funding not yet secured	Continued engagement with the DTIC for additional funding

DTIC CORE OUTPUTS	NMISA OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGET 2024/25	ACTUAL ACHIEVEMENT	DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT FOR 2024/25	COMMENTS ON DEVIATION
Support infrastructure investment	Support the implementation of the Just Energy Transition Investment Plan (JET-IP) by providing precise measurement services for carbon emissions to assist South African Industries (particularly manufacturing and agriculture) in reducing, quantifying and/or validating their carbon footprint. This will ensure compliance with climate-related trade measures, such as the carbon border adjustment mechanism (CBAM), which makes South Africa more attractive for foreign investment	Support energy-efficiency standards and/or regulations for lighting products by establishing a fully operational, accredited measurement facility for energy efficient lighting, achieved through securing grant funding *(Measurement science and technology support for energy efficient technologies to aid Minimum Energy Performance Standards [MEPS])*	Secure the necessary financial resources to establish measurement services for energy efficient lighting products (LEDs)	None	Due to staff resignations the accreditation of the LED Laboratory was postponed	Recruitment of human resources and securing financial resources
Greening the economy		New/improved measurement capabilities delivered for green industrialisation, including green hydrogen and other energy sources that reduce the carbon footprint *(Measurement traceability provided for greening of coal extraction, greenhouse gas (GHG) emissions, and cleaner hydrogen production)*	Secure collaboration agreement(s) to support development of measurement capabilities for green industrialisation	A collaborative agreement was discussed but not yet concluded. A meeting between NMISA, Department of Mineral Resources and Energy (DMPR) and the IAEA was held to discuss IAEA-sponsored projects. The project is "INT7020: Developing capacity for the wider use of stable isotopes technique for source attribution of GHGs in the atmosphere." The objective is to strengthen global capabilities in accurate measurements of GHG emissions utilising stable isotope techniques. Methane is the first greenhouse gas to be addressed and will be followed by carbon dioxide. Reliable measurements in this space will inform stakeholders and regulators on the effectiveness of South Africa's decarbonisation strategies	Progress was made towards establishing a collaborative agreement through interactions with key stakeholders	Work towards contributing to this international project will continue in 2025/26

DTIC CORE OUTPUTS	NMISA OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGET 2024/25	ACTUAL ACHIEVEMENT	DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT FOR 2024/25	COMMENTS ON DEVIATION
Beneficiation of critical minerals	Support the DTIC/ DMRP Regional Critical Minerals (RCM) Strategy Framework	Number of service/research collaboration agreements (of value ≥R100k) with key clients/stakeholders to enhance the local characterisation of critical minerals by providing high-accuracy analytical techniques and primary methods. Specific targets will be defined in more detail as these agreements are established *(Measurement traceability for gold fingerprinting, platinum group minerals (quality control for export), electric vehicle (EV) battery composition)*	Secure 1 service/ research collaboration agreement	The development of a collaboration agreement with a national mineral research organisation was in progress but had not been concluded by the close of the financial year	1	The collaboration agreement will be concluded during 2025/26
Strengthen Master Plans	NMISA to work with the DTIC to partner with investors (through an incentive scheme) to provide (measurement solutions) metrological services locally	Integrate metrology support services (as part of the larger Technical Infrastructure framework) during each Master Plan review	Participate in the DTIC review of the Cannabis Master Plan	During 2024/25, NMISA participated in the Cannabis Master Plan review through a working group composed of SABS, SANAS, NRCS and NMISA, convened by the DTIC. Insights, developments and programmes into the Master Plan were provided	None	None
Support government procurement of locally manufactured goods and services	Support the DTIC objective of increasing localisation by 30 % in both public and private sectors, by providing support services to SMMEs to enhance their ability to compete in the local market	Number of SMMEs trained or supported by measurement services offered by NMISA	**15**	32 achieved in 2024/25	17 (More services offered to SMMEs in Q3)	None

DTIC CORE OUTPUTS	NMISA OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGET 2024/25	ACTUAL ACHIEVEMENT	DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT FOR 2024/25	COMMENTS ON DEVIATION
Export focus	Support the implementation of the AfCFTA to increase SA exports to the rest of the continent by hosting events for the purpose of facilitating harmonisation of metrology systems	Number of international visitors hosted	**10**	47 international visitors in 2024/25	37 (International visitors sponsored by Physikalisch Technische Bundesanstalt (PTB) for training in Q4)	None
Job training programmes (Opportunities for youth)	Sustain and enhance NMISA's Human Capital Development (HCD) Programme by securing funding to host interns, thereby providing work experience to young graduates	Number of in-service interns or trainees hosted	**6**	5	-1 (The recruitment process for the 6th intern was still in progress at the close of the financial year)	The internship is at screening stage
Job training programmes (Opportunities for SMMEs)	Emerging producers of essential oils, cannabis products, and other commodities supported with measurement and/or training services to enhance the quality of their products	Number of emerging producers supported with measurement and/or training services	**5**	2 farmers supported	-3 (Less services requested by emerging producers)	Marketing initiatives focusing on emerging producers to be undertaken
Increase investment in underserved areas	Provide measurement and/or training services to firms/SOEs within SEZs, enabling them to meet the performance and safety requirements of standards and regulations which are essential for competing in the market	Number of new SOEs and/or companies within SEZs and/or in industrial parks serviced by NMISA	**5**	0	-5 (No service requests from new SOEs/ companies within SEZs or in industrial parks)	Stakeholder engagements within SEZs are underway to extend NMISA's reach and address metrology support needs

DTIC CORE OUTPUTS	NMISA OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGET 2024/25	ACTUAL ACHIEVEMENT	DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT FOR 2024/25	COMMENTS ON DEVIATION
Export focus	Support the implementation of the AfCFTA agreement by providing metrology services and products to African countries, contributing to harmonisation of metrology systems for enhanced trade facilitation and industrial cooperation across the continent	Number of African countries contracting NMISA's metrology services and products annually	**5**	13 (Malawi, Ethiopia, Mozambique, Namibia, Tanzania, Uganda, Kenya, Burundi, South Sudan, Ghana, Angola, Zimbabwe, Egypt)	8 (Higher demand for training services during the reporting period)	None
		Number of ILCs and PTSs organised and completed within AFRIMETS	**2**	9	7	None
		Percentage of metrological services offered by NMISA that have been reviewed and approved within the CIPM Mutual Recognition Arrangement and published as Calibration and Measurement Capabilities (CMCs) in the international BIPM Key Comparison Database (KCDB)	**87 %**	91 %	4 %	None

DTIC CORE OUTPUTS	NMISA OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGET 2024/25	ACTUAL ACHIEVEMENT	DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT FOR 2024/25	COMMENTS ON DEVIATION
Investment in innovation and commercialisation of technologies	Invest in the digital transformation of metrology in line with global developments to support industrial digitalisation	Number of new/improved digital solutions implemented to increase operational efficiency and/or improve client experiences	**1**	2	1 (In addition to the planned development of a digital environmental monitoring system, it was necessary to develop a mini software tool that restores and enhances the functionality of existing spreadsheet-based dosimetry tools compromised by recent platform updates)	None
		Develop and implement digital calibration certificates (DCCs)	A feasibility study for the development of DCCs concluded	The feasibility study for the development of digital calibration certificates was delivered	None	Report number: NMISA-24-00078
		Implement a government backed credit system for funding that can be redeemed for services. This digital platform will provide SMMEs with easy, affordable access to metrology and other quality assurance services, resources, and tools to help them meet global quality and measurement standards	Garner stakeholder support for a SMME credit system	This project was placed on hold due to resource constraints	Not undertaken due to a lack of capacity	None

5 REVENUE COLLECTION

Table 4: Sources of revenue and collection recognised

SOURCES OF REVENUE	2024/25			2023/24		
	ESTIMATE R'000	ACTUAL AMOUNT R'000	(OVER)/ UNDER COLLECTION R'000	ESTIMATE R'000	ACTUAL AMOUNT R'000	(OVER)/ UNDER COLLECTION R'000
Transfer revenue	177 312	177 312	-	152 722	152 722	-
Rendering of services	24 680	26 985	(2 305)	22 436	28 444	(6 008)
Interest received	4 000	8 307	(4 307)	12 300	11 939	361
Other income	-	918	(918)	-	-	-
Gain on exchange difference	-	47	(47)	-	-	-
Total	**205 992**	**213 569**	**(7 578)**	**187 458**	**193 105**	**(5 647)**

6 CAPITAL INVESTMENT

NMISA has no infrastructure projects.

PART C
GOVERNANCE

1 INTRODUCTION

NMISA was established in terms of the Measurement Units and Measurement Standards Act, (Act No.18 of 2006). It is a Schedule 3A public entity, governed in terms of the Public Finance Management Act. NMISA has adopted the King IV Report on Corporate Governance for South Africa, 2016 (King IV) as a guiding principle for good governance in conjunction with applicable laws and regulations. NMISA's own policies promote the best practices, processes and systems that enable the Board to execute its governance responsibilities, whilst supporting accountability.

Corporate governance is underpinned by effective leadership, oversight, and management responsibility, underscored by high ethical standards. This results in governance outcomes inclusive of effective controls and an ethical culture.

The King IV principles foster reporting that focuses on the impact of the organisation on the economy, environment, and social aspects. The NMISA's Annual Report includes statements on the effectiveness of internal controls and the governance of risk; remuneration; compliance with applicable laws and regulations; ethics codes; and the NMISA's response to social needs. These are also in line with the National Treasury Guidelines on reporting.

Parliament, the Executive, and the Accounting Authority of the public entity are responsible for corporate governance.

2 PORTFOLIO COMMITTEE

The Parliamentary Portfolio Committee on Trade, Industry and Competition exercises oversight over NMISA's performance in pursuit of enhancing economic growth. The Standing Committee on Public Accounts (SCOPA) reviews the Annual Financial Statements, and the audit report of the external auditors, Nexia SAB&T.

NMISA appeared before the Parliamentary Portfolio Committee in August 2024, where the Chairperson of the Board and the acting CEO highlighted the annual performance plans and budget of the entity. The committee engaged with the entity's representatives, highlighting technical infrastructure issues, the transformation agenda and developmental objectives.

3 EXECUTIVE AUTHORITY

The Minister of Trade, Industry and Competition, is the Executive Authority and is accountable for NMISA's activities as defined in Section 1(c) and (d) of the PFMA, (Act No. 1 of 1999).

NMISA complied timeously with all reporting requirements of the PFMA, Treasury Regulations, and the Shareholder Compliance Schedule through the submission of quarterly reports, management accounts, the Annual Financial Statements, and strategic and annual performance plans.

Table 5: Reports submitted to the Shareholder

REPORT	DATE
NMISA Quarter 1 Report	30 April 2024
NMISA Quarter 2 Report	31 July 2024
NMISA Quarter 3 Report	31 October 2024
NMISA Quarter 4 Report	30 April 2025
NMISA Annual Performance Plan 2024/25–2026/27	31 March 2025
Strategic Plan 2024/25–2028/29	31 January 2024

The Board, through its Chairperson, held briefing sessions with the Minister on a regular basis to provide updates on matters of governance and financial issues which affect NMISA in exercising its mandate.

4 THE ACCOUNTING AUTHORITY/BOARD

4.1 INTRODUCTION

The NMISA Board is appointed by the Minister of Trade, Industry and Competition in terms of Section 10(1)(a)(b)(c) of the Measurement Units and Measurement Standards Act (the Act). The Board serves as NMISA's Accounting Authority as declared in Section 49(2)(a) of the PFMA. The Board is principally responsible for strategic direction, oversight of the organisation and for setting the tone for ethical and effective leadership. NMISA remains committed to the principles of openness, integrity, and accountability. It continually reviews its processes and practices to ensure compliance with legal obligations and adherence to good corporate governance.

The primary objective of corporate governance is to ensure that the Board and those who manage NMISA's day-to-day operations, carry out their responsibilities faithfully and effectively – placing the interests of the organisation ahead of their own.

As the Accounting Authority, the Board is accountable to the Executive Authority and is ultimately responsible for the implementation of sound corporate governance practices in accordance with King IV. The Board delegates authority through a delegation matrix to its committees and to various structures to ensure efficiency.

4.2 THE ROLE OF THE BOARD

Within the functions and powers conferred on the Board and its committees by the Act and the PFMA, the Board is required to:

- Ensure that NMISA exercises its function in terms of the Act, by maintaining and disseminating South Africa's national measurement standards, and ensuring accurate and internationally recognised measurements in various fields
- Approve NMISA's Strategic Plan, Annual Performance Plan and Annual Financial Statements; monitor the implementation of the plans; and approve all budgets
- Ensure that adequate processes are in place for budget planning and allocation to advance the NMISA's mandate, which includes overseeing its socio-economic programmes
- Achieve its strategic objectives by approving and directing NMISA's overall strategy and associated operational objectives
- Ensure that NMISA can achieve its statutory objectives
- Act with fidelity, honesty, integrity, and in the best interests of the entity in managing its financial affairs
- Determine policy processes to ensure the integrity of NMISA's risk management and internal controls
- Provide decisive and effective leadership on key matters of strategic direction by bringing an independent, informed and effective view
- Promote an ethical culture through regularly reviewed policies, and advocate for uncompromising integrity and a transparent environment
- Satisfy itself that NMISA is governed effectively in accordance with corporate governance best practices, appropriate and relevant codes and standards and internal control systems
- Ensure an effective control environment and compliance with applicable laws and regulations
- Ensure the integrity of the statutory reports developed, in line with the PFMA, which includes reporting on the effectiveness of the system of internal controls.

4.3 BOARD TERMS OF REFERENCE

The Board is committed to executing its duties in accordance with the principles espoused in King IV. As such, the Board has developed a Board Charter which provides the terms of reference that regulate Board parameters, ensure good corporate governance in all dealings, and outline the roles and responsibilities of the Board.

4.4 COMPOSITION OF THE BOARD

QUALIFICATION	AREA OF EXPERTISE	BOARD DIRECTORSHIPS	OTHER COMMITTEES OR TASK TEAMS	NO. OF MEETINGS ATTENDED
Dr Precious Motshwene Chairperson of the Board and Non-Executive Director Appointed: 1 October 2023–30 September 2028 Appointed by: Minister of Trade, Industry and Competition				
• PhD in Biochemistry • MSc in Molecular and Cell Biology • BSc Honours Biochemistry	• Biochemistry • Molecular Biology • Innate Immunity • Research Ethics	• CSIR • University of Pretoria • Dr Gugu Consulting (Pty) Ltd • GF Brands (Pty) Ltd	• Human Resource and Remuneration Committee • Social and Ethics Committee	18

Ms Sara Prins Non-Executive Director Appointed: 1 October 2023–30 September 2028 Appointed by: Minister of Trade, Industry and Competition				
• MSc in Metallurgical Engineering/ Material Science • BSc Honours in Metallurgy • BSc in Chemistry and Applied Mathematics	• Strategy • Business Informatics and Analytics • Financial Management • Budgeting • Laboratory Management Accreditation	UIS Microbiology	• Human Resource and Remuneration Committee • Technical Committee	20

Dr Alufelwi Tshavhungwe Non-Executive Director Appointed: 1 October 2023–30 September 2028 Appointed by: Minister of Trade, Industry and Competition				
• PhD in Chemistry • MSc in Chemistry • BSc Honors in Chemistry • BSc Majoring in Physics and Chemistry • University Education Diploma – Majoring in Mathematics Methodology and Physical Science Methodology	• Public Service • Academia • Chemistry • Nanomaterials/ Nanotechnology	-	• Audit and Risk Committee • Ad hoc Tender Committee	22

QUALIFICATION	AREA OF EXPERTISE	BOARD DIRECTORSHIPS	OTHER COMMITTEES OR TASK TEAMS	NO. OF MEETINGS ATTENDED
Prof. Lorna Holtman Non-Executive Director Appointed: 1 October 2023–30 September 2028 Appointed by: Minister of Trade, Industry and Competition				
• PhD in Science Education • MPhil in Science Education • Bachelor of Education (Honours) • Higher Diploma in Education • BSc Honours in Zoology • BSc in Zoology and Botany	• Research • Research Capacity Development • Curriculum Specialist in Science and Mathematics	• Hoeda Agritech (Pty) Ltd (Director), RSA • YLEET NPO (CEO/Director), RSA • Mozisha International Holdings, Delaware, USA (Board member)	• Social and Ethics Committee • Ad hoc Tender Committee	14

Dr Wynand Louw Non-Executive Director Appointed: 1 October 2023–30 September 2028 Appointed by: Minister of Trade, Industry and Competition				
• PhD in Physics • MSc in Physics • BSc Honours in Physics • BSc Physics and Chemistry	• Material Characterisation • Metre Convention affairs and Metrology in general	CIPM (President)	• Technical Committee • Social and Ethics Committee • Ad hoc Tender Committee	17

Ms Babalwa Songongo Non-Executive Director Appointed: 1 October 2023–30 September 2028 Appointed by: Minister of Trade, Industry and Competition				
• CA (SA) • BCom Honours in Accounting • BCom Accounting	• Financial Management Reporting • Budget analysis	• Preferred Provider Negotiators • Zonwabise Resorts Holdings	• Audit and Risk Committee • Social and Ethics Committee	29

Prof. Andy Buffler Non-Executive Director Appointed: 1 October 2023–30 September 2028 Appointed by: Minister of Trade, Industry and Competition				
• PhD in Experimental Nuclear Physics • MSc in Nuclear Physics • PGCE • BSc Honours • BSc in Physics	Radiation metrology and applications measurement uncertainty and the SI	MeASURe	• Human Resource and Remuneration Committee • Technical Committee	17

QUALIFICATION	AREA OF EXPERTISE	BOARD DIRECTORSHIPS	OTHER COMMITTEES OR TASK TEAMS	NO. OF MEETINGS ATTENDED
Ms Senamile Masango* Non-Executive Director Appointed: 1 October 2023–30 September 2028 Appointed by: Minister of Trade, Industry and Competition				
• Masters in Nuclear Physics (cum laude) • Honours in Nuclear Physics • BSc in Physics and Electronics • PGD in Management, Energy Leadership • Diploma in Project Management • Certificate in Detector and Instrumentation Technology	• Energy Expert • Nuclear Science • Social Entrepreneur • Coding • Cybersecurity • Project Management • Research and Development • Innovation • Digital Transformation	• Necsa • Moses Kotane Institute • Senamile Masango Foundation • Umngeni uThukela Water • Mphathisithele Consulting (Pty) Ltd	• Human Resource and Remuneration Committee • Technical Committee	12
Dr James Tshilongo Non-Executive Director Appointed: 1 October 2023–30 September 2028 Appointed by: Minister of Trade, Industry and Competition				
• PhD in Science Measurement/ Chemistry • MSc in Chemistry • BSc Honours in Chemistry • BSc • Advanced Project Management Certificate • Project Management Certificate	Science of Measurement and Minerals	• South African Environmental Observation Network • Council member of National Association for Clean Air (NACA) • Council member for EFTEON Advisory Panel	• Audit and Risk Committee • Technical Committee • Ad hoc Tender Committee	24

* Deceased February 2025

BOARD	NO. OF MEETINGS HELD	NO. OF MEETINGS ATTENDED	NO. OF SPECIAL MEETINGS ATTENDED	NAMES OF MEMBERS
NMISA Board Meetings	6	4/4	2/2	Dr Precious Motshwene (Chairperson)
		4/4	2/2	Ms Sara Prins
		4/4	2/2	Dr Alufelwi Tshavhungwe
		4/4	2/2	Prof. Lorna Holtman
		4/4	1/2	Dr Wynand Louw
		4/4	2/2	Ms Babalwa Songongo
		4/4	2/2	Prof. Andy Buffler
		3/4	1/2	Ms Senamile Masango*
		4/4	2/2	Dr James Tshilongo

* Deceased February 2025

4.5 COMMITTEES OF THE BOARD

The Board appoints and is assisted by various committees in discharging its duties and responsibilities.

Each committee is chaired by a non-executive member who reports to the Board on discussions, conclusions and recommendations. The committees are governed by approved terms of reference that articulate the delegated levels of authority and responsibility. The following committees are in place:

- Audit and Risk Committee
- Social and Ethics Committee
- Human Resources and Remuneration Committee
- Technical Committee

Sub-committees:

- IT Steering Committee
- Ad hoc Tender Committee
- Other ad hoc committees – Recruitment of CEO, Recruitment of External HRRC Member, Recruitment of Senior Manager Internal Audit, Policy Workshop, Strategic Session and Risk Workshop

Table 6: Human Resource and Remuneration Committee

COMMITTEE TERM	NO. OF MEETINGS HELD	NO. OF MEETINGS ATTENDED	NAMES OF MEMBERS
From 1 October 2023	4	4/4	Ms Sara Prins (Chairperson)
		4/4	Prof. Andy Buffler
		3/4	Ms Senamile Masango*
		4/4	Dr Precious Motshwene

* Deceased February 2025

Table 7: Technical Committee

COMMITTEE TERM	NO. OF MEETINGS HELD	NO. OF MEETINGS ATTENDED	NAMES OF MEMBERS
From 1 October 2023	4	4/4	Prof. Andy Buffler (Chairperson)
		3/4	Ms Senamile Masango*
		4/4	Dr James Tshilongo
		4/4	Ms Sara Prins
		4/4	Dr Wynand Louw

* Deceased February 2025

Table 8: Social and Ethics Committee

COMMITTEE TERM	NO. OF MEETINGS HELD	NO. OF MEETINGS ATTENDED	NAMES OF MEMBERS
From 1 October 2023	4	4/4	Prof. Lorna Holtman (Chairperson)
		4/4	Dr Precious Motshwene
		4/4	Ms Babalwa Songongo
		4/4	Dr Wynand Louw

Table 9: Audit and Risk Committee

COMMITTEE TERM	NO. OF MEETINGS HELD	NO. OF MEETINGS ATTENDED	NO. OF SPECIAL MEETINGS	NAMES OF MEMBERS
From 1 October 2023	10	4/4	6/6	Ms Babalwa Songongo (Chairperson)
		4/4	6/6	Dr Alufelwi Tshavhungwe
		4/4	6/6	Dr James Tshilongo
		4/4	6/6	Ms Romeshni Govender (External ARC Member)
		4/4	6/6	Mr Zenzele Myeza (External ARC Member)
		3/4	0/6	Ms Maureen Mavunda*

* IT Steering Committee Chairperson (This reporting line to the ARC became effective from July 2024)

Table 10: IT Steering Committee

COMMITTEE TERM	NO. OF MEETINGS HELD	NO. OF MEETINGS ATTENDED	NAMES OF MEMBERS
From 1 October 2023	6	5/6	Ms Maureen Mavunda (Chairperson)
		6/6	Dr Nomathamsanqa Batyashe

Table 11: Other Ad Hoc Committee Activities/Board Sessions

COMMITTEE	NO. OF MEETINGS HELD	NO. OF MEETINGS ATTENDED	NAMES OF MEMBERS
Recruitment task team of CEO: Interview Panel	1	1	Ms Sara Prins Dr Alufelwi Tshavhungwe Ms Babalwa Songongo Prof. Andy Buffler Dr James Tshilongo
Recruitment task team for Senior Manager Internal Audit	3	3/3	Ms Babalwa Songongo
		1/3	Ms Romeshni Govender
		2/3	Mr Zenzele Myeza
Recruitment task team for External Human Resource and Remuneration Committee Member	1	1/1	Ms Sara Prins
		1/1	Dr Alufelwi Tshavhungwe
NMISA Policy Workshop	2	2/2	Dr Precious Motshwene (Chairperson)
		2/2	Ms Sara Prins
		2/2	Dr Alufelwi Tshavhungwe
		2/2	Prof. Lorna Holtman
		2/2	Dr Wynand Louw
		2/2	Ms Babalwa Songongo
		0/2	Prof. Andy Buffler
		2/2	Ms Senamile Masango*
		2/2	Dr James Tshilongo
NMISA Strategic Session and Risk Workshop	2	2/2	Dr Precious Motshwene (Chairperson)
		2/2	Ms Sara Prins
		2/2	Dr Alufelwi Tshavhungwe
		2/2	Prof. Lorna Holtman
		2/2	Dr Wynand Louw
		2/2	Ms Babalwa Songongo
		2/2	Prof. Andy Buffler
		2/2	Dr James Tshilongo
		2/2	Mr Zenzele Myeza
		2/2	Ms Romeshni Govender

* Deceased February 2025

4.6 REMUNERATION OF BOARD MEMBERS

NMISA Board members are remunerated in accordance with National Treasury determinations.

Table 12: Remuneration of Board Members

NAME	REMUNERATION R	OTHER EXPENSES*** R	TOTAL R
Dr Precious Motshwene	97 603	440	**98 043**
Ms Babalwa Songongo	113 370	-	**113 370**
Prof. Andrew Buffler	61 409	-	**61 409**
Dr Alufelwi Tshavhungwe**	-	796	**796**
Ms Sara Prins	75 580	138	**75 718**
Prof. Lorna Holtman	66 133	-	**66 133**
Dr James Tshilongo	113 370	1 484	**114 854**
Ms Senamile Masango*	42 514	-	**42 514**
Dr Wynand Louw	80 304	234	**80 538**
Ms Romeshni Govender	115 937	580	**116 517**
Mr Zenzele Myeza	124 218	1 504	**125 722**
Dr Nomathamsanqa Batyashe	27 398	-	**27 398**
Ms Maureen Mavunda	36 845	-	**36 845**
	954 681	**5 176**	**959 857**

* Deceased February 2025

** Government employee

*** Other expenses relates to reimbursements in respect of kilometres travelled

5 RISK MANAGEMENT

5.1 RISK MANAGEMENT POLICY AND STRATEGY

NMISA has an approved Risk Management Policy and Framework. Both documents are reviewed bi-annually and tabled before the Board following the Audit and Risk Committee's recommendation for approval.

5.2 RISK ASSESSMENTS

As NMISA does not currently have a Risk Management Committee, the Combined Assurance Team, which is independently chaired by Internal Audit, monitors the implementation and impact of risk mitigation strategies and provides quarterly reports to the Audit and Risk Committee (ARC). The team also tracks progress on mitigation plans, particularly for risks that fall outside the acceptable risk levels. This includes the continuous identification of emerging risks, which are brought to the attention of the Executive Committee, as well as the ARC and, where necessary, the Board.

5.3 RISK MANAGEMENT COMMITTEE

The establishment of this committee, required in terms of the Risk Management Policy, will be addressed in the 2025/26 financial year. In the interim, to facilitate the effective implementation of risk management, the Combined Assurance Team provides assurance on the effectiveness of the organisation's risk management function.

The team's application of the three lines of defence ensures that risks are continuously monitored across the organisation, and that implemented mitigation plans address identified root causes, while strengthening the internal control environment. The strategic and operational risk registers are updated quarterly to ensure that all major risks, including emerging risks, are effectively managed.

5.4 INDEPENDENT RISK MONITORING BY THE AUDIT AND RISK COMMITTEE

The ARC provides independent assurance on the effectiveness of risk mitigation strategies, ensures that stakeholder interests are protected, and confirms that risks remain within NMISA's defined tolerance and appetite levels. The ARC monitors the Risk Management Policy, Framework, and Implementation Plan. It also assesses the extent to which management has established an effective risk management culture and systems within NMISA by reviewing reports on the adequacy and overall effectiveness of the risk management function, its implementation by management, internal control findings, and related recommendations – independently confirming that appropriate corrective actions have been taken.

6 INTERNAL CONTROL UNIT

The internal control role is undertaken by Internal Audit, with oversight maintained by the Audit and Risk Committee. Further details are presented in section 7 following.

7 INTERNAL AUDIT AND AUDIT AND RISK COMMITTEES

7.1 INTERNAL AUDIT

Internal auditing is an independent and objective assurance and consulting activity that is designed to add value and improve the operations of NMISA. The function assists NMISA to accomplish its objectives by using a systematic and disciplined approach (risk-based audit approach) to evaluate and improve the effectiveness of governance, risk management and internal control processes.

Key activities and objectives of Internal Audit

Internal Audit implemented its revised Annual Risk-Based Audit Plan for 2024/25 as part of a three-year rolling plan, after consultation with management and approval by the ARC. All audits and other work of the internal audit function were conducted in accordance with International Standards for the Professional Practice of Internal Audit, as issued by the Institute of Internal Auditors (IIA).

7.2 AUDIT AND RISK COMMITTEE

The Audit and Risk Committee is established in compliance with sections 76(4) (d) and 77 of the Public Finance Management Act (PFMA Act 1 of 1999) and Treasury Regulations 27.1. The responsibilities of the committee are outlined in its terms of reference, while its activities are set out in an annual work plan.

Summary of audit work done

Key activities of the Audit and Risk Committee during the reporting period 2024/25 were as follows:

- Reviewed Audit and Risk Committee terms of reference and recommended these to the Board for approval
- Approved Audit and Risk Committees' Annual Work Plan
- Performed the annual assessment of the performance of the committee, the CFO and its function, the Internal Audit function and the External Auditor function
- Recommended for approval, the Audited Annual Financial Statements (1st and 2nd draft)
- Recommended for approval, the Annual Budget and Annual Report for 2024/25
- Reviewed Annual Performance Plan
- Approved the annual confirmation of Internal Audit Independence
- Approved the External Auditor's engagement letter, audit strategy and audit plan
- Reviewed and approved combined assurance reports
- Oversaw and recommended the recruitment process for External Auditors
- Reviewed and approved IT Steering Committee reports.

Table 13: Audit and Risk Committee members and meeting attendance

NAME	QUALIFICATIONS	INTERNAL OR EXTERNAL	IF INTERNAL, POSITION IN THE PUBLIC ENTITY	DATE APPOINTED	DATE RESIGNED	NO. OF MEETINGS ATTENDED
Ms Babalwa Songongo	• CA (SA) • BCom Honours in Accounting • BCom Accounting	External	N/A	1 October 2023	N/A	10
Dr James Tshilongo	• PhD in Science of Measurement/Chemistry • MSc in Chemistry • BSc Honours in Chemistry • BSc • Advanced Project Management Certificate • Project Management Certificate	External	N/A	1 October 2023	N/A	10
Dr Alufelwi Tshavhungwe	• PhD in Chemistry • MSc in Chemistry • BSc Honours in Chemistry • BSc Majoring in Physics and Chemistry • University Education Diploma Majoring in Mathematics Methodology and Physical Science Methodology	External	N/A	1 October 2023	N/A	10
Ms Romeshni Govender	• CRMA • CCSA • CIA • CA(SA) • Postgraduate Diploma in Accounting • Bachelor of Accounting	External	N/A	Re-appointed: November 2024	N/A	10
Mr Zenzele Myeza	• Chartered Director (SA) • BCom Accounting and Auditing • MBA • Certificate in Corporate Governance • Certificate in Aviation Management • Master Practitioner in Real Estate	External	N/A	Re-appointed: November 2024	N/A	10

8 COMPLIANCE WITH LAWS AND REGULATIONS

NMISA is committed to conducting its operations in full compliance with all applicable laws, regulations, and standards. The organisation upholds the highest standards of ethical conduct and regulatory adherence as an integral part of its governance and operational ethos.

Occupational health and safety, and environmental legal compliance are supported by the established system that is certified against the requirements of international standards of ISO 45001:2018 and ISO 14001:2015, which are periodically audited by reputable auditing law firms.

In line with the provisions of the Public Finance Management Act (PFMA), the Board assumes ultimate oversight responsibility for ensuring organisational compliance. This includes monitoring the effectiveness of compliance measures and fostering a culture of accountability and integrity throughout NMISA.

Executive Management is accountable for implementing robust compliance processes and internal controls to mitigate compliance-related risks. These efforts are aligned with NMISA's overarching Risk Management Framework, which guides the identification, assessment, and treatment of legal compliance risks.

The Internal Audit function conducts regular assessments of NMISA's legal compliance posture, ensuring that control measures remain effective and responsive to the evolving regulatory landscape. The results of these audits are reported to the Audit and Risk Committee (ARC), which in turn escalates material legal compliance issues to the Board for further oversight and action.

This structured approach ensures that legal compliance is embedded in NMISA's strategic objectives and daily operations, reinforcing its mandate as a public entity committed to good governance and responsible corporate citizenship.

9 FRAUD AND CORRUPTION

NMISA does not currently have a Fraud Prevention Plan in place. However, the organisation has an approved Fraud Prevention and Whistleblowing Policy, as well as an Ethics and Code of Conduct Policy. The Fraud Prevention Plan is currently in draft stage and will be presented to the relevant structures for approval before the end of the 2025/26 financial year.

NMISA commemorated International Fraud Awareness Week from 17–23 November 2024, raising awareness on fraudulent activities and encouraging employees to report any suspicious activities to the dedicated Fraud Hotline platform. The NMISA Fraud Hotline is managed externally by an independent service provider, to ensure the confidentiality of reports received and to protect the identity of whistleblowers.

10 MINIMISING CONFLICT OF INTEREST

All NMISA staff members declare their interests within the first quarter of each financial year. Committee Members involved in the tender bidding process declare their interests prior to each meeting, i.e. Bid Specification, Evaluation and Adjudication Committees. A detailed report on the outcomes of the Declarations of Interest is submitted to both Management and the ARC, in that Management is accountable for ensuring that declarations are accurately completed, timeously submitted, and properly recorded and filed. Whereas, the ARC provides independent oversight by reviewing these disclosures to confirm that any identified conflicts of interest are appropriately managed and do not undermine governance within the organisation.

11 CODE OF CONDUCT

NMISA is committed to a policy of fairness, transparency, honesty, impartiality, objectivity, credibility, integrity and, above all, accountability, in the conducting of all its business affairs, both inside and outside the organisation. This commitment is based on a fundamental belief in honest, fair, and legal conduct in all business activities.

A register of declarations of interest for NMISA's management is kept and updated annually, providing an opportunity to declare changes, or interests that affect the day's proceedings at all Board, Committee and Executive Committee meetings. In addition to the director's personal interests, directors are also required to fully disclose the interests of their spouses, partners, or close family members.

A director, as an individual, is disqualified, by his/her office in NMISA, from contracting with NMISA. However, any organisation he/she may represent is not, in like manner, disqualified.

Employees are expected to share this commitment to high moral, ethical and legal standards.

12 SAFETY, HEALTH AND ENVIRONMENTAL ISSUES

NMISA's Safety, Health and Environmental procedures include emergency response components that provide guidelines for promoting a safe and healthy working environment for all staff, ensuring mitigation and prevention of potential hazards, occupational injuries, and illness, with timeous response to emergency situations including possible loss and environmental degradation. NMISA's senior management provides the necessary resources to conduct medical surveillance, legal compliance audits and periodic third-party external audits to ensure compliance with applicable legal and other requirements, such as the Occupational Health and Safety Act, (Act No. 85 of 1993) and the National Environmental Management Act, (Act No. 107 of 1998). NMISA maintains ongoing certification and accreditation to provide assurance that the occupational health, safety, and environmental systems are well maintained and continuously improved.

13 COMPANY/BOARD SECRETARY

The Company Secretary oversees corporate governance and is responsible for assisting the Board to ensure that it adheres to the principles of sound corporate governance.

The Company Secretary provides support to the Board and its committees to ensure that they discharge their duties in line with applicable laws, regulations, codes and best practice.

The Board is responsible for the appointment of the Company Secretary and ensuring that the individual has the requisite level of knowledge and experience to discharge their duties. The Company Secretary also serves as a direct channel of communication between the Board, its chairperson, shareholder, management, and other stakeholders.

During the period under review, Busisiwe Mkhize fulfilled the role of Company Secretary.

14 SOCIAL RESPONSIBILITY

NMISA undertook several community outreach activities as part of its ongoing commitment to social responsibility. Although the planned partnership with a school for children with disabilities is still in the preliminary stages of identifying a suitable institution and establishing contact, NMISA remained engaged in sharing knowledge and raising awareness of metrology through targeted outreach initiatives.

Three outreach activities were conducted to promote scientific careers and measurement awareness among key groups. In Mahikeng, NMISA participated in a university stakeholder event to introduce final-year and postgraduate students to career paths in measurement science, highlighting its relevance to industry and society. Two additional outreach activities were held in Sekgosese, Limpopo, and Bushbuckridge, Mpumalanga, targeting rural SMMEs. These engagements focused on the importance of accurate measurements for product quality, safety, and market competitiveness, and supported national efforts to build inclusive economic participation.

Through these initiatives, NMISA contributed to skills development and economic awareness in under-served communities, aligning with its broader mandate to foster a measurement-aware society and support national development objectives.

15 AUDIT AND RISK COMMITTEE REPORT

The Audit and Risk Committee (ARC) herewith presents its report for the financial year ended 31 March 2025.

15.1 LEGISLATIVE REQUIREMENTS

The ARC is constituted as required by Section 76(4) and 77 of the Public Finance Management Act (PFMA), (No. 1 of 1999), as amended by Act No. 29 of 1999, read together with Treasury Regulation 27.2.7.

15.2 ARC RESPONSIBILITY

The ARC reports that it has operated within its approved terms of reference and complied with all governing legislations and responsibilities arising from Section 38(1)(a)(ii) of the PFMA and Treasury Regulation 3.1.13. The ARC also reports that it has adopted appropriate formal terms of reference and has regulated its affairs in compliance with this charter and has discharged all its responsibilities as contained therein.

According to its terms of reference, the committee comprises a minimum of five members, three of whom are independent non-executive directors and two members who are independent external members from the Board. During the year under review, ten ARC meetings were held. The Acting Chief Executive Officer, Chief Financial Officer, Internal Audit Manager, other executives and the external auditor regularly attended meetings by invitation.

15.3 THE EFFECTIVENESS OF INTERNAL CONTROL

The ARC has reviewed reports from various assurance providers, internal auditors, external auditors, the risk management function and the combined assurance team. Overall, the committee noted that the system of internal control for the period under review, was considered to have been partially adequate and effective. However, there are areas that generally require improvement such as strengthening of the Finance and Risk Management functions, Asset Management and Supply Chain Management (SCM) internal controls, IT governance and cyber security controls.

Internal audit work completed during the year under review:

- Annual Financial Statements Review
- Audit of Performance Information Q1–Q4
- Follow-up previously reported Internal Audit findings Q1–Q4
- Project Management Audit
- Change Management Audit
- Asset Verification Audit
- Business Continuity Disaster Recovery Audit
- Employee Verification Audit
- Marketing, Communication and Stakeholder Management Audit

Investigations:

- Preliminary investigation audit into Supply Chain Management procurements and non-compliance with policies.

The ARC is responsible for the appointment, compensation, retention, and oversight of the Internal Audit Senior Manager. The Internal Audit Function operates within the scope of the Internal Audit Charter approved by the ARC. Internal Audit reports functionally to the ARC and administratively to the Accounting Officer. During the year under review, the senior manager of Internal Audit resigned, and an acting senior manager was appointed by the Board while the recruitment of the replacement for the senior manager was under way.

In the 2024/25 financial year, the ARC approved a risk-based, three-year rolling Internal Audit Plan. The committee is reasonably satisfied with the effectiveness and independence of the Internal Audit Function.

The ARC is satisfied with the content and quality of management and quarterly reports prepared and issued during the year under review. The ARC also reviewed and commented on the Annual Financial Statements and reports on performance information which were submitted to the external auditors by 30 May 2025.

15.4 CORPORATE GOVERNANCE

Several of the entity's policies were reviewed in a policy workshop held in September 2024 to ensure that the policies remain relevant, effective and compliant with changing laws and regulations. The committee noted with concern the instability in the CEO position, in that a permanent CEO has not been appointed since the former CEO's contract ended on 31 August 2023 and the resultant impact to governance. The committee also noted and made recommendations regarding the increase in labour matters and the effectiveness in dealing with such.

15.3 IN-YEAR MANAGEMENT AND MONTHLY/QUARTERLY REPORT

NMISA has reported monthly and quarterly to National Treasury, as required by the PFMA. The purpose of the monthly reporting is for internal progress monitoring of performance information, in preparation for quarterly reporting. Quarterly reports are reviewed internally for quality checks, submitted to sub-committees of the Board and approved by the Board prior to submission to the DTIC. The approved reports are submitted to shareholders through the Department of Planning, Monitoring and Evaluation system.

15.4 EVALUATION OF FINANCIAL STATEMENTS

The ARC has reviewed the Annual Financial Statements. Its review focused on the following:

- That the Annual Financial Statements are complete, consistent with prescribed accounting practices and information known to the committee obtained assurance from Management and Internal Audit with respect to the completeness and accuracy of the Annual Financial Statements
- Significant financial reporting judgements and estimates contained in the Annual Financial Statements
- Clarity and completeness of disclosures and whether disclosures made were set properly in context
- Quality and acceptability of, and any changes in, accounting policies and practices
- Compliance with accounting standards and legal requirements
- The basis for the going concern assumption, including any financial sustainability risks and issues.

The ARC is comfortable that the Annual Financial Statements have been prepared in terms of Generally Recognised Accounting Practice (GRAP) and the PFMA.

15.5 AUDITOR'S REPORT

The committee has, on a quarterly basis, met with the independent Auditors to ensure that there are no unresolved issues that emanated from the audit. The committee is of the view that the audited financial statements be accepted and read in conjunction with the report of the external auditors. The committee further confirms that it has been actively involved with the audit process.

The external audit function is performed by Nexia SAB&T, which is independent of NMISA. The ARC acknowledges the diligence and cooperation of the external audit team.

We would like to express our appreciation to the Board for their leadership and support, as well as the Acting CEO, CFO, Internal Audit and Management for the commitment and achievement of an unqualified audit opinion.

Ms Babalwa Songongo
Chairperson of the Audit Committee

31 August 2025

16 B-BBEE COMPLIANCE PERFORMANCE INFORMATION

The following table has been completed in compliance with the Broad-based Black Economic Empowerment (B-BBEE) requirements of the B-BBEE Act of 2013, as determined by the Department of Trade, Industry and Competition.

Table 14: B-BBEE compliance performance

CRITERIA	RESPONSE YES/NO	DISCUSSION
Determining qualification criteria for the issuing of licences, concessions or other authorisations in respect of economic activity in terms of any law?	N/A	Not within NMISA mandate
Developing and implementing a preferential procurement policy?	Yes	NMISA utilises the Preferential Procurement Policy framework in determining winning bidders for goods and services above R30 000
Determining qualification criteria for the sale of state-owned enterprises?	N/A	Not within the NMISA mandate
Developing criteria for entering into partnerships with the private sector?	N/A	Not within the NMISA mandate
Determining criteria for the awarding of incentives, grants and investment schemes in support of Broad Based Black Economic Empowerment?	N/A	Not within the NMISA mandate

PART D
HUMAN RESOURCE MANAGEMENT

1 OVERVIEW OF HUMAN RESOURCE MATTERS

As a strategic enabler, the Human Resources (HR) Department plays a central role in supporting NMISA's ability to deliver on its legislative mandate through effective workforce planning, talent retention, organisational design, and skills development. Despite the constraints experienced during the 2024/25 financial year, the organisation remained focused on its strategic objectives and achieved an overall performance rating of 63 %. This outcome reflects the strength and commitment of a skilled workforce that has been developed and nurtured over time.

The period under review was marked by several challenges, most notably in staff retention. A turnover rate of 16 % was recorded, with a significant proportion attributed to the loss of technical expertise in metrology. Several leadership positions, including that of the Chief Executive Officer and other senior roles, remained vacant. To mitigate the impact, recruitment efforts were prioritised for strategically significant positions, even as the moratorium on new appointments remained in place to ensure alignment with budgetary constraints.

Although NMISA continues to offer meaningful, high-impact work and competitive recognition practices, financial constraints limited the organisation's ability to implement short- and long-term incentive payments during the reporting period. The salary review and wage negotiation processes extended longer than anticipated, requiring the intervention of a mediator to facilitate a mutually agreeable outcome.

The ongoing fiscal limitations have affected staff morale and contributed to the departure of skilled professionals. In response, the HR Department intensified efforts to support employee engagement through non-financial means. A comprehensive employee retention and engagement survey was conducted, complemented by feedback from exit interviews. The findings are currently under analysis to inform a revised and targeted retention strategy.

NMISA maintained its commitment to staff development through the continued implementation of its Human Capital Development (HCD) Programme. Employees participated in training aligned with personal development plans, including academic advancement, skills-based courses, on-the-job learning, and industry conferences. Upskilling and reskilling were particularly important to support operational continuity in areas affected by high turnover or internal redeployment.

2 HR PRIORITIES FOR THE YEAR AND THEIR IMPACT

During the 2024/25 financial year, the HR Department focused on maintaining organisational stability through targeted recruitment, employee relations management, wage negotiations, and continued training and development. In parallel, the department actively reviewed its internal policies and procedures to ensure continued alignment with current legislation and best practices.

A key consideration for NMISA during this period was strengthening its workforce planning processes in line with operational priorities. While no appointments were finalised, structured recruitment activities were initiated for strategically important roles such as the Senior Manager: Internal Audit, and Manager: Supply Chain and Logistics. These efforts formed part of a broader plan to safeguard service continuity and ensure core organisational capabilities. To accelerate progress and reduce inefficiencies, NMISA resolved to move away from the previously manual, time-consuming shortlisting process and began implementing a more streamlined, automated approach to improve turnaround times.

Aligned with these efforts to reinforce organisational capability, the HR Department also focused on stabilising the internal environment through proactive employee relations management. Disciplinary matters carried over from the previous year were concluded during the period. The department provided support and guidance throughout these processes to ensure fair outcomes and procedural compliance.

The HR Department also facilitated a wage negotiation process, which required the engagement of a mediator to navigate challenges that emerged during discussions. The negotiation team concluded a wage settlement that included adjusted cost-of-living increases and a once-off gratuity payment for employees on salary levels 5 to 12 (there are currently no employees on levels 1 to 4). Other matters raised during the process, including career progression and the placement of bursars into permanent positions upon completion of their workback obligations, were deferred for further consideration in the next financial year.

NMISA continued training and development of its employees through the Human Capital Development (HCD) Programme. Employees and managers participated in training aligned with their development plans, particularly focusing on critical skills, especially for those transferred to new areas as part of their reskilling efforts. Training to ensure employee health and safety, as well as other compliance-related training, was given priority.

3 WORKFORCE PLANNING FRAMEWORK AND KEY STRATEGIES

Workforce planning entails assessing current and future human resource needs, implementing strategies to address these requirements, and evaluating their effectiveness over time. During the reporting period, NMISA focused on reviewing its organisational structure to ensure alignment with strategic objectives and operational demands. This review remains in progress and is being informed by the new Strategic Plan for 2025 to 2029, which sets the overarching direction for the institution over the medium term.

In addition to the Strategic Plan, workforce planning activities are being aligned with the Annual Performance Plan (APP), the Medium-Term Expenditure Framework (MTEF), and the HCD Strategy. Consideration is also being given to legislative frameworks such as the Public Service Regulations, the Employment Equity Act, and the Skills Development Act, ensuring compliance while enhancing the organisation's ability to attract, retain, and develop talent. These planning instruments work together to ensure that workforce decisions are financially sustainable, strategically coherent, and responsive to national development priorities.

This strategic alignment also extends to the management of employee performance, which plays a critical role in ensuring that workforce capacity directly supports organisational delivery goals.

4 EMPLOYEE PERFORMANCE MANAGEMENT FRAMEWORK

The Employee Performance Management Framework provides the foundation for planning, facilitating, reviewing, and reporting on employee performance, while also supporting recognition and rewards. During the reporting period, the framework remained unchanged, with implementation aligned with existing policies and procedures. Employees' performance was assessed in line with the established review cycle, and personal development plans informed targeted training interventions to address identified skill gaps.

Efforts to align individual performance contracts with NMISA's strategic objectives continued, ensuring that employee deliverables reflect institutional priorities. The review of individual Key Performance Indicators (KPIs) for both management and support roles, initiated in the previous year, remained underway. This initiative aims to standardise KPIs to enhance consistency, fairness, and transparency across the organisation's performance management processes.

In addition to managing performance, NMISA recognises the importance of employee wellbeing in sustaining productivity and maintaining a positive organisational culture.

5 EMPLOYEE WELLNESS PROGRAMMES

As part of its commitment to creating a supportive work environment, NMISA continued to implement its Employee Wellness Programme (EWP) during the 2024/25 financial year. The programme offers professional counselling services to assist employees in addressing a wide range of personal and work-related challenges, including stress, financial and legal concerns, relationship issues, family matters, and health-related difficulties.

The EWP utilisation rate for the year was on average above the government benchmark and that set by the service provider, Life Health Solutions. This high utilisation rate

indicates that the service is actively used and valued by employees. Quarterly reports from the service provider identified individual and organisational wellness risk factors that could influence employee well-being and, by extension, organisational effectiveness.

The three-year service contract with the current provider concluded in the final quarter of the reporting period, and the procurement process to appoint a new provider was initiated. Looking ahead, NMISA will develop an Employee Wellness Operational Plan informed by the quarterly utilisation insights. The plan will guide wellness interventions and initiatives to be implemented in the following year, further embedding wellness as a key component of workforce support.

6 POLICY DEVELOPMENT

Policy development and review were prioritised during the reporting period. Outdated policies were reviewed to ensure alignment with legislative changes and to support the organisational strategy. Six policies were reviewed, and the relevant procedures were scheduled for update following the completion of the approval process.

7 HIGHLIGHTS

NMISA supported employees in their personal and career development by offering educational assistance, training and other developmental opportunities through the HCD Programme. Once again, the organisation celebrated academic achievements attained during the year under review. Amongst those who completed higher qualifications during the 2024/25 financial year were two senior managers who completed master's qualifications, while one employee completed an undergraduate qualification, as indicated below.

Table 15: Employees' academic achievements

EMPLOYEE NAME	DIVISION	QUALIFICATION
Thomas Mautjana	Technical Services	Master's in Business Leadership
Lerato Ntatamala	Support Services	Master of Management in Technology and Innovation
Cythia Twentey	Support Services	Bachelor of Business Administration

Two bursars also completed their undergraduate qualifications and will be starting their work-back in the new year as part of their bursars' agreement.

Table 16: Bursars' academic achievements

BURSAR	DIVISION	QUALIFICATION
Chanelle Lamula	Technical Services	Bachelor of Science: Biochemistry and Chemistry
Alex Jehoma	Technical Services	Advanced Diploma in Analytical Chemistry

Two Scientist vacancies were filled through the HCD Programme after two bursars completed their workback and were absorbed into permanent positions as part of succession planning.

8 CHALLENGES FACED

NMISA faced several resourcing challenges during the year, driven largely by staffing constraints within the context of broader organisational reprioritisation and structural review. At the end of the reporting period, 20 vacancies and four internship opportunities remained unfilled, impacting continuity in some technical and support areas. These gaps were most acutely felt in functions requiring specialised expertise. Despite this, NMISA achieved an overall performance output of 63 % and only three client complaints, all of which were resolved. This is mostly due to the outstanding staff at NMISA and their continued dedication to ensuring the demands of the country is realised. The recruitment process itself was challenged by limited capacity and lengthy administrative processes, which prompted a shift toward digitising aspects of the process to reduce delays.

In the review period, NMISA recorded an unprecedented staff turnover of 16 %. Resignations accounted for most terminations, with 54 % of these relating to roles in metrology functions, where the organisation is particularly reliant on specialised technical expertise. In response, the organisation implemented several interim measures to support operational continuity. These included temporary appointments, acting arrangements – particularly for vacant executive and management roles – and the strategic redeployment of available human resources across critical areas.

9 FUTURE HR PLANS/GOALS

In the upcoming financial year, the Human Resources Department will prioritise the implementation of newly approved policies by developing and formalising the supporting procedures to ensure operational clarity and compliance. Several strategic initiatives have also been planned to strengthen workforce capability and organisational resilience. In this regard, the following are envisaged:

- The recruitment and selection process will continue, focusing on filling priority positions. The transition to a digital recruitment platform will be rolled out to improve efficiency and reduce turnaround times.
- Further analysis of the employee engagement and retention survey results will be undertaken. This will include feedback sessions with staff and management and a review of the current retention strategy, with action plans informed by the survey findings.
- The HR Department will support an organisation-wide review of the structure, ensuring alignment with the new Strategic Plan and operational requirements.
- Following the completion of internal approval processes, the Succession and Continuity Plan will be implemented to ensure future leadership stability and knowledge transfer.
- An Employee Wellness Operational Plan will be finalised and implemented, informed by quarterly utilisation reports, with targeted interventions aimed at improving overall employee well-being and organisational performance.

10 HUMAN RESOURCE OVERSIGHT STATISTICS

10.1 PERSONNEL-RELATED EXPENDITURE

Table 17: Personnel cost by programme/activity/objective

PROGRAMME/ACTIVITY/ OBJECTIVE	TOTAL EXPENDITURE FOR THE ENTITY (R'000)	PERSONNEL EXPENDITURE (R'000)	PERSONNEL EXP. AS A % OF TOTAL EXPENDITURE (R'000)	NO. OF EMPLOYEES	AVERAGE PERSONNEL COST PER EMPLOYEE (R'000)
Office of the Chief Executive Officer	2 999	2 827	94 %	4	707
Strategy, Governance and Business Development	13 112	9 902	76 %	8	1 238
Applied Metrology	9 640	9 328	97 %	9	1 036
Finance and Corporate Services	148 209	18 098	12 %	22	823
Manufacturing Competitiveness and Redefinition of the SI	20 422	18 416	90 %	21	877
Advanced Measurement Solutions and Energy Efficiency	17 395	17 041	98 %	19	897
Quality of Life	8 997	7 288	81 %	7	1 041
Reference Materials, Green Economy and Commercial Services	29 943	21 279	71 %	27	788
Research, International and Infrastructure Development	3 608	1 376	38 %	1	1 376
Total	**254 325**	**105 555**	**42 %**	**118**	**895**

Table 18: Personnel cost by salary band

SALARY BANDS	PERSONNEL EXPENDITURE (R'000)	% OF PERSONNEL EXPENDITURE TO TOTAL PERSONNEL COST	NO. OF EMPLOYEES	AVERAGE PERSONNEL COST PER EMPLOYEE (R'000)
Top management	11 152	11 %	4	2 788
Senior management	11 094	11 %	8	1 387
Professional qualified	72 770	69 %	78	933
Skilled	9 530	9 %	24	397
Semi-skilled	1 009	1 %	4	252
Unskilled	0	0 %	0	0
Total	**105 555**	**100 %**	**118**	**895**

Table 19: Performance rewards

SALARY BANDS	PERFORMANCE REWARDS (R'000)	PERSONNEL EXPENDITURE (R'000)	% OF PERFORMANCE REWARDS TO TOTAL PERSONNEL COST
Top management	0	0	0 %
Senior management	0	0	0 %
Professional qualified	0	0	0 %
Skilled	0	0	0 %
Semi-skilled	0	0	0 %
Unskilled	0	0	0 %
Total	**0**	**0**	**0 %**

No performance rewards were offered to employees due to budget constraints.

Table 20: Training costs

PROGRAMME/ACTIVITY/ OBJECTIVE	PERSONNEL EXPENDITURE (R'000)	TRAINING EXPENDITURE (R'000)	TRAINING EXPENDITURE AS A % OF PERSONNEL COST	NO. OF EMPLOYEES TRAINED	AVERAGE TRAINING COST PER EMPLOYEE (R'000)
Chief Executive Officer	2 827	71	2,51 %	4	18
Strategy, Governance and Business Development	9 902	26	0,26 %	3	9
Applied Metrology	9 328	0	0 %	0	0
Finance and Corporate Services	18 098	30	0,17 %	2	15
Manufacturing Competitiveness and Redefinition of the SI	18 416	49	0,27 %	3	16
Advanced Measurement Solutions and Energy Efficiency	17 041	354	2,08 %	3	118
Quality of Life	7 288	0	0 %	0	0
Reference Materials, Green Economy and Commercial Services	21 279	125	0,59 %	4	31
Research, International and Infrastructure Development	1 376	0	0 %	0	00
Total	**105 555**	**655**	**0,62 %**	**19**	**34**

10.2 EMPLOYMENT AND VACANCIES

Table 21: Employment and vacancies by programme/activity/objective

PROGRAMME/ACTIVITY/ OBJECTIVE	2023/24 NO. OF EMPLOYEES	2024/25 APPROVED POSTS	2024/25 NO. OF EMPLOYEES	2024/25 FUNDED VACANCIES	% TOTAL NUMBER OF VACANCIES
Chief Executive Officer	4	6	4	2	33 %
Strategy, Governance and Business Development	10	15	8	2	47 %
Applied Metrology	9	12	9	0	25 %
Finance and Corporate Services	25	46	22	5	52 %
Manufacturing Competitiveness and Redefinition of the SI	21	35	21	2	40 %
Advanced Measurement Solutions and Energy Efficiency	23	38	19	2	50 %
Quality of Life	8	12	7	2	42 %
Reference Materials, Green Economy and Commercial Services	32	40	27	2	33 %
Research, International and Infrastructure Development	1	25	1	0	96 %
Total	**133**	**229**	**118**	**17**	**48 %**

The recruitment and selection process for approved, funded critical positions was prioritised. Temporary and acting appointments were made until the positions could be filled. Three positions were finalised, with the selected candidates assuming their duties at the beginning of the 2025/26 financial year.

Table 22: Employment changes

SALARY BANDS	EMPLOYMENT AT BEGINNING OF PERIOD	APPOINTMENTS	TERMINATIONS	EMPLOYMENT AT END OF THE PERIOD
Top management	5	0	1	4
Senior management	8	1	1	8
Professional qualified	89	0	11	78
Skilled	26	0	2	24
Semi-skilled	5	0	1	4
Unskilled	0	0	0	0
Total	**133**	**1**	**16**	**118**

Table 23: Reasons for staff leaving

REASON	NUMBER	% OF TOTAL NO. OF STAFF LEAVING
Death	0	0 %
Resignation	13	81 %
Dismissal	0	0 %
Retirement	2	13 %
Ill health	1	6 %
Expiry of contract	0	0 %
Other	0	0 %
Total	**16**	**100 %**

The engagement and retention survey results and feedback from exit interviews revealed key challenges identified by employees, including insufficient rewards and recognition, lack of career progression, poor internal communication, ineffective leadership, and high workloads leading to burnout. These results will be further analysed, and the retention strategy will be reviewed accordingly.

10.3 LABOUR RELATIONS

Table 24: Misconduct and disciplinary actions taken

NATURE OF DISCIPLINARY ACTION	NUMBER
Verbal Warning	1
Written Warning	0
Final Written warning	2
Dismissal	0

10.4 EQUITY TARGET AND EMPLOYMENT EQUITY STATUS

The Employment Equity targets set were based on the approved 2020–2024 Employment Equity Plan. Unfortunately, these targets were not met due to employee resignations and delays in filling vacant positions. The selected candidates for the vacant positions are chosen from the underrepresented group, specifically Africans. Additionally, future positions will prioritise candidates from the Coloured group and people living with disabilities.

Table 25: Male staff for the financial year

	AFRICAN		COLOURED		INDIAN		WHITE		FOREIGN NATIONALS	
SALARY BANDS	CURRENT	TARGET	CURRENT	TARGET	CURRENT	TARGET	CURRENT	TARGET	CURRENT	TARGET
Top management	1	3	0	0	1	1	0	0	0	0
Senior management	2	3	0	0	0	1	1	1	0	0
Professional qualified	26	44	2	3	2	5	6	12	2	2
Skilled	7	10	2	0	0	0	0	0	0	0
Semi-skilled	2	3	0	0	0	0	0	0	0	0
Unskilled	0	0	0	0	0	0	0	0	0	0
Total	**38**	**63**	**4**	**3**	**3**	**7**	**7**	**13**	**2**	**2**

Table 26: Female staff for the financial year

	AFRICAN		COLOURED		INDIAN		WHITE		FOREIGN NATIONALS	
SALARY BANDS	CURRENT	TARGET	CURRENT	TARGET	CURRENT	TARGET	CURRENT	TARGET	CURRENT	TARGET
Top management	0	1	0	0	0	0	2	2	0	0
Senior management	4	4	0	0	0	0	1	1	0	0
Professional qualified	21	26	2	2	0	0	13	15	1	1
Skilled	12	14	2	2	1	1	3	3	0	0
Semi-skilled	2	2	0	0	0	0	0		0	0
Unskilled	0	0	0	0	0	0	0	0	0	0
Total	**39**	**47**	**4**	**4**	**1**	**1**	**19**	**21**	**1**	**1**

Table 27: Disabled staff for the financial year

	MALE		FEMALE	
SALARY BANDS	CURRENT	TARGET	CURRENT	TARGET
Top management	0	0	0	0
Senior management	0	0	0	0
Professional qualified	0	0	0	0
Skilled	0	2	0	1
Semi-skilled	0	0	0	0
Unskilled	0	0	0	0
Total	**0**	**2**	**0**	**1**

PART E
PFMA COMPLIANCE REPORT

1 IRREGULAR, FRUITLESS AND WASTEFUL EXPENDITURE AND MATERIAL LOSSES

1.1 IRREGULAR EXPENDITURE

Reconciliation of irregular expenditure

DESCRIPTION	2024/25 R'000	2023/24 R'000
Opening balance	20	-
Adjustment to opening balance	-	-
Opening balance as restated	20	-
Add: Irregular expenditure confirmed	-	392
Less: Irregular expenditure condoned	-	-
Less: Irregular expenditure not condoned and removed	-	-
Less: Irregular expenditure recoverable	(13)	(372)
Less: Irregular expenditure not recovered and written off	-	-
Closing balance	**7**	**20**

Reconciling notes

DESCRIPTION	2024/25 R'000	2023/24 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	-	392
Total	**-**	**392**

Details of irregular expenditure (under assessment, determination, and investigation)

DESCRIPTION	2024/25 R'000	2023/24 R'000
Irregular expenditure under assessment	427	155
Irregular expenditure under determination	-	-
Irregular expenditure under investigation	-	-
Total	**427**	**155**

The irregular expenditure under assessment is related to payments made to Board members that may be considered employees of the State.

Details of irregular expenditure condoned

DESCRIPTION	2024/25 R'000	2023/24 R'000
Irregular expenditure condoned	-	-
Total	**-**	**-**

Details of irregular expenditure not condoned

DESCRIPTION	2024/25 R'000	2023/24 R'000
Irregular expenditure NOT condoned	-	-
Total	**-**	**-**

Details of irregular expenditure recoverable

DESCRIPTION	2024/25 R'000	2023/24 R'000
Irregular expenditure recoverable	13	372
Total	**13**	**372**

Details of irregular expenditure written off (irrecoverable)

DESCRIPTION	2024/25 R'000	2023/24 R'000
Irregular expenditure written off	-	-
Total	**-**	**-**

Details of disciplinary or criminal steps taken as a result of irregular expenditure

DISCIPLINARY STEPS TAKEN
N/A

1.2 FRUITLESS AND WASTEFUL EXPENDITURE

Reconciliation of fruitless and wasteful expenditure

DESCRIPTION	2024/25 R'000	2023/24 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	-	-

Reconciling notes

DESCRIPTION	2024/25 R'000	2023/24 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	**-**	**-**

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

DESCRIPTION**	2024/25 R'000	2023/24 R'000
Fruitless and wasteful expenditure under assessment	-	-
Fruitless and wasteful expenditure under determination	-	-
Fruitless and wasteful expenditure under investigation	-	-
Total	**-**	**-**

Details of fruitless and wasteful expenditure recoverable

DESCRIPTION	2024/25 R'000	2023/24 R'000
Fruitless and wasteful expenditure recoverable	-	-
Total	**-**	**-**

Details of fruitless and wasteful expenditure not recoverable and written off

DESCRIPTION	2024/25 R'000	2023/24 R'000
Fruitless and wasteful expenditure written off	-	-
Total	**-**	**-**

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

DISCIPLINARY STEPS TAKEN
N/A

Additional disclosure relating to material losses in terms of PFMA Section 55(2)(b)(i) & (iii))9

Details of material losses through criminal conduct

MATERIAL LOSSES THROUGH CRIMINAL CONDUCT	2024/25 R'000	2023/24 R'000
Theft	-	385
Other material losses	-	-
Less: recoverable	-	372
Less: Not recoverable and written off	-	-
Total	**-**	**13**

Details of other material losses

No other material losses were recorded.

Other material losses recoverable

N/A

Other material losses not recoverable and written off

N/A

2 LATE AND/OR NON-PAYMENT OF SUPPLIERS

2.1 SYNOPSIS OF INVOICES RECEIVED AND PAID

DESCRIPTION	NUMBER OF INVOICES	CONSOLIDATED VALUE R'000
Valid invoices received	1 175	76 509
Invoices paid **within** 30 days or agreed period	928	66 346
Invoices paid **after** 30 days or agreed period	245	9 883
Invoices older than 30 days or agreed period (unpaid and without dispute)	3	245
Invoices older than 30 days or agreed period (unpaid and in dispute)	1	34

NMISA is utilising the new Enterprise Resource Planning (ERP) system, Dynamics 365. The implementation of additional functionalities, including product receipt, requires line manager approval. It is at this stage that the processing of invoices is being delayed. Payment after 30 days was at 14 % non-compliance due to a bottleneck identified in the management of payments.

3 SUPPLY CHAIN MANAGEMENT

3.1 PROCUREMENT BY OTHER MEANS

The following procurement was done by other means:

PROJECT DESCRIPTION	NAME OF SUPPLIER	TYPE OF PROCUREMENT BY OTHER MEANS	CONTRACT NUMBER	ORIGINAL CONTRACT VALUE R'000
Procurement of FIDELIS Secondary Standard Radionuclide Calibrator (Ionization Chamber)	Axim Oncology	Sole Source – Closed Tender	NMISA (24/25) T0004	R1 200
Payment of Microsoft Azure Licenses for multiple financial years	Microsoft Ireland	Sole Source	PO00003896	R1 301
Total				**R2 501**

3.2 CONTRACT VARIATIONS AND EXPANSIONS

The following contract variations were required in the year under review:

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 VARIATION R'000
Provision of a Cloud-based Contact Centre Solution and an End-To-End Cloud Telephony Solution for three (3) years	Plus1X Communications (Pty) Ltd	Expansion	PO00019494	R1 956		R271
Total				**R1 956**		**R271**

PART F
FINANCIAL INFORMATION

1 REPORT OF THE CHIEF FINANCIAL OFFICER

1.1 OVERVIEW OF FINANCIAL PERFORMANCE

NMISA's primary source of revenue continues to be the transfer allocation from the Department of Trade, Industry and Competition (the DTIC). Fiscal pressures on the national budget remain a central concern, and NMISA's allocation reflects this constraint. For the 2024/25 financial year, the total transfer received amounted to R177,3 million, a modest increase of 16 % from R152,7 million in 2023/24. However, this follows a longer-term downward trend in real terms, given inflationary pressures and rising operational costs. The sustainability of the current funding model remains under strain and any further reductions in grant allocations could significantly undermine NMISA's ability to fulfil its statutory mandate.

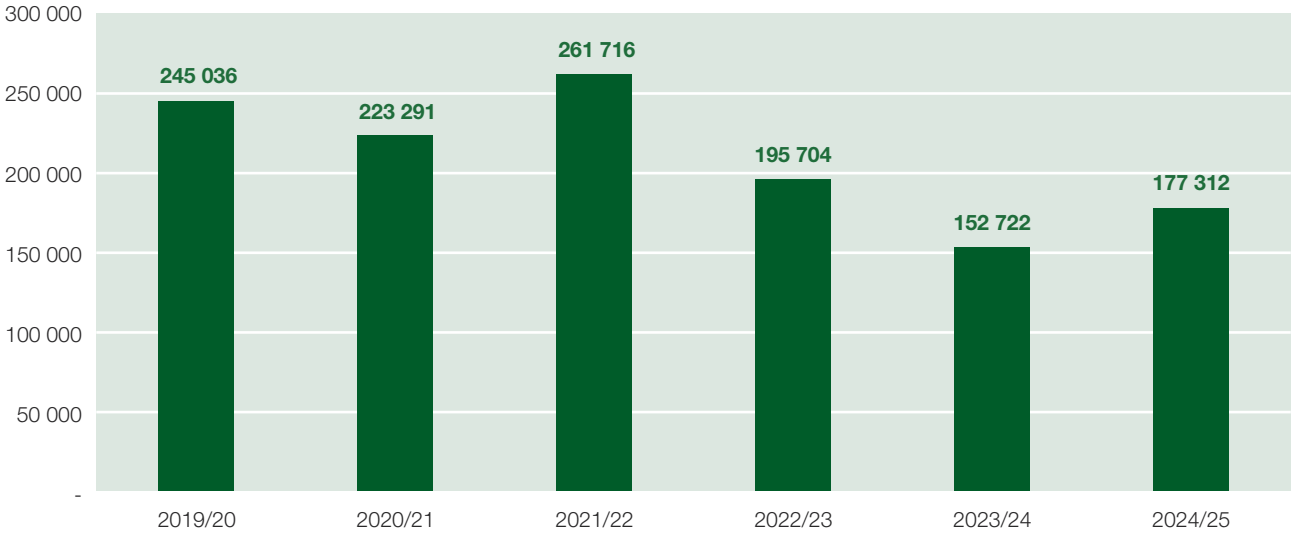


Figure 3: Transfers

Over the past decade, NMISA has expanded both its strategic footprint and service offerings. While this growth reflects the increasing relevance of metrology to industrial policy and trade compliance, it has also introduced structural cost pressures. Employee-related costs, which support our highly specialised skills base, remain the largest component of total expenditure.

NMISA's financial performance in the 2024/25 financial year reflected both resilience and adaptation amid continued fiscal constraints. The total revenue amounted to R213,6 million, comprising 83 % grant funding from the DTIC and 17 % from exchange transactions and other income. Despite a decrease in total assets from R616,53 million in 2023/24 to R585,91 million because of depreciation, NMISA maintained a strong cash balance of R87,6 million, primarily attributable to committed but undelivered capital equipment. Key reductions in expenditure, particularly in compensation of employees, allowed for streamlined operations aligned with medium-term sustainability goals.

1.2 REVENUE

In 2024/25, NMISA recorded total revenue of R213,6 million, up from R193,1 million in 2023/24. The transfer from the DTIC accounted for 83 % of total revenue (2023/24: 79 %). Revenue from rendering of services decreased slightly by 5,1 % to R27,0 million, while interest income declined more sharply by 30,4 %, largely due to lower interest rates and a decrease in investment periods. Other income of R0,9 million includes insurance recoveries and sundry items. NMISA continues to prioritise diversification of revenue streams, including licensing, digital services, and regional calibration partnerships.

Table 28: Sources of revenue

SOURCES OF REVENUE	2024/25			2023/24		
	BUDGET R	ACTUAL AMOUNT R	(OVER)/ UNDER COLLECTION R	BUDGET R	ACTUAL AMOUNT R	(OVER)/ UNDER COLLECTION R
Transfer revenue	177 312 000	177 312 000	-	152 722 000	152 722 000	-
Rendering of services	24 679 600	26 984 826	(2 305 226)	22 436 000	28 444 471	(6 008 471)
Interest received	4 000 000	8 306 623	(4 306 623)	12 300 000	11 938 883	361 117
Other income	-	918 417	(918 417)	-	-	-
Gain on exchange difference	-	47 453	(47 453)	-	-	-
	205 991 600	**213 569 319**	**(7 577 719)**	**187 458 000**	**193 105 354**	**(5 647 354)**

1.3 EXPENDITURE

Total expenditure was R254,33 million (2023/24: R251,82 million), driven largely by depreciation (R64,25 million) which is a non-cash item, and employee costs (R105,6 million). Due to the reduced allocation, NMISA prioritised operational efficiency by deferring non-essential capital expenditure and maintaining cost containment measures. Impairments and asset disposals increased as expected due to ageing infrastructure and rationalisation.

Employee-related costs reduced to R105,6 million in 2024/25, down from R113,6 million, reflecting a number of unfilled vacancies. General expenses grew modestly to R81,3 million. Notably, impairment and credit losses were maintained at low levels, illustrating good financial governance and asset management and are to be expected due to infrastructure ageing over time.

1.4 WORKING CAPITAL

Cash and cash equivalents increased significantly to R87,6 million (2023/24: R53,3 million), primarily due to deferred capital deliveries and lower spend on new acquisitions. Receivables remained stable at R7,8 million, largely due to outstanding balances from public sector clients, which are slower to resolve due to procedural constraints. Trade payables rose to R23,2 million from R13,0 million, reflecting improved procurement efficiency and delivery timelines ahead of year-end.

1.5 CAPITAL INVESTMENT AND COMMITMENTS

The net book value of NMISA's fixed assets declined to R458,3 million in 2024/25 from R518,8 million in the prior year. This reduction stems from depreciation and asset reclassifications. Capital expenditure was curtailed to R5,5 million (2023/24: R36,1 million), prioritising essential upgrades and maintenance over major acquisitions. This aligns with strategic reallocation toward maintaining existing infrastructure rather than expansion. The book value of assets declined due to depreciation and asset disposals.

Outstanding commitments stood at R43,6 million at year-end, up from R42,8 million in 2023/24. Roughly 65 % of this relates to capital expenditure, largely for scientific equipment procured internationally with long lead times. The steady pace is not due to procurement but to the R10 million increase in payables. This effectively created a decline in the traditional commitments and reflects both the slowdown in new orders and progress in fulfilling older commitments. NMISA continues to plan procurement cycles well in advance, but the nature of bespoke metrology instruments limits the ability to complete delivery within a single financial year.

1.6 SUPPLY CHAIN MANAGEMENT OVERVIEW

Despite reduced capital spend, focus remained on compliance and service continuity. The ERP system rollout is beginning to improve processing cycles, although some delays in 30-day payment performance persist. The reduction in capital procurement has contributed to improved B-BBEE performance. However, the non-compliant status remains influenced by limited funding for socio-economic development activities.

1.7 FINANCIAL OUTLOOK

NMISA continues to operate as a going concern, supported by the DTIC's medium-term budget framework. However, the funding model remains fragile and the sustainability of NMISA remains at risk without improved public funding or accelerated external revenue growth. While revenue generation initiatives are advancing, external income is not yet sufficient to offset funding shortfalls. Without additional grant funding or structural support, NMISA may need to restructure or scale back activities in the medium term.

Despite consistent clean audits and effective cost control, the forecast trajectory highlights a need for reform through the revised Measurement Units and Measurement Standards Act, external revenue expansion, and digital transformation initiatives. The organisation has begun repositioning to increase market relevance and long-term stability.

Public sector funding trends, strategic risks and mitigation

In the 2024/25 financial year, several key trends in public sector funding were confirmed. Allocations from the DTIC remain under pressure, reflecting broader fiscal consolidation efforts across government. Although the entity received a modest increase in its transfer allocation, the trajectory over the Medium-Term Expenditure Framework (MTEF) is expected to remain flat in nominal terms, which implies a continued decline in real purchasing power. This situation intensifies the risk of undercapitalisation and deferred infrastructure investment, especially in high-cost capital-intensive facilities such as NMISA.

NMISA's strategic risk profile is increasingly shaped by constraints in human capital. The organisation continues to experience turnover in critical scientific and engineering roles. The highly specialised nature of NMISA's work, coupled with global competition for technical talent, has made retention and succession planning a top priority.

To reduce dependency on public funds, NMISA is accelerating planned implementation of its external revenue strategy over the medium-term. This includes four key components:

INITIATIVE	DESCRIPTION
1. Strategic Partnerships	Partnerships with national laboratories and universities to offer shared services and facilities. These leverage joint funding for specialised research and contract calibration.
2. Digital Services Expansion	Development of secure online calibration bookings, remote consulting, and certificate verification services to reach under-served clients.
3. Licensing of Proprietary IP	Commercialisation of NMISA-developed scientific software and reference materials under structured licensing agreements.
4. Regional Calibration Hubs	Establishment of satellite metrology labs in SADC member states under host agreements to generate revenue and support regional quality infrastructure.

1.8 CONCLUSION

In conclusion, the 2024/25 financial year has been a period of strategic adaptation and fiscal discipline. The entity has achieved an unqualified audit opinion for the seventh consecutive financial year, a testament to financial prudence and leadership from the Board and Acting CEO.

Despite the constrained funding environment, NMISA has sustained its core mandate while making progress on long-term sustainability initiatives. The continued support from the DTIC and the strengthening of external revenue channels provide a foundation for resilience. As NMISA looks ahead, our focus will remain on balancing financial stewardship with scientific excellence, ensuring the metrology infrastructure of South Africa remains globally aligned as well as nationally and regionally impactful.

Mr Mogau Sehlapelo
Chief Financial Officer

31 August 2025

Nexia SAB&T

119 Witch-Hazel Avenue
Highveld Technopark
Centurion
0157
T: +27 (0) 12 682 8800
info@nexia-sabt.co.za
www.nexia-sabt.co.za

Independent auditor's report to Parliament on National Metrology Institute of South Africa

Report on the audit of the financial statements

Opinion

1. We have audited the financial statements of the National Metrology Institute of South Africa set out on pages 112 to 138, which comprise the statement of financial position as at 31 March 2025, statement of financial performance, statement of changes in net assets, cash flow statement and the statement of comparison of budget and actual amounts for the year then ended, as well as notes to the 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 National Metrology Institute of South Africa as at 31 March 2025 and its financial performance and cash flows for the year then ended in accordance with the Standards of Generally Recognised Accounting Practice (GRAP) and the requirements of the Public Finance Management Act 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 Auditor's responsibilities for the audit of the financial statements section of our report.

4. We are independent of the entity in accordance with the Independent Regulatory Board for Auditors' *Code of Professional Conduct for Registered Auditors* of the (IRBA Code) and other independence requirements applicable to performing audits of financial statements in South Africa. We have fulfilled our other ethical responsibilities in accordance with the IRBA Code and in accordance with other ethical requirements applicable to performing audits in South Africa. The IRBA Code is consistent with the corresponding sections of the International Ethics Standards Board for Accountants' *International Code of Ethics for Professional Accountants (including International Independence Standards)*.

5. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of accounting authority for the financial statements

6. The accounting authority is responsible for the preparation and fair presentation of the financial statements in accordance with 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.

7. In preparing the financial statements, the accounting authority is responsible for assessing the 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 accounting authority either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

8. 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.

9. A further description of our responsibilities for the audit of the financial statements is included in the annexure to this auditor's report. This description, which is located at page 107 forms part of our auditor's report.

Report on the audit of the annual performance report

10. 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 against predetermined objectives for the selected outcomes presented in the annual performance report. The accounting authority is responsible for the preparation of the annual performance report.

11. We selected the following outcomes presented in the annual performance report for the year ended 31 March 2025 for auditing. We selected the outcomes that measure the entity's performance on its primary mandated functions and that are of significant national, community or public interest.

Programme	Page No	Outcomes
Programme 2 - Dissemination of Measurement Services and Products for Industry, SOEs and Regulatory Support (Applied Metrology)	32 to 36	Ensure regional, continental, and international comparability of the South African measurement infrastructure
		Improve financial stability and ensure sustainable growth
		Maintain fast and efficient service delivery to clients

		Develop and retain a capable workforce that is able to utilise world-class infrastructure to deliver specialised and innovative measurement solutions

NMISA'S CONTRIBUTION TO THE DTIC OUTPUT TARGETS

Programme	Page No	Output
DTIC Core Outputs	61 to 66	Support infrastructure investment
		Greening the economy
		Beneficiation of critical minerals
		Strengthen Master Plans
		Export focus
		Job training programmes (Opportunities for youth)
		Job training programmes (Opportunities for SMMEs)
		Increase investment in underserved areas
		Investment in innovation and commercialisation of technologies

12. We evaluated the reported performance information for the selected outcomes 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 entity 's planning and delivery on its mandate and objectives.

13. We performed procedures to test whether:

- the indicators used for planning and reporting on performance can be linked directly to the entity's mandate and the achievement of its planned objectives
- all the indicators relevant for measuring the 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 is 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

14. We performed the procedures for the purpose of reporting material findings only; and not to express an assurance opinion or conclusion.

15. We did not identify any material findings on the reported performance information for the selected outcomes.

Other matters

16. We draw attention to the matters below.

Achievement of planned targets

17. The annual performance report includes information on reported achievements against planned targets and provides explanations for over- and under achievements.

Material misstatements

18. We identified material misstatements in the annual performance report submitted for auditing. These material misstatements were in the reported performance information of the Improve financial stability and ensure sustainable growth, Greening the economy and Beneficiation of critical minerals outputs.

19. Management subsequently corrected all the misstatements, and we did not include any material findings in this report .

Report on compliance with legislation

20. 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 entity's compliance with legislation.

21. We performed procedures to test compliance with selected requirements in key legislation in accordance with the AGSA findings engagement methodology. This engagement is not an assurance engagement. Accordingly, we do not express an assurance opinion or conclusion.

22. 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 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.

Nexia SAB&T

23. We did not identify any material non-compliance with the selected legislative requirements.

Other information in the annual report

24. The accounting authority is responsible for the other information. The other information comprises the information included in the annual report. The other information does not include the financial statements, the auditor's report and those selected outcomes presented in the annual performance report that have been specifically reported on in this auditor's report.

25. Our opinion on the financial statements and our findings on the reported performance information and the report on compliance with legislation do not cover the other information and we do not express an audit opinion or any form of assurance conclusion on it.

26. In connection with our audit, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements and the selected outcomes presented in the annual performance report, or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

27. If, based on the work performed, we conclude there is a material misstatement in this other information, we are required to report that fact.

28. We have nothing to report in this regard.

Internal control deficiencies

29. 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.

30. We did not identify any significant deficiencies in internal control.

NexiaSAB&T

Talha Mayet
Director
Registered Auditor
31 August 2025
119 Witch hazel avenue
Technopark, Centurion 0157

Nexia SAB&T

Annexure to the auditor's report

The annexure includes the following:

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

Auditor's responsibilities 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 our audit of the financial statements and the procedures performed on reported performance information for selected outcomes and on the entity's compliance with selected requirements in key legislation.

Financial statements

In addition to our 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 our 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 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 entity to continue as a going concern. If we conclude that a material uncertainty exists, we are 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 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 our audit.

Nexia SAB&T

Compliance with legislation – selected legislative requirements

The selected legislative requirements are as follows:

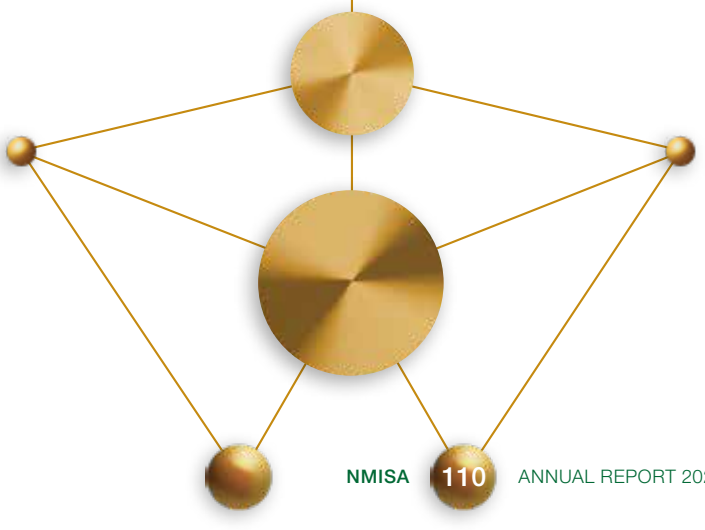
Legislation	Sections or regulations
Public Finance Management Act 1 of 1999	Section 51(1)(b)(i); 51(1)(b)(ii); 51(1)(e)(iii); 53(4); Section 54(2)(c); 54(2)(d); 55(1)(a); 55(1)(b); Section 55(1)(c)(i); 56(1); 57(b); 66(3)(c)
Treasury Regulations, 2005	Regulation 8.2.1; 8.2.2; 16A3.2; 16A3.2(a); Regulation 16A6.1; 16A6.2(a); 16A6.2(b); Regulation 16A6.3(a); 16A6.3(a) Regulation 16A6.3(c); 16A6.3(e); 16A6.4; 16A6.5; Regulation 16A6.6; 16A.7.1; 16A.7.3; 16A.7.6; Regulation 16A.7.7; 16A8.3; 16A8.4; 16A9.1(b)(ii); Regulation 16A 9.1(d); 16A9.1(e); 16A9.1(f); Regulation 16A9.2(a)(ii); 30.1.1; 30.1.3(a); Regulation 30.1.3(b); 30.1.3(d); 30.2.1; 31.2.1; Regulation 31.2.5; 31.2.7(a); 32.1.1(a); 32.1.1(b); Regulation 32.1.1(c); 33.1.1; 33.1.3
Erratum National Treasury Instruction No. 5 of 202/21	Paragraph 2
National Treasury instruction No 5 of 2020/21	Paragraph 4.8; 4.9
National Instruction No. 1 of 2021/22	Paragraph 4.1
National Instruction No. 4 of 2015/16	Paragraph 3.4
National Treasury SCM Instruction No. 4A of 2016/17	Paragraph 6
National Treasury SCM Instruction No. 03 of 2021/22	Paragraph 4.1; 4.2(b); 4.4; 7.2
National Treasury SCM Instruction No. 2 of 2021/22	Paragraph 3.2.1; 3.2.4; 3.3.1
Practice Note 5 of 2009/10	Paragraph 3.3
Preferential Procurement Policy Framework Act 5 of 2000	Section 1; 2.1(a); 2.1(f)
Preferential Procurement Regulations, 2022	Regulation 4.4; 5.4
Preferential Procurement Regulations, 2017	Regulation 4.1; 4.2; 5.1; 5.3; 5.6; 5.7 Regulation 6.8; 7.8; Regulation 8.2; 8.5; 9.1; 9.2; 10.1; 10.2; 11.1
Prevention and Combating of Corrupt Activities Act 12 of 2004	Section 34(1)

Legislation	
Measurement Units and Measurements Standards Act, No 18 of 2006	
Legal Metrology Act, (Act No. 9 of 2014)	
The Civil Aviation Act, (Act No. 13 of 2009)	
Preferential Procurement Policy Framework Act 5 of 2000 and regulations and instructions issued in terms of the act	
Occupational Health and Safety Act, (Act No. 85 of 1993 – regulations)	
Public Service Act, 1994 (Act No. 103 of 1994) and regulations issued in terms of the Act;	
Financial Management of Parliament and Provincial Legislatures Act, 2009 (Act No. 10 of 2009) (FMPPLA).	

3 ANNUAL FINANCIAL STATEMENTS

GENERAL INFORMATION

Country of incorporation and domicile	South Africa
Legal form of entity	Schedule 3A Public Entity
Nature of business and principal activities	To develop, keep, maintain and disseminate the National Measurements Standards (NMS), reference measurements, reference standards, and reference materials.
Members	Dr Precious Gugulethu Motshwene – Chairperson Dr James Tshilongo Ms Sara Natalia Prins Ms Babalwa Songongo Prof. Andrew Buffler Prof. Lorna Benita Holtman Dr Charl Wynand Louw Dr Alufelwi Maxwell Tshavhungwe Ms Senamile Masango (deceased 9 February 2025)
Business address	Meiring Naude Road Brummeria Pretoria 0040
Postal address	Private Bag X34 Lynnwood Ridge 0040
Controlling entity	Department of Trade, Industry and Competition (DTIC)
Bankers	Standard Bank Lynnwood Bridge
Auditors	Nexia SAB&T Chartered Accountants (SA) Registered Auditors
Secretary	Ms Busisiwe Mkhize



INDEX

The reports and statements set out below comprise the Annual Financial Statements presented to the Department of Trade, Industry and Competition (DTIC):

Dr Jeseelan Pillay
Acting Chief Executive Officer

STATEMENT OF FINANCIAL POSITION
AS AT 31 MARCH 2025

FIGURES IN RAND	NOTE(S)	2025	2024
Assets			
Current assets			
Inventories	7	10 674 950	10 313 696
Receivables from exchange transactions	8	7 823 282	8 280 194
Prepayments	6	11 830 346	20 288 807
Cash and cash equivalents	9	87 568 052	53 299 171
		117 896 630	**92 181 868**
Non-current assets			
Property, plant and equipment	3	458 380 729	518 820 114
Intangible assets	4	486 149	1 915 482
Receivables from exchange transactions	8	3 409 119	3 216 110
Prepayments	6	5 745 683	392 015
		468 021 680	**524 343 721**
Total assets		**585 918 310**	**616 525 589**
Liabilities			
Current liabilities			
Payables from exchange transactions	5	23 158 559	13 010 085
Total liabilities		**23 158 559**	**13 010 085**
Net assets			
Accumulated surplus		562 759 750	603 515 503
Total net assets		**562 759 750**	**603 515 503**

STATEMENT OF FINANCIAL PERFORMANCE
FOR THE YEAR ENDED 31 MARCH 2025

FIGURES IN RAND	NOTE(S)	2025	2024
Revenue			
Revenue from exchange transactions			
Rendering of services		26 984 826	28 444 471
Other income		918 417	-
Interest received – investment		8 306 623	11 938 883
Gain on exchange differences		47 453	-
Total revenue from exchange transactions	11	**36 257 319**	**40 383 354**
Revenue from non-exchange transactions			
Transfer from controlling entity	11	177 312 000	152 722 000
Total revenue	11	**213 569 319**	**193 105 354**
Expenditure			
Employee related costs	12	(105 555 251)	(113 633 558)
Depreciation and amortisation	3&4	(64 246 749)	(56 893 384)
Impairments loss	3	(422 560)	(310 552)
Credit losses on receivables		(101 736)	(1 368 404)
Loss on disposal of assets		(2 635 561)	(401 692)
Loss on exchange differences		-	(138 424)
General expenses	13	(81 363 215)	(79 073 983)
Total expenditure		**(254 325 072)**	**(251 819 997)**
Deficit for the year		**(40 755 753)**	**(58 714 643)**

STATEMENT OF CHANGES IN NET ASSETS
FOR THE YEAR ENDED 31 MARCH 2025

FIGURES IN RAND	ACCUMULATED SURPLUS/ DEFICIT
Balance at 1 April 2023	**662 230 146**
Changes in net assets	
Deficit for the year	(58 714 643)
Total changes	(58 714 643)
Balance at 1 April 2024	**603 515 503**
Changes in net assets	
Deficit for the year	(40 755 753)
Total changes	(40 755 753)
Balance at 31 March 2025	**562 759 750**

CASH FLOW STATEMENT
FOR THE YEAR ENDED 31 MARCH 2025

FIGURES IN RAND	NOTE(S)	2025	2024
Cash flows from operating activities			
Receipts			
Rendering of services		27 298 854	27 226 667
Transfer from controlling entity		177 312 000	152 722 000
Interest received – investments		8 306 623	11 938 883
Other income		918 417	-
		213 835 894	191 887 550
Payments			
Employee related costs		(105 565 261)	(116 136 419)
Suppliers for goods and services		(68 565 600)	(72 790 045)
		(174 130 861)	(188 926 464)
Net cash flows from operating activities	14	**39 705 033**	**2 961 086**
Cash flows from investing activities			
Purchase of property, plant and equipment	3	(5 539 477)	(36 137 940)
Proceeds from sale of property, plant and equipment	3	24 136	3 000
Transfers to property, plant and equipment	3	79 189	-
Purchase of other intangible assets	4	-	(2 605 273)
Net cash flows from investing activities		**(5 436 152)**	**(38 740 213)**
Net increase/(decrease) in cash and cash equivalents		**34 268 881**	**(35 779 127)**
Cash and cash equivalents at the beginning of the year		53 299 171	89 078 298
Cash and cash equivalents at the end of the year	9	**87 568 052**	**53 299 171**

The accounting policies on pages 117 to 125 and the notes on pages 126 to 138 form an integral part of the Annual Financial Statements.

STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS

FOR THE YEAR ENDED 31 MARCH 2025

BUDGET ON MODIFIED CASH BASIS						
FIGURES IN RAND	APPROVED BUDGET	ADJUSTMENTS	FINAL BUDGET	ACTUAL AMOUNTS	DIFFERENCE BETWEEN FINAL BUDGET AND ACTUAL	REFERENCE
Statement of Financial Performance						
Revenue						
Revenue from exchange transactions						
Rendering of services	24 679 600	-	24 679 600	26 984 826	-9%	
Other income	-	-	-	918 417		
Interest received – investment	4 000 000	-	4 000 000	8 306 623	-108%	21.1
Gain on exchange differences	-	-	-	47 453		21.3
Total revenue from exchange transactions	**28 679 600**	**-**	**28 679 600**	**36 257 319**	**-26%**	
Revenue from non-exchange transactions						
Transfer from controlling entity	177 312 000	-	177 312 000	177 312 000	0%	
Total revenue	**205 991 600**	**-**	**205 991 600**	**213 569 319**	**-4%**	
Expenditure						
Employee related costs	(128 140 186)	22 439 547	(105 700 639)	(105 555 251)	0%	
Depreciation and amortisation	-	-	-	(64 246 749)		21.3
Impairment loss	-	-	-	(422 560)		21.3
Credit losses on receivables	-	-	-	(101 736)		21.3
Loss on disposal of assets	-	-	-	(2 635 561)		21.3
General expenses	(74 351 414)	(2 435 840)	(76 787 254)	(81 363 215)	-6%	
Total expenditure	**(202 491 600)**	**20 003 707**	**(182 487 893)**	**(254 325 072)**	**-39%**	
Capital expenditure	(3 500 000)	(20 003 707)	(23 503 707)	(5 539 477)	76%	21.2
Deficit	**-**	**-**	**-**	**(46 295 230)**		
Reconciliation						
Format and classification differences						
Property, plant and equipment				5 539 477		
Actual amount in the Statement of Financial Performance				**(40 755 753)**		

SIGNIFICANT ACCOUNTING POLICIES

1. SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies applied in the preparation of these Annual Financial Statements are set out below.

1.1 Basis of preparation

The Annual Financial Statements have been prepared in accordance with the Standards of Generally Recognised Accounting Practice (GRAP) including any interpretation, guidelines and directives, issued by the Accounting Standards Board in accordance with Section 91(1) of the Public Finance Management Act (Act 1 of 1999).

These Annual Financial Statements have been prepared on an accrual basis of accounting and are in accordance with historical cost convention as the basis of measurement, unless specified otherwise. They are presented in South African Rand, which is NMISA's functional currency. Amounts in the Annual Financial Statements are rounded to the nearest Rand.

The financial statements comply with GRAP requirements. These accounting policies are consistent with the previous period.

1.2 Going concern assumption

These Annual Financial Statements have been prepared based on the expectation that the entity will continue to operate as a going concern for at least the next 12 months.

1.3 Significant judgements and sources of estimation uncertainty

In the process of applying its accounting policies, and in preparing the Annual Financial Statements, management is required to make various judgements, including estimates and assumptions, that may affect the determination of the reporting framework, affect amounts represented in the Annual Financial Statements and as well as related disclosures. Use of available information and the application of judgement is inherent in the formation of estimates. Actual results in the future could differ from these estimates which may be material to the Annual Financial Statements.

Impairment testing

The recoverable amounts of individual assets have been determined based on value-in-use calculations. These calculations require the use of estimates and assumptions. It is reasonably possible that the value-in-use assumptions may change which may then impact our estimations and may then require a material adjustment to the carrying value of tangible and intangible assets.

The entity reviews and tests the carrying value of assets 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 are prepared for the value-in-use. The entity assesses its financial assets carried at amortised cost for impairment at each reporting date. In determining whether an impairment loss should be recorded in surplus or deficit, the entity makes judgements as to whether there is observable data indicating a measurable decrease in the estimated future cash flow from a financial asset.

Useful lives and residual values of property, plant and equipment and intangible assets

Management made certain estimates regarding the determination of estimated useful lives and residual values of items of property, plant and equipment. An annual assessment and review of estimated useful lives and residual values is performed, and any significant change is accounted for as a change in accounting estimate in accordance with GRAP 3.

Estimates involve judgement based on recently available, reliable information and therefore an estimate may change as new information becomes known, circumstances change or more experience is obtained. The entity recognises the effect of changes in accounting estimates prospectively, by including the effects in surplus or deficit in the period of the change if the change affects that period only or in the period of the change and future periods, if the change affects both.

1.3 Significant judgements and sources of estimation uncertainty (continued)

Allowance for doubtful debts

On debtors an impairment loss is recognised in surplus and deficit when there is objective evidence that it is impaired. NMISA estimates the level of provision required for doubtful debts on an ongoing basis, based on historical experience, as well as other specific relevant factors.

1.4 Property, plant and equipment

The cost of an item of property, plant and equipment is recognised as an asset when:

- it is probable that future economic benefits or service potential associated with the item will flow to the entity; and
- the cost of the item can be measured reliably.

Property, plant and equipment is initially measured at cost.

The cost of an item of property, plant and equipment is the purchase price and other costs attributable to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Trade discounts and rebates are deducted in arriving at the cost.

Where an asset is acquired through a non-exchange transaction, its cost is its fair value as at date of acquisition.

Where an item of property, plant and equipment is acquired in exchange for a non-monetary asset or monetary assets, or a combination of monetary and non-monetary assets, the asset acquired is initially measured at fair value (the cost). If the acquired item's fair value was not determinable, it's deemed cost is the carrying amount of the asset(s) given up.

When significant components of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Recognition of costs in the carrying amount of an item of property, plant and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management.

Property, plant and equipment are depreciated on the straight-line basis over their expected useful lives to their estimated residual value.

Property, plant and equipment is carried at cost less accumulated depreciation and any impairment losses.

The useful lives of items of property, plant and equipment have been assessed as follows:

ITEM	DEPRECIATION METHOD	AVERAGE USEFUL LIFE
Plant and machinery	Straight-line	7 to 20
Furniture and fixtures	Straight-line	7
Motor vehicles	Straight-line	7 to 10
Office equipment	Straight-line	5
Leasehold improvements	Straight-line	<Lease period/Useful life

The cost of leasehold improvement is depreciated over the shorter of lease period or the useful life.

The depreciable amount of an asset is allocated on a systematic basis over its useful life.

The entity assesses at each reporting date whether there is any indication that the entity expectations about the residual value and the useful life of an asset have changed since the preceding reporting date. If any such indication exists, the entity revises the expected useful life and/or residual value accordingly. The change is accounted for as a change in an accounting estimate.

The depreciation charge for each period is recognised in surplus or deficit unless it is included in the carrying amount of another asset.

Items of property, plant and equipment are derecognised when the asset is disposed of or when there are no further economic benefits or service potential expected from the use of the asset.

1.4 Property, plant and equipment (continued)

The gain or loss arising from the derecognition of an item of property, plant and equipment is included in surplus or deficit when the item is derecognised. The gain or loss arising from the derecognition of an item of property, plant and equipment is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

The entity separately discloses expenditure to repair and maintain property, plant and equipment in the notes to the financial statements (see note 3).

1.5 Intangible assets

An asset is identifiable if it either:

- is separable, i.e. is capable of being separated or divided from an entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable assets or liability, regardless of whether the entity intends to do so; or
- arises from binding arrangements (including rights from contracts), regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

An intangible asset is recognised when:

- it is probable that the expected future economic benefits or service potential that are attributable to the asset will flow to the entity; and
- the cost or fair value of the asset can be measured reliably.

Intangible assets are initially recognised at cost. The cost of intangible assets is the purchase price and other costs attributable to bring the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Trade discounts and rebates are deducted in arriving at the cost.

The entity assesses the probability of expected future economic benefits or service potential using reasonable and supportable assumptions that represent management's best estimate of the set of economic conditions that will exist over the useful life of the asset.

Where an intangible asset is acquired through a non-exchange transaction, its initial cost at the date of acquisition is measured at its fair value as at that date.

Expenditure on research (or on the research phase of an internal project) is recognised as an expense when it is incurred.

Intangible assets are carried at cost less any accumulated amortisation and any impairment losses.

The amortisation period and the amortisation method for intangible assets are reviewed at each reporting date.

Amortisation is provided to write down the intangible assets, on a straight-line basis, to their residual values as follows:

ITEM	DEPRECIATION METHOD	AVERAGE USEFUL LIFE
Computer software	Straight-line	2

Intangible assets are derecognised:

- on disposal; or
- when no future economic benefits or service potential are expected from its use or disposal.

The gain or loss arising from the derecognition of intangible assets is included in surplus or deficit when the asset is derecognised. The gains or loss arising from derecognition of an item of intangible asset is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.

1.6 Financial instruments

Classification

The entity has the following types of financial assets as reflected on the face of the statement of financial position or in the notes thereto:

CLASS	CATEGORY
Receivables	Receivables from exchange transactionst
Bank balances	Cash and cash equivalents

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:

CLASS	CATEGORY
Payables	Payables from exchange transactions

Initial measurement of financial assets and financial liabilities

The entity measures a financial asset and financial liability at its fair value plus transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

Subsequent measurement of financial assets and financial liabilities

Financial assets and liabilities are measured at amortised cost after initial recognition.

Financial assets

NMISA's principal financial assets are receivables from exchange transactions and cash and cash equivalents. Receivables from exchange transactions are classified as financial assets at amortised cost, a provision for impairment of trade receivables is established when there is objective evidence that the entity will not be able to collect amounts due according to the original terms of receivables. Cash and cash equivalents comprise deposits held on call with banks and are classified as financial assets at amortised cost.

Impairment and uncollectability of financial assets

The entity assesses at the end of each reporting period, whether there is any objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is impaired and impairment losses are incurred if, and only if, there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset (a loss event) and that loss event (or events) has an impact on the estimated future cash flow of the financial asset or group of financial assets that can be reliably estimated.

It may not be possible to identify a single, discrete event that caused the impairment, since it may have been the combined effect of several events that did so. Losses expected as a result of future events, no matter how likely, are not recognised. The entity first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant, and then follows a portfolio approach with the remaining financial assets. The impairment loss estimates equal the best estimates within a range of long outstanding assets with similar credit risk characteristics.

If there is objective evidence that an impairment loss on financial assets, measured at amortised cost, was incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flow (excluding future credit losses that have not been incurred) discounted at the financial asset's original effective interest rate. The carrying amount of the asset is reduced directly through the use of an allowance account. The amount of the loss is recognised in surplus or deficit.

If, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed directly or by adjusting an allowance account. The reversal does not result in a carrying amount of the financial asset that exceeds what the amortised cost would have been had the impairment not been recognised at the date the impairment is reversed.

1.6 Financial instruments (continued)

The amount of the reversal is recognised in surplus or deficit.

The entity derecognises a financial asset when:

- the contractual rights to the cash flow from the financial asset expire, are settled or waived
- the entity transfers to another party substantially all of the risks and rewards of ownership of the financial assets; or
- the entity, despite having retained some significant risks and rewards of ownership of the financial asset, has transferred control of the asset to another party and the other party has the practical ability to sell the asset in its entirety to an unrelated third party and is able to exercise that ability unilaterally and without needing to impose additional restrictions on the transfer.

Financial liabilities

NMISA's principal financial liabilities are payables from exchange transactions. Payables from exchange transactions are classified as financial liabilities at amortised cost.

Derecognition

The entity derecognises financial liabilities when, and only when, the entity's obligations are discharged, cancelled or when they expire.

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.

Operating leases – lessee

Operating lease payments are recognised as an expense on a straight-line basis over the lease term. The difference between the amounts recognised as an expense and the contractual payments are recognised as an operating lease asset or liability.

1.8 Inventories

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.

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

Inventories are measured at the lower of cost and current replacement cost where they are held for;

- distribution at no charge or for a nominal charge; or
- consumption in the production process of goods to be distributed at no charge or for a nominal charge.

Net realisable value is the estimated selling price in the ordinary course of operations less the estimated costs of completion and the estimated costs necessary to make the sale, exchange or distribution.

Current replacement cost is the cost the entity incurs to acquire the asset on the reporting date.

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.

The cost of inventories of items that are not ordinarily interchangeable and goods or services produced and segregated for specific projects is assigned using specific identification of the individual costs.

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

1.8 Inventories (continued)

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. If there is no related revenue, the expenses are recognised when the goods are distributed, or related services are rendered. The amount of any write-down of inventories to net realisable value or current replacement cost and all losses of inventories are recognised as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realisable value or current replacement cost, are recognised as a reduction in the amount of inventories recognised as an expense in the period in which the reversal occurs.

1.9 Impairment of cash-generating assets

Cash-generating assets are assets used with the objective of generating a commercial return. Commercial return means that positive cash flows are expected to be significantly higher than the cost of the asset.

Impairment is a loss in the future economic benefits or service potential of an asset, over and above the systematic recognition of the loss of the asset's future economic benefits or service potential through depreciation (amortisation).

At each reporting date, the entity reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). The recoverable amount is the higher of fair value less costs to sell and value in use.

If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. An impairment loss is recognised immediately as an expense.

Where an impairment loss subsequently reverses, the carrying amount of an asset is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior years. A reversal of an impairment loss is recognised immediately in surplus or deficit.

1.10 Impairment of non-cash-generating assets

Non-cash-generating assets are assets other than cash-generating assets. When the carrying amount of a non-cash generating asset exceeds its recoverable service amount, it is impaired. At each reporting date, the entity assesses whether there is any indication that a non-cash-generating asset may be impaired.

If any such indication exists, an entity estimates the recoverable service amount of the asset.

The present value of the remaining service potential of a non-cash-generating asset is determined, using one of the following approaches:

- depreciated replacement cost approach;
- restoration cost approach; or
- service units approach.

If the recoverable service amount of a non-cash-generating asset is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable service amount. This reduction is an impairment loss. An impairment loss is recognised immediately in surplus or deficit.

At each reporting date, the entity assesses whether there is any indication that an impairment loss, recognised in prior periods for a non-cash-generating asset, may no longer exist or may have decreased. If any such indication exists, the entity estimates the recoverable service amount.

1.11 Employee benefits

Short-term employee benefits

Recognition and measurement

All short-term employee benefits

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

(a) As a liability (accrued expense), after deducting any amount already paid. If the amount already paid exceeds the undiscounted amount of the benefits, the 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.

Short-term paid absences

The entity recognises the expected cost of short-term employee benefits in the form of paid absences as follows:

(a) in the case of accumulating paid absences, when the employees render service that increases their entitlement to future paid absences; and
(b) in the case of non-accumulating paid absences, when the absences occur.

The entity measures the expected cost of accumulating paid absences as the additional amount that the entity expects to pay as a result of the unused entitlement that has accumulated at the end of the reporting period.

Bonus, incentive and performance related payments

The entity recognises the expected cost of bonus, incentive and performance related payments when, and only when:

(a) the entity has a present legal or constructive obligation to make such payments as a result of past events; and
(b) a reliable estimate of the obligation can be made. A present obligation exists when, and only when, the entity has no realistic alternative but to make the payments.

Post-employment benefits: Defined contribution plans

Recognition and measurement

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

(a) as a liability (accrued expense), after deducting any contribution already paid. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, the 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; 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 wholly before twelve months after the end of the reporting period in which the employees render the related service, they are be discounted using the discount rate as specified.

1.12 Provisions and contingencies

Provisions are recognised when:

- the entity has a present obligation as a result of a past event;
- 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 of the obligation.

The amount of a provision is the best estimate of the expenditure expected to be required to settle the present obligation at the reporting date.

1.12 Provisions and contingencies (continued)

Where the effect of time value of money is material, the amount of a provision is the present value of the expenditures expected to be required to settle the obligation. The discount rate is a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability.

Where some or all of the expenditure required to settle a provision is expected to be reimbursed by another party, the reimbursement is recognised when, and only when, it is virtually certain that reimbursement will be received if the entity settles the obligation. The reimbursement is treated as a separate asset. The amount recognised for the reimbursement does not exceed the amount of the provision.

Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate. Provisions are reversed if it is no longer probable that an outflow of resources embodying economic benefits or service potential will be required, to settle the obligation.

A provision is used only for expenditures for which the provision was originally recognised.

1.13 Commitments

Items are classified as commitments when an entity has committed itself to future transactions that will normally result in the outflow of cash.

Disclosures are required in respect of unrecognised contractual commitments.

Commitments are recorded at cost in the notes to the financial statements when there is a contractual arrangement or an approval by management in a manner that raises a valid expectation that NMISA will discharge its responsibility thereby incurring future expenditure that will result in the outflow of cash.

1.14 Revenue from exchange transactions

Rendering of services

When the outcome of a transaction involving the rendering of services can be estimated reliably, revenue associated with the transaction is recognised by reference to the stage of completion of the transaction at the reporting date. The outcome of a transaction can be estimated reliably when all the following conditions are satisfied:

- the amount of revenue can be measured reliably;
- it is probable that the economic benefits or service potential associated with the transaction will flow to the entity;
- the stage of completion of the transaction at the reporting date can be measured reliably; and
- the costs incurred for the transaction and the costs to complete the transaction can be measured reliably.

Revenue is measured at the fair value of the consideration received or receivable.

Interest

Revenue arising from the use by others of entity assets yielding interest, royalties and dividends or similar distributions is recognised when:

- It is probable that the economic benefits or service potential associated with the transaction will flow to the entity; and
- The amount of the revenue can be measured reliably.

Interest is recognised, in surplus or deficit, using the effective interest rate method for financial instruments.

1.15 Revenue from non-exchange transactions

Revenue from non-exchange transaction is measured at the amount of the increase in net asset recognised by the entity. NMISA receives an unconditional grant via the DTIC.

1.16 Translation of foreign currencies

Foreign currency transactions

A foreign currency transaction is recorded, on initial recognition in Rands, by applying to the foreign currency amount the spot exchange rate between the functional currency and the foreign currency at the date of the transaction.

At each reporting date:

- foreign currency monetary items are translated using the closing rate;
- non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction; and
- non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was determined.

Exchange differences arising on the settlement of monetary items or on translating monetary items at rates different from those at which they were translated on initial recognition during the period or in previous Annual Financial Statements are recognised in surplus or deficit in the period in which they arise.

1.17 Irregular expenditure

Irregular expenditure means expenditure other than unauthorised expenditure, incurred in contravention of or that is not in accordance with a requirement of any applicable legislation.

Irregular expenditure is accounted for in line with all relating requirements, including, but not limited to, ruling Legislation, Regulations, Frameworks, Circulars, Instruction Notes, Practice Notes, Guidelines etc. (as applicable).

Irregular expenditure is recorded in the notes to the financial statements when confirmed. The amount recorded is equal to the value of the irregular expenditure incurred unless it is impracticable to determine, in which case reasons therefore are provided in the notes.

Irregular expenditure is removed from the note when it is either condoned by the relevant authority, transferred to receivables for recovery or not condoned and is not recoverable. Irregular expenditure receivables are measured at the amount that is expected to be recoverable and are de-recognised when settled or subsequently written-off as irrecoverable.

1.18 Budget information

Entities are typically subject to budgetary limits in the form of appropriations or budget authorisations (or equivalent), which is given effect through authorising legislation, appropriation or similar. General purpose financial reporting by entity shall provide information on whether resources were obtained and used in accordance with the legally adopted budget.

The approved budget is prepared on a modified cash basis and presented by economic classification linked to performance outcome objectives. The approved budget covers the fiscal period from 2024/04/01 to 2025/03/31. A comparison with the budgeted amounts for the reporting period have been included in the statement of comparison of budget and actual amounts.

NOTES TO THE ANNUAL FINANCIAL STATEMENTS

2. NEW STANDARDS AND INTERPRETATIONS

2.1 Standards and interpretations issued, but not yet effective

The entity has not applied the following standards and interpretations, which have been published and are mandatory for the entity's accounting periods beginning on or after 1 April 2025 or later periods:

STANDARD/INTERPRETATION	EFFECTIVE DATE: YEARS BEGINNING ON OR AFTER	EXPECTED IMPACT
GRAP 107 (as revised) Mergers	Not set by the Minister of Finance	Unlikely there will be a material impact, no known intention for mergers
GRAP 106 (as revised) Transfer of Functions Between Entities Not Under Common Control	Not set by the Minister of Finance	Unlikely there will be a material impact, no known intention to transfer functions
GRAP 105 Transfer of Functions Between Entities Under Common Control	Not set by the Minister of Finance	Unlikely there will be a material impact, no know intention to transfer functions
GRAP 2023 Improvements to the Standards of GRAP 2023	Not set by the Minister of Finance	Not expected to impact results but may result in additional disclosure
GRAP 1 (amended): Presentation of Financial Statements (Going Concern)	Not set by the Minister of Finance	Not expected to impact results but may result in additional disclosure
GRAP 103 (amended): Heritage Assets	Not set by the Minister of Finance	Unlikely there will be a material impact, no heritage assets
iGRAP 22 Foreign Currency Transactions and Advance Consideration	1 April 2025	Unlikely there will be a material impact, foreign exchange transactions at spot rate
GRAP 104 (as revised): Financial Instruments	1 April 2025	May have an impact on material trade debtors

3. PROPERTY, PLANT AND EQUIPMENT

FIGURES IN RAND	2025			2024		
	COST/ VALUATION	ACCUMULATED DEPRECIATION AND ACCUMULATED IMPAIRMENT	CARRYING VALUE	COST/ VALUATION	ACCUMULATED DEPRECIATION AND ACCUMULATED IMPAIRMENT	CARRYING VALUE
Plant and machinery	773 825 345	(350 188 177)	423 637 168	792 977 969	(320 264 092)	472 713 877
Furniture and fixtures	4 151 178	(1 842 503)	2 308 675	9 693 462	(6 178 857)	3 514 605
Motor vehicles	1 524 105	(807 295)	716 810	1 527 579	(605 036)	922 543
Office equipment	16 593 616	(13 243 348)	3 350 268	27 810 137	(20 877 279)	6 932 858
Leasehold improvements	53 795 887	(25 428 079)	28 367 808	55 790 001	(21 053 770)	34 736 231
Total	**849 890 131**	**(391 509 402)**	**458 380 729**	**887 799 148**	**(368 979 034)**	**518 820 114**

Reconciliation of property, plant and equipment – 2025

FIGURES IN RAND	OPENING BALANCE	ADDITIONS	DISPOSALS	OTHER MOVEMENTS	DEPRECIATION	IMPAIRMENT LOSS	TOTAL
Plant and machinery	472 713 877	5 293 728	(2 543 700)	-	(51 404 177)	(422 560)	423 637 168
Furniture and fixtures	3 514 605	245 749	-	-	(1 451 679)	-	2 308 675
Motor vehicles	922 543	-	-	-	(205 733)	-	716 810
Office equipment	6 932 858	-	(92 689)	(79 189)	(3 410 712)	-	3 350 268
Leasehold improvements	34 736 231	-	(23 308)	-	(6 345 115)	-	28 367 808
	518 820 114	**5 539 477**	**(2 659 697)**	**(79 189)**	**(62 817 416)**	**(422 560)**	**458 380 729**

* Other movements relate to reclassification to expenditure of assets procured in previous years and now ready for use.

Reconciliation of property, plant and equipment – 2024

FIGURES IN RAND	OPENING BALANCE	ADDITIONS	DISPOSALS	DEPRECIATION	IMPAIRMENT LOSS	TOTAL
Plant and machinery	485 160 392	33 721 100	(404 692)	(45 452 371)	(310 552)	472 713 877
Furniture and fixtures	3 880 505	401 221	-	(767 121)	-	3 514 605
Motor vehicles	588 714	530 385	-	(196 556)	-	922 543
Office equipment	9 064 774	110 066	-	(2 241 982)	-	6 932 858
Leasehold improvements	39 687 774	1 375 168	-	(6 326 711)	-	34 736 231
	538 382 159	**36 137 940**	**(404 692)**	**(54 984 741)**	**(310 552)**	**518 820 114**

Included in the carrying value of property, plant and equipment is assets delivered but not yet installed and commissioned to the value of R10 730 770 (2024: R28 892 858).

Disposals mainly relate to assets which were disposed from the fixed asset register due to a change in the capitalisation threshold. The capitalisation threshold was changed from R2 000 to R25 001, all assets below this threshold were fully depreciated and disposed from the fixed asset register.

The carrying value of property, plant and equipment has not been pledged as security.

Expenditure incurred to repair and maintain property, plant and equipment included in Statement of Financial Performance

FIGURES IN RAND	2025	2024
General expenses	8 962 601	8 367 912

4. INTANGIBLE ASSETS

FIGURES IN RAND	2025			2024		
	COST/ VALUATION	ACCUMULATED AMORTISATION AND ACCUMULATED IMPAIRMENT	CARRYING VALUE	COST/ VALUATION	ACCUMULATED AMORTISATION AND ACCUMULATED IMPAIRMENT	CARRYING VALUE
Computer software	14 328 609	(13 842 460)	486 149	16 275 309	(14 359 827)	1 915 482

Reconciliation of intangible assets – 2025

FIGURES IN RAND	OPENING BALANCE	AMORTISATION	TOTAL
Computer software	1 915 482	(1 429 333)	486 149

Reconciliation of intangible assets – 2024

FIGURES IN RAND	OPENING BALANCE	ADDITIONS	AMORTISATION	TOTAL
Computer software	1 218 852	2 605 273	(1 908 643)	1 915 482

5. PAYABLES FROM EXCHANGE TRANSACTIONS

FIGURES IN RAND	2025	2024
Trade payables*	12 361 056	1 987 816
Payments received in advanced - contract in process	4 123 265	4 051 091
Accrued leave pay	4 501 942	4 511 952
Accrued 13th cheque	741 119	801 928
Accrued expense	1 371 235	1 657 298
Accrued expense relating to employee costs	59 942	-
	23 158 559	**13 010 085**

* Includes R7 million owed to Microsoft Ireland Operations Limited in respect of Dynamics 365 software license and R1.6 million to CSIR.

6. PREPAYMENTS

FIGURES IN RAND	2025	2024
Prepayments – Non-current assets	5 745 683	392 015
Prepayments – Current assets	11 830 346	20 288 807

Includes R12 million paid to National Physical Laboratory, a British metrology institute, which is a strategic partner to NMISA in many areas but more specifically on the development of the kibble watt balance and the related instruments for effective functioning of the entire system. The remaining balance mainly relates to prepaid expenses for software licence.

7. INVENTORIES

FIGURES IN RAND	2025	2024
Raw materials	8 151 089	7 343 904
Finished goods	2 523 861	2 969 792
	10 674 950	**10 313 696**
Inventories recognised as an expense during the year	718 192	572 444

Inventory is carried at lower of cost or net realisable value. Inventory was not pledged as security for liabilities.

8. RECEIVABLES FROM EXCHANGE TRANSACTIONS

FIGURES IN RAND	2025	2024
Trade debtors	8 626 718	9 732 058
Employee advances and other receivables^	3 077 022	3 190 344
Rental deposit*	3 409 119	3 216 110
Provision for impairment of trade and other receivables	(3 880 458)	(4 642 208)
	11 232 401	**11 496 304**
Non-current assets	3 409 119	3 216 110
Current assets	7 823 282	8 280 194
	11 232 401	**11 496 304**

^ Includes R3 054 797 (2024: R3 097 791) debt raised for recovery of bursaries for formal studies. Demand letters are sent to former bursars by the Legal office, and some of the debts have been handed over to attorneys for collection. Most of the debts are close to reaching the prescription period.

* The rental deposit is refundable to the entity at the end of the lease term. The deposit is invested by the Lessor in an interest- bearing account with a financial institution and is capitalised at a rate of 100 basis points lower than the actual interest rate earned on the interest-bearing account to make provision for administration costs.

NMISA does not hold any collateral as security. The impairment of trade and other receivables was determined with reference to probability of collection of the amounts.

Trade and other receivables past due but not impaired

Trade and other receivables which are less than 3 months past due are not considered to be impaired. At 31 March 2025, R3 946 476 (2024: R3 720 907) were past due but not impaired.

The ageing of amounts past due but not impaired is as follows:

FIGURES IN RAND	2025	2024
1 month past due	3 228 390	3 110 026
2 months past due	613 364	412 016
3 months past due	104 722	198 865

Reconciliation of provision for impairment of trade and other receivables

FIGURES IN RAND	2025	2024
Opening balance	4 642 208	3 273 804
Provision for impairment*	3 880 458	4 642 208
Amounts written off as uncollectible	(863 486)	-
Unused amounts reversed	(3 778 722)	(3 273 804)
	3 880 458	**4 642 208**

* Includes R2 914 377 (2024: R2 949 872) raised for debt arising from non-recovery of bursaries for formal studies.

9. CASH AND CASH EQUIVALENTS

FIGURES IN RAND	2025	2024
Cash and cash equivalents consist of:		
Cash on hand	11 596	16 214
Bank balances	1 195 477	1 185 592
Short-term deposits*	86 360 979	52 097 365
	87 568 052	**53 299 171**

* Short-term deposit consist of Money Market account held with Standard Bank and the Call account held with the South African Reserve Bank.

Credit quality of cash at bank and short-term deposits, excluding cash on hand

There are no restrictions on cash held with banks. Cash and cash equivalents (excluding cash on hand) are held with Standard Bank, which is rated BB- based on rating agency Fitch Ratings.

10. SURRENDER OF SURPLUSES

The entity annually declares all surpluses or deficits to the relevant Treasury. A request is submitted to the relevant Treasury to retain surpluses in terms of section 53(3) of the PFMA, as and when appropriate. The surplus for the year as per Treasury Instruction note is R28 605 219. The entity will be required to surrender for re-depositing into the relevant Revenue Fund, all surpluses that were realised in a particular financial year which were not approved for retention by the relevant Treasury in terms of section 53(3) of the PFMA.

11. REVENUE

FIGURES IN RAND	2025	2024
Rendering of services^	26 984 826	28 444 471
Other income*	918 417	-
Gain on exchange differences	47 453	-
Interest received – investment	8 306 623	11 938 883
Transfer from controlling entity	177 312 000	152 722 000
	213 569 319	**193 105 354**

^ Revenue from calibration and measurement services, reference materials and training and consulting.

* Other income mainly relates to insurance pay out in respect of flooding in one of the laboratories.

FIGURES IN RAND	2025	2024
The amount included in revenue arising from exchanges of goods or services are as follows:		
Rendering of services	26 984 826	28 444 471
Other income	918 417	-
Interest received – investment	8 306 623	11 938 883
	36 209 866	**40 383 354**
The amount included in revenue arising from non-exchange transactions is as follows:		
Transfer from controlling entity	177 312 000	152 722 000

12. EMPLOYEE RELATED COSTS

FIGURES IN RAND	2025	2024
Basic	103 954 440	115 518 388
Gratuity	1 000 000	-
UIF	533 597	618 030
Leave pay charge*	(10 010)	(2 502 860)
Long-service awards	77 224	-
	105 555 251	**113 633 558**

* Employees are utilising their leave days.

13. GENERAL EXPENSES

FIGURES IN RAND	2025	2024
Auditors remuneration	754 812	747 473
Bursaries	43 218	251 630
Catering, events and meetings	286 609	314 790
Chemicals and laboratory consumables	4 292 115	5 386 883
Consulting and professional fees	516 823	510 606
Electricity	7 209 999	5 572 494
External calibration costs	1 428 312	570 908
Health and safety services	809 340	702 446
Insurance	1 964 243	1 657 663
IT expenses	15 391 722	13 276 538
Lease rentals on operating lease	26 783 470	24 571 991
Legal fees	2 748 743	1 086 454
Marketing	373 199	789 993
Other expenses	941 659	2 067 902
Postage and courier	1 170 072	1 848 488
Printing and stationery	1 046 763	675 891
Recruitment costs	433 407	328 002
Repairs and maintenance	8 962 601	8 367 912
SANAS assessments/quality expenses	1 057 885	1 073 821
Staff welfare	318 267	307 709
Subscriptions and membership fees	765 255	590 363
Technical components	1 101 322	3 758 578
Telephone and fax	359 426	100 219
Training	745 038	613 869
Travel – local	241 514	381 994
Travel – overseas	1 403 790	2 353 507
VAT on imported services	213 611	1 165 859
	81 363 215	**79 073 983**

14. CASH GENERATED FROM OPERATIONS

FIGURES IN RAND	2025	2024
Deficit	(40 755 753)	(58 714 643)
Adjustments for:		
Depreciation and amortisation	64 246 749	56 893 384
Loss on disposal of assets	2 635 561	401 692
(Gain)/loss on foreign exchange	(47 453)	138 424
Impairment loss	422 560	310 552
Credit losses on receivables	101 736	1 368 404
Changes in working capital:		
Inventories	(361 254)	(1 308 158)
Receivables from exchange transactions	162 167	(1 624 663)
Prepayments	3 104 793	10 457 348
Payables from exchange transactions	10 195 927	(4 961 254)
	39 705 033	**2 961 086**

15. COMMITMENTS

FIGURES IN RAND	2025	2024
Authorised capital expenditure: Already contracted for but not provided for		
- Property, plant and equipment	28 155 101	28 991 105
Authorised operational expenditure: Already contracted for but not provided for		
- General expenses	15 472 455	13 842 315
Total commitments		
Authorised capital expenditure	28 155 101	28 991 105
Authorised operational expenditure	15 472 455	13 842 315
	43 627 556	**42 833 420**

The delivery lead times for equipment procured by NMISA can be anything up to a year and in some cases beyond a year. At times, funds are often rolled over annually in the form of commitments, for those awards made for which equipment has not yet been delivered.

NMISA procures specialised equipment (custom made on order or assembled to order according to specification by international manufacturers). Some of the equipment is only used by National Metrology Institutes and the components need to be characterised and tested on assembly. This equipment must be thoroughly tested, verified and calibrated to ensure traceability to International Standards before delivery, since the results generated are used as input into uncertainty of measurement calculations.

Operating leases – as lessee (expense)

FIGURES IN RAND	2025	2024
Minimum lease payments due		
- within one year	28 926 147	26 783 470
- in second to fifth year inclusive	130 463 064	131 287 116
- later than five years	-	36 578 051
	159 389 211	**194 648 637**

15. COMMITMENTS (continued)

Operating lease payments represent rentals payable by the entity for office properties. Lease for properties is negotiated for a term of nine years and eight months, commencing on 1 April 2020. The rental increases on 1 April of each consecutive year, the increase will be based on CPI plus 3%. The rental is payable monthly in advance. No contingent rent is payable.

FIGURES IN RAND	2025	2024
Rental expenses relating to operating leases		
Minimum lease payments	26 783 470	24 571 991

Operating leases – as lessee (expense)

FIGURES IN RAND	2025	2024
Minimum lease payments due		
- within one year	109 800	249 200
- in second to fifth year inclusive	-	109 800
	109 800	**359 000**

Operating lease payments represent rentals payable by the entity for printers. Lease is negotiated for a term of 36 months, commencing on 1 September 2022. The rates will escalate annually on the anniversary of the Rental Agreement by a minimum of 15% per annum and may also vary from time to time in accordance with the service providers pricing schedules and contract structures necessitated by unfavourable exchange rates, inflation, and increase in labour, spares, and fuel and/or transport costs. The rental is payable monthly in arrears. No contingent rent is payable.

FIGURES IN RAND	2025	2024
Rental expenses relating to operating leases		
Minimum lease payments	229 149	210 053

16. RELATED PARTIES

The Department of Trade, Industry and Competition (the DTIC) is the controlling entity and all the entities reporting to the DTIC are under common control. The Minister of the DTIC is the executive authority of NIMSA. NMISA is ultimately controlled by the national executive. It is therefore related to all other entities within the national government. NMISA received a transfer payment of R177 312 000, from the National Revenue Fund through the DTIC. There were no amounts owing to or by NMISA to the DTIC.

NMISA provides calibration and measurement services, reference materials and training and consulting to the public sector. The services are provided under normal customer/supplier relationships at arm's length in the ordinary course of business. The revenue from these transactions is included in the statement of financial performance. At 31 March 2025, the following amounts were owing to/by NMISA to other national public sector entities (amounts owed included in receivables/payables from exchange transactions):

FIGURES IN RAND	2025	2024
Related party balances		
Amounts included in Trade Receivable regarding entities under common control		
South African National Accreditation System (SANAS)	123 036	184 109
South African Bureau of Standards (SABS)	15 670	66 472
National Nuclear Regulator	199 151	-
Amounts included in Trade Payable regarding entities under common control		
South African National Accreditation System (SANAS)	51 846	182 637
South African Bureau of Standards (SABS)	53 008	266 029
Commitments with entities under common control		
South African National Accreditation System (SANAS)	165 126	63 783
South African Bureau of Standards (SABS)	222 663	22 847

16. RELATED PARTIES (continued)

Board and management remuneration

Board members

FIGURES IN RAND	FEES FOR SERVICES AS A MEMBER OF THE BOARD	OTHER EXPENSES*	TOTAL
2025			
Dr Precious Gugulethu Motshwene	97 603	440	98 043
Dr Alufelwi Maxwell Tshavhungwe	-	796	796
Dr James Tshilongo	113 370	1 484	114 854
Ms Senamile Masango	42 514	-	42 514
Ms Sara Natalia Prins	75 580	138	75 718
Ms Babalwa Songongo	113 370	-	113 370
Prof. Lorna Benita Holtman	66 133	-	66 133
Prof. Andrew Buffler	61 409	-	61 409
Dr Charl Wynand Louw	80 304	234	80 538
	650 283	**3 092**	**653 375**

FIGURES IN RAND	FEES FOR SERVICES AS A MEMBER OF THE BOARD	OTHER EXPENSES*	TOTAL
2024			
Ms Lindie Lankalebalelo – Term ended 30 June 2023	54 933	5 186	60 119
Ms Nobom Gcinashe Mfabana – Term ended 30 June 2023	34 767	-	34 767
Mr Molelekoa Petrus Mohlomi – Term ended 30 June 2023	30 734	963	31 697
Dr Precious Gugulethu Motshwene	74 235	1 093	75 328
Dr Alufelwi Maxwell Tshavhungwe	-	105	105
Dr James Tshilongo	47 238	1 652	48 890
Ms Senamile Masango	42 514	-	42 514
Ms Sara Natalia Prins	51 961	540	52 501
Ms Babalwa Songongo	47 238	-	47 238
Prof. Lorna Benita Holtman	37 790	-	37 790
Prof. Andrew Buffler	33 066	-	33 066
Dr Charl Wynand Louw	14 171	-	14 171
	468 647	**9 539**	**478 186**

* Other expenses relates to reimbursements for kilometres travelled.

16. RELATED PARTIES (continued)

Independent committee members of the Board

FIGURES IN RAND	FEES FOR SERVICES AS A MEMBER OF THE COMMITTEE	OTHER EXPENSES*	TOTAL
2025			
Mr Zenzele Myeza	124 218	1 504	125 722
Ms Romeshni Govender	115 937	580	116 517
Dr Nomathamsanqa Rachel Batyashe	27 398	-	27 398
Ms Monageng Maureen Mavunda	36 845	-	36 845
	304 398	**2 084**	**306 482**

FIGURES IN RAND	FEES FOR SERVICES AS A MEMBER OF THE COMMITTEE	TOTAL
2024		
Mr Zenzele Myeza	49 687	49 687
Ms Romeshni Govender	66 250	66 250
Dr Nomathamsanqa Rachel Batyashe	13 588	13 588
Ms Monageng Maureen Mavunda	9 448	9 448
	138 973	**138 973**

* Other expenses relates to reimbursements for kilometres travelled.

Management class: Executive management

FIGURES IN RAND	BASIC SALARY	ANNUAL BONUS/LEAVE PAYOUT	PENSION FUND CONTRIBUTIONS	ALLOWANCES	TOTAL
2025					
Dr Jeseelan Pillay	1 939 984	-	114 722	146 409	2 201 115
Mr Mogau Sehlapelo	2 320 158	-	185 150	19 030	2 524 338
Mrs Natasha van der Walt	1 823 219	-	236 391	18 000	2 077 610
Dr Jayne de Vos	1 886 787	-	272 131	584 861	2 743 779
Mr Teboho Mthombeni	1 167 454	76 058	285 202	85 500	1 614 214
	9 137 602	**76 058**	**1 093 596**	**853 800**	**11 161 056**

FIGURES IN RAND	BASIC SALARY	BONUSES AND PERFORMANCE RELATED PAYMENTS	PENSION FUND CONTRIBUTIONS	ALLOWANCES	OTHER EXPENSES	TOTAL
2024						
Mr Ndwakhulu Mukhufhi	1 257 576	274 777	30 095	17 272	1 556	1 581 276
Mr Mogau Sehlapelo	2 243 191	-	108 458	33 569	-	2 385 218
Dr Wynand Louw	1 148 934	131 107	90 848	150 540	21 827	1 543 256
Mr Benjamin van der Merwe	142 236	125 407	-	3 195	-	270 838
Mrs Natasha van der Walt	1 760 671	-	138 313	32 831	558	1 932 373
Dr Jayne de Vos	1 822 649	-	159 276	143 763	-	2 125 688
Mr Teboho Mthombeni	1 513 732	-	209 791	353 966	-	2 077 489
Dr Jeseelan Pillay	1 873 744	-	67 135	47 596	-	1 988 475
	11 762 733	**531 291**	**803 916**	**782 732**	**23 941**	**13 904 613**

17. RISK MANAGEMENT

Financial risk management

The entity's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk.

The entity has and will continue to prioritise immediate financial and operational measures such as protecting liquidity and cash flows. The entity's overall risk management program seeks to minimise potential adverse effects on the entity's financial performance.

Liquidity risk

Prudent liquidity risk management implies maintaining sufficient cash. NMISA's primary source of funding is the grant received from the DTIC. NMISA maintains liquidity by limiting capital and operational expenditure within the pre-approved budget. The entity's risk to liquidity is a result of the funds available to cover future commitments. The entity manages liquidity risk through an ongoing review of future commitments.

The table below analyses the entity's financial liabilities into relevant maturity groupings based on the remaining period at the statement of financial position to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows. Balances due within 12 months equal their carrying balances as the impact of discounting is not significant.

FIGURES IN RAND	LESS THAN 1 YEAR	BETWEEN 1 AND 2 YEARS	BETWEEN 2 AND 5 YEARS	OVER 5 YEARS
At 31 March 2025				
Payables from exchange transactions	23 158 559	-	-	-

FIGURES IN RAND	LESS THAN 1 YEAR	BETWEEN 1 AND 2 YEARS	BETWEEN 2 AND 5 YEARS	OVER 5 YEARS
At 31 March 2024				
Payables from exchange transactions	13 010 085	-	-	-

Credit risk

Credit risk consists mainly of cash deposits, cash equivalents, financial instruments and trade debtors. The entity only deposits cash with major banks with high quality credit standing and limits exposure to any one counter-party.

Trade and other receivables comprise a widespread customer base. Management evaluated credit risk relating to customers on an ongoing basis. If customers are independently rated, these ratings are used. Otherwise, if there is no independent rating, risk control assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. The utilisation of credit limits is regularly monitored.

The entity establishes an impairment that represents its estimate of potential losses in respect of trade and other receivables, all receivables between 60 and 120 days and individually based on payment history, are considered for impairment. The provision for impairment is 33% (2024: 36%) of the total receivables book.

Financial assets exposed to credit risk at year end were as follows:

FIGURES IN RAND	2025	2024
Financial instrument		
Cash an cash equivalents	87 568 052	53 299 171
Trade and other receivables	11 703 740	12 922 402
Less: Provision for impairment of trade receivables	(3 880 458)	(4 642 208)
Rental deposit	3 409 119	3 216 110

17. RISK MANAGEMENT (continued)

Market risk

Interest rate risk

NMISA's interest rate risk arises from markets and economic factors, payables, cash and cash equivalents. The entity's exposure to interest rate risk is minimal due to the following factors:

- interest is not paid on trade payables as it is the policy of the entity to settle within 30 days of receipt of a valid invoice; and
- the PFMA does not allow for the entity to utilise bank overdraft facilities.

Based on the activities of NMISA, the only area affected by interest rate risk is investment income, earned on call deposits. These call deposits are held short-term, and the interest rate is linked to the prime rate. The exposure to the changes in interest rate for a short-term deposit is not material.

NMISA's exposure to risk of changes in market interest rates relates primarily to cash in notice deposits held with banks.

FIGURES IN RAND	2025	2024
Cash and cash equivalents		
Short-term deposits	86 360 979	52 097 365

Foreign exchange risk

The entity does not hedge foreign exchange fluctuations.

The entity's exposure to this risk is due to the purchase of specialised equipment from foreign suppliers. To the extent that the transactions are considered to be material, where possible suppliers are required to provide firm prices to minimise the risk. The entity reviews its foreign currency exposure, including commitments on an ongoing basis. The entity has transacted in the following currencies USD, EUR, GBP and CHF, the impact of currency fluctuations has been immaterial.

18. GOING CONCERN

The Annual Financial Statements have been prepared on the basis of 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.

19. EVENTS AFTER THE REPORTING DATE

No events after the reporting date were identified by management that would affect the operations of NMISA or the results of those operations significantly.

20. IRREGULAR EXPENDITURE

FIGURES IN RAND	2025	2024
Irregular expenditure	-	391 567

Irregular expenditure is presented inclusive of VAT.

21. BUDGET DIFFERENCES

Material differences between budget and actual amounts

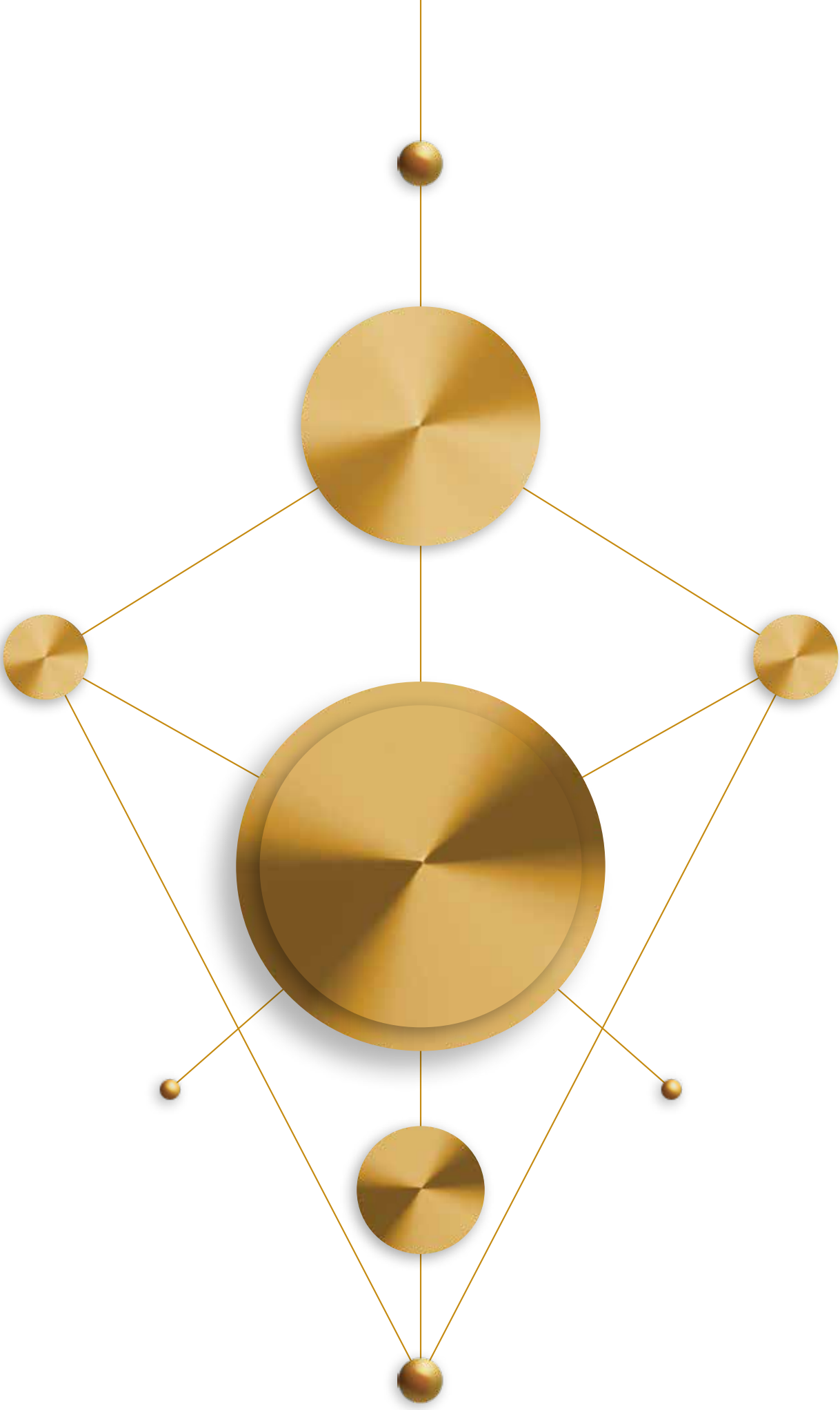
21.1 Favourable variance due to higher bank balance than anticipated during budgeting resulting from savings on compensation of employees and prior and current year commitments for which deliveries have not been made.

21.2 The underspent is due to late approval and implementation of the procurement plan, thus some of the tenders had not resulted into a purchase order. Furthermore, funds were committed but not yet expensed.

21.3 Depreciation, credit losses and gains/losses on disposals of assets are non-cash items which are not budgeted for.

NOTES

NOTES



nmisa
National Metrology Institute of South Africa

CSIR Campus, Building 5, Meiring Naudé Road, Brummeria, Pretoria, 0182, South Africa
Private Bag X34, Lynnwood Ridge, Pretoria, 0040, South Africa
Reception: +27 12 947 2800 | Calibration Office: +27 12 947 2850 | info@nmisa.org | www.nmisa.org