

# **ANNUAL REPORT**

2019/2020



Compliance with Laws and Regulations

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# 1. Public Entity General Information

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BANKERS	Standard Bank Lynnwood Ridge Pretoria
COMPANY/ BOARD SECRETARY	Adams and Adams (term ended January 2020)

# 2. ABBREVIATIONS/ACRONYMS

**AfCFTA** Africa Continental Free Trade Area **AFRIMETS** Intra-Africa Metrology System **AGSA** Auditor General of South Africa **APMP** Asia Pacific Metrology Programme

**ARC** Audit and Risk Committee

**BIPM** International Bureau of Weights and Measures **BBBEE Broad Based Black Economic Empowerment** 

CA(SA) South African Chartered Accountant

CC Consultative Committee

**CCQM** Consultative Committee for Amount of Substance: Chemistry and Biology

CCU Consultative Committee for Units

**CFO** Chief Financial Officer

**CGPM** General Conference on Weights and Measures

**CO2** Carbon Dioxide

**CIPM** International Committee for Weights and Measures

**CMCs** Calibration and Measurement Capabilities

**COIDA** Compensation for Occupational Injuries and Disease Act

**COMESA** Common Market for East and Southern Africa

**CRMs** Certified Reference Materials

**CRMA** Certification in Risk Management Assurance

**DRL** Diagnostic Reference Levels

the dtic Department of Trade, Industry and Competition

**EWP Employee Wellness Programme** 

**GHG** Greenhouse Gas

**GRAP Generally Recognised Accounting HCD Human Capital Development** 

HR **Human Resources** 

**HRRC Human Resources and Remuneration Committee** 

**IAEA** International Atomic Energy Agency

**IASBs** International Accounting Standards Board **IFRS** International Financial Reporting Standards

**ILCS** Inter-Laboratory Comparisons **IPAP Industrial Policy Action Plan** 

**IPSASB** International Public Sector Accounting Standards Board

**IRBA Independent Board for Auditors** 

IR **Integrated Report**  ISA International Standard on Auditing

**KPI Key Performance Indicator KSAs** Knowledge, Skills and Attributes

LLB Bachelor of Laws

**MBL** Master of Business Leadership

**MEPS** Minimum Energy Performance Standards

**MRA Mutual Recognition Arrangement** 

MSc Master of Science Degree

**MTEF** Medium Term Expenditure Framework

**NDP** National Development Plan

**NERSA** National Energy Regulator of South Africa

**NMIs** National Metrology Institutes

**NMISA** National Metrology Institute of South Africa

**NMS** National Measurement Standards

NPL National Physical Laboratory (United Kingdom) **NRCS** National Regulator for Compulsory Specifications

NSI National System of Innovation

**OHSAS** Occupational Health and Safety Management Certification

PAA **Public Audit Act** 

**PFMA** Public Finance Management Act

PhD Doctor of Philosophy

**PPFA** Preferential Procurement Framework Act

PTS **Proficiency Testing Scheme** QI Quality Infrastructure QS **Quality System** 

**REMCO** 

Remuneration Committee **RMO** 

Regional Metrology Organisation **RMS** Reference Materials

**RPPs** Renewable Power Plants

**SABS** South African Bureau of Standards

SADC Southern Africa Development Community **SADCMET** SADC Corporation in Measurement Traceability **SANAS** South African National Accreditation Systems

SAST South Africa Standard Time SCM Supply Chain Management SEC Social and Ethics Committee

**SMEs** Small and Medium Sized Enterprises **SMME** Small, Medium and Micro Enterprises

S<sub>0</sub>Es State-Owned Enterprises

**STEM** Science, Technology, Engineering and Mathematics

**Stats SA** Department of Statistics South Africa

**TBT Technical Barriers to Trade** 

TC-QS **Technical Committee for Quality Systems** 

**ToR** Terms of Reference TR **Treasury Regulations** 

UTC Coordinated Universal Time

X-ray X-Radiation

# 3. FOREWORD BY THE MINISTER



Mr Ebrahim Patel

This Annual Report provides an account of the National Metrology Institute of South Africa (NMISA) for the past financial year ending March 2020.

The sixth government administration took office following the national elections in May 2019, with a re-imagined industrial strategy for the country focused on localisation and a renewed promise, passion and urgency to address long standing socio-economic challenges.

The 2019 Presidential Investment Conference, held in November 2019 demonstrated sustained commitment and productive partnerships between the public and private sector in rebuilding the economy. Some R364 billion of further commitments were made (21% higher than at the inaugural Conference the previous year), with potential to create over 400 000 jobs over a five year period. This brings the total of investment commitments made at the two Conferences (2018 and 2019) to R664 billion, more than 50% of the five-year target set by the President in 2018.

The new **dtic** family accelerated the development and implementation of sector masterplans, completing these 'industry social pacts' in the automotive, poultry, sugar and clothing and textile sectors. These serve as a blueprint to harness energies amongst industry players for investment and increased output and jobs in sectors which together employ some 500 000 people. The Master Plans set out practical and reciprocal actions that each social partner at industry level would take to build more resilient businesses and industries. We are now working on sector masterplans in the steel and furniture sectors, which we expect to complete in the coming year.

Significant progress was made with the finalisation of the modalities of the new African Continental Free Trade Area (AfCFTA), and with a trade agreement to address access to the United Kingdom in the event of a no-deal Brexit.

In the technical support for industrial development, NMISA's role was to consolidate measurement support services for Government Departments and Regulators, presenting measurement results that are independent from commercial bias. The entity worked on measurement solutions to health care, environmental protection, food production, energy efficiency, electricity distribution, traffic surveillance and trade matters.

The economic environment brought on by Covid-19 has dented growth both locally and globally. The pandemic and its economic fallout have been described by leading economists as unprecedented in our generation. Across the world, countries are reporting or forecasting their lowest growth in at least a generation.

For public entities, the pandemic principally impacted on their work beyond the financial year, placing pressure on delivery platforms and in a number of cases, on their finances.

To repair the damage of Covid-19 and reconstruct the economy to create more jobs, bring more young people into entrepreneurship and increase economic inclusion, we need to think boldly and implement smartly.

To address the immediate and urgent challenges of the economy, government and its social partners have agreed to an Economic Reconstruction and Recovery Plan. The Plan includes structural reforms and a commitment to greater levels of localisation and infrastructure investment. These measures will impact and shape the work of the **dtic** and its agencies.

Every agency of the dtic will be required to play its role in ensuring a steady recovery from the pandemic, and to continue execution of the re-imagined industrial strategy, outlined by President Ramaphosa at the start of this administration.

NMISA has achieved an overall performance evaluation of 97% and a clean audit for the 2019/20 financial year.

I would like to acknowledge the NMISA CEO, executive management and staff as well as the Board of Directors for the work done for the year.

Mr Ebrahim Patel

Minister of Trade, Industry and Competition

# 4.REPORT AND OVERVIEW CHAIRPERSON OF THE NMISA BOARD



Ms Jabu Mogadime

By definition, metrology is the science of measurement, but it is also fundamental to the social and economic development of our country. It is concerned with providing accurate measurements and, although not often visible, it is vital to the functioning of almost every aspect of our modern world, including all industries, trade and commerce, science and innovation, and our quality of life in general. As South Africa rebuilds its economy, the contribution that NMISA makes as a capable State entity in the fulfilment of its mandate, is

"As South Africa rebuilds its economy, the contribution that NMISA makes as a capable state entity in the fulfilment of its mandate, is invaluable."

It gives me great pleasure to present the NMISA Annual Report for the financial year 2019/20. Once more, the entity has demonstrated its commitment to good governance by attaining a clean audit opinion with no findings from the external auditors. This was achieved while maintaining the high level of performance that has become the entity. 13 of the 15 planned Key Performance Indicator (KPIs) targets were met, or exceeded to yield an effective overall performance of 97%. This was achieved while the entity continues to maintain the total quality management system and accreditation to ISO 17025 for the laboratories, ISO 17034 for reference material production laboratories, ISO 17043 for development and operation of proficiency testing schemes, as well as maintenance of certification to ISO 14001 and OHSAS 18001 for Environmental, Health and Safety (EHS).

During this year under review, NMISA made tangible contributions to the advancement of food safety and nutrition, healthcare, productive manufacturing, energy security, digitalisation, and the green economy, by developing new or improved products and services. All certified Reference Materials (RMS) and gas reference standards are registered as Proudly South African (PSA) products since the constituents are locally sourced. The entity's commitment to deliver valuable measurement solutions to its clients is evident in its excellent service satisfaction rating.

South Africans noted with concern that the official unemployment rate increased by 1% point to 30,1% in the first quarter of 2020, compared to the fourth quarter of 2019. The youth (aged 15 to 34 years) is the most affected by joblessness with an unemployment rate of 63,3%, according to the Department of Statistics South Africa (Stats SA). Through its HCD programme, NMISA aims to assist with skills development of the youth in the Science, Technology, Engineering and Mathematics

(STEM) fields. During the year under review, 3 MSc students and 2 undergraduate students completed their degrees whilst receiving hands-on training at NMISA part-time. All 5 students were offered full time employment at NMISA after completion of their studies. In addition, the entity hosted 25 interns, transferring the knowledge and developing the skills that they need to succeed in the job market.

Expanding the reach of the entity's leadership in the metrology world beyond South African borders, advanced substantially both regionally and internationally. It improves NMISA's position to contribute to the incorporation and role of metrology in the African Continental Free Trade Area (AfCFTA). A multi-year initiative to shorten the traceability chain for mass measurements in Africa, thereby significantly improving the accuracy of such measurements, would be the first realisation of a unit (the kilogram) within the recently revised international system of units, on the continent. It already delivered a light, compact Kibble Balance system for demonstrations to students in collaboration with tertiary institutes. The kilogram (mass) underpins most measurements made during trade transactions on the African continent. The new measurement capability will enhance local reliability and international equivalence of mass measurement results, once completed.

Our achievements are a result of the hard work, dedication and commitment to teamwork by all our staff. On behalf of the NMISA Board of Directors, I would like to thank the CEO, the Management team and all employees for their contribution to our success. Whilst we celebrate our accomplishments, we acknowledge that many challenges and opportunities still await. The ageing laboratory infrastructure leased from the Council for Scientific and Industrial Research (CSIR) still remains the biggest challenge for the Institute. It is the Board's hope that funding will be made available during the MTEF for the building of new NMISA laboratory infrastructure. Although NMISA maintains world-class capabilities, many public and private entities still either directly import measurement traceability or obtain it indirectly through costly third parties. This presents an opportunity for NMISA to add value to new local and regional markets, promoting African self-sufficiency as part of our vision to lead measurement excellence on the continent.

I would like to thank all the stakeholders and the dtic in particular for their leadership and continued financial support. I would also like to thank all our partners and collaborators both locally and Internationally. Most of all, my sincerest gratitude goes to our clients whose loyalty and confidence in us inspire us, to continue to serve them to the best of our ability.

Ms Jabu Mogadime

Chairperson of the NMISA Board

Date: 27 October 2020

JM mazah

# 5. FOREWORD CHIEF EXECUTIVE OFFICER



# Mr Ndwakhulu Mukhufhi

"As a state entity, the true MEASURE of our worth includes all the benefits others have gained from our success"

At the core of its mandate, the problem that NMISA solves for its stakeholders and clients is global confidence in the accuracy, reliability and legal enforceability of the results of measurements that are performed locally. The period under review, marks the first year of implementation of a revised strategy, which delivers this mandate on four levels, namely: ensuring regional and international recognition of South African measurement standards and capabilities, providing products and services that our clients value, enabling the enforcement of regulations, and partnering with state owned entities to affect cost savings through shared measurement services and expertise.

Internationally, NMISA leads the developing world to become major contributors to the global measurement system rather than users, and to shape the system to accommodate the needs of emergent nations, through the new Presidency of the International Committee of Weights and Measures (CIPM), the highest international position under the Metre Convention. This office is supported by the Institute's membership and participation in all 10 international Consultative Committees (CC).

As the leading National Metrology Institute (NMI) in Africa, NMISA connects Sub-Saharan Africa to the international measurement system, and contributes significantly to the incorporation and role of metrology in the African Continental Free Trade Area. During the past year, 9 inter-continental projects initiated by NMISA were approved for donor funding from development partners. A further 11 National Metrology Institutes (NMIs) from the Southern African Development Community (SADC) had their National Measurement Standards (NMS) calibrated at NMISA, thus effectively linking their (NMS) to the international system of units.

NMISA applies its unique expertise in measurement science, combined with world-class facilities, to provide novel solutions to our clients. A wide variety of specialised measurement services were performed during this period, ranging from new capabilities for handheld measuring tools (calipers, micrometers and dial test indicators), a new industrial sieve calibration method, spectral reflectance measurements for ultraviolet germicidal irradiation for disinfection, surface analysis of railway cables, to 2 new capabilities for additive manufacturing for quality assurance of 3D printed products amongst others. NMISA maintains its absolute commitment to client relationships and satisfaction, obtaining a 99% service satisfaction rating in 2019/20.

Regulations cannot be legally enforced without presenting reliable measurement results, independent from commercial bias. In all areas of trade, health care, environmental protection, food production, energy efficiency, electricity distribution, traffic surveillance and safety at work, regulatory compliance is demonstrated through results obtained with measurement instruments calibrated against measurement standards traceable to the NMS published in the Government Gazette.

NMISA developed 14 new proficiency testing schemes and 9 new certified reference materials for food testing laboratories, 2 new gas reference standards for air quality monitoring, 6 new parameters for LED light sources to support energy efficiency, a new measurement capability for power quality measurements required to allow stable connection of independent power suppliers to the national grid, upgraded the realisation of South Africa Standard Time (SAST) (improved the uncertainty for the NMISA time link to UTC

from 4,5 ns 2,6 ns) to advance the digital economy, and initiated a national project (SAF 9009) to establish dose reference levels for all South African hospitals that provide diagnostic radiology services. NMISA is contracted as the national custodian of traceability for traffic law enforcement through the calibration of the evidential alcohol breath analysers to support road safety. In this regards, the Institute is an essential partner to Government departments, regulators and other public entities in the execution of their duties as capable State departments. Although NMISA has made good progress with entering into formalised service agreements with a number of public entities, there is scope for further expanding its services to the public sector in future fiscal periods.

Consumers benefit meaningfully from the world-class measurement capabilities maintained by, and the expert knowledge vested within NMISA. As the highest authority on measurement accuracy, measurement results with legal impact must be traceable to the NMS. Metrology enables fair trade, effective health care, public safety, environmental protection and even transparency of financial transactions.

As I reflect over the past year, it is noteworthy that these deliverables have been accomplished within budget and in compliance with the financial regulations applicable to a 3A public entity. For the past 5 financial years, NMISA has maintained 98% and spent more against budget, 4 years of an unqualified audit opinions with no findings over the last 4 years, and RO irregular expenditure for the past 3 years. Lastly, the institute achieved an 83% increase in income from rendering of services from 2016 to 2020.

I would like to express my sincere gratitude and appreciation to the Board of Directors and the employees of NMISA. From this Annual Report, I hope that stakeholders and readers gain an appreciation for the tremendous character and capabilities of our people as we strive to serve the public and manage state resources to the benefit of all South Africans.

Chief Executive Officer (CEO) Mr Ndwakhulu Mukhufhi

Date: 07 October 2020

# 6. Statement of Responsibility and Confirmation of Accuracy for the Annual Report

To the best of my knowledge and belief, I confirm the following:

All information and amounts disclosed in the Annual Report (AR) is consistent with the Annual Financial Statements (AFSs) audited by the Auditor General.

The AR is complete, accurate and is free from any omissions.

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

The AFSs (Part E) have been prepared in accordance with the Generally Recognised Accounting Practice (GRAP) and the Public Finance Management Act (PFMA).

The Accounting Authority (AA) is responsible for the preparation of the AFSs and for the judgements made in this information.

The AA 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 AFSs.

The external auditors are engaged to express an independent opinion on the AFS.

In our opinion, the AR fairly reflects the operations, performance information, human resources information and the financial affairs of the public entity for the financial year that ended on 31 March 2020.

Chief Executive Officer (CEO) Mr Ndwakhulu Mukhufhi

Date: 07 October 2020

Chairperson of the Board Ms Jabu Mogadime

JMm gah

Date: 27 October 2020

# NMISA BOARD MEMBERS AND EXECUTIVE

# Board of Directors



Chairperson of the NMISA Board













# Executive Management

















### 7. Strategic Overview

### 7.1. Vision

To be the leading metrology and measurement centre of excellence on the African continent connecting Africa to the world.

### 7.2. Mission

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

# 7.3. Values

- Measurement excellence
- Social responsibility
- Economic prosperity
- Good governance
- Quality

As a capable state entity, NMISA is committed to serve our clients and stakeholders through excellence in measurement science in a socially, environmentally, and financially sustainable manner, while managing state resources responsibly and to the benefit of our society.

# 8. Legislative and other Mandates

NMISA was established under the Measurement Units and Measurement Standards Act, No18 of 2006 (The Measurement Act).

To provide for the use of measurement units of the International System of Units (SI) and certain other measurement units; to provide for the designation of the national measurement units and standards; to provide for the keeping and maintenance of the national measurement standards and units and to provide for the establishment and functions of the National Metrology Institute of South Africa (NMISA).

South Africa is a signatory to the Metre Convention, a treaty dating back to 1875. Under this convention, the International Bureau of Weights and Measures (BIPM) was created to act in matters of world metrology, particularly concerning the demand for measurement standards of ever increasing accuracy, range and diversity, as well as to address the need to demonstrate equivalence between NMS. The International System of Units (SI) was also established under the Metre Convention and is overseen by the International Committee for Weights and Measures (CIPM).

South Africa signed the CIPM Mutual Recognition Arrangement (MRA) in 1999, as a response to a growing need for an open, transparent and comprehensive scheme to give users reliable quantitative information on the comparability of NMS and to provide the technical basis for wider agreements negotiated for international trade, commerce and regulatory affairs. It is the basis for the international acceptance of NMS and for calibration and measurement certificates issued by NMIs.

The application of the SI in South Africa and the development, improvement and maintenance of the NMS, are mandated to NMISA in the Measurement Act. NMISA is also tasked to identify and approve other measurement units for use locally and to ensure that the local measurement system is appropriately connected to the international measurement system, through its participation in the Convention of the Metre and its organs, the CIPM and the BIPM.

Participation in international activities at Consultative Committee (CC) and RMO Technical Committee (TC) level is imperative, and is the cornerstone for NMISA to provide legally sound measurement traceability. These interactions serve to benchmark South Africa's capability to compete in measurement equivalence, impacts directly on NMISA's ability to disseminate traceability for the country and is crucial for participation in the AfCFTA.

NMISA disseminates the gazetted NMS through various products and services to not only the South African, but also the Southern African communities. NMISA thus links the South African and regional measurement system to the international measurement system through its internationally benchmarked and comparable measurement standards.

The National Development Plan (NDP) and its flagship programmes for industrial development and research, the Industrial Policy Action Plan (IPAP) (up to the end of the 5th administration) and the National System of Innovation (NSI), places exacting demands on NMISA and its contributions to the development of Southern Africa. All activities in NMISA are structured to support our mandate and aim to position NMISA to fulfil its national and regional obligations, as well as to contribute to quality of life at all levels.

# 9. Organisational Structure

NMISA is a Schedule 3A public entity, managed by a CEO, supported by an Executive Management team and governed by the NMISA

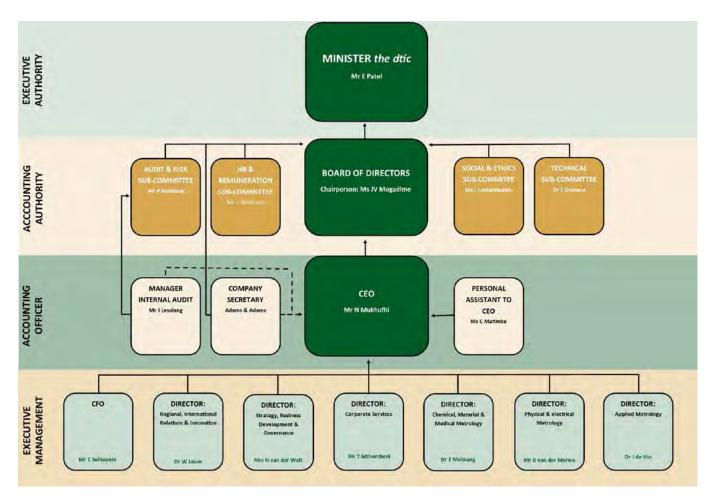
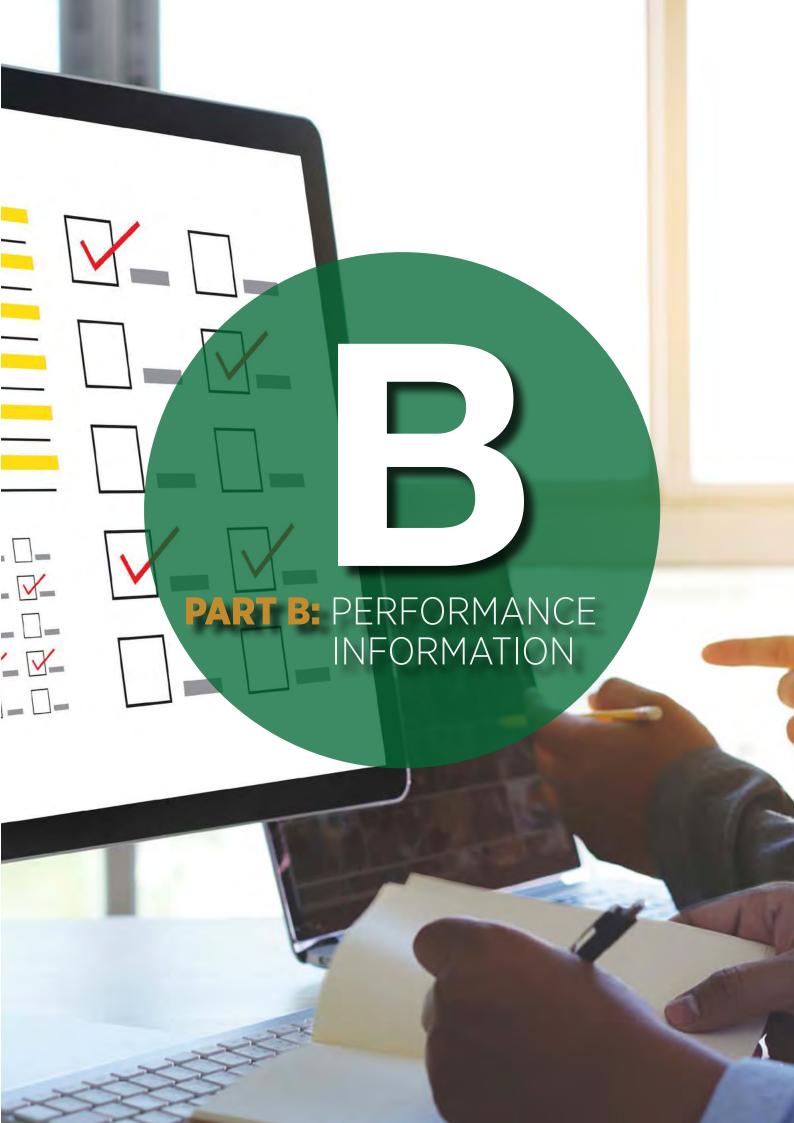


Figure 1: Organisational Structure



# 1. Auditor's Report: Pre- Determined Objectives

Refer to page 62 of the Audit Report, published as Part E: Financial Information.

# 2. Situational Analysis

# 2.1. Service Delivery Environment

South Africa has developed a quality infrastructure over a period of more than 70 years to support trade and industry, and to provide an essential component of environmental health and safety and effective law enforcement. In the modern economy, digitalisation, productive manufacturing, energy security, food safety and nutrition, and improved health services increasingly rely on the NMISA as the highest authority on accurate measurement in South Africa and in the region.

Specifically, recent advances in smart materials, sensors and intelligent communication networks, additive manufacturing capabilities, solid state lighting and other modern technologies, drove a demand for new developments in measurement science. In response, National Metrology Institutes (NMIs) invested additional resources to improve existing standards and to establish new measurement standards and methods to meet emerging national needs. Today, most NMIs provide industrial problem solving and other measurement related services, and produce certified reference materials and proficiency testing schemes, as part of their standard commercial service offerings.

Regulations cannot be legally enforced without presenting reliable measurement results. In all areas of trade, health care, environmental protection, food production, energy efficiency electricity distribution, traffic surveillance and safety at work, regulatory compliance is demonstrated through results obtained with measurement instruments calibrated with measurement standards traceable to the National Measurement Standards (NMS) as published in the Government Gazette. NMISA is therefore an essential partner to Government departments, regulators and other public entities in the execution of their duties as capable state departments.

Globally, the redefinition of four of the seven SI base units established, there by increasing (the kilogram, ampere, kelvin and mole) changed the way whereby international equivalence of measurements is established. The rise in free trade agreements, including the tri-partite free trade agreement between SADC, COMESA and the EAC, and especially the AfCFTA, it is envisaged that technical barriers to trade may increase in an effort to protect national markets; this requires an able and efficient metrology structure to negate TBT. Integration into regional and international markets is dependent on the ability of local producers and manufacturers to prove compliance with import regulations imposed by South Africa's trading partners. It is achieved by demonstrating traceability of measurement, test and analytical results to the National Measurement Standards maintained by NMISA.

# Overview of Performance

In the year under review, NMISA achieved 97% of its targets against the set annual performance targets.

### 2.2. Organisational Environment

NMISA is represented at the highest level of scientific metrology decision making, the CIPM, through its current President, who is also the only representative from Africa.

The International Committee for Weights and Measures (CIPM) coordinates metrology activities world-wide through 9 technical Consultative Committees (CCs) and a 10th Consultative Committee for Units (CCU). NMISA has membership of the 9 technical committees and through the presidency of the CIPM has guest members of the CCU. Technical experts from NMISA participate in the CC working group activities and represent the region at the Plenaries (policy setting meetings).

Through its extensive participation and leadership in many initiatives undertaken by the CIPM and its structures, NMISA is uniquely positioned to represent the interests of the African continent in decision making processes.

Regionally, NMISA plays a leadership role in the development of metrology infrastructure in the sub-region (SADC) and Africa. The institute provides the traceability link to the SI to sub-Saharan Africa and is the main driving force behind the sub-regional metrology programme (SADCMET) corporation in the measurement tracebility and the continentally metrology system Intra-Africa Metrology System (AFRIMETS). In addition, NMISA facilitates international acceptance of the Quality Systems (QS) of State Parties to the Metre Convention and Associates of the General Conference on Weights and Measurements (GCPM) in Africa, ensuring that these fit-for-purpose for the CIPM MRA. In turn, it enables international recognition of African calibration and measurement capabilities.

In order for NMISA to meet its mandate on national, regional and international level, with limited resources in a changing environment, it was necessary for the entity to revise its organisational structure to support its strategic objectives for the period 2019/24.

# 2.3. Key Policy Developments and Legislative Changes

There were no changes to Legislation during the year under review.

# 2.4. Strategic Outcome Oriented Goals

Goal 1: Shorten the traceability chain for Africa by maintaining the units and NMS at an internationally recognised level

Goal 2: Ensure effective dissemination of the units and NMS to national and regional laboratories

Goal 3: To provide metrology for regulatory purposes

Goal 4: Metrology services for Government and State-Owned Enterprises (SOE's)



# 3. Performance Information

The technical performance achievements are detailed below. NMISA has successfully delivered its technical targets, with the exception of 3 planned targets. These were not achieved as a result of international delays due to the COVID-19 pandemic, which impacted Asian and European countries early in the fourth guarter of 2019/20.







# Productive Manufacturing

Quality assurance is one of the significant technical barriers for adoption of additive manufacturing (3D printing) technology. The dimensional accuracy that can be obtained from these printing technologies needs to be established to ensure that parts are printed to the designed specification. Since 3D printing is used to produce unique parts with intricate geometry, measurement solutions are complex.

The new NMISA facility supports "dimensional verification", one of the core enabling capabilities required for the additive manufacturing industry prioritised by the South African Additive Manufacturing Strategy published by the Department of Science and Innovation (2016).

# 2 new capabilities for additive manufacturing:

- Ability to print parts composed of two different materials (dual extrusion printer).
  - Resin printing for the highest accuracy and precision of printed components (vat polymerisation printer).



The global interconnected economy relies on IT systems based on synchronised clocks. Many functions, including financial transactions, require precise agreement between devices on when information was sent and

# Advancing the Digital Economy

NMISA realises South Africa
Standard Time (SAST)
and contributes to the
calculation of Coordinated
Universal Time (UTC) by
the International Bureau
of Weights and Measures
(BIPM).



Improved Realisation of South African Standard Time: The April edition of the BIPM's Circular T indicated an uncertainty for the NMISA time link to UTC of 2,6 ns (improved from 4,5 ns within the previous year).

# Energy Sector Reform and Energy Security

Industrial consumers are required to limit the disturbances they cause on the utility grid, and independent power suppliers from renewable sources need to comply to power quality specifications to ensure that the power supplied does not adversely affect the integrity of the network. A power quality guideline for Renewable Power Plants (RPPs) was introduced by NERSA in 2016, to establish power quality compliance criteria suitable for local circumstances ("South African Grid Connection Code for Renewable Power Plants Connected to the Electricity Transmission System or the Distribution System in South Africa, Version 2.9", 2016). Accuracy of power quality (harmonic quantities) measurements is enabled through traceability to the National NMS for ac-dc difference.

Light- emitting-diodes (LEDs) is a highly energy efficient lighting technology and provides potential for significant energy savings. Residential LEDs use at least 75% less energy, and last about 25 times longer, than incandescent lighting. *Market adoption is encouraged through a minimum energy performance standard for lighting (MEPS), which is being developed by the NRCS on a mandate given by the Department of Mineral Resources and Energy.* Compliance to such standards is enabled through accurate measurement.

# Measurement Standards for Energy Efficient Lighting:

6 New measurement parameters developed for LED light sources.

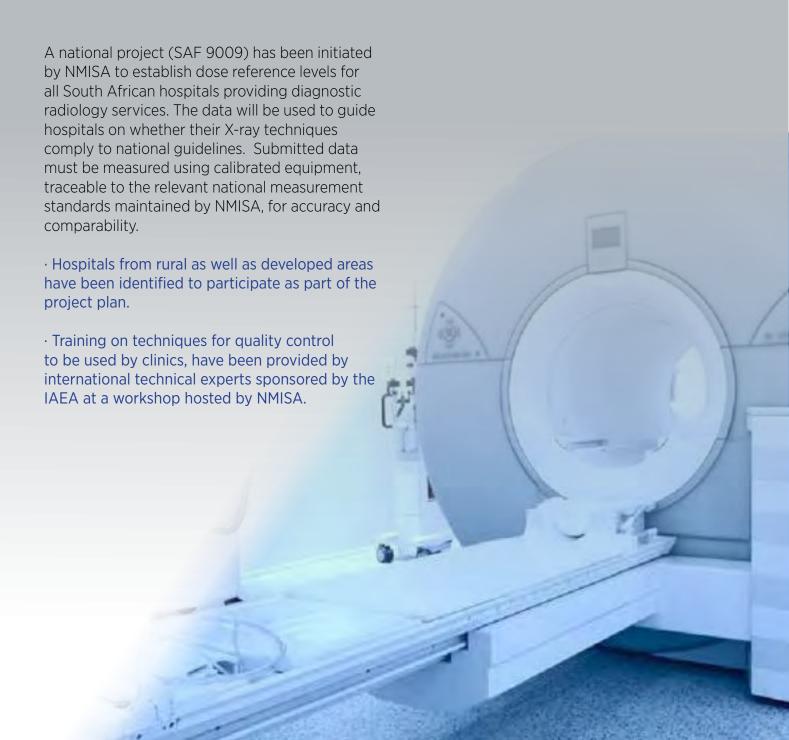
# Improved power quality in electricity networks:

New calibration facilities for harmonic quantities (now including both current and voltage).

# Improved Health care

Diagnostic radiology is a field of medicine that uses non-invasive imaging scans to diagnose a patient. The tests and equipment used sometimes involve x-rays to create highly detailed images of an area under observation.

Diagnostic Reference Levels (DRLs) are used to indicate unusually high or low radiation doses for specific medical imaging procedures. Regulators strongly support the establishment of national DRLs as it is a practical tool for optimising dose levels and enhancing patient safety.



# Climate-resilient Economy

The improvement in air quality contributes to social and economic advancement. Reducing carbon footprint can be managed through control of carbon dioxide ( $CO_2$ ) emissions. Ensuring particle sizes < 10 $\mu$ m is crucial in this regard. In addition, accurate and stable reference gas mixtures of  $CO_2$  are required for the calibration of instruments used to monitor emissions.

Regulations such as the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) National Greenhouse Gas Emission Reporting Regulations, assist in ensuring compliance for the industries contributing to greenhouse gas emissions in South Africa.

Accurate and reliable primary reference gas mixtures for greenhouse gases as well as a system to measure particles sizes < 10 µm are required to ensure industries emitting above set thresholds are held accountable.

# NMISA Standards for Air Pollution Monitoring:

- 2 new natural gas standards produced
- 1 unique technique to measure particulate matter with particle sizes < 10 μm

# Food and Nutrition security

Food producers must ensure the integrity of food and its ingredients, as well as its nutritional value. It includes testing for contaminants, natural toxins, and pesticides.

NMISA produces Certified Reference Materials (CRMs), reference materials, quality control standards and proficiency testing schemes to ensure confidence in the analytical results obtained in support of the Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act 54 of 1972) and the amendment relating to reduction of sodium in certain foodstuffs.

NMISA is establishing a Regional Reference Institute that is focused on providing analytical reference measurements for feed and food testing, that will also expand to incorporate environmental monitoring and drug testing capacity building, in support of the AfCFTA, the Quality Infrastructure and to provide a service to SOEs.

NMISA Reference Materials for Food and Agriculture.

- 14 new PT schemes for food testing laboratories
- 7 new mycotoxin CRMs
- 2 new matrix CRMs for aflatoxins

To access the reference material products, NMISA now has a new online store for CRMs, RMs, QC standards, PT schemes and online training.

# Enabling Africa with a direct route to the International System of Units

The International System of Units (the SI), informally known as the metric system, was redefined in November 2018 and implemented internationally in May 2019. The revised SI significantly transformed the international system that underpins global science and trade. NMISA initiated the Kibble Balance project to realise the kilogram independently to shorten the traceability chain in mass, by developing a system with auxiliary equipment with both local and international partners. NMISA joined forces with the National Physical Laboratory (UK) to build a Kibble Balance that will allow for the realisation of the kilogram on the African continent, independent of an artefact realised on another continent. The kilogram (mass) underpins most measurements made during trade transactions on the African continent. The new measurement capability will enhance local reliability and international equivalence of mass measurement results obtained on the continent.

# Achievements:

- 2 MSc students completed degrees at University of Cape Town (UCT), both are now employed at NMISA
- 4 of the 7 SI units revised internationally. Small icons were designed by UCT through their MeASURe programme and used to create public awareness on the changes, in collaboration with NMISA
- 118 local, regional and international participants at the Revised SI Conference hosted by NMISA in May 2019
- 2 NMISA researchers received sponsorships for international training
- 4-month guest researcher agreements arranged between the National Physical Laboratory (UK) and NMISA for project engineers
- Light, compact Kibble Balance system (with parts 3D printed by NMISA) built for demonstrations to students
- New measurement capability: gravity (important measurement for calculating mass accurately), a capability that previously had to be sourced from outside South Africa

# **Measurement Solutions** for Industry

NMISA applies its unique expertise in measurement science, combined with world-class facilities, to provide novel solutions to clients. As the regional authority on accurate measurements, SMEs and large corporations alike rely on NMISA to meet product specifications for local and export markets.

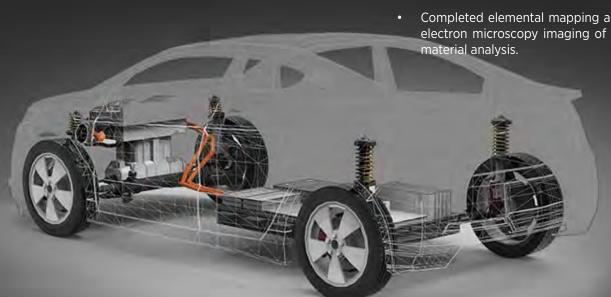
# **Specialised Measurement Applications** during this period:

- Developed a customised proficiency testing scheme for highly polar pesticides in plums and avocados for which new EU regulations for importers were being implemented.
- Contracted as the national custodian of traceability for law enforcement through the calibration of the evidential alcohol breath analysers to support road safety.
- Developed and applied a new sieve calibration method to calibrate sieves for a local project to investigate micro-plastic pollution in a local river.
- In support SMEs particularly, established a new calibration service for handheld measuring tools (calipers, micrometers and dial test indicators) and performed the first calibrations for two African NMIs.
- Measured the spectral reflectance of ultraviolet radiation, by a selection of materials to verify a software model used to predict UV-C levels in a room employing ultraviolet germicidal irradiation luminaires for disinfection.
- Performed comparative surface analysis studies of cables in railway applications that fracture during operation, to identify possible causes for the failure.
- Completed elemental mapping and high-resolution electron microscopy imaging of beverage cans for material analysis.



President Ramaphosa (1 January 2020)





# Regional and International Integration The International Measurement System

Internationally, NMISA leads the developing world to become major contributors to the international measurement system rather than users, and to shape the system to accommodate the needs of the developing world.

# International Achievements:

- Presidency (Dr Wynand Louw, NMISA) of the International Committee Weights and Measures (CIPM), the highest international position under the Metre Convention.
- New membership of the Consultative Committee of Ionising Radiation. NMISA now has membership of the 9 technical Consultative Committees of the CIPM, and through the Presidency of the CIPM, a seat on the 10th, the CC for Units. This allows NMISA to further and protect the national and regional needs in the international measurement system.

- 9 NMISA projects to provide services to the African metrology system was approved for funding from development partners.
- 9 of the 13 Technical Committees of the Intra-Africa Metrology System are chaired by NMISA experts.
- **9** Regional inter-laboratory comparisons and PT schemes were conducted.

NMISA was appointed in January 2020, as the national counterpart representing food monitoring laboratories in South Africa in the FAO-IAEA Africa Regional Food Safety Network RAF5084 project.



NMISA is the leading NMI in Africa, connecting Sub-Saharan Africa to the international measurement system, and contributes significantly to the incorporation and role of metrology in the African Continental Free Trade Area (AfCFTA).



Southern African Development Community

NMISA fulfills the role of the link to the SI in the Southern African Development Community (SADC). This has become of crucial importance with the role that metrology plays in the AfCFTA and for SADC to have access to the continental markets.

# SADC Region Achievements:

- 11 SADC National Metrology Institutes had their NMS calibrated at NMISA, thus effectively linking their NMS to the SI.
- NMISA was re-elected to host the SADC Cooperation in Measurement Traceability Secretariat.

# Regional and Integration

Technical (Quality) Infrastructure

An effective QI is essential for the AfCFTA and for South Africa to trade regionally and internationally. NMISA plays a leading role in the technical committee for quality systems (TC-QS) of AFRIMETS, and most of its laboratories are officially 3rd party accredited.

# Technical Infrastructure Achievements:

4 African National Metrology Institutes' quality systems were peer reviewed by technical experts from NMISA, enabling the publication of their Calibration and Measurement Capabilities (CMCs) in the international database.

**80%** of the services that NMISA offers to its customers are supported by the published CMCs and are therefore internationally recognised.

# **Professional** Credentials

- RO irregular expenditure for the past 3 years.
- $\geq$  98% spent against budget maintained for the past 4 financial years.
- 4 years of maintaining an unqualified audit opinion, with no
- 83% increase in income from rendering of services from 2016 to 2020.
- client service satisfaction (measured through sampling).
- 18 calibration/analytical and 1 technique laboratories SANAS accredited against ISO/IEC 17025:2017 (General requirements for the competence of testing and calibration laboratories).
- 2 certified reference material production laboratories SANAS. accredited against ISO 17034:2016 (General requirements for the competence of reference material producers).

NMISA proficiency testing scheme service accredited against

As public representatives and civil servants, we derive our *legitimacy from our ability to* act professionally as we serve the public and manage state resources to the benefit of the public.

- President Ramaphosa, 21 January 2020





# Key performance indicators, planned targets, and actual achievements

		NMISA SCOF	RE CARD		
PERFORMANCE INDICATOR	ACTUAL ACHIEVEMENT 2018/19	PLANNED TARGET 2019/20	ACTUAL ACHIEVEMENT 2019/20	DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT FOR 2019/20	COMMENT ON DEVIATIONS
Realisation of the SI base units	New KPI	6 SI base units realised	6 SI base units were realised	None	None
Number of new and improved National Measurement Standards and reference material and methods	19	20	21	1	Due to the success of the peer review process in January
Number of memberships maintained	10	10 memberships maintained	10	None	None
Number of inter laboratory comparisons and proficiency testing schemes organised and completed	New KPI	Organise and complete 9 ILCs and Proficiency testing schemes	9	None	None
Percentage metrological services covered by CMCs	New KPI	80% of metrological services covered by CMCs	81%	1%	Most services offered by NMISA were linked to the international database for calibration and measurement capabilities providing reasonable assurance
Number of accredited laboratories and new laboratory accreditations	21	21 maintained and 5 new accreditations	21 maintained and 2 new accreditations	3	At the suggestion of the accreditation body, 1 accreditation was treated as a scope extension.  Assessments for the Torque laboratory could not take place due to COVID 19 (the international assessor could not travel)
Number of metrologists trained	152	100 metrologists trained	120	20	Due to more requests for NMISA to train metrologist:
Number of courses provided including SMEs	22	18	18	None	None
Number of interns and inservice trainees hosted	27	15 hosted	25	10	Additional interns were requested to assist in the organisation
Amount of income generated	R22 147 616.13	R38 018 270	R20 799 163.24	R17 219 106 .18	Due to the market response
Percentage actual expenditure to budget	106%	98%	98%	None	None
Revised measurement act to support and contribute to national regulation	New KPI	Review and revised measurement Act	NMISA reviewed the Act and submitted to the <b>dtic</b>	None	the <b>dtic</b> started a process for the review of all TIA act

	NMISA SCORE CARD				
PERFORMANCE INDICATOR	ACTUAL ACHIEVEMENT 2018/19	PLANNED TARGET 2019/20	ACTUAL ACHIEVEMENT 2019/20	DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT FOR 2019/20	COMMENT ON DEVIATIONS
Number of government departments and SOEs serviced by NMISA	New KPI	3	3	None	None
Percentage increase visibility of NMISA	New KPI	20%	49%	29%	NMISA's marketing efforts, attendance of exhibitions, billboards and appearances on TV
Percentage customer satisfaction	99,6%	≥95%	99%	4%	NMISA followed up on customer complaints to ensure customer satisfaction

The technical performance achievements are detailed below. NMISA has successfully delivered its technical targets, with the exception of 3 planned targets. These were not achieved as a result of international delays due to the COVID-19 pandemic, which impacted Asian and European countries early in the first quarter of 2019/20.

PLANNED TARGET 2019/20	ACTUAL ACHIEVEMENT 2019/20	DEVIATION FROM PLANNED TARGET TO ACTUAL ACHIEVEMENT FOR 2010/2	COMMENT ON DEVIATIONS
Automotive gas primary mixtures	-	Improvement of automotive gas mixtures not achieved	The improvement of automotive gas mixtures is linked to the results of the international comparison CCQM K3.2019. Successful participation would have allowed improved measurement capabilities as well as scope extension of automotive gas mixtures to include oxygen. Closure of international laboratories during the measurement phase due to the COVID-19 pandemic, delayed the comparison
Development of Volatile organic compounds including: benzene, toluene, ethyl benzene, (m,o,p) xylene and various hazardous air pollutants suite of primary standard gas mixtures	-	New measurement capabilities for hazardous air pollutants in support of climate change monitoring industry	The development of new capabilities for HAPs NMS is linked to the results of the international comparison APMP.QM-S14. International delays in the completion of comparison measurements were experienced. Comparison measurements have been completed and NMISA is awaiting the results
Manufacturing Competitivene	ss Programme		
Improved capabilities in dimensional, torque and pressure measurements.	Procedures were developed for improved capabilities in dimensional, torque and pressure, leading to better uncertainties, increased measurement ranges and/or new measurement areas	The Torque laboratory was not assessed for SANAS accreditation	Due to COVID- 19 pandemic international assessors could not travel

### NMISA's Strategy to Overcome Areas of Under Performance

- The organisation has in the year under review, restructured and has reorganised its operations and departments, resulting in a new division Strategy, Business Development and Governance (SBDG) within the office of the CEO to ensure that the organisation is visible, and support technical divisions to reach their revenue targets in order for NMISA to remain sustainable.
- A Regional Reference Institute is being developed that will disseminate the reference materials and proficiency testing schemes, that were developed over the past five years, to the testing community and industry.
- An Applied Metrology division was started to develop new metrology services in support of Legal Metrology and that will also be offered to SOEs, SMEs, and industry.
- The over achievement of budget is as a result of surplus from the prior year which was approved by National Treasury and spent in the current year.

### Linking Performance with Budgets

	2018/2019				2019/2020		
OBJECTIVE	BUDGET	ACTUAL EXPENDITURE	(OVER)/ UNDER EXPENDITURE	BUDGET	ACTUAL EXPENDI- TURE	(OVER)/ UNDER EXPENDITURE	
	R'000	R'000	R'000	R'000	R'000	R'000	
Administration	67 019.00	76 397.00	- 9 378.00	97 957.00	71 188.00	26 769.00	
Keep, Maintain and Disseminate National Measurement Standards	137 781.00	170 881.00	- 33 100.00	124 351.00	169 065.00	- 44 714.00	
Total	204 800.00	247 278.00	- 42 478.00	222 308.00	240 253.00	- 17 945.00	

### 3. Performance Information

In the 2018/19 financial year (highlights prior year achievements) NMISA's programmes achieved the following, in line with the 6th administration's priorities of developing a capable state, expansion of our markets and promoting economic inclusion:

#### Realisation of the redefinition of the SI

Maintained traceability to the international prototype kilogram and established a joint development project with NPL (UK) to develop a Kibble balance as part of NMISA's goal of shortening the traceability chain for Africa. This means that NMISA will be one of the first NMIs in Africa to realise measurement scales based on the newly redefined SI.



#### **Quality of Life**

NMISA provided environmental nuclear radiation measurement services for regulatory purposes, to protect the environment and health and safety of people.



#### Reference Materials

In support of law enforcement and the Road Traffic Management Corporation, evidential breath alcohol testing was launched in the City of Johannesburg and in Kwa-Zulu Natal, emanating from accuracy and reliability of measurement provided by NMISA. This contributes to road safety, aiming to reduce alcohol-related road accidents and deaths



#### **Green Economics**

New and improved, accurate and stable reference gas mixtures for stack emissions and automotive gases have been developed and published in the Government Gazette. These reference gasses are required to calibrate instruments used for air pollution monitoring.



### **Energy Efficiency**

The first SANAS accredited laboratory in South Africa for photometric parameters and calibration of single source LEDs was established by NMISA. It is being scaled up to enable the state's capacity for measuring LEDs, with the aim of increasing the local uptake of energy efficient lighting, reducing barriers to trade and preventing an influx of inferior LEDs into the country



#### **Manufacturing Competitiveness**

NMISA established an Additive Manufacturing Facility to support quality assurance of products manufactured using 3D printing technologies. It also provides opportunities for collaborative research on the optimization of additive manufacturing processes and feedstocks



### **Advanced Measurement Solutions**

NMISA achieve an improvement in the accuracy of the South African Time Scale (SAST), reducing the difference between the SAST and Coordinated Universal Time scale from 5000 nanoseconds to 20 nanoseconds, with a corresponding uncertainty improvement from 200 nanoseconds to 10 nanoseconds



### Regional and International Integration

NMISA retained its membership of the CIPM, which is the highest authority in the coordination of international metrology activities, as well as its memberships of the related Consultative Committees, through activities that demonstrate international equivalence of the National Measurement Standards





#### 1. Introduction

Corporate governance is an exercise of ethical and effective leadership by the Board of NMISA towards effectively achieving the controls as outlined in the King Code. These include the need for an annual Integrated Report (IR) that focuses on the impact of the organisation in the economic, environmental and social spheres. A statement by the AC to the Board and shareholders on the effectiveness of internal financial controls is included in the IR. The consideration of the strategic role of IT and its importance from a governance perspective, the positioning of internal audit as a strategic function that conducts a risk-based internal audit and provides a written assessment of the company's system of internal control, including internal financial controls and the governance of risk through formal risk management processes.

### 2. Executive Authority

Mr Ebrahim Patel, Minister for Trade, Industry and Competition, (the **dtic**) is accountable to Parliament for NMISA as defined in Section 1(c) and (d) of the PFMA.

### 3. The Accounting Authority / Board

The purpose of this document is to set out the mission, duties and responsibilities of the Board of Directors of the NMISA. The Board of Directors is the NMISA's AA in terms of the Public Finance Management Act, No 1 of 1999 (PFMA). A summary of the contents of this Board Charter will be disclosed in the NMISA's Annual Report (AR).

As recommended by the King Code, the Board has a Charter setting out its responsibilities, which are disclosed in its AR. At a minimum, the Charter confirms:

- The Board's responsibility for the adoption of strategic plans
- Monitoring of operational performance and management
- · Determination of policy processes to ensure the integrity of the public entity risk management and internal controls
- Communication policy, and director selection, orientation and evaluation

### Composition of the Board

Name	Designation (in terms of the Public Entity Board structure)	Date appointed	Date resigned	Qualifications	Other Committees or Task Teams (e.g.: Audit committee / Ministerial task team)	No. of Meetings attended
Jabu Mogadime	Chairperson of the Board	05/04/2013**	-	Diploma Marketing (CIM) BA MBA	-	4
Nobom Mfabana	Non-executive member	01/07/2018	-	HD in Municipal governance BA degree BA Honours political science Masters Labour studies	SEC HR and REMCO	4
Odirile Dingoko	Non-executive member	01/07/2018	-	SLP- Company law BSc Physics and Mathematics BSc Honours Geophysics MBA	SEC Technical	4
Petrus Mohlomi	Non-executive member	01/07/2018	-	MBL BSC: Microbiology and Biochemistry National High Diploma: Microbiology	Technical ARC	4

Name	Designation (in terms of the Public Entity Board structure)	Date appointed	Date resigned	Qualifications	Other Committees or Task Teams (e.g.: Audit committee / Ministerial task team)	No. of Meetings attended
Lindie Lankalebalelo	Non-executive member	01/07/2018	-	LLB. Postgraduate Certificate in Legislative Drafting Postgraduate Certificate in Corporate Law	SEC ARC	4
Tshenge Demana	Non-executive member	01/07/2018	-	BSc PhD analytical chemistry	Technical HR and REMCO	4
***Ursula Ntsubane	Non-executive member	01/07/2018	-	Masters: Development Planning Postgraduate Diploma: Personnel Management Bachelor of Social Science	ARC HR and REMCO	3
Ndwakhulu Mukhufhi	Ex-Officio member	01/07/2018	-	BSc biochemistry Msc Biochemistry and Molecular Biology Post graduate Diploma Project management		3

<sup>\*\*\*</sup>Ms Ursula Ntsubane's term as a member of NMISA's Board ARC and HR and REMCO member ended on 28 February 2020.

### Committees of the Board

### Audit and Risk Committee (ARC)

Committee	No. of meetings held	No. of members	Name of members
Audit and Risk Committee	5	5	Ms Ursula Ntsubane, Mr Petrus Mohlomi, Mr Zenzele Myeza, Ms Lindie Lankalebalelo, Ms Romeshni Govender

### Social and Ethics Committee

Committee	No. of meetings held	No. of members	Name of members
Social and Ethics Committee	4		Ms Lindie Lankalebalelo, Mr Odirile Dingoko, Ms Nobom Mfabana

<sup>\*\*\*</sup>Ms Jabu Mogadime became Chairperson of the Board in January 2019.

### Human Resource and Remuneration Committee (HRRC)

Committee	No. of meetings held	No. of members	Name of members
Human Resource and Remuneration Committee	4	3	Ms Ursula Ntsubane, Dr Tshenge Demana, Ms Nobom Mfabana,

### **Technical Committee**

Committee	No. of meetings held	No. of members	Name of members
Technical Committee	4	3	Dr Tshenge Demana, Mr Odirile Dingoko, Mr Petrus Mohlomi

### Ad hoc Committees

Committee	No. of meetings held	No. of members	Name of members
Tender Committee	2	4	Mr Odirile Dingoko, Ms Lindie Lankalebalelo, Dr Tshenge Demana. Mr Petrus Mohlomi
Remuneration Task Team	2	2	Ms Ursula Ntsubane, Ms Nobom Mfabana, Dr Tshenge Demana, Ms Lindie Lankalebalelo, Mr Petrus Mohlomi

### Remuneration of Board Members

Name	Remuneration	Other allowance	Other re-imbursements	Total
Ms Jabu Mogadime	R102 818	-	R9 106	R111 924
Ms Lindie Lankalebalelo	R75 576	-	R8 201	R83 777
Mr Odirile Dingoko	R58 692	-	R3 139	R61 831
Mr Petrus Mohlomi	R 106 128	-	R16 395	R122 523
Ms Bavelile Hlongwa	R22 512	-	R1 115	R23 627
Ms Nobom Mfabana	R80 400	1	R7 724	R88 124
Dr Tshenge Demana	N/A dtic representative	-	-	-
Ms Ursula Ntsubane	R68 340	-	-	R68 340
Ms Romeshni Govender	R31 356	-	R2 275	R 33 631
Mr Sipho Masinga	R 16 080	-	R1 338	R17 418
Mr Senzo Dlamini	R8 040	-	-	R 8 040

### 4. Risk Management

Legislating the implementation of risk management in public sector institutions is part of a macro strategy of the South African Government which aims to ensure achievement of public sector institutional goals and objectives. NMISA mandate can be found in Section 76 of the Public Finance Management Act 1 of 1999 as amended by Act 29 of 1999, Treasury Regulations TR3.1.10, and Treasury Regulations TR3.1.13. Risk management therefore forms an integral part of the Institute's plan to deliver effectively and efficiently on its mandate.

The Board is responsible for determining the policies and processes necessary to ensure the integrity of risk management and internal controls. The Board ensures that a formal risk assessment is undertaken annually to identify and evaluate key risk areas. The Board also ensures that it continually reviews and forms its own opinion on the effectiveness of the risk management process.

The ARC assists the Board in reviewing the risk management process and the significant risks facing NMISA.

The Board's risk management policy is clearly communicated to all employees, to ensure that the risk strategy of the Board is incorporated into the language and culture of NMISA. NMISA continues to recognise the importance of risk management to ensure the realisation of objectives, and therefore endeavours to comply with legislation as it pertains to risk management.

NMISA has a combined assurance committee advising management on the overall system of risk, and highlights risks to management likely to be realised for mitigation strategies. The risks identified by the entity has made it possible for management to assess and mitigate any risks that would affect the organisation's performance.

### 5. Compliance with Laws and Regulations

Overseeing compliance with the applicable legislation and industry norms and standards, is one of the duties performed by the Board. Compliance in relation to corporate and financial related Board issues are the responsibility of the Chief Financial Officer. The CFO has overall, ultimate responsibility to monitor and ensure institutional and financial compliance. The Board is the executive authority and is responsible for the overall strategic and governance oversight.

NMISA, as a schedule 3A public entity, needs to comply with the provisions of the PFMA, the Measurement Act and the Companies Act and, in this regard, compliance is on par with similar public entities. Although compliance with the prescripts of the King Code on Corporate Governance is not legislated, it has become an industry accepted norm, and in this regard NMISA is compliant with those aspects of the code that are applicable to public and/or SOEs.

### 6. Fraud and Corruption

NMISA has an approved fraud prevention policy which includes prevention, detection and remediation. The policy includes the following:

- The public entity's fraud prevention plan and the progress made in implementing the fraud prevention plan
- Mechanisms in place to report fraud and corruption and how these operate: Whistle blowing The need for officials to make confidential disclosure about suspected fraud and corruption
- How these cases are reported and what action is taken

#### 7. Minimising Conflict of Interest

The NMISA Code of Conduct Policy (TQM-1021-5) was adopted during this period. It includes directives for managing conflict of interest within the organisation.

A register of declarations of interest for members of the NMISA Board of Directors and Executive Management is kept and updated annually. Before the start of proceedings, an opportunity for declaring changes, or interests that affect the day's discussion, is given at all Board, Committee and EXCO meetings. In addition to their personal interest, members also disclose interests of their spouses, partners or immediate family members, if any. Full disclosure of the nature of all Board members' interest in any matter before the Board, is required. A member of the Board or Executive Management, 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.

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

The NMISA Code of Conduct Policy stipulates a strict ethical code with which each employee, contract employee and consultant is required to comply. Failure to comply with this Policy amounts to misconduct and is dealt with in terms of NMISA's Disciplinary Code.

### 9. Health, Safety and Environmental Issues

NMISA's environmental management system is certified against ISO 14001:2015 (Environmental management systems — Requirements with guidance for use).

Occupational Health and Safety is certified against OHSAS 18001:2007 (Occupational Health and Safety Management Certification).

#### 10. Company / Board Secretary

NMISA appointed Adams and Adams as a Company Secretary in line with the requirements of the Companies Act and the principles of good corporate governance as guided by the King Code.

The Company Secretary ensures that NMISA meets its compliance obligations for submission of documents to Stakeholders including National Treasury and the **dtic.** 

The Company Secretary serves as the direct channel of communication to the Chairperson of the Board, and provide comprehensive practical support/guidance to the Board Chair and Committee Chairpersons in the proper compilation/timely circulation of Board papers for the Board and its Committees. It is the responsibility of the Company Secretary to assess training needs of Board members and Executive Management regarding fiduciary/governance responsibilities.

The Company Secretary assists the Board in the evaluation process of Board members and Executive Management.

### 11. Social Responsibility

NMISA adopted schools in the Northern Cape and Limpopo Provinces. A team of NMISA staff members spent time at the schools offering career guidance, conducting experiments for the learners, to introduce them to the world of metrology. This is an initiative towards making science fashionable. Furniture and computer equipment were donated to the schools. NMISA uses these opportunities to encourage young students and those who excel at the end of their matric year are offered bursaries.

#### 12. Audit Committee Report

#### Legislative Requirements

The Audit and Risk Committee (ARC) herewith presents its report for the financial year ended 31 March 2020, and was duly constituted as required by section 77 of the Public Finance Management Act, 1999 (Act No. 1 of 1999, as amended by Act No. 29 of 1999) (PFMA) read with Treasury Regulation 27.1.10.

### Audit and Risk Committee's Responsibility

The ARC has complied with its responsibilities arising from section 51 (1) (a) (ii) of the PFMA read with treasury regulation 27.1.8. The ARC was regulated by an approved Terms of Reference (ToR), which is aligned with the requirements of the PFMA (1999, as amended), Treasury Regulations and King IV. The Committee satisfied its responsibilities for the year, in compliance with its approved ToR.

### Audit and Risk Committee Members and Attendance

The ARC ToR require that the ARC comprises a minimum of 3 Non-executive board members elected by the Board and one external member. In terms of section 77(b) of the PFMA, the ARC must meet at least twice a year. During the financial year ended 31 March 2020, the ARC held 5 meetings. The table below shows the attendance of these meetings.

NAME	DATE OF APPOINTMENT	QUALIFICATIONS	NUMBER OF MEETINGS SCHEDULED	NUMBER OF MEETINGS ATTENDED
Mr P Mohlomi	26 Sept 2018	•MBL  •BSC: Microbiology and Biochemistry  •National High Diploma: Microbiology	5	5
Ms L Lankalebalelo	26 Sept 2018	<ul> <li>LLB.</li> <li>Postgraduate Certificate in Legislative Drafting Postgraduate</li> <li>Certificate in Corporate Law</li> </ul>	5	5
Ms U Ntsubane***	01 Mar 2015	Masters: Development     Planning     Postgraduate Diploma:     Personnel Management     Bachelor of Social Science	5	4
Ms R Govender	19 Nov 2018	Bachelor of Accounting  Post Graduate diploma in Accounting  CA (SA); CIA; CCSA; CRMA	5	5
Mr Z Myeza	19 Nov 2018	•BCOM: Accounting and Auditing •MBA	5	3

<sup>\*\*\*</sup>Ms Ursula Ntsubane's term as a member of NMISA's Board ended on 28 February 2020

#### Effectiveness of Internal Control

The ARC considered reports, issued by the various assurance providers taking combined assurance into account, and acknowledges management's efforts to strengthen internal controls. The system of internal control, for the period under review, is considered to have been generally adequate and effective.

### The Quality of Quarterly Reports Submitted

The ARC is satisfied with the content and quality of Management and Quarterly Reports prepared and issued during the year under review. The ARC has reviewed and commented on the AFS and reports on performance information and their timely submission to the external auditors by 31 May 2020.

#### **Internal Audit Function**

The ARC is responsible for the appointment, compensation, retention, and oversight of the Internal Audit Manager. The Internal Audit function operates within the ambit of the Internal Audit Charter approved by the ARC. The Internal Audit function reports functionally to the ARC and administratively to the AO.

The ARC has approved a risk-based, three-year rolling, Internal Audit Plan in the 2019/20 financial year. The committee is reasonably satisfied with the effectiveness and independence of the Internal Audit function (IA). The Internal Audit function also reported on the overall control environment and fraud hotline activities of the NMISA during the year.

Internal audits completed covered all planned audits and recommended appropriate remedial actions to Management in order to enhance the control environment.

#### **Risk Management Function**

The ARC is satisfied with the management of risk, however proposals for improvement were made for implementation during the next period. The ARC is responsible for the oversight of the Risk Management function. Management reports to the ARC on the management of risks.

#### Evaluation of the Finance Function

The Committee is of the opinion, based on the information and explanations provided by Management, as well as the results of audits performed by the internal auditors, and NEXIA SAB&T, that the financial information provided by Management to users of such information is adequate, reliable and accurate.

The quality of in-year reports received from the finance function was commendable. The ARC is satisfied with the adequacy and effectiveness of NMISA's CFO and the finance function.

### Performance Management

Part of the responsibilities of the ARC includes the review of performance management. The ARC has performed the following functions:

- Reviewed and commented on the alignment of the Annual Performance plan (APP), budget, Strategic Plan (SP), and performance agreements.
- Reviewed and commented on the relevance of indicators to ensure that they are measurable and relate to functions of NMISA.
- Reviewed reported non-compliance with Legislation.
- Reviewed compliance with in-year reporting requirements.
- Reviewed the quarterly performance reports submitted by the Internal Audit function.
- Reviewed and commented on the performance management system and making recommendations for its improvement.

The ARC is satisfied that the Performance Report has been prepared in terms of the PFMA, the Treasury Regulations and any other related regulatory requirements for reporting performance.

### Accounting and Auditing Concerns Identified by Internal Audit

There were no accounting and auditing concerns that have been noted and brought to the Committee's attention.

#### **Evaluation of the Annual Financial Statements**

The ARC has reviewed the annual AFS, which focused on the following:

- Significant financial reporting judgements and estimates contained in the AFS.
- Clarity and completeness of disclosures and whether disclosures made have been set properly in context.
- Quality and acceptability of, and any changes in, accounting policies and practices.
- Compliance with accounting standards and legal requirements.
- Significant adjustments and/or unadjusted differences resulting from the audit.
- Reflection of unusual circumstances or events and Management's explanation for the accounting treatment adopted.
- Reasons for major year-on-year fluctuations.
- Asset valuations and revaluations.
- Calculation and levels of general and specific provisions.
- Write-offs and reserve transfers.
- The basis for the going concern assumption, including any financial sustainability risks and issues.

The ARC is confirms that the AFS have been prepared in terms of the Generally Recognised Accounting Principles (GRAP) and the PFMA.

### External Auditor's Report

The ARC concurs with, and accepts the conclusion and audit opinion of the external auditors on the AFS. 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 ARC confirms that it has been actively involved throughout the audit process.

The external audit function, performed by NEXIA SAB&T, is independent of the entity. The ARC has met with the External Auditors to ensure that there are no unresolved issues and acknowledges the diligence and co-operation of the External Audit team.

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

On behalf of the ARC:

Petrus Mohlomi

Chairperson of the Audit and Risk Committee (ARC)

National Metrology Institute of South Africa

Date: 14 October 2020

### 13.BBBEE Compliance Performance Information

The following table has been completed in accordance with the compliance to the BBBEE requirements of the BBBEE Act of 2013 and as determined by the Department of Trade Industry and Competitions (the **dtic**).

# HAS THE DEPARTMENT / PUBLIC ENTITY APPLIED ANY RELEVANT CODE OF GOOD PRACTICE (B-BBEE CERTIFICATE LEVELS 1 – 8) WITH REGARDS TO THE FOLLOWING:

CATE LEVELS 1 - 8) WITH REGARDS TO THE FOLLOWING:					
CRITERIA	RESPONSE YES / NO	DISCUSSION (INCLUDE A DISCUSSION ON YOUR RESPONSE AND INDICATE WHAT MEASURES HAVE BEEN TAKEN TO COMPLY)			
Determining qualification criteria for the issuing of licences, concessions or other authorisations in respect of economic activity in terms of any law?	N/A	NMISA does not offer such services			
Developing and implementing a Preferential Procurement Policy?	Yes	NMISA has a Preferential Procurement Policy which implements the Preferential Procurement Policy Framework Act through the Preferential Procurement Regulations, 2017. When sourcing suppliers from CSD for non-technical items, we apply PPFA filters to select black-owned, woman and youth owned entities. Generic tenders are designated to Level 1 owned entities with a minimum of 51% black ownership			
Determining qualification criteria for the sale of State-Owned Enterprises?	N/A	NMISA is a public entity and does not own any enterprise			
Developing criteria for entering into partnerships with the private sector?	N/A	NMISA has not yet entered into any partnership with the private sector			
Determining criteria for the awarding of incentives, grants and investment schemes in support of Broad Based Black Economic Empowerment?	N/A	Not applicable within the Entity's environment			



#### 1. Introduction

### 1.1 Human Resources Management (HRM)

Skills development is key for the organisation given the nature of its business. Through its Human Capital Development (HCD) programme, NMISA continued its focus on training and development of employees to enhance their career development through technical and professional skills development initiatives. The organisation recently initiated strategic alignment initiatives, and the strategic changes necessitated a realigned Human Resources Management strategy to support the strategic objectives and new direction.

The year was concluded remotely given the covid-19 pandemic, Human Resources (HR) focused its efforts in supporting the organisation in developing a response plan to ensure employees' health and safety in line with Section 8 of the Occupational Health and Safety (OHSA) Act 85 of 1993 "every employer shall provide and maintain as far as reasonably practicable, a working environment that is safe and without risks to the health of his employees". The implementation of the national lockdown due to COVID-19 presented unique challenges to many organisations. Partnering with other departments, HR developed work arrangements and strategies to ensure business continuity through implementation of working remotely.

### 1.1.1 Investing in People

NMISA reaped a lot of rewards from its Integrated HCD during the year under review. Some of the successes include 4 employees, 3 MSc students and 2 undergraduate students completing their degrees during the 2019/2020 fiscal year. All the 5 students were offered fulltime employment after completion of their studies.

One senior scientist, Dr Martin Brits, Senior Scientist (Organic and Bio Organic), completed his PhD at the Vrije Universiteit Amsterdam, after the online defence of his dissertation entitled "Flame retardants in the South African indoor environment". This was a joint PhD Degree awarded for a jointly supervised research project between Vrije Universiteit Amsterdam and the University of Pretoria. NMISA continues to fund further studies for its employees and students in its mission to develop and inspire talent. The organisation's continued success depends on its people.

### 1.1.2 Employee Wellness Programme (EWP)

To support employees, create a conducive work environment and create a healthier work life balance for its employees, NMISA continues to offer an integrated wellness programme. Through the EWP, employees can access counselling services on personal and work challenges including stress, financial issues, legal issues, relationships, family matters and health issues.

### 1.2 HR Priorities for the Year under Review

Human Resources partnered with an organisational design specialist to finalise the new organisational structure following the recent strategic alignment initiative. Appointment and placement of top management was concluded during the year, while the process of placing other levels is still underway.

### 1.2.1 Rewards Management

The organisation embarked on a job evaluation and salary benchmarking process to ensure a fair and equal pay system. The organisation continues to manage employee rewards and remuneration through its policy, and implementation of career ladder and pay progression system. The job grading and salary benchmarking initiative will ultimately help to enhance NMISA 's overall employee offerings.

### 1.2.2 Employee Retention

Staff retention is very critical for knowledge-based organisations like NMISA. The organisation saw a regression in staff turnover over the past few years. This trend can be attributed to the strategies and initiatives put in place to improve employee engagement and retention. NMISA will be focusing on enhancing its employee value proposition by continuing to offer amongst others, ample opportunities for personal and career development, competitive rewards and recognition offerings, work life balance initiatives, enhanced organisational and work culture and employee socialisation.

NMISA will also continue to focus on succession planning to ensure that organisation has adequate numbers of people with the requisite Knowledge, Skills and Attributes (KSAs) which would qualify them to step into vacant senior roles. Through its HCD programme, the organisation managed to fill numerous positions which became vacant due to retirement of staff. With continued investment in people through training and development initiatives, internal resourcing has become beneficial to the organisation.

### 2. Human Resource Oversight Statistics

### 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 Exp. (R'000)	No. Of Employees	Average Personnel Cost Per Employee (R'000)
Office of the CEO	3 238	11 039	9%	15	736
Finance and Corporate Services	193 919	23 366	19%	34	687
Manufacturing Competitiveness and Redefinition of the SI	2 321	22 976	19%	30	766
Advanced Measurement Solutions and Energy Efficiency	2 158	22 282	18%	28	796
Quality of Life	2 010	8 813	7%	11	801
Reference Materials, Green Economy and Commercial Services	12 570	24 884	20%	34	732
Research, International and Infrastructure Development	24 037	8072	7%	7	1153
Total	240 243	121 431	100%	159	764

### Personnel cost by Salary Band

Level	Personnel Expenditure (R'000)	% Of Personnel Exp. To Total Personnel Cost (R'000)	No. Of Employees	Average Personnel Cost Per Emploee(R'000)
Top Management	14 180	112%	8	1 773
Senior Management	27 214	22%	23	1 183
Professional qualified	67 374	55%	91	740
Skilled	11 782	10%	32	368
Semi-skilled	881	1%	5	176
Unskilled	0	0	0	0
Total	121 431	100%	159	764

### Performance Rewards

Programme/activity/ Objective	Performance rewards	Personnel expenditure (R'000)	% Of performance Rewards to total per- sonnel cost (R'000)
Executive Management	1 885	14 180	13%
Middle Management	3 036	27 214	11%
Professional qualified	6 202	67 374	9%
Skilled	994	11 782	8%
Semi-skilled	118	881	13%
Unskilled	0	-	0%
Total	12 235	121 431	10%

### **Training Costs**

PROGRAMME/AC- TIVITY/ OBJECTIVE	PERSONNEL EXPENDITURE (R'000	TRAINING EXPENDITURE (R'000)	TRAINING EXPENDITURE AS A % OF PERSON- NEL COST.	NO. OF EMPLOY- EES TRAINED	AVG TRAINING COST PER EMPLOYEE
Office of the CEO	11 039	378	3%	8	47
Finance and Corporate Services	23 366	1 025	4%	148	7
Manufacturing Competitiveness and Redefinition of the SI	22 976	236	1%	27	9
Advanced Measurement Solutions and Energy Efficiency	22 282	124	1%	27	5
Quality of Life	8 813	151	2%	11	14
Reference Materials, Green Economy and Commercial Services	24 884	783	3%	32	24
Research, International and Infrastructure Development	8 072	426	5%	6	102
Total	121 431	3 122	3%	259	208

### **Employment and Vacancies**

Programme/Activity/ Objective	2018/2019	2019/2020 Approved Posts	2019/2020	2019/2020 Vacancies	No. Of Funded Vacancies	% Of Funded Vacancies
Office of the CEO	9	17	15	2	2	22%
Finance and Corporate Services	36	46	34	12	2	22%
Manufacturing Competitiveness and Redefinition of the SI	29	35	30	5	2	22%
Advanced Measurement Solutions and Energy Efficiency	30	38	28	10	2	22%
Quality of Life	10	12	11	1	1	11%
Reference Materials, Green Economy and Commercial Services	30	40	34	6	0	0%
Research, International and Infrastructure Development	7	25	7	18	0	0%
Total	151	213	159	54	9	100%

### **Employment Changes**

Salary Band	Employment At Beginning Of Period	Appointments	Terminations	Promotions	Employment At End Of The Period
Top Management	8	0	0	0	8
Middle Management	23	0	1	0	22
Professional qualified	89	4	3	2	92
Skilled	25	4	2	5	32
Semi-skilled	6	0	1	0	5
Unskilled	0	0	0	0	0
Total	151	8	7	7	4%

### Reasons for Staff Leaving

Reason	Number	% Of total no. of staff leaving
Death	0	0%
Resignation	4	67%
Dismissal	0	0%
Retirement	0	0%
III-health	0	0%
Expiry of contract	2	33%
Other	0	0%
Total	6	100%

### Labour Relations: Misconduct and Disciplinary Action

Nature Of Disciplinary Action	Number
Verbal Warning	0
Written Warning	12
Final Written warning	0
Dismissal	0

### **Equity Target and Employment Equity Status**

Levels	Male									
	Afri	can	Colo	ured	India	an	Whi	te	Forei Natio	
	Current	Target	Current	Target	Current	Target	Current	Target	Current	Target
Top Management	3	3	0	0	0	0	2	2	0	0
Senior Management	0	0	0	0	0	0	0	0	0	0
Middle Management	7	7	0	0	2	2	4	4	0	0
Professional qualified	37	40	3	3	2	2	10	12	4	4
Skilled	10	10	0	0	0	0	0	0	0	0
Semi-skilled	3	3	0	0	0	0	0	0	0	0
Unskilled	0	0	0	0	0	0	0	0	0	0
TOTAL	60	63	3	3	4	4	16	18	4	4

Levels	Female									
	Afri	can	Colo	ured	India	an	Whi	te	Forei Natio	
	Current	Target	Current	Target	Current	Target	Current	Target	Current	Target
Top Management	1	1	0	0	0	0	2	2	0	0
Senior Management	0	0	0	0	0	0	0	0	0	0
Middle Management	5	6	0	0	0	0	18	18	0	0
Professional qualified	19	20	2	2	0	0	3	3	1	1
Skilled	19	18	0	1	1	1	0	0	0	0
Semi-skilled	1	2	0	0	0	0	0	0	0	0
Unskilled	0	0	0	0	0	0	0	0	0	0
TOTAL	45	47	2	3	1	1	23	21	1	1

Levels	Disabled Staff						
	Ma	ale	Fema	ale			
	Current	Target	Current	Target			
Top Management	0	0	0	0			
Senior Management	0	0	0	0			
Professional qualified	1	1	0	0			
Skilled	0	0	0	0			
Semi-skilled	0	0	0	0			
Unskilled	0	0	0	0			
TOTAL	1	1	0	0			



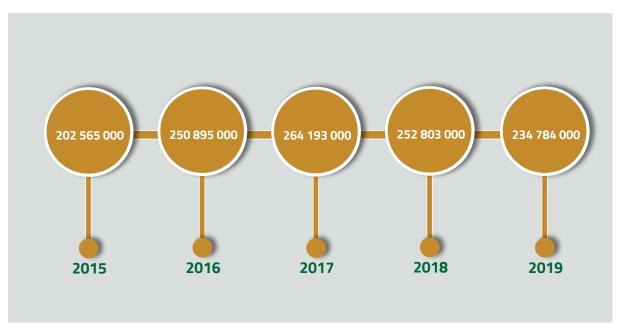
### 1. CFO's Report

### Overview of Financial Performance

NMISA's two main sources of revenue is the transfer/allocation received from the **dtic**. Due to the tight financial constraints on the fiscus for the past 2 financial years, the allocation has declined. The transfer received from the **dtic** decreased by 4% in the 2017/18 financial year and by a further 8% in the 2018/19 financial year as evidenced in the chart below. Furthermore, the organisation has over the past five years grown in terms of size and strategic impact, thus the decline in the allocation has put the organisation in financial strain.

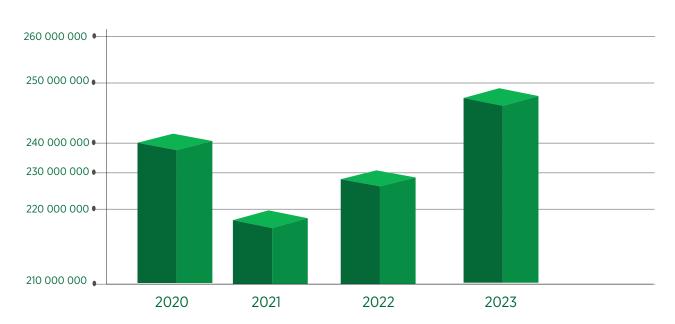
As a result, the baseline funding received for operations does not cover the bill for compensation of employees which has increased as a percentage of total budget in line with the strategic direction of the organisation. Thus, NMISA has had to strike a balance between the required capital investment, and the need to offset this against the appointment and maintenance of a capable workforce to perform the scientific work, and implement the ambitious strategy as approved by the Board and the **dtic**.

### Transfer Received for the Past 5 Years



The allocation for 2021 has been reduced by 11% due to reprioritization necessitated by the Covid-19 pandemic, the chart below depicts the allocation for the MTEF. The impact of Covid-19 on the economy is expected to cause further strain on the fiscus which was already under tremendous strain. It is anticipated that further reductions can be expected in the 2022 and 2023 financial years the scientific work, and implement the ambitious strategy as approved by the Board and the **dtic**.

### **Current and Projected Transfers**



The R245 million allocation received for the 2020 financial year, though 5% higher than 2019 is however 7% lower than what was received in the 2016/17 financial year.

The decline in allocation coupled with the organisations' growth in size and strategic impact, has necessitated the need for external revenue generation activities to enhance sustainability both in the short, medium, and long term.

The spending focus was on maintenance and improvement of existing standards, development of new measurement standards, equipment and improvements of the facility infrastructure that supports the NMI and compensation and development of employees.

NMISA has 3 main sources of revenue: transfer received from the dtic, revenue from rendering of services and interest income. The transfer received of R245 million (2019: 233 million) represents 86% (2019: 87%) of total revenue.

The table below indicates revenue from all sources.

		2020			2019	
Sources of revenue	Budget	Actual amount	Over/under collection	Budget	Actual amount	Over/under collection
Transfer revenue	245 036 000	245 036 000	-	232 784 000	232 784 000	-
Rendering of services	38 018 270	21 843 150	16 175 120	31 560 781	21 424 280	10 136 501
Interest received	13 000 000	16 985 547	(3 985 547)	8 811 000	13 194 759	(4 383 759)
Other income	-	39 713	(39 713)	-	112 184	(112 184)
Donations received	-	292 272	(292 272)	-	-	-
TOTAL	296 054 270	284 196 682	11 857 588	273 155 781	267 515 223	5 640 558

It is expected that upon the enactment of the revised NMISA Act as well as compliance regulations by the relevant regulators, there will be a marked increase in the requirement for NMISA services by the industry at large. The services on offer span from calibrations, reference measurements/material, training/consulting, and sponsorships.

NMISA also generated income from interest on investments of R17 million (2019: R13 million). The increase is due to increased funds in the bank balance because the full allocation was received as a lumpsum in April 2019, instead of 12 monthly instalments as has been the case in previous years.

### Expenditure

The success of the modernisation of NMISA and shortening the traceability chain for Africa is dependent on a skilled, competent, transformed workforce and scarce skills transfer of retiring scientist to the younger less experienced scientists. For this reason, compensation of employees constitutes 51% (2019: 51%) of total expenditure. National Metrology Institutes (NMIs) are investing more funds into development activities towards the improvement of existing standards, and to facilitate the development of new measurement standards that addresses emerging international needs and trends, with a doubling of accuracy requirements about every 10 years and the Revision of the SI. NMISA has to invest in a capable workforce to perform the scientific work, for the institute not to fall far behind its peers to the detriment of the South African and Regional economy.

The decrease in depreciation and amortisation, is mainly due to reassessment of useful lives of assets and work in progress which has not yet started depreciating. This results in an increased asset book value and a reduced repairs and maintenance cost because the aged/ old equipment that have far extended their useful life have been replaced. Other operating expenditure amounted to R72 million (2019: R70 million) and is in line with budgeted expenditure.

### Working Capital

The high cash balance is required for the payment of the reported commitments for goods and services that have yet to be delivered. Trade receivables have increased to R9 million from R7 million in 2019. The receivables equate to 39% of revenue generated, 62% of the receivables are due for less than 30 days and 7% (2019: 2%) of these have been impaired. The trade payables balances of R14 million (2019: R20 million) has decreased drastically, this is in line with the institute's resolve to pay suppliers within 30 days of receiving a valid invoice. Provisions have decreased to R16 million from R21 million in 2019.

### **Capital Investment**

In line with NMISA's strategic objectives, the institute continues to embark on the ongoing process of recapitalising and modernisation of the NMI infrastructure through the replacement of aged and obsolete equipment. This has resulted in an increase in the book value of fixed assets from R128 million since 2014 to R476 million in the current financial year. The rate of capital equipment growth is expected to decline over the MTEF as capital expenditure is channelled towards the construction of a new campus.

### Commitments

NMISA procures equipment that is technically specialised, custom made, or assembled to order according to specification, mostly from international manufacturers or NMIs. The delivery lead times for this equipment varies from 5 months to beyond 12 months. This has a resultant impact for such orders in that funds are rolled over from year to year in the form of commitments. The commitments reported in the current financial year amount to R143 million (2019: R148 million) with 83% (2019: 71%) committed towards capital expenditure. Planning in terms of procurement is done well in advance to reduce the amount of commitments at the end of the financial year, with a large number of tenders concluded in the second quarter of the financial year, in addition all approved orders are actively monitored with regards to delivery times.

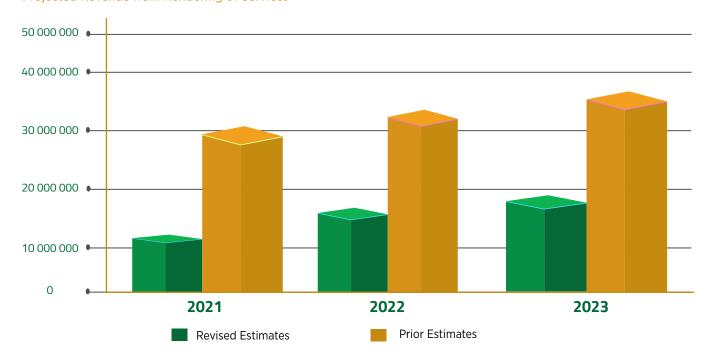
### Supply Chain Management Overview

The Supply Chain Management (SCM) Unit is strategically positioned for service delivery to the institute through the procurement of NMS equipment, property and infrastructure, facilities management and general goods and services. The Unit is extending focus on logistics services to ensure effective management of movement of NMS equipment internally, and for our clients in support of our calibration services. NMISA continues to have strong controls to curb irregular expenditure.

### Financial Outlook

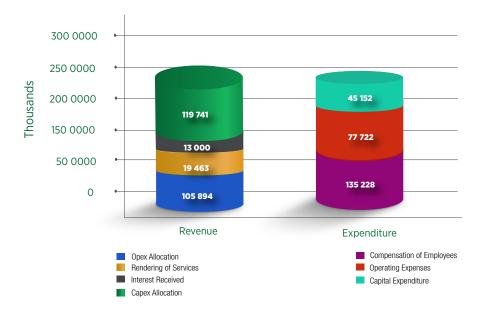
As a result of the expected further reduction in grant funding from the fiscus, the financial sustainability of NMISA in the medium term will be impacted. Furthermore, strides made in the current and previous financial years to increase external revenue generation has been negatively impacted by COVID-19. The organisation has had to revise its projections over the MTEF, to adjusted current expectation in the current global and local economic environment, as per the chart below.

### Projected Revenue from Rendering of Services



The revenue sources of the institute need to cover all capital and operational costs on a year-to-year basis. The chart below reflects the financial projections for the 2021 financial year. It is clear from the chart below that NMISA requires the capital allocation part of the grant, to continue to operate in its current size and strategic position. For the current National Measurement Standards (NMS) to continuously meet the National needs, and for NMISA to be able to establish the scientifically challenging technology to perform the realisations of the 4 of the 7 base units of the SI which where redefined, and to be able to pro-actively place NMISA at the forefront of traceability for a fast-paced growing economy, the baseline funding for NMISA must be increased.

### Revenue and Expenditure Forecast 2021



The institute is trading as a going concern and will continue to receive grant funding from the dtic over the MTEF. The dtic has further confirmed that the capital allocation will be provided for the next 20 years towards construction of a new campus. Given the size and funding requirements for the new campus, the institute will construct the campus in phases and is currently in negotiations for the procurement of land.

Given the difficult operating environment, NMISA has strategically focused to reposition itself on how all potential revenue sources can effectively be exploited. This fundamental switch to a commercially focused enterprise will take some time to implement in a manner that will be sustainable in the long-term. Steps have therefore been taken to enhance the revenue-generation capability of NMISA to support the operations, maintenance of new equipment purchased, ensure long-term sustainability, remain on the cutting edge of measurement science and fulfill its mandate in support of industry and government programmes.

Mr Calvin Sehlapelo CA (SA) Chief Financial Officer

### 2. Report of The External Auditor

### Independent Auditor's Report To Parliament On The National Metrology Institute Of South Africa Report on the Audit of the Financial Statements

### Opinion

We have audited the financial statements of NMISA set out on pages 65 to 92, which comprise the statement of financial position as at 31 March 2020, and the statement of financial performance, statement of changes in net assets and cash flow statement and the statement of comparison of budget and actual amounts for the year then ended, as well as the notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the financial statements present fairly, in all material respects, the financial position of the NMISA as at 31 March 2020, and its financial performance and cash flows for the year then ended in accordance with South African Standards of Generally

### Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report.

We are independent of the institute in accordance with sections 290 and 291 of the Independent Regulatory Board for Auditors' Code of Professional Conduct for Registered Auditors (Revised January 2018), parts 1 and 3 of the Independent Regulatory Board for Auditors' Code of Professional Conduct for Registered Auditors (Revised November 2018) (together the IRBA Codes) and other independence requirements applicable to performing audits of financial statements in South Africa. We have fulfilled our other ethical responsibilities, as applicable, in accordance with the IRBA Codes and in accordance with other ethical requirements applicable to performing audits in South Africa. The IRBA Codes are consistent with the corresponding sections of the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants and the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards) respectively.

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

### Responsibilities of the Accounting Authority for the Financial Statements

The Board, which constitutes the accounting authority, is responsible for the preparation and fair presentation of the financial statements in accordance with South African Standards of Generally Recognised Accounting Practice (GRAP) and the requirements of the PFMA (section 55 (1) of the PFMA), and for such internal control as the accounting authority determine is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the accounting authority is responsible for assessing the institute's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the accounting authority either intends to liquidate the institute or to cease operations, or have no realistic alternative but to do so.

### Auditor's Responsibilities for the Audit of the Financial Statements

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 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 the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. 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 institute's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the accounting authority.
- Conclude on the appropriateness of the accounting authority's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the institute's ability 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 or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the institute to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and 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.

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

### Report on the Audit of the Annual Performance Report

#### Introduction and Scope

In accordance with the Public Audit Act of South Africa 2004 (Act No. 25 of 2004) (PAA) and the general notice issued in terms thereof, we have a responsibility to report material findings on the reported performance information against predetermined objectives for selected objectives presented in the annual performance report. We performed procedures to identify material findings but not to gather evidence to express assurance.

Our procedures address usefulness and reliability of the reported performance information, which must be based on the approved performance planning documents of the entity. We have not evaluated the completeness and appropriateness of the performance indicators established and included in the planning documents. Our procedures do not examine whether the actions taken by the entity enabled service delivery. Our procedures also do not extend to any disclosures or assertions relating to planned performance strategies and information relating to future periods that may be included as part of the reported performance information. Accordingly, our findings do not extend to these matters.

We evaluated the usefulness and reliability of the reported performance information in accordance with the criteria developed from the performance management and reporting framework, as defined in the general notice, for the following selected objective presented the annual performance report of the National Metrology Institute of South Africa for the year that ended on 31 March 2020.

Strategic Oriented Outcome	Strategic Objective	Indicator Description	Pages in annual performance report
Keep, maintain and develop the	ep, maintain and develop the Strategic objective 1 – Shorten		35
national measurement standards and provide for the use of the national measurement unit	the traceability chain for Africa by maintaining the units and NMS at an internationally recognised level	Number of new and improved National Measurement Standards and reference material and methods	35
			35
		Number of inter laboratory comparisons and proficiency testing schemes organised and completed	35
		Percentage metrological services covered by CMCs	35

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We performed procedures to determine whether the reported performance information was properly presented and whether performance was consistent with the approved performance planning documents. We performed further procedures to determine whether the indicators and related targets were measurable and relevant, and assessed the reliability of the reported performance information to determine whether it was valid, accurate and complete.

We did not identify any material findings on the usefulness and reliability of the reported performance information for this objective.

### Report on the Audit of Compliance with Legislation

### Introduction and Scope

We performed procedures to determine whether the reported performance information was properly presented and whether performance was consistent with the approved performance planning documents. We performed further procedures to determine whether the indicators and related targets were measurable and relevant, and assessed the reliability of the reported performance information to determine whether it was valid, accurate and complete.

We did not identify any material findings on the usefulness and reliability of the reported performance information for this objective.

### Other Information

NMISA accounting authority is responsible for the other information. The other information comprises the information included in the annual report, which includes the reports by the accounting authority and the audit committee's report. The other information does not include the financial statements, the auditor's report thereon and those selected objectives presented in the annual performance report that have been specifically reported on in this auditor's report.

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

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 objectives presented in the annual performance report, or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact.

#### Internal Control Deficiencies

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

### **Auditor Tenure**

In terms of the IRBA Rule published in Government Gazette Number 39475 dated 4 December 2015, we report that NEXIA SAB&T has been the auditor of the National Metrology Institute of South Africa for 4 years.

### **NEXIA SAB&T**

Philemon Mawire, CA (SA) Director Registered Auditor 28 July 2020

### 3. Annual Financial Statements

### National Metrology Institute of South Africa.

Financial Statements for the year that on ended 31 March 2020

The reports and statements set out below comprise the financial statements presented to the Department of Trade, Industry and Competition (the **dtic**):

	Page
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Statement of Financial Position as at 31 March 2020

Figures in Rand	Note(s)	2020	2019
Assets			
Current Assets			
Receivables from exchange transactions	7	8 534 781	6 943 302
Inventories	8	8 590 957	5 062 282
Prepayments	25	24 519 737	10 885 044
Cash and cash equivalents	9	162 499 988	180 471 420
		204 145 463	203 362 048
Non-Current Assets			
Property, plant and equipment	3	475 562 142	442 146 599
Intangible assets	4	2 736 445	2 998 906
Prepayments	25	62 623	169 976
Rental deposit	22	605 419	605 419
		478 966 629	445 920 900
Total Assets		683 112 092	649 282 948
Liabilities			
Current Liabilities			
Payables from exchange transactions	10	14 387 702	20 146 608
Provisions	26	16 302 659	20 643 145
Income received in advance	6	2 556 915	2 675 018
Total Liabilities		33 247 276	43 464 771
Net Assets		649 864 816	605 818 176
Accumulated surplus		649 864 816	605 818 176

Figures in Rand	Note(s)	2020	2019
Revenue		•	
Revenue from exchange transactions			
Rendering of services	21 843 150		21 424 280
Other income		39 713	112 184
Interest received	16 985 547		13 194 759
Total revenue from exchange transactions		34 731 223	
Revenue from non-exchange transactions			
Transfer revenue			
Transfer from controlling entity	245 036 000		232 784 000
Donations received	ed 292 272		-
Total revenue from non-exchange transactions		245 328 272	232 784 000
Total revenue	11	284 196 682	267 515 223
Expenditure			
Employee related expenses	13	(121 431 493)	(123 551 349)
Depreciation and amortisation	3&4	(37 750 000)	(43 220 376)
Credit losses on receivables		(460 620)	9 866
Contracted services		(269 455)	(140 281)
Repairs and maintenance		(7 453 655)	(8 175 928)
Operating expenses	12	(71 944 067)	(70 197 548)
Total expenditure	•	(239 309 290)	(245 275 616)
Profit/(loss) on disposal of assets		103 026	(1 240 780)
Loss on foreign exchange		(396 853)	(606 286)
	3	(546 925)	(155 051)
Impairment loss	<u> </u>	I	
Impairment loss	<u> </u>	(840 752)	(2 002 117

Statement of Changes in Net Assets for the Year that ended on 31 March 2020  $\,$ 

Figures in Rand	Note(s)	Accumulated surplus
Balance as at 31 March 2018		585 580 687
Surplus for the year		20 237 489
Balance as at 31 March 2019		605 818 176
Surplus for the year		44 046 640
Balance as at 31 March 2020		649 864 816

Cash Flows Statement for the year that ended on 31 March 2020

Figures in Rand	Note(s)	2020	2019
Cash flows from operating activities			
Receipts			
Rendering of services		19 677 184	22 599 041
Transfer from controlling entity		245 036 000	232 784 000
Interest received		16 985 547	13 194 759
Other income		39 713	112 184
Donations received		292 272	-
	282 030 716	268 689 984	
Payments			
Employee related expenses		(126 078 195)	(122 978 777)
Suppliers		(102 576 973)	(71 523 101)
		(228 655 168)	(194 501 878)
Net cash flows from operating activities	14	53 375 548	74 188 106
Cash flows from investing activities			
Purchase of property, plant and equipment	3	(73 122 018)	(80 864 872)
Proceeds from sale of property, plant and equipment		3 122 045	13 171
Purchase of intangible assets	4	(1 347 007)	(2 747 004)
Net cash flows from investing activities		(71 346 980)	(83 598 705)
Net decrease in cash and cash equivalents		(17 971 432)	(9 410 599)
Cash and cash equivalents at the beginning of the year		180 471 420	189 882 018
Cash and cash equivalents at the end of the year	9	162 499 988	180 471 420

Budget on Modified Cash Basis						
Figures in Rand	Approved Budget	Adjustments	Final Budget	Actual amounts on comparable basis	% difference between final budget and actual	Reference
Statement of Financial Performan	ce					
Revenue						
Revenue from exchange transactions						
Rendering of services	38 018 270	-	38 018 270	21 843 150	43%	24.7
Other income	-	-	-	39 713	-100%	24.4
Interest received	13 000 000	-	13 000 000	16 985 547	-31%	24.2
Gains on disposal of assets	-	-	-	103 026	-100%	24.4
Total revenue from exchange transactions	51 018 270	-	51 018 270	38 971 436	24%	
Revenue from non-exchange transactions		<u>I</u>				
Transfer revenue			,			
Transfer from controlling entity	245 036 000	-	245 036 000	245 036 000	0%	
Donations received	-	-	-	292 272	-100%	
Total revenue from non- exchange transactions	245 036 000	-	245 036 000	245 328 272	0%	
Total revenue	296 054 270	-	296 054 270	284 299 708	4%	
Expenditure	•	•	•		•	•
Employee related expenses	(142 205 963)	435 000	(141 770 963)	(121 431 493)	14%	24.3
Depreciation and amortisation	-	-	-	(37 750 000)	-100%	24.4
Impairment loss	-	-	-	(546 925)	-100%	24.4
Credit losses on receivables	-	-	-	(460 620)	-100%	24.4
Contracted Services	(211 000)	-	(211 000)	(269 455)	-28%	24.5
Repairs and Maintenance	(7 890 350)	(327 590)	(8 217 940)	(7 453 655)	9%	24.7
Loss on foreign exchange	(120 000)	-	(120 000)	(396 853)	-231%	24.6
Operating expenses	(71 878 707)	437 940	(71 440 767)	(71 944 067)	-1%	
Total expenditure	(222 306 020)	545 350	(221 760 670)	(240 253 068)	-8%	
Capital Expenditure	(73 748 250)	(545 350)	(74 293 600)	(74 469 025)	0%	
Deficit	-	-	-	(30 422 385)		
Reconciliation						
Format and classification differences						
Property, plant and equipment				73 122 018		
Intangible assets				1 347 007		
Surplus in the Statement of Financial Performance				44 046 640		

### **Accounting Policies**

#### 1. Basis of Preparation

The annual financial statements were prepared in accordance with the Standards of Generally Recognised Accounting Practice (GRAP), including any interpretations, guidelines and directives issued by the Accounting Standards Board in accordance with Section 55 (1) (b) of the Public Finance Management Act, No. 1 of 1999 (PFMA), as amended.

These annual financial statements were prepared on an accrual basis of accounting, and are in accordance with historical cost convention unless specified otherwise. They are presented in South African Rand, which is NMISA's functional currency. Amounts in the financial statements are rounded to the nearest Rand.

The financial statements were prepared on the assumption that the entity is a going concern, and will continue to be in operation for the foreseeable future.

A summary of the significant accounting policies, which are consistent with the prior year, are disclosed below:

### 1.1 Property, Plant and Equipment

Property, plant and equipment are tangible non-current assets (including infrastructure assets) that are held for use in the production or supply of goods or services, rental to others, or for administrative purposes, and are expected to be used during more than one reporting period. This excludes investment property.

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.

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 or fair value of the item can be measured reliably.

Property, plant and equipment are initially measured at cost.

Where an asset is acquired at no cost or at a nominal cost, its cost is its fair value as at the date of acquisition.

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

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

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

Item Useful life in years

Plant and equipment
 Furniture and fixtures
 Motor vehicles
 Office equipment
 7 to 10
 5

Leasehold improvements
 <a href="Lease period/useful life">Lease period/useful life</a>

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

When significant components of an item of property, plant and equipment have different useful lives they, will be accounted for as separate items in the asset register and disclosed in the same category to the main asset. These components are depreciated separately.

The residual value, the useful life and depreciation method of each asset, are reviewed at the end of each reporting date. If the expectation differs from previous estimates, the change is accounted for as a change in accounting estimate. Refer to note 5.

Reviewing the useful life of an asset on an annual basis, does not require the entity to amend the previous estimate unless expectations differ from the previous estimate.

### **Accounting Policies**

Parts of some items of property, plant and equipment may require replacement at regular intervals, the cost of replacing parts of such items is capitalised if the recognition criteria is met. The carrying amount of those parts that are replaced is derecognised in accordance with the derecognition provisions.

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.

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).

#### 1.2 Intangible Assets

An intangible asset is an identifiable non-monetary asset without physical substance.

An asset is identifiable if it's either:

- 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.

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

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

Internally generated brands, mastheads, publishing titles, customer lists and items similar in substance are not recognised as intangible assets.

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

Useful life Item Computer software 2 years

Items of intangible assets are derecognised when, the intangible asset is disposed of or when, there are no further economic benefits or service potential expected from the use of the intangible asset.

The gain, or loss arising from derecognition of an item of intangible asset is included in surplus or deficit when the item is derecognised. The gain 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.

### 1.3 Financial Instruments

A financial instrument is any contract that gives rise to a financial asset of one entity, and a financial liability or a residual interest of another entity.

#### Initial measurement of Financial assets and Financial Liabilities

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

#### 1.4 Financial Assets

NMISA's principal financial assets are receivables from exchange transactions and cash and cash equivalents.

Receivables from exchange transactions.

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 all amounts due, according to the original terms of receivables.

### Cash and Cash Equivalents

Cash and cash equivalents comprise cash on hand and deposits held on call with banks, and are classified as financial assets at amortised cost

### Impairment and Uncollectability

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. 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.

### 1.5 Financial Liabilities

A financial instrument is any contract that gives rise to a financial asset of one entity, and a financial liability or a residual interest of another entity.

Initial measurement of financial assets and financial liabilities.

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

### 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.

### 1.6 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.

When a lease includes both land and buildings elements, the entity assesses the classification of each element separately.

### 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.

### 1.7 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 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.

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.

### 1.8 Provisions and Contingencies

### **Provisions**

A provision is recognised when:

- The entity has a present obligation (legal or constructive) 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 amount 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.

Where the effect of the time value of money is material, the amount of a provision shall be the present value of the expenditure expected to be required to settle the present obligation. The discount rate shall reflect current market assessments of the time value of money and risks specific to the liability.

The entity reviews provisions, at each reporting date, and adjusts them if necessary, 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. Where discounting is used, the carrying amount of a provision increases in each period to reflect the passage of time. This increase is recognised as an interest expense.

### **Contingent Liabilities**

Contingent liabilities are recorded in the notes to the financial statements, when there is a possible obligation that arises from past events, and whose existence will be confirmed only by the occurrence, or non-occurrence of one or more uncertain future events not within the control of NMISA, or when there is a present obligation that is not recognised because it is not probable that an outflow of resources will be required to settle the obligation, or the amount of the obligation cannot be measured reliably.

### 1.9 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 responsibilities, thereby incurring future expenditure that will result in the outflow of cash.

### 1.10 Revenue from Exchange Transactions

An exchange transaction is one in which an entity receives assets or services or has liabilities extinguished, and directly gives approximately equal value (primarily in the form of goods, service or use of assets) to the other party in exchange.

Revenue is measured at the fair value of the consideration received or receivable, net of trade discounts and volume rebates.

### 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 associated with the transaction will flow to NMISA
- 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

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

### 1.11 Revenue from Non-exchange Transactions

Non-exchange transactions, are transactions that are not exchange transactions. In a non-exchange transaction, an entity either receives value from another entity without directly giving approximately equal value in exchange, or gives value to another entity without directly receiving approximately equal value in exchange.

Revenue from a non-exchange transaction is measured at the amount of the increase in net assets recognised by the entity.

NMISA receives an unconditional grant via the Department of Trade, Industry and Competition (the dtic).

### Gifts and Donations, Including Goods In-kind

Gifts and donations, including goods in kind, are recognised as assets and revenue when it is probable that the future economic benefits, or service potential will flow to the entity and the fair value of the assets can be measured reliably.

### 1.12 Foreign Currency Translation

A foreign currency transaction is recorded, on initial recognition in the functional currency, 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, and
- · 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

### 1.13 Changes in Estimates

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 effects 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.

### 1.14 Fruitless and Wasteful Expenditure

Fruitless and wasteful expenditure as defined by Section 1 of the PFMA, means expenditure which was made in vain and would have been avoided had reasonable care been exercised.

Fruitless and wasteful expenditure is recorded in the notes to the financial statements when confirmed. The amount recorded is equal to the total value of the fruitless and wasteful expenditure incurred. The expenditure is removed from the notes to the financial statements when it is resolved, or transferred to receivables for recovery.

Fruitless and wasteful expenditure receivables are measured at the amount that is expected to be recoverable, and are derecognised when settled or subsequently written-off as irrecoverable.

### 1.15 Irregular Expenditure

Irregular expenditure as defined in Section 1 of the PFMA is expenditure other than unauthorised expenditure, incurred in contravention of or that is not in accordance with a requirement of any applicable legislation, including:

- The PFMA
- The State Tender Board Act, 1968 (Act No. 86 of 1968), or any regulations made in terms of the Act
- Any provincial legislation providing for procurement procedures in that provincial government

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 note.

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.

### 1.16 Budget Information

Budgets are prepared on a modified cash basis over the 12-month period of the financial year.

A comparison with the budgeted amounts for the current reporting period have been included in the statement of comparison of budget and actual amounts. The reasons for significant variances are disclosed in the notes to the annual financial statements.

### 1.17 Related Party Disclosures

A related party is a person or an entity with the ability to control or jointly control the other party, or exercise significant influence over the other party, or vice versa, or an entity that is subject to common control, or joint control.

Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

Joint control is the agreed sharing of control over an activity by a binding arrangement, and exists only when the strategic financial and operating decisions relating to the activity require the unanimous consent of the parties sharing control (the venturers).

Related party transaction is a transfer of resources, services or obligations between the reporting entity and a related party, regardless of whether a price is charged.

Significant influence is the power to participate in the financial and operating policy decisions of an entity but is not in control over those policies.

Management are those persons responsible for planning, directing and controlling the activities of the entity, including those charged with the governance of the entity in accordance with legislation, in instances where they are required to perform such functions.

Close members of the family of a person are considered to be those family members who may be expected to influence, or be influenced by that management in their dealings with the entity.

The entity is exempt from disclosure requirements in relation to related party transactions, if that transaction occurs within normal supplier and/or client/recipient relationships on terms and conditions no more, or less favourable than those which it is reasonable to expect the entity to have adopted if dealing with that individual entity or person in the same circumstances, and terms and conditions are within the normal operating parameters established by that reporting entity's legal mandate.

Where the entity is exempt from the disclosures in accordance with the above, the entity discloses narrative information about the nature of the transactions and the related outstanding balances, to enable users of the entity's financial statements to understand the effect of related party transactions on its financial statements.

### 1.18 Events After Reporting Date

Events after reporting date are those events, both favourable and unfavourable, that occur between the reporting date and the date when the financial statements are authorised for issue. Two types of events can be identified:

- · Those that provide evidence of conditions that existed at the reporting date (adjusting events after the reporting date), and
- Those that are indicative of conditions that arose after the reporting date (non-adjusting events after the reporting date).

The entity will adjust the amount recognised in the financial statements to reflect adjusting events after the reporting date once the event occurred.

The entity will disclose the nature of the event and an estimate of its financial effect, or a statement that such estimate cannot be made in respect of all material non-adjusting events, where non-disclosure could influence the economic decisions of users taken on the basis of the financial statements.

### 1.19 Impairment of Non-financial Assets, Cash-Generating Assets

Assets are classified as cash-generating, if the entity intends to generate positive cash inflows from the asset and earn a commercial return that reflects the risk involved in holding the asset. Non-cash generating assets are primarily held for service delivery purposes in terms of NMISA's mandate.

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. In assessing value in use, the estimated future cash flow is discounted to its present value, using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the assets.

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

### 1.20 Impairment of Non-financial Assets, 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 of that asset. A reversal of an impairment loss for a non-cash-generating asset is recognised immediately in surplus or deficit.

### 1.21 Employee Benefits

### **Short-Term Employee Benefits**

The cost of short-term employee benefits, those payable within 12 months after the service is rendered, such as paid vacation leave and sick leave, bonuses and non-monetary benefits (such as medical care), are recognised in the period in which the service is rendered and are not discounted.

### **Defined Contribution Plan**

Payments to defined contribution retirement benefit plans are charged as an expense as they fall due.

### 1.22 Significant Judgements and Sources of Estimation Uncertainty

In preparing the annual financial statements, management is required to make estimates and assumptions that affect the amounts presented in the annual financial statements and related disclosures. Use of available information and the application of judgement are 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. Significant judgements include: provision for doubtful debts, useful life, residual value and impairment of assets.

### Provision for Doubtful Debts

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.

### Useful Lives and Residual Values of Property, Plant and Equipment

Management made certain estimates with regard to the determination of estimated useful lives and residual values of items of property, plant and equipment, as discussed further in Note 3 to 5. 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.

### **Impairment**

The recoverable service amount of non-cash generating assets and individual assets was determined, based on the higher of value in use and fair values of assets, less cost to sell. These calculations require the use of estimates and assumptions. It is reasonably possible that the value in use or fair value assumption may change, which may then impact on management's estimation and may then require a material adjustment to the carrying value of 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 made for 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.

### 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 01 April 2020 or later periods:

GRAP 1 (amended): Presentation of Financial Statements

Amendments to this Standard of GRAP, are primarily drawn from the IASB's Amendments to IAS 1. Summary of amendments are:

- Materiality and aggregation the amendments clarify that information should not be obscured by aggregating or by providing
  immaterial information. Materiality considerations apply to all parts of the financial statements, and even when a standard of GRAP
  requires a specific disclosure, materiality considerations apply.
- Statement of financial position and statement of financial performance the amendments clarify that the list of line items to be presented in these statements can be disaggregated, and aggregated as relevant and additional guidance on subtotals in these statements.
- Notes structure the amendments add examples of possible ways of ordering the notes to clarify that understandability, and comparability should be considered when determining the order of the notes, and to demonstrate that the notes need not be presented in the order listed in GRAP 1.
- Disclosure of accounting policies remove guidance and examples with regards to the identification of significant accounting
  policies that were perceived as being potentially unhelpful. An entity applies judgement based on past experience and current
  facts and circumstances.

The effective date of this standard is for years beginning on or after 01 April 2020.

### IGRAP 1 (revised): Applying the Probability Test on Initial Recognition of Revenue

The amendments to this Interpretation of the Standard of GRAP clarifies that the entity should also consider other factors in assessing the probability of future economic benefits or service potential to the entity. Entities are also uncertain of the extent to which factors, other than the uncertainty about the collectability of revenue, should be considered when determining the probability of the inflow of future economic benefits or service potential on initial recognition of revenue. For example, in providing certain goods or services, or when charging non-exchange revenue, the amount of revenue charged may be reduced or otherwise modified under certain circumstances. These circumstances include, for example, where the entity grants early settlement discounts, rebates or similar reductions based on the satisfaction of certain criteria, or as a result of adjustments to revenue already recognised following the outcome of any review, appeal or objection process.

The consensus is that on initial recognition of revenue, an entity considers the revenue it is entitled to, following its obligation to collect all revenue due to it in terms of legislation or similar means. In addition, an entity considers other factors that will impact the probable inflow of future economic benefits or service potential, based on past experience and current facts and circumstances that exist on initial recognition. An entity applies judgement based on past experience and current facts and circumstances.

The effective date of the interpretation is for years beginning on or after 01 April 2020.

### IGRAP 20: Accounting for Adjustments to Revenue

As per the background to this Interpretation of the Standards of GRAP, there are a number of legislative and regulatory processes that govern how entities levy, charge or calculate revenue in the public sector. Adjustments to revenue already recognised in terms of legislation or similar means arise from the completion of an internal review process within the entity, and/or the outcome of an external appeal or objection process undertaken in terms of legislation or similar means. Adjustments to revenue include any refunds that become payable as a result of the completion of a review, appeal or objection process. The adjustments to revenue already recognised following the outcome of a review, appeal or objection process can either result in a change in an accounting estimate, or a correction of an error.

As per the scope, this Interpretation of the Standards of GRAP clarifies the accounting for adjustments to exchange and non-exchange revenue charged in terms of legislation or similar means, and interest and penalties that arise from revenue already recognised as a result of the completion of a review, appeal or objection process. Changes to the measurement of receivables and payables, other than those changes arising from applying this interpretation, are dealt with in accordance with the applicable standards of GRAP. The principles in this interpretation may be applied, by analogy, to the accounting for adjustments to exchange or non-exchange revenue that arises from contractual arrangements where the fact patterns are similar to those in the interpretation. The interpretation sets out the issues and relating consensus with accounting for adjustments to revenue.

The effective date of the interpretation is for years beginning on or after 01 April 2020.

### GRAP 104 (amended): Financial Instruments

Following the global financial crisis, a number of concerns were raised about the accounting for financial instruments. This included that (a) information on credit losses and defaults on financial assets were received too late to enable proper decision-making, (b) using fair value in certain instances was inappropriate, and (c) some of the existing accounting requirements were seen as too rules based. As a result, the International Accounting Standards Board® (IASB) amended its existing Standards to deal with these issues. The IASB issued IFRS® Standard on Financial Instruments (IFRS 9) in 2009 to address many of the concerns raised. Revisions were also made to IAS® on Financial Instruments: Presentation and the IFRS Standard® on Financial instruments: Disclosures. The IPSASB issued revised International Public Sector Accounting Standards in June 2018 so as to align them with the equivalent IFRS Standards.

The revisions better align the Standards of GRAP with recent international developments. The amendments result in better information available to make decisions about financial assets and their recoverability, and more transparent information on financial liabilities.

The most significant changes to the Standard affect: financial guarantee contracts issued, loan commitments issued, classification of financial assets, amortised cost of financial assets, impairment of financial assets and disclosures.

The effective date of the standard is not yet set by the Minister of Finance.

### 2.2 Standards and Interpretations not yet Effective or Relevant

The following standards and interpretations have been published and are mandatory for the entity's accounting periods beginning on or after 01 April 2020 or later periods but are not relevant to its operations:

Standard/ Interpretation:	Effective date: Years beginning on or after	Expected impact:
GRAP 34: Separate Financial Statements	01 April 2020	Unlikely there will be a material impact
GRAP 35: Consolidated Financial Statements	01 April 2020	Unlikely there will be a material impact
GRAP 36: Investments in Associates and Joint Ventures	01 April 2020	Unlikely there will be a material impact
GRAP 37: Joint Arrangements	01 April 2020	Unlikely there will be a material impact
GRAP 38: Disclosure of Interests in Other Entities	01 April 2020	Unlikely there will be a material impact
GRAP 110 (as amended 2016): Living and Non-living Resources	01 April 2020	Unlikely there will be a material impact

2019

# 3. Property, Plant and Equipment

Figures in Rand

		2020			2019	
	Cost / Valuation	Accumulated depreciation and impairment	Carrying value	Cost / Valuation	Accumulated depreciation and impairment	Carrying value
Plant and equipment	621 953 466	(162 968 413)	458 985 053	564 676 545	(130 154 071)	434 522 474
Furniture and fixtures	4 578 931	(3 512 922)	1066 009	4 009 213	(3 201 851)	807 362
Motor vehicles	192 969	(123 017)	69 952	394 792	(153 531)	241 261
Office equipment	16 634 967	(11 079 554)	5 555 413	15 270 776	(9 190 274)	6 080 502
Leasehold improvements	20 508 559	(10 622 844)	9 885 715	10 863 681	(10 368 681)	495 000
Total	663 868 892	(188 306 750)	475 562 142	595 215 007	(153 068 408)	442 146 599

	Opening balance	Additions	Disposals	Depreciation	Impairment loss	Total
Reconciliation of property, plant and equipment -2020	ind equipment -2020					
Plant and equipment	424 225 424	61 451 204	(2 824 763)	(33 680 802)	(483 060)	458 985 053
Furniture and fixtures	807 362	589 051	(10 776)	(317 796)	(1832)	1 066 009
Motor vehicles	241 261	-	(138 330)	(32 979)	-	69 952
Office equipment	205 080 9	1 436 885	(45 148)	(1854 794)	(62 033)	5 555 413
Leasehold improvements	666 767	9 644 878	-	(254 162)	-	9 885 715
	442 146 599	73 122 018	(3 019 017)	(36 140 533)	(546 925)	475 562 142
Reconciliation of property, plant and equipment - 2019	ind equipment - 2019					
Plant and equipment	391 691 230	75 469 402	(286 665)	(31 883 120)	(155 051)	434 522 474
Furniture and fixtures	2 133 293	421133	(452 272)	(1 294 792)	ı	807 362
Motor vehicles	287 528	1	1	(46 267)	1	241 261
Office equipment	6 104 573	2 566 098	(200 604)	(2 389 564)	1	6 080 503
Leasehold improvements	3 707 157	2 408 239	(1089)	(5 619 308)	1	494 999
	403 923 781	80 864 872	(1 253 952)	(41 233 051)	(155 051)	442 146 599
The carrying value of property, plant and equipment has not been pledged as	it and equipment has not beer	ר pledged as security.				

Figures in Rand 2020 2019

Figures in Rand

Included in the carrying value of property plant and equipment is work in progress to the value of R 28 804 845 (2019: R7 839 866) thus though the carrying value of property, plant and equipment has increased depreciation for the year has decreased.

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

Repairs and maintenance 7 453 655 8 175 928

		2020			2019	
	Cost / Valuation	Accumulated amortisation and impairment	Carrying Value	Cost / Valuation	Accumulated amortisation and impairment	Carrying value
Computer software	11 048 537	(8 312 092)	2 736 445	9 701 531	(6 702 625)	2 998 906

### Reconciliation of intangible assets - 2020

	Opening balance	Additions	Amortisation	Total
Computer software	2 998 905	1 347 007	(1 609 467)	2 736 445

### Reconciliation of intangible assets - 2019

Computer	2 239 225	2 747 004	(1 987 323)	2 998 906
software				

### 5. Change in Estimate

The entity has reassessed the useful lives of property, plant and equipment and intangible assets, which resulted in certain assets' remaining useful lives to change by an average of 2 years. The effect of the change in accounting estimate has resulted in a decrease in depreciation and amortisation amounting to R3 233 810 for the current period.

Change in depreciation and amortisation resulting from reassessment of useful lives. The following categories are affected:	Values derived using amended estimate	Value derived from using original estimate	Value impact of change in estimate
Furniture and fixtures	317 796	337 835	(20 039)
Computer software	1 609 467	2 337 023	(727 556)
Leasehold improvements	254 163	254 163	-
Office equipment	1 854 793	2 298 296	(443 503)
Plant and equipment	33 680 802	35 721 013	(2 040 211)
Motor vehicles	32 979	35 480	(2 501)
	37 750 000	40 983 810	(3 233 810)

### 6. Income Received in Advance

	2 556 915	2 675 018
Other advance received *	1 885 951	2 351 893
Prepayments received from customers	670 964	323 125

Figures in Rand 2020 2019

\*Includes an amount of R 1 million advance received from National Physical Laboratory (NPL) for a collaboration via a visiting fellowship in the field of mass metrology and the technology necessary for the realisation and dissemination of the unit of mass under the revised SI and R 0.9 million received from the Department of Science and Technology (DST) to facilitate the finalisation of the proposal for the establishment of the material characterisation facility.

Comparative financial results of the entity have been restated to reclassify the balance of R 2 351 893 from payables from exchange transactions to income received in advance in order to better reflect the nature thereof more appropriately on the face of the financial statements and in the respective notes. The 2020 amounts were presented and disclosed on the same basis as the restated amounts. For further information in terms of the reclassification, refer to note 10.

### 7. Receivables from Exchange Transactions

	8 534 781	6 943 302
Less: Provision for impairment of trade receivables	(629 520)	(168 900)
Employee advances and other receivables	42 626	38 390
Trade receivables	9 121 675	7 073 812

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

Movement in the provision for impairment of trade receivables		
Opening balance	168 900	194 378
Unused amounts reversed	(168 900)	(178 766)
Amounts written off as uncollectible	-	(15 612)
Provision for impairment	629 520	168 900
	629 520	168 900

### 8. Inventories

Raw materials	6 080 596	3 782 040
Finished goods	2 510 361	1 280 242
Less: Provision for impairment of trade receivables	8 590 957	5 062 282
Inventories recognised as an expense during the year, included under operating expenses	1 919 179	86 213
Inventories written-down during the year, included under operating expenses	66 305	86 081

Inventory is carried at lower of cost or net realisable value.

Inventory was not pledged as security for liabilities.

### 9. Cash and Cash Equivalents

Cash and cash equivalents consist of:		
Cash on hand	19 081	19 444
Bank balances	3 888 427	5 245 043
Short-term deposits*	158 592 480	175 206 933
	162 499 988	180 471 420

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

<sup>\*</sup>Short-term deposit is the Money Market account held with Standard Bank.

Figures in Rand	2020	2019

	14 387 702	20 146 608
Accrued expenses	2 414 937	7 548 647
Accrued leave pay*	5 289 522	5 074 280
Trade payables	6 683 243	7 523 681

Comparative financial results of the entity have been restated to reclassify the balance of R 2 351 893 from payables from exchange transactions to income received in advance in order to better reflect the nature thereof more appropriately on the face of the financial statements and in the respective notes. For further information in terms of the reclassification, refer to note 6.

\*Furthermore, comparative financial results of the entity have been restated to reclassify the amount of R 5 074 280 relating to leave accrual from provisions to accruals as NMISA does not have an unconditional right to defer settlement of its leave liabilities. The reclassification therefore reflects the nature of the leave accrual more appropriately on the face of the financial statements and in the respective notes. For further information in terms of the reclassification, refer to note 26. The 2020 amounts were presented and disclosed on the same basis as the restated amounts.

### 11. Revenue

	284 196 682	267 515 223
Non-exchange revenue	245 328 272	232 784 000
Exchange revenue	38 868 410	34 731 223

### The amount included in revenue arising from exchanges of goods or services are as follows:

	38 868 410	34 731 223
Interest received	16 985 547	267 515 223
Other income	39 713	232 784 000
Rendering of services	21 843 150	34 731 223

### The amount included in revenue arising from non-exchange transactions is as follows:

Transfer received from controlling entity towards capital expenditure	129 979 000	123 086 000
Donations received	292 272 <b>245 328 272</b>	232 784 000

### 12. Operating Expenses

Auditor's remuneration	968 797	894 247
Bursaries	1 510 869	1 869 663
Catering, events and meetings	1 887 037	3 074 810
Chemicals and lab consumables	7 148 947	5 266 239
Consulting and professional fees	922 918	119 310
Electricity	2 236 698	3 134 510
External calibration costs	845 736	1 057 093
Health and safety services	435 099	1 182 883
Human capital development	2 491 068	3 494 979
IT expenses	10 426 466	5 873 496
Insurance	507 960	725 786
Inventories written-down to net realisable value	66 305	86 081
Lease rentals on operating lease	13 524 831	12 533 951
Marketing and advertising	2 898 960	3 452 056
Other expenses	1 473 994	1 851 798
Postage and courier	2 612 649	2 745 168
Printing and stationery	1 489 863	2 041 967
Recruitment costs	555 465	99 920
Research and development costs	1 983 000	460 800
SANAS assessment/Quality expenses	840 215	939 530
Staff welfare	655 564	430 941
Subscription and membership fees	709 755	570 321
Technical components	6 754 760	9 387 650
Telephone and fax	582 699	667 180
Travel - local	1 935 111	1 736 565
Travel - overseas	6 479 302	6 500 604
	71 944 068	70 197 548

Comparative financial results of the entity have been restated to reclassify COIDA (Compensation for Occupational Injuries and Diseases Act - assessment) expenses of R 141 806 from compensation of employees/ employee related expenses to general expenses in order to better reflect the nature thereof more appropriately on the face of the financial statements and in the respective notes. For further information in terms of the reclassification, refer to note 13.

Figures in Rand 2020 2019

### 13. Employee related expenses

	121 431 493	123 551 349
Career ladder provision adjustment	(765 067)	2 493 272
Temporary employees	1 058 957	1 511 704
Long-service awards	139 292	105 958
Pay As You Earn (PAYE)	25 005 734	25 782 092
Leave pay provision charge	215 242	1 484 319
Third-party payments*	16 505 665	13 824 719
Unemployment Insurance Fund (UIF)	568 095	552 348
Performance bonuses	8 974 061	15 775 012
Net earnings	69 729 513	62 021 924

<sup>\*</sup> Payments include costs related to medical aid, pension fund contributions, group life, etc.

Comparative financial results of the entity have been restated to reclassify COIDA (Compensation for Occupational Injuries and Diseases Act – assessment) expenses of R 141 806 from compensation of employees/ employee related expenses to general expenses in order to better reflect the nature thereof more appropriately on the face of the financial statements and in the respective notes.

The difference in amounts between the Statement of Financial Performance and the Cash Flow Statement is due to movements in provisions

### 14. Cash generated from operations

Surplus	44 046 640	20 237 489
Adjustments for:		
Depreciation and amortisation	37 750 000	43 220 376
(Profit) / loss on disposal of assets	(103 026)	1 240 780
Foreign exchange loss	396 853	606 286
Impairment loss	546 9254	155 051
Movement in provision for career ladder adjustments	(765 067)	(3 712 963)
Movement in provision for performance bonuses	(3 261 136)	4 441 456
Movement in other provisions	(314 283)	670 513
Credit losses	460 620	(9 866)
Changes in working capital:		
Inventories	(3 528 676)	(4 890 012)
Receivables from exchange transactions	(2 052 099)	(867 378)
Prepayments	(13 527 340)	5 099 558
Payables from exchange transactions	(6 155 760)	5 806 172
Income received in advance	(118 103)	2 190 644
	53 375 548	74 188 106

### 15. Commitments

	142 555 956	148 239 718
Operating expenditure	23 721 895	43 468 509
Property, plant and equipment	118 834 061	104 771 209
Already contracted for but not provided for		

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 commitments

### **Operating lease commitments - Printers**

- within one year	5 155	47 261
Rental expenses relating to operating leases		
Minimum lease payments	13 524 831	12 398 716

### **Significant lease arrangements**

### **Lease rental - Building**

The lease relates to the occupation of Buildings used by NMISA. An addendum to the lease agreement was signed for a period of a year, covering 01 April 2019 to 31 March 2020. The lease agreement is in the process of being renewed for a period of 9 years and 11 months, commencing on 01 April 2020. Rental increases take place on the 1st of April annually. This increase is based on CSIR's annually approved rental rates. The rental is payable monthly in advance.

### **Lease rental - Printers**

The lease relates to the use of Printers for a total period of 36 months, commencing on 01 August 2016. The rental agreement was extended for 7 months from 01 October 2019 to 30 April 2020. The rental is payable monthly in arrears.

Figures in Rand 2020 2019

# 16. Related parties

Relationships		
Controlling entity	Department of Trade, Industry and Competition (the <b>dtic</b> )	
Board members	Ms Jabu Mogadime (Chairperson) Mr Molelekoa Petrus Mohlomi Ms Lindie Lankalebalelo Mr Odirile Dingoko Ms Bavelile Hlongwa (resigned 22 May 2019) Mrs Nobom Gcinashe Mfabana Ms Ursula Ntsubane (term ended 28 February 2020) Dr Tshenge Demana (The <b>dtic</b> representative)	
External members of the Audit and Risk Committee	Mr Zenzele Myeza Ms Romeshni Govender	
External members of the IT Steering Committee	Mr Senzo Dlamini Mr Sipho Masinga	
Members of key management	Mr Ndwakhulu Mukhufhi (CEO) Mr Benjamin van der Merwe Dr Wynand Louw Ms Natasha van der Walt Dr Jayne de Vos Mr Teboho Mthombeni Mr Mogau Sehlapelo Ms Zakithi Msimang	
Entities under common control	South African National Accreditation Systems (SANAS) Export credit Insurance Corporation (ECIC) National Empowerment Fund (NEF) South African Bureau of Standards (SABS) National Creditor Regulator (NCR) National Gambling Board (NGB) National Consumer Commission (NCC) National Consumer Tribunal (NCT) National Lotteries Commission (NLC) National Regulator for Compulsory Specifications (NRCS) Companies and Intellectual Property Commission (CIPC) The Companies Tribunal (CT) Competition Commission Competition Tribunal Industrial Development Corporation International Trade Administration Commission of South Africa (ITAC)	

Key management information			
Class	Description	Number	
Board members	Accounting Authority	7	
Executive Committee	Executive management	8	

Related Party Balances

Amounts included in Trade receivable regarding related parties		
South African National Accreditation Systems (SANAS)	81 902	85 531
South African Bureau of Standards (SABS)	59 613	66 321
Amounts included in Trade Payables regarding related parties	<u>.</u>	•
South African National Accreditation Systems (SANAS)	31 129	-
South African Bureau of Standards (SABS)	15 509	81 581
Amounts included in Income Received in Advance regarding related pa	rties	•
National Regulator Compulsory Specification	1 980	1 980
Related party transactions	·	
Sales to related parties		
South African National Accreditation Systems (SANAS)	242 391	219 508
South African Bureau of Standards (SABS)	123 424	124 718
Purchases from related parties	•	
South African National Accreditation Systems (SANAS)	1 089 503	1 042 940
South African Bureau of Standards (SABS)	197 953	247 118
Transfer received from related parties	•	
Transfer received from the <b>dtic</b>	245 036 000	232 784 000

Notes to the Financial Statements

17. Members' Emoluments Figures in Rand

Basic Safe Safe Manual Domus         Paysis Cantribution         Paysis Domus         Payouts         Other Pools         Contribution           Fin Ndowshiulu Mulauthi (CEO)         2.375 Cill         40.028         55.527         481 53.2         24.000         4.569         1.407.23           Fin Ndowshiulu Mulauthi (CEO)         1.102.859         -         7.321         112.699         1.40.788         1.40.60 <td< th=""><th>Executive</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>	Executive							
washkulu Mukhufhi (CEO)         2 372 0∏         40 128         55 52 1         481 532         24 000         4 360           boho Mithomberii         1102 859         -         139 092         141 671         82 000         4 589           kithi Nsimang         1186 412         7 32 1         115 698         174 106         18 000         2 092           kithi Nsimang         1 186 42         -         7 35 52         173 55         18 000         2 092           kithi Nsimang         1 156 193         -         106 328         250 683         121 860         14 102           nand Louw         1 125 544         -         98 684         174 106         18 000         2 623           nrad Louw         1 125 543         -         96 684         174 106         18 000         2 623           nrad Louw         1 156 145         84 510         118 228         155 66         18 000         3 66           nrad Louw         1 156 145         84 510         188 955         255 65         18 000         3 66           nrad Louw         1 174 235         3 600         822 038         185 44         17 24         3 594           stathi Nsimang         1 170 620         2 17 356         2		Basic salary	Annual bonus	Pension contribution	Performance bonus	Allowances	Other expenses	Total
within Miximang         1102 859         -         139 992         141 671         82 000         4 599           within Miximang         1186 412         73 221         11 698         174 106         18 000         2 092           ngau Sehiapelo         1590 914         -         37 552         273 355         18 000         7 424           ngau Sehiapelo         1201 993         -         106 328         250 683         121 860         7 424           nrand Louw         1201 993         -         98 684         174 106         18 000         7 424           nrand Louw         1255 544         -         98 684         174 106         18 000         2 623           nred b Vos         1255 544         -         98 684         174 106         18 000         3 66           nred b Vos         1156 145         84 510         183 95         18 000         3 66         3 66           nred b Vos         1156 145         84 510         188 95         23 55         18 000         3 66           shythiu Mixhufini (CEO)         2157 351         3 506         82 2036         17 264         3 17 860         18 57           shythiu Mixhufini (CEO)         1174 356         -         2 35 04 <td>Mr Ndwakhulu Mukhufhi (CEO)</td> <td>2 312 011</td> <td>40 128</td> <td>55 521</td> <td>481 532</td> <td>24 000</td> <td>4 360</td> <td>2 917 552</td>	Mr Ndwakhulu Mukhufhi (CEO)	2 312 011	40 128	55 521	481 532	24 000	4 360	2 917 552
kithi Msimang         1186 412         73 221         112 698         174 106         18 000         2 092           ngau Sehlapelo         1590 914          37 552         273 355         18 000         7 424           ngau Sehlapelo         1 201 993          96 684         174 106         18 000         7 424           nrand Louw         1 259 344          96 684         174 106         18 000         2 623           nred e Vos         1 257 564         39 141         113 228         153 195         18 000         2 623           nred e Vos         1 257 564         39 141         113 228         153 606         18 000         3 66           nipamin van der Merwe         1 156 145         84 510         182 935         236 756         18 000         3 66           Josa Schriftlin Malmang         1 170 225         3 5 06         50 224         402 923         12 000         7 58           Josa Schlapelo         1 170 602          97 857         17 566         9000         7 589           Jyand Louw         1 170 602          97 987         17 255         9000         7 589           Jyand Louw         1 177 600	Mr Teboho Mthombeni	1102 859	ı	139 092	141 671	82 000	4 599	1 470 221
ngau Sehlapelo         1590 914         -         37 552         273 355         18 000         7 424           nnand Louw         1201 993         -         106 328         250 683         121 860         14 102           ntasha van der Walt         1259 344         -         98 684         174 106         18 000         2 623           nne de Vos         1155 145         84 510         18 8 925         236 756         18 000         408           nipanni van der Merwe         1156 145         84 510         18 8 925         236 756         18 000         408           nipanni van der Merwe         1156 145         33 141         113 289         236 756         18 000         408           swakhulu Mukhufhi (CEO)         2 157 351         36 306         50 234         402 923         12 000         23 573           böogo Mithombeni         1174 235         -         97 857         17 266         9000         23 974           skithi Nsimang         1174 535         -         97 476         76 748         17 265         9000         29 98           spand Sehlapelo         1147 956         -         93 94         163 419         1000         -         9000           syne de Vos	Ms Zakithi Msimang	1 186 412	73 221	112 698	174 106	18 000	2 092	1 566 529
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1389 717         54 180         92 988         226 232         9000         -           1477 600         65 364         92 237         133 794         9000         4 882           11 589 979         210 326         611 612         1 706 128         178 860         48 450	Ms Natasha Nel-Sakharova	1 413 986	1	84 587	259 361	0006	1	1766 934
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210 326         611 612         1 706 128         178 860         48 450	Mr Benjamin van der Merwe	1 477 600	65 364	92 237	133 794	0006	4 882	1 782 877
		11 589 979	210 326	611 612	1 706 128	178 860	48 450	14 345 355

Board members' emoluments		
	Fees	Fees
Dr Prinsloo Nevhutalu (Term ended May 2018)	-	6 140
Mr Thembani Bukula (Term ended May 2018)	-	3 769
Mr Tshokolo Nong (Term ended May 2018)	-	4 586
Dr Rudzani Nemutudi (Term ended May 2018)	-	11 306
Ms Jabu Mogadime (Chairperson)	111 924	65 244
Dr Cleopas Sanangura (Term ended May 2018)	-	19 479
Ms Ursula Ntsubane (Term ended 28 February 2020)	68 340	56 474
Ms Bavelile Hlongwa (resigned 22 May 2019)	23 627	42 144
Ms Lindie Lankalebalelo	83 777	48 311
Mr Odirile Dingoko	61 831	42 680
Ms Nobom Mfabana	88 124	46 125
Mr Molelekoa Mohlomi	122 523	55 277
	560 146	401 535

Dr Tshenge Demana (the dtic representative) does not receive remuneration for the meetings attended.

Independent committee member					
	Fees	Fees			
Mr Senzo Dlamini	8 040	14 573			
Mr Sipho Masinga	17 418	17 864			
Mr Kgosietsile Kgosiemang (Term ended May 2018)	-	12 042			
Ms Romeshni Govender	34 031	6 499			
	59 489	50 978			

### 18. Risk Management

NMISA's activities expose it to a variety of financial risks, namely market risk (including currency risk, interest rate risk and cash flow risk), credit risk and liquidity risk.

COVID-19's impact on organisations is rapidly increasing not only effecting the supply and demand dynamics but has also disrupted the financial markets as well as the macro economy. This will have a direct impact on the entity's ability to generate revenue in the 2020/21 financial year, since demand for products and services is likely to decline as most organisations will be under financial distress. Furthermore, the entity faces the possibility of a further reduction in the allocation to be received from government due to a forecasted decline in government revenue collection.

The entity has and will continue to prioritise immediate financial and operational measures such as protecting liquidity and cash flows and ensuring core business activities are kept going.

### 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 amounts disclosed in the table are the contractual undiscounted cash flows.

2020	Carrying amount R	1 to 5 months R	6 to 9 months R	10 to 12 months R	2 to 5 years R	More than 5 years R
Payables from exchange Transactions	14 387 702	14 355 193	-	32 509	-	-
	14 387 702	14 355 193	-	32 509		-

Figures in Rand 2020 2019

2020	Carrying amount R	1 to 5 months R	6 to 9 months R	10 to 12 months R	2 to 5 years R	More than 5 years R
Payables from exchange transactions	20 146 608	19 566 382	580 226	-	-	-
	20 146 608	19 566 382	580 226	-	-	-

### Credit Risk

Credit risk for NMISA is mainly limited to cash deposits, cash equivalents and trade debtors. NMISA only deposits cash with major banks with high quality credit standing and limits exposure to any one counter-party.

Trade receivables are derived from revenue earned by, but not limited to, calibrating equipment, materials characterisation, certified reference materials, proficiency testing schemes and primary reference gas mixtures. There is no independent rating and as a result management assesses the credit quality of the customer, taking into account trade references, past experience and other factors. NMISA establishes an impairment that represents its estimate of potential losses in respect of trade receivables.

NMISA is considering all receivables between 90 and 120 days and individually based on payment history for impairment. The provision for impairment is 7% (2019: 2%) of the total receivables book.

The maximum exposure to credit risk is as follows:		
Trade receivables	9 121 675	7 073 812
Less: Provision for impairment of trade receivables	(629 520)	(168 900)
Rental deposits	605 419	605 419
	9 097 574	7 510 331

As at 31 March 2020, the age analysis of the receivables from exchange transactions net of provision for impairment of trade receivables, was as follows:					
Not past due	5 650 496	4 910 386			
Past due 31-60 days	655 172	974 918			
Past due 61-90 days	281 576	25 580			
Past due 91-120 days	195 304	72 945			
Past due 120 days and over	1 709 607	921 083			
	8 492 155	6 904 912			

### Cash Flow Risk

NMISA manages its cash flow risk by aligning the allocation received from the dtic and other sources of income to its estimated monthly activity levels.

### Interest Rate Risk

NMISA's interest rate risk arises from markets and economic factors, payables, cash and cash equivalents and receivables. NMISA'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 the risk of changes in market interest rates relates primarily to cash in notice deposits held with banks

### Cash and Cash Equivalents

Short-term deposits	158 592 480	175 206 933
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### Currency Risk

NMISA is exposed to this type of risk. NMISA'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.

### 19. Going Concern

The annual financial statements were 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 the settlement of liabilities, contingent obligations and commitments will occur in the ordinary course of business.

### 20. Events after the Reporting Date

On the 23rd of March 2020, the President of South Africa announced a National wide Lockdown effective from the 26th of March 2020 in response to combat the spread of the Covid-19 pandemic. To that effect NMISA developed a response plan and closed its offices in order to comply. As part of the response plan, NMISA has been operating remotely while ad hoc measurements and analysis services required to support essential services, infrastructure and those additional sectors unlocked during level 4 and 3 of the lockdown were provided under strictly controlled conditions. The true financial and economic impact of the pandemic and measures taken to combat it will be realised in the 2020/21 financial year.

### 21. Fruitless and Wasteful Expenditure

Fruitless and wasteful expenditure	12 614	-
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### **Details of the incident**

Interest and penalty on under declared employees tax for August 2019.

### 22. Rental Deposit

Rental deposit	605 419	605 419
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The rental deposit is refundable to the entity at the end of the lease term.

### 23. Retirement Benefits

Contributions to paging fund	16 505 665	13 824 719	
Contributions to pension fund	10 303 003	13 024 / 19	Ĺ

NMISA provides retirement benefits through a defined contribution plan to all its employees. The fund is governed by the Pension Funds Act, 1956 (Act No. 24 of 1956). The entity is under no obligation to cover any unfunded benefits.

### 24. Material differences between budget and actual amounts

- 24.1 The 43% variance is due to a sluggish demand than anticipated. Furthermore, one of the biggest customers for Reference Materials, had challenges with their procurement system, thus orders were not placed as expected.
- 24.2 The favourable variance of 31% is due to an increase in the balance invested because of funds in respect of awarded tenders which remains committed due to delivery having not taken place and the transfer received from the dtic in full in April instead of 12 monthly instalments as has been the case in previous years.
- 24.3 Due to decrease in provision for performance bonuses as a result of revenue target not being met and implementation of lower than budgeted cost of living adjustment for managerial and other positions.
- 24.4 Depreciation, impairment loss, other income, credit losses and gains/losses on disposals of assets are non-cash items which were not budgeted for.
- 24.5 Due to procurement of items (i.e. sanitizers, masks, PPE etc) from existing contracted service providers, which were required for fighting Covid-19, but not budgeted for.
- 246 Due to the significant depreciation of the Rand as a result of Covid-19
- 24.7 Variance of 9% is due to funds being committed but not yet expensed.

### 25. Prepayments

	24 582 360	11 055 020
Prepayments - non-current asset	62 623	169 976
Prepayments - current asset	24 519 737	10 885 044

Figures in Rand 2020 2019

MISA procures specialised equipment (custom made on order or assembled to order by international manufacturers according to NMISA specification). 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 thus the delivery lead times for equipment procured by NMISA can be anything up to a year and in some cases beyond a year, as a result most of the suppliers require a certain portion of the award amount to be prepaid on placement of an order or on completion of certain stages in the production process.

### 26. Provisions

Reconciliation of provisions - 2020	Opening Balance	Additions	Utilised during the year	Reversed during the year	Total
Provision for career ladder	1 497 257	732 190	-	(1 497 257)	732 190
Provision for performance bonuses	18 475 375	15 214 239	(12 273 475)	(6 201 900)	15 214 239
Other provisions	670 513	356 230	(630 649)	(39 864)	356 230
	20 643 145	16 302 659	(12 904 124)	(7 739 021)	16 302 659

Reconciliation of provisions - 2019							
	Opening Balance	Additions	Utilised during the year	Reversed during the year	Total		
Provision for career ladder	5 210 220	1 497 257	(5 210 220)	-	1 497 257		
Provision for performance bonuses	14 033 919	18 475 375	(11 333 556)	(2 700 363)	18 475 375		
Other provisions	-	670 513	-	-	670 513		
	19 244 139	20 643 145	(16 543 776)	(2 700 363)	20 643 145		

Comparative financial results of the entity have been restated to reclassify the balance of R 5 074 280 relating to leave accrual from provisions to accruals as NMISA does not have an unconditional right to defer settlement of its leave liabilities. The reclassification therefore reflects the nature of the leave accrual more appropriately on the face of the financial statements and in the respective notes. For further information in terms of the reclassification, refer to note 10. The 2020 amounts were presented and disclosed on the same basis as the restated amounts.

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RP382/2020

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