ANNUAL REPORT
2025/2026







science, technology & innovation

Department:
Science, Technology and Innovation
REPUBLIC OF SOUTH AFRICA

CSIR
Touching lives through innovation

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"The objects of the CSIR are, through directed and particularly multidisciplinary research and technological innovation, to foster, in the national interest and in fields which, in its opinion, should receive preference, industrial and scientific development, either by itself or in co-operation with principals from the private or public sectors, and thereby contribute to the improvement of the quality of life of the people of the Republic, and to perform any other functions that may be assigned to the CSIR by or under this Act."

(Scientific Research Council Act 46 of 1988, as amended by Act 27 of 2014)



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GENERAL INFORMATION

Registered name:	Council for Scientific and Industrial Research
Physical address:	Meiring Naudé Road, Brummeria, Pretoria
Postal address:	PO Box 395, Pretoria, 0001, South Africa
Telephone number:	012 841 2911
Email address:	Enquiries@csir.co.za
Website address:	www.csir.co.za
External auditors:	Auditor-General of South Africa
Bankers:	ABSA

LIST OF ABBREVIATIONS/ACRONYMS

AF	African Female
AGSA	Auditor-General of South Africa
AI	Artificial Intelligence
AISI	Aerospace Industry Support Initiative
AM	African Male
ARC	Audit and Risk Committee
B-BBEE	Broad-Based Black Economic Empowerment
CE	Conformité Européenne
CEO	Chief Executive Officer
CF	Coloured Female
CFO	Chief Financial Officer
CHPC	Centre for High Performance Computing
CIBA	Chartered Institute of Business Accountants
CM	Coloured Male
CO_2	Carbon Dioxide
CPI	Consumer Price Index
CSI	Corporate Social Investment
CSIR	Council for Scientific and Industrial Research
CSIR C^3	CSIR C-Cubed
DSTI	Department of Science, Technology and Innovation
ECL	Expected Credit Loss
ENE	Estimates of National Expenditure
EPIC	Excellence, People-Centredness, Integrity and Collaboration
ERM	Enterprise Risk Management
E-waste	Electronic waste
Exco	Executive Committee
FF	Foreign Female
FM	Foreign Male
FPP	Fraud Prevention Plan
FY	Financial Year
GITs	Graduates-in-Training
HC	Human Capital
HEIs	Higher Education Institutions
HRSEC	Human Resources and Social and Ethics Committee
HIP	Hot Isostatic Press
HPC	High-Performance Computing
IAS	Internal Auditing Services
IASB	International Accounting Standards Board
IBS	Inter-Bursary Support Programme
IBT	Innovative Building Technology
ICC	CSIR International Convention Centre
ICT	Information and Communication Technology
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
IM	Indian Male
IP	Intellectual Property
ISO	International Organization for Standardization
IT	Information Technology
ITU	International Telecommunication Union
KPIs	Key Performance Indicators

LMDP	Leadership and Management Development Programme
MerSETA	Manufacturing, Engineering and Related Services Sector Education and Training Authority
NBA	National Biodiversity Assessment
NEAP	National Economically Active Population
NFTN	National Foundry Technology Network
NICIS	National Integrated Cyber Infrastructure System
NMU	Nelson Mandela University
NSF	National Skills Fund
NSW	National Science Week
NT	National Treasury
NWU	North-West University
PFMA	Public Finance Management Act
PG	Parliamentary Grant
PPE	Property, Plant and Equipment
(Pty) Ltd	Proprietary Limited
PV	Photovoltaic
REA	Rock Engineering Assistant
R&D	Research and Development
RD&I	Research, Development and Innovation
RDIC	Research, Development and Innovation Committee
RIR	Recordable Incident Rate
SA	South Africa
SAR	Synthetic Aperture Radar
SANBI	South African National Biodiversity Institute
SANRAL	South African National Roads Agency SOC Limited
SASSAM	South African System of Systems for Agricultural Modernisation
SET	Science, Engineering and Technology
SETAs	Sector Education and Training Authorities
SHE	Safety, Health and Environment
SHEQ	Safety, Health, Environment and Quality
SMMEs	Small, Medium and Micro Enterprises
SO	Strategic Objective
SOCCO	Southern Ocean Carbon-Climate Observatory
SOEs	State-Owned Enterprises
STeFI	Short-term Fixed Interest
STEM	Science, Technology, Engineering and Mathematics
STI	Short-Term Incentive
TIA	Technology Innovation Agency
UAV	Unmanned Aerial Vehicles
US	United States of America
UNISA	University of South Africa
UP	University of Pretoria
WF	White Female
WIL	Work-integrated learning
Wits	University of the Witwatersrand
WM	White Male
YES	Youth Employment Services

FOREWORD BY THE CHAIRPERSON

Vuyani Jarana
Chairperson of the Board



Legally and procedurally, it falls on the Accounting Authority of the CSIR – its Board – to ensure that sound systems of corporate governance are in place, continuously reviewed and benchmarked against world-class standards. The Accounting Authority also ensures compliance with the provisions of the Scientific Research Council Act, 1998 (Act 46 of 1998) and other regulatory mandates, while considering the organisation's continued relevance in addressing the country's pressing socio-economic priorities.

The CSIR's mandate is to foster scientific and industrial development through directed multidisciplinary research and technological innovation to improve the quality of life of South Africans. This mandate remains central to the organisation's work, alongside a continued focus on industrial development, long-term sustainability, meaningful impact and relevance. Thus, the Board has worked closely with executive management to provide informed and objective oversight of the organisation's delivery on its mandate.

On behalf of the Accounting Authority, I can confidently state that the CSIR performed admirably during the 2025/26 financial year, achieving or exceeding more than 90% of its key performance indicators.

The CSIR's research programmes continue to address national priorities and align with various national strategies and frameworks, such as the National Development Plan. Moreover, the CSIR strategy also seeks to give meaning to the 2019 White Paper on Science, Technology and Innovation.

Considering the imperative of supporting the state, it is encouraging to see that the CSIR's performance in contributing to the building of a capable state has been strong. In the year under review, the number of standards delivered or contributed in support of the state increased by 90% compared to 2019/20. The CSIR also achieved a 266% increase in projects implemented to increase the capability of the state, as well as a 33% increase in the number of reports contributing to national policy development. These results reflect strong alignment with the organisation's strategic intentions.

In light of these achievements, adequate support is essential for the organisation to fulfil its developmental mandate and maintain essential capabilities. It is vital for the state to continue funding research and development and to view it not as an expense but as an investment in the future. Many countries owe their success to continued investment in research and development.

Despite the challenges, I would like to thank the CEO, Dr Thulani Dlamini, his executive team and the staff of the CSIR for their dedication to touching lives through innovation.

I also acknowledge the continuous support and guidance from the Minister of Science, Technology and Innovation, Dr Blade Nzimande, and his department, as well as the dedication of my fellow Board members to the organisation's continued success.

Umbono kaSihlalo

Ngokomthetho nangokwenqubo, kuwela ezandleni zeZiphathimandla Ezinesibophokubika ze-CSIR – iBhodi layo – ukuqinisekisa ukuthi izinhlelo eziqinile zokuphathwa kwenkampani zime ngomumo, zibuyekezwa njalo futhi zilinganiswa ngokwamazinga omhlaba. IZiphathimandla Ezinesibophokubika ziphinde ziqinisekise ukuhlinzeka kokuthotshelwa koMthetho Womkhandlu Wocwaningo Lwesayensi, we-1998 (uMthetho wama-46 we-1998) kanye namanye amagunya alawulayo, ngesikhathi zicubungula ukubaluleka okuqhubekayo kwenhlangano ekubhekaneni nezinto eziseqhulwini kwezenhlalo-mnotho ezweni.

Igunya le-CSIR ngukukhuthaza ukuthuthukiswa kwesayensi nezimboni ngocwaningo oluqondiswe emikhakheni eminingi kanye nokusungula izinto ezintsha kwezobuchwepheshe ukuze kuthuthukiswe umgangatho wempilo yabantu baseNingizimu Afrika. Leli gunya lihlala libalulekile emsebenzini wenhlangano, okuhambisana nokugxila okuqhubekayo ekuthuthukisweni kwezimboni, ukusimama kwesikhathi eside, umthelela obonakalayo kanye nokufaneleka. Ngakho-ke, iBhodi lisebenze ngokubambisana nabaphathi abaphezulu ukuze lengamele inhlangano ngolwazi nangokugcina izinjongo zokufeza igunya layo.

Ngokumela iZiphathimandla Ezinesibophokubika, ngingasho ngokungananazi ukuthi i-CSIR yenze kahle kakhulu ngonyaka wezimali wezi-2025/26, yafinyelela noma yedlula ngaphezu kwama-90% ezinkomba zayo zokusebenza ezibalulekile.

Izinhlelo zocwaningo ze-CSIR ziyaqhubeka nokubhekana nezinto eziseqhulwini kuzwelonke futhi zihambisana namasu nezinhlaka ezahlukene zikazwelonke, njengoHlelo Lwentuthuko Kazwelonke. Ngaphezu kwalokhu, isu le-CSIR lihlose futhi ukunikeza incazelo yoMthetho Odingidwayo wezi-2019 ngeSayensi, Ubuchwepheshe kanye Nokusungula Izinto Ezintsha.

Uma sibheka ukubaluleka kokweseka umbuso, kuyakhuthaza ukubona ukuthi ukusebenza kwe-CSIR ekufakeni igalelo ekwakheni umbuso onekhono kube namandla. Ngonyaka obukezwayo, inani lezindinganiso ezihlinzekiwe noma ezinikeliwe ukuze kwesekwe umbuso likhuphuke ngama-90% uma kuqhathaniswa nowezi-2019/20. I-CSIR iphinde yaba nemiklamo ekhuphuke ngama-266% eqalisiwe ukuze kwenyuswe ikhono likahulumeni, kanjalo nokunyuka okungama-33% enanini lemibiko eyeseka ukuthuthukiswa kwenqubomgomo kazwelonke. Le miphumela ibonisa ukuvumelana okunamandla nezinhloso zamasu enhlangano.

Ngenxa yale mpumelelo, ukwesekwa okwanele kubalulekile ukuze inhlangano ifeze igunya layo lokuthuthukisa futhi igcine amakhono abalulekile. Kubalulekile ukuthi umbuso uqhubeke nokuxhasa ucwaningo nentuthuko futhi ungakubheki nje lokhu njengezindleko kodwa njengotshalomali esikhathini esizayo. Amazwe amaningi aphumelela ngenxa yotshalomali oluqhubekayo ocwaningweni nasentuthukweni.

Naphezu kwezinselele, ngithanda ukubonga i-CEO, uDkt. Thulani Dlamini, ithimba lakhe eliphezulu kanye nabasebenzi be-CSIR ngokuzinikela kwabo ekuthinteni izimpilo zabantu ngokusebenzisa izinto eziqanjwe kabusha.

Ngiphinde ngibonge ukwesekwa okuqhubekayo kanye nokwelulekwa okuvela kuNgqongqoshe Wezesayensi, Ubuchwepheshe Nokusungula Izinto Ezintsha, uSlz. Blade Nzimande, nomnyango wakhe, kanjalo nokuzinikela kwamalungu eBhodi engikulo ngempumelelo eqhubekayo yenhlangano.

Vuyani Jarana
USihlalo weBhodi

Kakaretšo ya Modulasetulo

Go ya ka molao le tshepedišo, e wela go Taolo ya Maikarabelo ya CSIR – Boto ya yona – go kgonthiša gore mananeo a go kwagala a taolo ya tirišano a maemong a mabotse, a sekwasekwa nako le nako le go lekanyetšwa kgahlanong le maemo a lefase ka bophara. Bolaodi bja Maikarabelo gape bo kgonthiša go latelwa ga dinyakwa tša Molao wa Khansele ya Dinyakišišo tša Saense wa 1998 (Molao wa 46 wa 1998) le ditaelo tše dingwe tša ditaolelo, mola bo naganišiša bohlokwa bjo bo tšwelago pele bja mokgatlo go šogana le dilo tše bohlokwa tša ekonomi ya leago tša naga.

Taolelo ya CSIR ke go godiša tlhabollo ya saense le intasteri ka dinyakišišo tša mafapha a mantši tšeo di lebantšwego le boitlhamelo bja theknolotši go kaonafatša boleng bja bophelo bja Maafrika Borwa. Taolelo ye e dula e le gare ga mošomo wa mokgatlo, gotee le nepišo ye e tšwelago pele go tlhabollo ya intasteri, go swarelela ga nako e telele (tshepegalo), khuetšo ye e nago le mohola le go ba maleba. Ka gona, Boto e šomile kgauswi le bolaodi bja taolo go fa taolo ye e nago le tsebo le nepišo ya phethagatšo ya mokgatlo go taolelo ya wona.

Legatong la Bolaodi bja Maikarabelo, nka bolela ka go boitshepo gore CSIR e šomile gabotse kudu nakong ya ngwaga wa ditšhelete wa 2025/26, e fihlelela goba e feta ka godimo ga 90% ya ditaetši tša phethagatšo.

Mananeo a dinyakišišo a CSIR a tšwela pele go šogana le dilo tše bohlokwa tša bosetšhaba le go sepetšana le maano le ditlhako tša go fapafapana, go swana le Leano la Tlhabollo la Bosetšhaba. Go feta moo, leano la CSIR le nyaka gape tlhalošo go *White Paper* ka Saense, Theknolotši le Tšweletšopele.

Ge re lebelela bohlokwa bja go thekga mmušo, go a hlohleletša go bona gore phethagatšo ya CSIR ya go kgatha tema mo go ageng mmušo wo o nago le bokgoni e dutše e le maatla. Mo ngwageng wa tshekatsheko, palo ya ditekanyo tšeo di ilego tša fihlelelwa goba tša kgatha tema go thekga mmušo e oketšegile ka 90% ge e bapetšwa le 2019/20. CSIR gape e fihleletše koketšego ya 266% ya diprotšeke tšeo di phethagaditšwego go oketša bokgoni bja mmušo, gammogo le koketšego ya 33% ya palo ya dipego tšeo di kgathilego tema go tlhabollong ya dipholisi tša bosetšhaba. Dipoelo tše di bontšha go sepedišana go maatla le maikemišetšo a maano a mokgatlo.

Malebana le diphihlelelo tše, thekgo ya maleba e bohlokwa go mokgatlo go fihlelela taolelo ya yona ya tlhabollo le go swara mabokgoni a bohlokwa. Go bohlokwa kudu gore mmušo o tšwele pele go thekga ka tšhelete dinyakišišo le tlhabollo, gomme o di lebelele e sego bjale ka tshenyagalelo, eupša bjalo ka peeletšo ya ka moso. Dinaga tše dintši di na le katlego ka baka la peeletšo ye e tšwelago pele go dinyakišišo le tlhabollo

Le ge go na le ditlhohlo, ke rata go leboga CEO, Ngaka Thulani Dlamini, sehlopha sa gagwe sa boetapele le bašomi ba CSIR ka boikgafo bja bona bja go kgwatha maphelo ka tšweletšopele.

Gape ke lemoga thekgo le tlhahlo tšeo di tšwelago pele go tšwa go Tona ya Saense, Theknolotši le Tšweletšopele, Prof. Blade Nzimande, le kgoro ya gagwe, gammogo le boikgafo bja maloko a Boto go katlego yeo e tšwelago pele ya mokgatlo.

Vuyani Jarana
Modulasetulo wa Boto



CHIEF EXECUTIVE OFFICER'S OVERVIEW

Dr Thulani Dlamini
CSIR Chief Executive Officer



It is my privilege to present the CSIR's 2025/26 Annual Report.

The year under review was marked by significant milestones in the history of the organisation, including the honour of hosting His Excellency the President of the Republic of South Africa, Mr Cyril Ramaphosa and commemorating the CSIR's 80th anniversary. This milestone offered an important opportunity to reflect on eight decades of scientific excellence, technological innovation and national impact, while renewing our commitment to advancing research, development and innovation in service of South Africa.

While the Annual Report fulfils both customary and statutory requirements, it is presented foremost as a considered reflection on the CSIR's performance, impact and stewardship. It accounts for the responsible use of the organisation's resources — including financial and human capital, infrastructure, scientific capabilities and institutional partnerships — and demonstrates the governance disciplines that enable us to deliver on our mandate.

Set against the backdrop of relevant legislation, national policy priorities, government-led interventions and the needs articulated by industry and society, this report tells the story of how the CSIR works, what it has achieved and where future opportunities lie. Behind these achievements is a cohort of knowledgeable, committed and determined people who continuously deepen their expertise, collaborate across sectors and apply science and technology to improve lives.

During the 2025/26 financial year, the CSIR achieved 28 of its 31 key performance indicator targets, with particularly strong performance in technology commercialisation, industry support, localisation, state capability and policy contribution:

- technology licence agreements signed were 29% above target;
- joint technology development agreements implemented for industry were 45% above target;
- support to SMMEs exceeded target by 43%;
- localised technologies exceeded target by 200%;
- projects implemented to increase the capability of the state were 109% above target; and
- reports contributing to national policy development exceeded target by 88%.

These achievements demonstrate the CSIR's continued relevance as a science, technology and innovation partner to government, industry and society. They also reflect our commitment to supporting South Africa's re-industrialisation through technological capability, enterprise support and the deployment of scientific expertise in support of a capable state.

The CSIR's commercialisation activities continued to mature during the 2025/26 financial year, and the Group delivered a strong overall performance against its commercialisation mandate. The year marked an important milestone in the evolution of these activities, including the execution of the MycoSure equity transaction, the securing of international licensing agreements, and progress on key regulatory and commercialisation activities. These developments indicate a clear transition from pipeline development to active investment and transaction execution, reflecting increased operational maturity and growing commercialisation momentum.

With regard to human capital, the percentage of SET staff who are black exceeded the target and improved compared with 2024/25. Female representation in SET remained steady at 40%, while gender representation at senior researcher levels improved. The percentage of chief researchers and principal researchers who are female exceeded targets by 6 and 2 percentage points, respectively. In addition, the number of staff involved in exchange programmes with industry exceeded the target by 55%, supporting our intention to deepen collaboration with industry and strengthen the movement of skills, knowledge and experience across sectors.

While these gains are encouraging, we recognise that transformation, skills development and capability retention require sustained focus. The CSIR will continue to build a diverse, inclusive and future-fit skills base that can respond to the country's evolving research, development and innovation needs.

Income diversification remains a key strategic objective for the CSIR. Our aim is to reduce financial risk associated with reliance on any single income source, grow overall income and enhance long-term financial sustainability. As part of our business model, we will continue to increase research and development income from the private sector and actively pursue international income opportunities, particularly across Africa, the Middle East and Europe, whilst at the same time ensuring that we protect our public sector income by remaining relevant and impactful.

The commercialisation of CSIR intellectual property through start-ups, licensing and technology transfer will be intensified through CSIR C^3, in line with the CSIR's strategic intent to drive impact and grow royalty and licensing income.

We achieved a total income of R3.35 billion, exceeding our target of R3.21 billion by 4%.

At the same time, the CSIR achieved a net profit of R38.61 million, surpassing the targeted loss of R30.82 million. This turnaround reflects sound financial stewardship, operational discipline and focused execution in a challenging operating environment. The net profit represents a marginal decrease of R2.01 million compared with the previous financial year.

Overall, the financial position of the CSIR remains robust, as evidenced by the liquidity position being materially above the compliance levels set by the National Treasury. The current ratio also improved from 1.40 in 2024/25 to 1.46 in the year under review.

Good governance continues to underpin the CSIR's performance. The organisation maintained an unqualified audit outcome from the Auditor-General of South Africa, upheld a strong safety record and retained its Broad-Based Black Economic Empowerment level 1 status.

I extend my sincere appreciation to the Minister of Science, Technology and Innovation, Prof. Blade Nzimande, the Department of Science, Technology and Innovation, and the CSIR Board for their continued support and guidance. The CSIR has made meaningful progress in expanding its stakeholder base, and our engagements with partners across the public and private sectors have strengthened the relevance, reach and impact of our work. I therefore thank every stakeholder, partner, client and service provider who contributed to the CSIR's performance during the 2025/26 financial year.

The achievements of 2025/26 would not have been possible without committed leadership and the dedication, resilience and professionalism of CSIR colleagues. I thank all my CSIR colleagues for living the CSIR's EPIC values of excellence, people-centredness, integrity and collaboration, and for their continued commitment to touching lives through innovation.

Molaetša go tšwa go CEO

Ke tlhompho go nna go tsebagatša Pego ya Ngwaga le Ngwaga ya CSIR ya 2025/26.

Ngwaga wo o lekotšwego o swailwe ka dintlha tša bohlokwa tše dikgolo historing ya mokgatlo, go akaretša tlhompho ya go amogela Mohlomphegi Mopresidente wa Repabliki ya Afrika Borwa, Morena Cyril Ramaphosa le go keteka ngwaga wa bo 80 wa go ba gona ga CSIR. Ntlha ye ye bohlokwa e aba sebaka sa go tšweletša dipaka tše seswai ya bokgoni bja tša saense, tlhabollo ya theknolotši le khuetšo ya bosetšhaba, mola re dutše re mpshafatša boitlamo bja rena bja go tšwetša pele dinyakišišo, tlhabollo le tšweletšopele mo go direleng Afrika Borwa.

Le ge Pego ya Ngwaga ka Ngwaga e phethagatša dinyakwa tša tlwaelo le tša molao, e abilwe pele bjalo ka tšweletšo yeo e naganišišitšwego ka botlalo mabapi le phethagatšo ya CSIR, khuetšo le tlhokomelo. E na le maikarabelo a tšhomišo ye botse ya methopo ya mokgatlo, go akaretšwa letlotlo la batho, infrastraktšha, mabokgoni a saense le ditirišano tša diinstitušene, le go bontšha maitshwaro a taolo yeo e re kgontšhago go tšweletša taolelo ya rena.

Ge e bapetšwa le botšo bja molao bja maleba, tše bohlokwa tša pholisi ya setšhaba, ditsenogare tšeo di etilwego pele ke mmušo le dinyakwa tšeo di boletšwego ke intasteri le leano la setšhaba, pego ye e anegago kanegelo ya ka moo CSIR e šomago ka gona, seo e se fihleletšego, le mo dibaka tša ka moso di lego gona. Ka morago ga diphihlelelo tše ke sehlopha sa batho ba go ba le tsebo, ba go ikgafa le ba go ba le maikemišetšo, bao ba tšwelago pele go oketša bokgoni bja bona, ba dirišana go phatlalala le makala gomme ba diriša saense le theknolotši go kaonafatša maphelo a batho.

Nakong ya ngwaga wa ditšhelete wa 2025/26, CSIR e phethile ditaetši tše 28 go tše 31 tša dilebanywa tša dielo tša phethagatšo tše bohlokwa, le kudu phethagatšo ye maatla ka kgwebo ya theknolotši, thekgo go intasteri, go dirwa tša gae, bokgoni bja mmušo le go kgatha tema ga dipholisi: tshwaelo mabapi le melawana:

- ditumelelano tša laesense ya theknolotši tšeo di saennwego di be di le ka godimo ga selebanywa sa 29%;
- ditumelelano tša tlhabollo ya theknolotši tšeo di kopanetšwego tšeo di phethagaditšwego bakeng sa intasteri di be di le ka godimo ga selebanywa sa 45%;
- thekgo go diSMME e fetile selebanywa sa 43%;
- ditheknolotši tšeo di dirilwego ka gae di fetile selebanywa ka 200%;
- diprotšeke tšeo di phethagaditšwego go oketša bokgoni bja mmušo di be di le ka godimo ga selebanywa sa 109%; le
- dipego tšeo di kgathago tema go tlhabollo ya dipholisi tša bosetšhaba di fetile selebanywa sa 88%.

Dikatlego tše di bontšha go ba maleba ga CSIR moo go tšwelago pele bjale ka modirišani wa saense, theknolotši le tšweletšopele go mmušo, intasteri le setšhaba. Gape di bontšha boitlamo bja rena bja go thekga tlhabolloleswa ya Afrika Borwa ka bokgoni bja theknolotši, thekgo ya dikgwebo le go thwala ditsebi tša saense go thekga mmušo wo o nago le bokgoni.

Mešongwana ya kgwebo ya CSIR e tšwetše pele go gola ngwageng wa ditšhelete wa 2025/26, gomme Sehlopha se tšweleditše phethagatšo ya kakaretšo ye maatla kgahlanong le taolelo ya yona ya kgwebo. Ngwaga o swaile nako ye bohlokwa go kgolo ya mešongwana ye, go akaretša phethagatšo ya yona ya mathomo ya dikgwebišano tša tekatekano, go hwetšwa ga ditumelelano tša dilaesense tša boditšhabatšhaba, le tšwelopele mabapi le mešomo ya bohlokwa ya taolo le kgwebišano. Ditlhabollo tše di bontšha phetogo ya go kwala go tloga tlhabollong ya mathomong go ya go peeletšo ye e šomago le phethagatšo ya kgwebišano, e bontšha kgolo ye e oketšegilego ya bokgoni bja tshepedišo le maatla ao a golago a kgwebišo.

Mabapi le letlotlo la batho, phesente ya bašomi ba SET bao e lego bathobaso e fetile selebanywa le go kaonafala ge go bapetšwa le 2024/25. Boemedi bja basadi go SET bo dutše bo tsepame go 40%, mola boemedi bja bong maemong a banyakišišibagolwane bo kaonafetše. Phesente ya banyakišibagolo le dihlogo tša banyakišiši bao e lego basadi ba fetile selebanywa ka dintlha tša diphesente tše 6 le 2 mmogo. Go tlaleletša, palo bašomi bao ba kgathago tema go mananeo a go fetišetšana le intasteri e fetile selebanywa ka 55%, e thekga maikemišetšo a rena a go tiiša tirišano le intasteri le go matlafatša mosepelo wa mabokgoni, tsebo le maitemogelo go phatlalala le makala.

Le ge dikatlego tše di hlohleletša, re a lemoga gore phetogo, tlhabollo ya mabokgoni le go boloka bokgoni go nyaka tlhokomelo ya go swarelela. CSIR e tla tšwela pele go aga motheo wa mabokgoni a go fapafapana, a go akaretša gape a go swanela bokamoso, bjoo bo ka arabelago dinyakwa tša naga tše di fetogago tša dinyakišišo, tlhabollo le tšwelotšopele.

Go fapafapanywa ga letseno go sa dutše e le maikemišetšo a peakanyo a bohlokwa a CSIR. Maikemišetšo a rena ke go fokotša kotsi ya ditšhelete yeo e amanago le go ithekga ka mothopo o tee wa letseno, go godiša letseno ka kakaretšo le go kaonafatša go swarelela ga ditšhelete ga nako ye telele. Bjalo ka karolo ya mokgwa wa rena wa kgwebo, re tla tšwela pele go oketša letseno la dinyakišišo le tlhabollo go tšwa lekaleng la praebete, gomme re phegelele ka mafolofolo dibaka tša letseno la boditšhabatšhaba, kudu go phatlalala le Afrika, Bohlabela bja Gare le Yuropa, mola ka nako

e tee re netefatša gore re šireletša letseno la rena la lekala la mmušo ka go dula re le maleba le go ba le khuetšo.

Kgwebišo ya bohlale bja thoto ka CSIR ka go thoma tše diswa, le go fetišetša dilaesense le theknolotši di tla matlafatšwa ka CSIR C³, go ya ka maikemišetšo a leano a CSIR a go hlohleletša khuetšo le go godiša letseno la ditefo le dilaesense.

Re fihleletše palomoka ya letseno la R3.35 billion, le le fetago selebanywa sa rena sa R3.21 bilione ka 4%.

Ka nako ya go swana, CSIR e fihleletše poelo ya R38.61 milione, yeo e fetago tahlegelo ya R30.82 milione. Phetogo ye e bontšha taolo ye botse ya ditšhelete, maitshwaro a tirišo le phethagatšo ye e nepišago mo tikologong ya tirišo ya ditlhohlo. Poelo e emela phokotšo ye nnyane ya R2.01 milione ge e bapetšwa le ngwaga wa ditšhelete wa go feta.

Ka kakaretšo, boemo bja ditšhelete bja CSIR bo dula bo tiile, seo se bontšhwago ke boemo bja ditšhelete bjoo bo lego ka godimo ga maemo a phethagatšo ao a beilwego ke Matlotlo a Setšhaba. Phesente ya gonabjale e kaonafetše go tloga go 1.40 ka ngwaga wa 2024/25 go ya go 1.46 ngwageng wo o sekwasekwago.

Taolo ye botse ya mmušo e tšwela pele go thekga tshepedišo ya CSIR. Mokgatlo o dutše o swareletše go poelo ya tlhakišo ye botse go tšwa go Mohlakišipharephare wa Afrika Borwa, o thekga rekoto ye e tiilego ya polokego gomme o boloka boemo bja legato la 1 la maemo a Matlafatšo ya Ekonomi ya Bathobaso ya Motheo wa Kakaretšo (BBBEE).

Ke lebogela kudu Tona ya Saense, Theknolotši le Tšweletšopele, Profesa Blade Nzimande, Kgoro ya Saense, Theknolotši le Tšweletšopele, le Boto ya CSIR ka thekgo le tlhahlo ya bona tšeo di tšwelago pele. CSIR e dirile tšwelopele ye bohlokwa mabapi le go katološa palo ya bakgathatema, gomme go boledišana le badirišani ba rena go phatlalala le makala a mmušo le a praebete go matlafaditše go ba maleba, go fihlelela le khuetšo ya mošomo wa rena. Ka gona ke leboga mokgathatema o mongwe le o mongwe, modirišani, modirelwa le moabaditirelo yoo a kgathiego tema go phethagatšo ya CSIR nakong ya ngwaga wa ditšhelete wa 2025/26.

Diphihlelelo tša 2025/26 di be di ka se kgonege ntle le boetapele bja boikgafo, le boikgafo, maatla le go ba profešenale ga badirišani ba CSIR. Ke leboga badirišani ba ka ka moka ba CSIR ka go phela ka maitshwaro a bokgoni a EPIC ya CSIR, go šomela batho, tlhompho le tirišano, le boikgafo bja bona bjoo bo tšwelago pele bja go kgwatha maphelo a batho ka tšwelotšopele.

Ngaka Thulani Dlamini
Mohlankedimogolophethiši

Umlayezo Ovela eSikhulwini Esiphezulu Esiphethe

Kuyintokozo ukunethulela uMbiko Wonyaka we-CSIR ka-2025/26.

Unyaka obuyekezwayo ube yinkathi ehlotshiswe yizingqophamlando emlandweni wale nhlangano, okuhlanganisa nokusingatha ngentokozo uMongameli oHloniphekile weRiphabhulikhi yaseNingizimu Afrika, uMnu Cyril Ramaphosa, kanye nokukhumbula nokugubha iminyaka engama-80 yasungulwa i-CSIR. Le ngqophamlando isinike ithuba eliyigugu lokuzindla ngeminyaka engamashumi ayisishiyagalombili yokuhamba phambili kwezesayensi, ukusungula izinto ezintsha emkhakheni wezobuchwepheshe, nomthelela omkhulu ekuthuthukisweni kwesizwe. Ngesikhathi esifanayo, sibe sivuselela ukuzibophezela kwethu ekuqhubekiseni phambili ucwaningo, intuthuko kanye nokusungula izinto ezintsha ngenhloso yokuthuthukisa iNingizimu Afrika.

Nakuba lo Mbiko Wonyaka ugcwalisa kokubili izimfuneko ezijwayelekile kanye nalezo ezibekwe ngumthetho, wethulwa ngokuyinhloko njengokuzindla okujulile ngokusebenza kwe-CSIR, umthelela wayo, kanye nendlela ewuphethe ngayo umthwalo wayo wobuholi nokuphatha. Uchaza indlela le nhlangano esebenzise ngayo izinsiza zayo ngendlela enomthwalo wemfanelo, okuhlanganisa izinsiza zezezimali nezabantu, ingqalasizinda, amakhono esayensi, kanye nobudlelwano bayo nezikhungo ezahlukene futhi ukhombisa imigomo enhle yokuphatha eyenza sikwazi ukufeza igunya nomsebenzi esiwuphathisiwe.

Lo mbiko wethulwa ngaphansi kwesimo esilandela imithetho efanele, izinto ezibekwephambili ezinqubweni zikazwelonke, izinhlelo eziholwa uhulumeni, nezidingo ezivezwe yizimboni nomphakathi. Ulandisa ngohambo lwe-CSIR, indlela esebenza ngayo, impumelelo eseyiyizuzile, nalapho kungaba khona amathuba esikhathini esizayo. Ngemuva kwale mpumelelo kunethimba labantu abayizingcithabuchopho, abazinikele futhi abanesibindi, abaqhubekayo nokuthuthukisa ubungcweti babo, basebenzisane nemikhakha eyahlukene, futhi basebenzise isayensi nobuchwepheshe ngenhloso yokuthuthukisa izimpilo zabantu.

Ngonyaka wezimali we-2025/26, i-CSIR ikwazile ukufinyelela imigomo engama-28 kwengama-31 yezinkomba zayo ezisemqoka zokukala ukusebenza. Ibe nempumelelo eqaphelekayo ikakhulukazi emkhakheni wokuhweba ngobuchwepheshe, ukwesekwa kwezimboni, ukuthuthukiswa kobuchwepheshe obakhelwe izakhamuzi zakuleli, ukuqiniswa kokusebenza kangcono kukahulumeni, nokunikela ekuthuthukisweni kwezinqubomgomo zikazwelonke:

- izivumelwano zamalayisense obuchwepheshe ezisayiniwe zedlule umgomo obubekiwe ngama-29%;
- izivumelwano zokuthuthukiswa kobuchwepheshe ngokuhlangayela ezisetshenziselwe ukweseka izimboni, zona zedlule umgomo obubekiwe ngama-45%;
- bese kuthi ukwesekwa kwamabhizinisi amancane phecelezi ama-SMME khona kwedlule umgomo obubekiwe ngama-43%;
- imikhiqizo, ubuchwepheshe nezinsiza ezakhelwe abakuleli khona budlule umgomo ngama-200%;
- amaphrojekthi asetshenziswe ukwandisa ukusebenza kangcono kukahulumeni adlule umgomo obubekiwe nge-109%; kanti
- imibiko efake isandla ekuthuthukisweni kwezinqubomgomo zikazwelonke idlule umgomo obubekiwe ngo-88%.

Le mpumelelo ikhombisa ukubaluleka okuqhubekayo kwe-CSIR njengenhlangano ebambisene nohulumeni, nezimboni nomphakathi kwezesayensi, kwezobuchwepheshe kanye nokusungula izinto ezintsha. Iphinde iveze ukuzibophezela kwethu ekwesekeni ukuvuselelwa kwezimboni eNingizimu Afrika ngokusebenzisa amakhono obuchwepheshe, ukwesekwa kwamabhizinisi nokusetshenziswa kobungcweti besayensi ekwakheni uhulumeni osebenza ngempumelelo nonamandla.

Imisebenzi ye-CSIR yokuhweba ngobuchwepheshe iqhubekile nokukhula phakathi nonyaka wezimali wezi-2025/26, futhi le Nkampani yenze kahle kakhulu maqondana negunya layo lokuhweba ngemiphumela yocwaningo. Lo nyaka ugqamise isigaba esibalulekile ebalulekile ekuthuthukisweni kwale misebenzi, okuhlanganisa ukuphothulwa kokutshalwa kwezimali kokuqala ngqa okuhambisana nokwabelana ngobunikazi, ukutholakala kwezivumelwano zamalayisense emazweni angaphandle, kanye nenqubekelaphambili emisebenzini esemqoka ephathelene nokulawulwa nokuhweba ngobuchwepheshe. Le ntuthuko ikhombisa ushintsho olucacile olusuka ekuthuthukisweni kwamathuba okutshalwa kwezimali nawokuhweba ngobuchwepheshe kuya ekutshalweni kwezimali okusebenzayo nasekuphothulweni kwezingxoxo zamabhizinisi, okubonisa ukukhula kokusebenza kwenhlangano nomfutho okhulayo emizamweni yayo yokuhweba ngobuchwepheshe.

Mayelana nabasebenzi, iphesenti labasebenzi emikhakheni yeSayensi, Ubunjiniyela kanye Nobuchwepheshe (i-SET) abangabantu abamnyama lidlule umgomo obubekiwe futhi lathuthuka uma liqhathaniswa nonyaka wezimali wezi-2024/25. Ukumelwa kwabesifazane emikhakheni ye-SET kusahleli kuma-40%, kodwa ukumelwa ngokobulili emazingeni aphezulu ocwaningo kuqhubekile nokuthuthuka. Iphesenti labacwaningi abasezikhundleni eziphezulu nabacwaningi abayizinhloko abangabesifazane lidlule imigomo ebibekiwe ngamaphuzu ayi-6 nama-2 ngokulandelana. Ngaphezu kwalokho, inani labasebenzi ababambe iqhaza ezinhlelweni zokushintshana ngolwazi, amava namakhono phakathi kwe-CSIR nezimboni lidlule umgomo obubekiwe ngama-55%. Lokhu kusekela inhloso yethu yokuqinisa ukubambisana nezimboni nokukhuthaza

ukwabelwana ngamakhono, ngolwazi nesipiliyoni phakathi kwemikhakha ehlukahlukene.

Nakuba le miphumela isikhuthaza, siyaqonda ukuthi uguquko, ukuthuthukiswa kwamakhono nokugcinwa kobungcweti obuyigugu kudinga ukubhekelelwa nokunakekelwa okuqhubekayo. Ngakho-ke, i-CSIR izoqhubeka nokwakha inqolobane yamakhono ehlukahlukene, ebandakanya wonke umuntu futhi elungiselelwe izidingo zesikhathi esizayo, ukuze ikwazi ukubhekana ngempumelelo nezidingo zezwe eziqhubekayo nokuguquka emikhakheni yocwaningo, intuthuko nokusungula izinto ezintsha.

Ukuhlukahluka kwemithombo yemali engenayo kuyaqhubeka nokuba ngenye yezinhloso ezisemqoka zamasu e-CSIR. Inhloso yethu ukunciphisa ubungozi bezezimali obuhambisana nokuncika emthonjeni owodwa wemali engenayo, ukukhulisa imali engenayo isiyonke, nokuqinisa ukusimama kwezimali esikhathini eside. Njengengxenye yendlela yethu yokusebenza, sizoqhubeka nokwandisa imali engenayo evela ocwaningweni nasekuthuthukisweni exhaswa umkhakha ozimele, futhi sizofuna ngenkuthalo amathuba emali engenayo avela emhlabeni jikelele, ikakhulukazi e-Afrika, eMiddle East nase-Europe, sibe siqhubeka nokuqinisekisa ukuthi sivikela imali yethu engenayo evela emkhakheni kahulumeni ngokugcina ukubaluleka kwethu, umthelela esinawo, neqhaza esilibambayo ekuthuthukiseni izimpilo zabantu.

Ukuhweba ngempahla yengqondo ye-CSIR ngokusebenzisa amabhizinisi asafufusa, izivumelwano zokunikeza amalungelo okusebenzisa ubuchwepheshe, kanye nokwedluliswa kobuchwepheshe kuzoqhubeka kuqiniswe yi-CSIR C³. Lokhu kuhambisana nombono namasu e-CSIR okuqinisekisa ukuthi umsebenzi wethu uyaqhubeka nokuba nomthelela obonakalayo, kanye nokwandisa imali engenayo etholakala emalungelweni obunikazi nasezivumelwaneni zokusebenzisa ubuchwepheshe.

Sithole imali engenayo isiyonke eyi-R3.35 billion, ngaleyo ndlela sedlula umgomo esasizibekele wona oyi-R3.21 billion ngo-4%.

Ngaso leso sikhathi, i-CSIR ithole inzuzo ephelele eyi-R38.61 million, yadlula ukulahlekelwa yimali okwakulindelwe okuyi-R30.82 million. Lolu shintsho olukhulu lukhombisa ukuphathwa kahle kwemali, ngobuhlakani, ukuziphatha okuhle ekusebenzeni, nokufeza imigomo ngendlela ehlelekile naphezu kwezimo zokusebenza ebeziyinselele. Le nzuzo ephelele, nokho, imele ukwehla okuncane okuyi-R2.01 million uma kuqhathaniswa nonyaka wezimali owedlule.

Uma nje sesibheka konke, isimo sezimali se-CSIR sisahleli ezingeni elinamandla futhi sizinzile, njengoba lokhu kubonakala ngokuthi izinga lokutholakala kwezimali zalo lidlula kakhulu amazinga abekwe nguMgcinimafa Kazwelonke. Ngaphezu kwalokho, isilinganiso samanje sezimali naso sithuthukile, sisuka ku-1.40 ngonyaka wezimali wezi-2024/25 saya ku-1.46 ngonyaka esiwubuyekezwayo.

Ukuphathwa kahle kwenhlangano kuyaqhubeka nokuba yisisekelo sempumelelo ye-CSIR. Le nhlangano iqhubekile nokuthola umphumela wokucwaningwa kwamabhuku ongenasici ovela kuMcwaningimabhuku Jikelele waseNingizimu Afrika, yagcina izinga eliphezulu lezokuphepha, futhi yagcina nesikhundla sayo seZinga loku-1 ngaphansi kohlelo lwe-Broad-Based Black Economic Empowerment (phecelezi i-B-BBEE).

Ngidlulisa ukubonga kwami okukhulu kuNgqongqoshe Wezesayensi, Ubuchwepheshe kanye Nokusungula Izinto Ezintsha, uSolwazi Blade Nzimande, uMnyango Wezesayensi, Ubuchwepheshe kanye Nokusungula Izinto Ezintsha, kanye neBhodi le-CSIR ngokwesekana kwabo okuqhubekayo nesiqondiso abasihlinzekayo. I-CSIR yenze inqubekelaphambili ebonakalayo ekwandiseni isibalo sababambiqhaza bayo, kanti ukusebenzisana kwethu nozakwethu emikhakheni kahulumeni nezimele kuqinise ukubaluleka, ukufinyelela nomthelela womsebenzi wethu. Ngakho-ke, ngibonga bonke ababambiqhaza, ozakwethu, amakhasimende nabahlinzeki bezinsizakalo ababa negalelo ekusebenzeni kwe-CSIR ngonyaka wezimali wezi-2025/26.

Impumelelo etholakale ngonyaka wezimali ka-2025/26 ibingeke yafezeka ngaphandle kobuholi obuzinikele nobubuzimisele, ukubekezela nobungcweti obukhonjiswe ngozakwethu base-CSIR. Ngibonga bonke ozakwethu base-CSIR ngokuqhubeka nokuphila nokugqugquzela amagugu e-CSIR e-EPIC (phecelezi i-excellence, people-centredness, integrity and collaboration), okungukwenza umsebenzi kahle, ukubeka abantu phambili, ubuqotho kanye nokubambisana. Ngiphinde ngibabonge ngokuzibophezela kwabo okuqhubekayo ekuthinteni nasekuthuthukiseni izimpilo zabantu ngokusebenzisa ukusungula izinto ezintsha.

UDkt Thulani Dlamini
ISikhulu Esiphezulu Esiphethe

STATEMENT OF RESPONSIBILITY FOR AND CONFIRMATION OF ACCURACY OF THE ANNUAL REPORT

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

- All information and amounts disclosed in the annual report is consistent with the Annual Financial Statements (AFS) audited by the Auditor-General South Africa.
- The annual report is complete, accurate and is free from any omissions.
- The annual report has been prepared in accordance with the guidelines on the annual report as issued by National Treasury.
- The Annual Financial Statements (Part G) have been prepared in accordance with the International Financial Reporting Standards applicable to the public entity.
- The Accounting Authority is responsible for the preparation of the AFS and for the judgements made in this information.
- The Accounting Authority is responsible for establishing and implementing a system of internal control that has been designed to provide reasonable assurance as to the integrity and reliability of the performance information, the human resources information and the AFS.
- The external auditors are engaged to express an independent opinion on the AFS.
- In our opinion, the annual report fairly reflects the operations, the performance information, the human resources information and the financial affairs of the public entity for the financial year ended 31 March 2026.

Yours faithfully



Dr Thulani Dlamini
Chief Executive Officer
Date: 21 August 2026



Vuyani Jarana
Chairperson of the Board
Date: 21 August 2026

LEGISLATIVE AND OTHER MANDATES

The CSIR is listed as a Schedule 3B public entity in terms of the Public Finance Management Act (PFMA), 1999 (Act 1 of 1999), as amended. The CSIR is constituted under the Scientific Research Council Act, 1988 (Act 46 of 1988), as amended. South Africa's legislative framework for entities applies to the CSIR, with the PFMA superseding all other legislation apart from the South African Constitution. The CSIR aligns with the government's transformation agenda and ensures compliance with the Public Preferential Procurement Frameworks Act (as amended) and the Broad-Based Black Economic Empowerment Act, 2003 (Act 53 of 2003) (as amended). As a research-generating entity, the CSIR adheres to all requirements of South Africa's intellectual property legislation.

STRATEGIC OVERVIEW



VISION

We are accelerators of socioeconomic prosperity in South Africa through leading innovation.

MISSION

Collaboratively innovating and localising technologies, while providing knowledge solutions for the inclusive and sustainable advancement of industry and society.

VALUES

Our beliefs, principles and the impact we wish to make to improve the quality of life of South Africans are EPIC. Team CSIR pursues excellence, celebrates people, personifies integrity and welcomes collaboration.

EXCELLENCE:

We strive for excellence and quality in everything that we do. We always strive to deliver solutions that surpass the expectations of our stakeholders. We hold each other to the highest possible standard in research, development and innovation (RD&I), as well as all other facets of CSIR business. We believe that excellence is a product of investing in the continuous development of our people, processes and ways of doing business.

PEOPLE-CENTRED:

Our business is about touching the lives of people — our employees and business partners. We care about people. We respect each other's diversity and conduct ourselves in a manner that upholds the dignity of every person. We believe in continuous personal development and encourage one another to seize opportunities for personal growth. We treat our stakeholders the way we like to be treated.



INTEGRITY:

We act with integrity. We are honest and fair when dealing with one another and our business partners. We respect the trust that our colleagues and stakeholders place in us, and commit to ethical decision-making, delivery and governance.

COLLABORATION:

We are keen to learn from one another and collaborate across the organisation and with external partners to ensure that our work has the best chance of innovating a better future for South Africans. We actively share our knowledge.

ORGANISATIONAL STRUCTURE

THE CSIR BOARD

April 2025 to March 2026



Vuyani Jarana
CEO, Ilitha Telecommunications



Dr Thulani Dlamini
CEO, CSIR



Maleke Matolong
Independent Consultant



Mahesh Fakir
Independent Consultant



Jules Newton
Executive Director, Innovation Green Business Value Chain Portfolio



Dr Vuyo Mthethwa
Independent Consultant



Prof. Arnold van Zyl
Retired President, Baden-Wuerttemberg Cooperative State University



Dr Christine Render
Independent Consultant



Michelle Govender
CEO, Octarity



Prof. Yunus Ballim
Retired Emeritus Professor, University of the Witwatersrand



Mike Mulcahy
CEO, GreenCape Chairman of the International Cleantech Network

CSIR EXECUTIVE LEADERSHIP

April 2025 to March 2026

science, technology & innovation

Department:
Science, Technology and Innovation
REPUBLIC OF SOUTH AFRICA



Vuyani Jarana
Chairperson of the Board



Dr Thulani Dlamini
CSIR Chief Executive Officer



Dr Kaven Naidoo
Group Executive: Business Excellence and Integration



Andile Mabindisa
Group Executive: Human Capital and Communication



Esteé Opperman
Chief Financial Officer



Adv. Esmé Kennedy
Group Executive: Legal, Compliance and Business



Dr Rachel Chikwamba
Group Executive: Advanced Chemistry and Life Sciences



Dr Sandile Malinga
Group Executive: Smart Society



Dr Motodi Maserumule
Group Executive: Advanced Production and Security



PART B
ORGANISATIONAL HIGHLIGHTS

The CSIR's **strategic objectives** guide the organisation's **research, development and innovation investments and activities**. This section highlights a small sample of the organisation's work against these objectives. It presents impactful examples of how we **develop transformative technologies**, how they **improve the competitiveness of industries, support a capable state** and **benefit the people of South Africa and further afield**.

CHAPTER 1
Conduct research, development and innovation of transformative technologies and accelerate their diffusion **22**

CHAPTER 2
Improve the competitiveness of high-impact industries to support South Africa's reindustrialisation by collaboratively developing, localising and implementing technology **29**

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CHAPTER 5
Research, development and innovation in the rest of Africa and further afield **65**



01

Conduct research, development and innovation of transformative technologies and accelerate their diffusion

CSIR AND UNIVERSITY OF PRETORIA USE NEW TECH TO PRODUCE ANTI-INFLAMMATORY COMPOUND



A facility that supports local pharmaceutical innovation. Benchtop continuous flow reactors and integrated analytical equipment at the CSIR's FuturePharma facility enables initial proof-of-concept process development. Once the drug ingredient production process is established here, it can be upscaled using the CSIR's large continuous flow facility.

The CSIR, in partnership with the University of Pretoria (UP), has produced Celecoxib, an active ingredient in widely used anti-inflammatory medicine, using advanced continuous flow chemistry at the CSIR FuturePHARMA facility in Pretoria. This represents a significant step change in the production of Celecoxib from the current batch production method.

Celecoxib is commonly used in the private healthcare sector for conditions such as rheumatoid arthritis and other inflammatory diseases. Access in the public sector has been limited, prompting local researchers to develop a more affordable production method.

Continuous flow production has many advantages over traditional batch manufacturing, and this ultimately lowers the cost of drugs. Instead of a single bespoke factory that produces one active pharmaceutical ingredient en masse in giant vats, in a continuous-flow facility, the chemical reactions occur in a continuously flowing stream through tubes.

CSIR researchers are now working towards kilogramme-scale production of Celecoxib at the FuturePHARMA facility, confirming the process as both technically and commercially viable. The facility, the first of its kind in Africa, enables flexible production of multiple pharmaceutical ingredients within a single system.

The approach offers significant advantages, including improved safety, efficiency and precision. It also reduces energy and water consumption, minimises waste and lowers the overall environmental footprint compared to traditional batch manufacturing processes.

The production process was initially developed and patented at laboratory scale by UP, with funding from the Department of Science, Technology and Innovation (DSTI). The university then partnered with the CSIR to establish the industrial-scale process. With support from the DSTI and the Technology Innovation Agency, the CSIR is currently piloting the process on behalf of a small and medium enterprise.

SLOW-RELEASE OXYGEN TECH FOR DIABETIC WOUNDS READY FOR SMALL PHARMA

The CSIR has developed market-ready wound-healing microcapsules that can be used as a powder, in ointments or as a film lining for plasters.

Chronic or severe wounds heal more slowly due to a lack of oxygen at the wound site – often caused by impaired circulation. The CSIR solution facilitates a sustained, slow release of oxygen that promotes cell growth and repair, making it especially suitable for the treatment of such slow-healing wounds, often associated with diabetes.

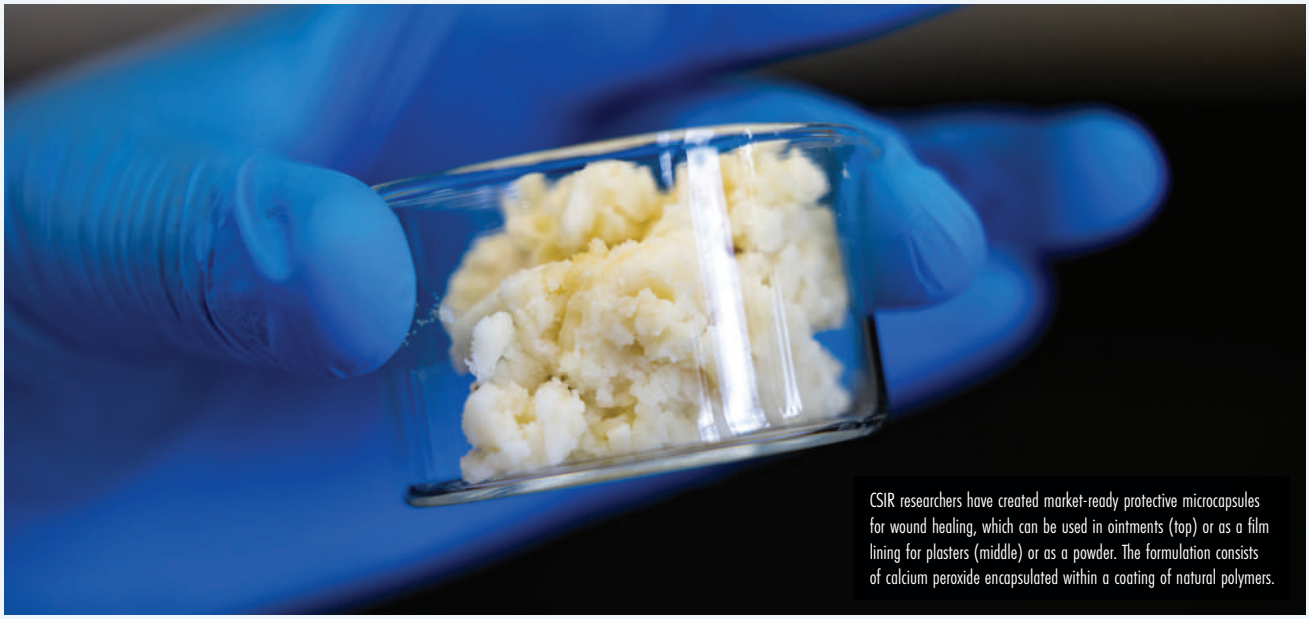
Researchers investigated calcium peroxide as an ideal source of oxygen but found that it reacted very quickly with moisture in the wound, releasing oxygen too fast. They developed a slow-release solution, encapsulating this sensitive ingredient at the microscopic level, using a CSIR-patented method that relies on supercritical carbon dioxide (CO_2) and using natural, food-grade biopolymers common to many skin products for the encapsulation.

The formulation has been scientifically validated as accelerating wound closure, being safe for skin cells, as well as having additional antimicrobial properties that inhibit the growth of bacteria and fungi, which reduces the risk of infection and antibiotic-resistant biofilm formation.

The CSIR is engaging local pharmaceutical manufacturers for licensing opportunities. Its pilot-scale Supercritical CO_2 Microencapsulation Facility enables product refinement and scalable production.







CSIR researchers have created market-ready protective microcapsules for wound healing, which can be used in ointments (top) or as a film lining for plasters (middle) or as a powder. The formulation consists of calcium peroxide encapsulated within a coating of natural polymers.

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Conduct research, development and innovation of transformative technologies and accelerate their diffusion

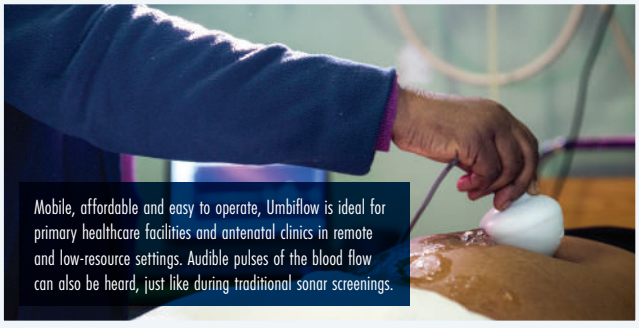
UMBIFLOW EARNS CE MARK



From left, at the hand-over of CE mark certification for the CSIR-developed Umbiflow device, are Stefan Bellmann, DQS Medizinprodukte GmbH, Germany; Tiyani Mathebula, CSIR; Paula Von Benecke, DQS South Africa; Edna Twigg, DQS South Africa; Shaik Hoosain, CSIR; Dr Kahesh Dhuness, CSIR and Francois Labuschagne, DQS South Africa.



A fully assembled Umbiflow probe.



Mobile, affordable and easy to operate, Umbiflow is ideal for primary healthcare facilities and antenatal clinics in remote and low-resource settings. Audible pulses of the blood flow can also be heard, just like during traditional sonar screenings.

Umbiflow, the CSIR-developed point-of-care medical ultrasound device for pregnancy care, has been awarded the Conformité Européenne (CE) mark, a mandatory conformity certification confirming that the device meets safety, health and environmental protection standards in the European Economic Area.

Umbiflow is an easy-to-use device for monitoring blood flow in the umbilical cord during pregnancy. It enables clinicians to identify fetuses at risk of complications resulting from poor placental blood flow and to intervene timeously to prevent stillbirth.

It has been extensively tested in multiple clinical trials with nearly 20 000 patients, including World Health Organization-supported multi-country clinical trials. The device has demonstrated a reduction of up to 43% in stillbirth rates.

It is the only system of its kind with built-in clinical decision-making support, making it particularly suited for clinics in under-resourced areas where sophisticated diagnostic equipment and highly trained medical practitioners are unavailable. In addition, Umbiflow reduces unnecessary referrals, alleviating the burden on overstretched public health facilities.

The CE certification was formally handed over to the CSIR by the German independent auditing firm that conducted the assessment of the organisation's quality systems and facilities. The certification opens a credible commercial pathway for licensing and industry uptake in the European market.

The CSIR is also pursuing approval from the South African Health Products Regulatory Authority, which will enable the device to serve the domestic healthcare system at scale, using the CE mark as evidence for qualification.

EASY, AFFORDABLE, LONG-TERM MOBILITY FOR CEREBRAL PALSY PATIENTS



CSIR robotics engineers are working on a reconfigurable, low-cost and rugged prototype mobility device called Buddy4Life, which will assist children, adults and caregivers affected by cerebral palsy. The CSIR's Zubair Suddoo, John Giani, Willis de Ronde and Dr Sunveer Matadin in discussion with disability specialist Ruth Stubbs.

CSIR robotics engineers have developed a reconfigurable, low-cost and rugged mobility seating prototype to support those affected by cerebral palsy, as well as their caregivers.

Built for real-world conditions and ease of use, the prototype can be adjusted as a user grows. A caregiver can reposition the side supports by loosening and tightening built-in thumb screws, enabling the same device to accommodate a child from infancy through to adulthood.

Developed with input from a disability specialist, the team completed multiple design iterations to ensure the prototype delivers essential functionality while remaining simple, affordable and robust to handle knocks and uneven terrain.

By prioritising durability, adaptability and accessible design, it offers a practical option that could expand access to supportive mobility equipment for more families and care environments.

In phase two of the project, engineers will integrate smart features, pneumatics and artificial intelligence, which will help reduce frequent specialist callouts to help carers correctly seat children.



Dr Sunveer Matadin, who heads up the CSIR Centre for Robotics and Future Production and Willis de Ronde in the CSIR Learning Centre. Engineers will integrate smart features, pneumatics and artificial intelligence in the next phase of a seating solution for those affected by cerebral palsy.

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CSIR CONTRIBUTES TO SOUTH AFRICA'S SYNTHETIC BIOLOGY ROADMAP



The South African Synthetic Biology Roadmap guides the implementation of synthetic biology in South Africa.

The CSIR and the Department of Science, Technology and Innovation, with inputs from the national synthetic biology expert community, developed and published the South African Synthetic Biology Roadmap and the associated plan for its implementation. Synthetic biology brings together biology, engineering, data science, and chemistry to create new biological systems and organisms.

The Decadal Plan of the Department of Science, Technology and Innovation identifies the modernisation of manufacturing, agriculture, health, energy and the circular economy as strategic priorities. Synthetic biology is well placed to drive innovation in each of these areas.

The roadmap guides the implementation of synthetic biology in South Africa with a focus on translational innovation and regulatory development of early commercial success, building on existing capabilities. At the institutional level, one of the primary objectives of the roadmap is to provide safety protocols and ethical standards to develop synthetic biology research initiatives.

It identifies priority focus areas to address pressing challenges in health, agriculture, industrial biomanufacturing and environmental sustainability. These include health and biopharma, specifically vaccine development, precision medicine and bio-foundries; agriculture and food security, which includes resilient crop engineering and sustainable agricultural practices, and industrial transition, focusing on bio-based chemicals, advanced materials and circular biomanufacturing.

The Roadmap builds on the 2013 Bioeconomy Strategy, reflecting government's commitment to building a resilient, knowledge-based economy.

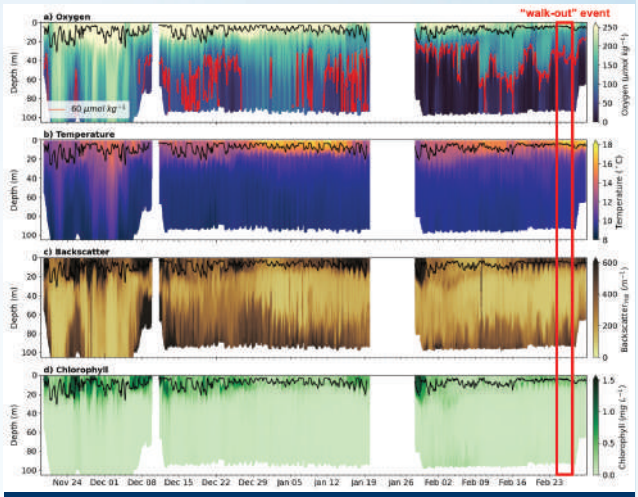
INVESTMENT INTO AUTONOMOUS OBSERVATIONS IN THE SOUTHERN OCEAN TO ADVANCE OCEAN-CLIMATE SCIENCE

South African ocean-climate experts are now part of two major international projects, funded by Schmidt Sciences, each addressing critical gaps in understanding the ocean's role in the global carbon cycle and the growing challenge of ocean deoxygenation, which is tightly coupled to physical and biogeochemical processes in the ocean.

The Southern Ocean Carbon-Climate Observatory (SOCCO) co-leads the *West African Margin* project along with the University of Cape Town. The project forms part of the Ocean Biogeochemical Virtual Institute, a leading initiative of Schmidt Sciences.

As part of this project, which focuses on resolving the drivers and impacts of oxygen variability along the eastern Atlantic margin from the Southern Benguela to the equator, SOCCO led the first phase of sustained autonomous observations in the Southern Benguela Upwelling System. Ocean gliders and uncrewed surface vehicles were deployed along the West Coast of South Africa in November 2025, capturing high-resolution variability in oxygen, carbon and physical processes across the shelf.

These observations have already provided new insight into the development of low-oxygen conditions. During a severe red tide event in February 2026, associated with a mass West Coast rock lobster walkout near Elands Bay, the gliders recorded the progressive shoaling and intensification of hypoxic waters onto the shallow shelf. This provided rare real-time, in situ observations linking biological production, water column stratification and oxygen depletion during an extreme ecological event.



Large numbers of West Coast rock lobsters fled from low-oxygen water caused by a severe red tide (algal bloom) near Elands By. The conditions leading up to the onset of the walk-out were captured by autonomous gliders from November 2025 to March 2026, showing low-oxygen waters shoaling onto the shallow coastal shelf near Elands Bay.

In parallel, SOCCO is contributing to Schmidt Sciences' *Constraining Ocean Carbon with Optimised Observing* project, which aims to reduce uncertainty in the global carbon budget through next-generation observing systems, ocean robotics and machine learning.

The ocean absorbs roughly one-third of anthropogenic CO_2, yet key regions such as the Southern Ocean remain under-sampled due to extreme conditions, limiting our ability to accurately quantify its role in climate regulation.

SOCCO is South Africa's national ocean-climate science programme, funded by the Department of Science, Technology and Innovation and managed by the CSIR.



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DRONE-MOUNTED RADAR SYSTEM PASSES CALIBRATION TESTS AND PROGRESSES TO FIELD TRIALS



A 360-degree view of the C-Gull SAR system mounted on specialised equipment in the CSIR anechoic chamber.

CSIR engineer Hebert Tema demonstrates how the C-Gull's phased-array antenna focuses energy during testing in the CSIR's anechoic chamber. The array can be seen here as an ordered set of small golden rectangles. C-Gull makes radar sensing practical, affordable and easy to use.

In February 2026, a CSIR research team conducted flight tests with a compact, specialised radar system mounted on a drone developed to monitor farms, tailings dams, power lines, railways, mine walls and other critical infrastructure day or night, in any weather.

The system, dubbed C-Gull, brings a powerful tool – previously limited to satellites and government use – closer to everyday civilian applications. C-Gull is small and makes radar sensing practical, affordable and easy to use by business owners and local authorities responsible for service delivery.

Unlike optical cameras, radar does not rely on sunlight. It can "see" through clouds, smoke and rain, detecting subtle changes in the landscape over time.

Synthetic aperture radar (SAR) works by transmitting radio waves towards the Earth and measuring the signals that bounce back. C-Gull works in the C-band of the radio frequency spectrum (5.5 GHz).

A small SAR system on an unmanned vehicle can be flown repeatedly over the same area, collecting consistent data to build a time-series view of change in the area. This is invaluable for security and infrastructure monitoring: a rail corridor prone to theft can be flown daily or a tailings dam can be checked for water seepage or movements in the dam wall immediately after heavy rains.

The trials were crucial for system performance demonstration, as well as optimisation.

FIRST LOCALLY GROWN PLANT FIBRE-BASED BOOT LINERS FOR AUTOMOTIVE SECTOR

The CSIR has demonstrated the development of locally grown hemp fibre-based automotive components. This follows material development at the Natural Fibre Hub in the Eastern Cape.

Locally grown and processed hemp fibres are a renewable resource contributing to carbon sequestration during cultivation, supporting greener manufacturing practices.

The Natural Fibre Hub, a collaboration between the CSIR and the Coega Development Corporation, produces customised non-woven materials that can be used as reinforcement in composite structures for non-load-bearing automotive parts such as boot liners and interior trims.

The production process begins with locally cultivated hemp, a fast-growing crop that matures within a few months and requires minimal agrochemical inputs. After harvesting, the fibres undergo retting and decortication, followed by cleaning and cottonisation to prepare them for blending with polymers.

Working with industry, the blended material is processed into non-woven fabrics, which are compression-moulded to form automotive components. Prototype samples developed will be subjected to rigorous testing at CSIR laboratories to ensure compliance with industry standards for strength, durability and performance.

Future efforts will focus on scaling production and determining associated cost efficiency, expanding product applications and strengthening partnerships across agriculture and manufacturing sectors to support broader adoption of natural fibre composites in South Africa.





This boot liner prototype is destined to be absorbed as a local product supplying a major automotive company. Several other customised product lines are in development as part of the Grow-A-Car project.





Facility workers at the Natural Fibre Hub in Coega, Eastern Cape clean the fibres and convert the tough hemp fibres into a cotton-like form suitable for dry spinning.

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Improve the competitiveness of high-impact industries to support South Africa's re-industrialisation by collaboratively developing, localising and implementing technology

BENEFIT-SHARING AGREEMENTS TO MAXIMISE THE THERAPEUTIC POTENTIAL OF AFRICAN GINGER

The CSIR signed a benefit-sharing agreement with indigenous communities from Limpopo, Mpumalanga and KwaZulu-Natal related to the commercialisation of African ginger (*Siphonochilus aethiopicus*) products. This follows earlier advances in developing, optimising and patenting an effective extraction method for the indigenous plant, which has been used for generations as a potent traditional remedy for respiratory conditions, stomach ailments and malaria.

The CSIR had conducted extensive scientific research validating its therapeutic potential, particularly for asthma treatment and developed strong evidence supporting its pharmaceutical commercialisation.

As part of efforts to advance South Africa's bioeconomy, the CSIR signed the agreements in alignment with the legal requirements under the National Environmental Management: Biodiversity Act and the Bioprospecting, Access and Benefit-Sharing Regulations, which ensure equity, recognition and empowerment for traditional knowledge holders, through a fair and transparent process.

With patents secured and the licencing to a commercial partner nearing completion, the CSIR is set to bring an African ginger-based product to market through an environmentally responsible supply chain. The prospective licensee will lead the manufacturing, marketing and distribution of products, ensuring commercialisation proceeds without compromising biodiversity or ecological integrity.



Dr Rodney Managa, CSIR research group leader for agroprocessing, with Princess Maxine N'waxuwamuti Mnisi of the Mnisi Tribal Authority, representing the Hlalakahle community during the benefit-sharing agreement signing event. The agreement relates to the commercialisation of African ginger.

The initiative is supported by the United Nations Development Programme through Global Environment Facility Six funding, coordinated by the Bioprospecting, Access and Benefit-Sharing Unit of the Department of Forestry, Fisheries and the Environment, along with the University of Venda's Directorate of Community Engagement, Entrepreneurship, Inclusive Innovation and Commercialisation.



Representatives from the CSIR, the Department of Forestry, Fisheries and the Environment, the United Nations Development Programme, Global Environment Facility Six funding, the University of Venda, and communities in Limpopo, Mpumalanga and KwaZulu-Natal after signing their respective benefit-sharing agreements.

FROM DAIRY WASTE TO DAIRY PROTEIN



Mixing of purified whey powder. This highly concentrated form of whey protein is derived from cow's milk during the cheese-making process.

The CSIR has developed a novel protein extraction process to convert dairy-based waste streams into high-value, purified dairy protein concentrates. The innovation addresses the critical gap in waste re-utilisation technologies within the agricultural and food processing sectors.

The new extraction method has brought about a sustainable and cost-effective alternative to imported dairy protein ingredients. By leveraging this waste-to-value approach, the CSIR technology promotes circular economy principles, reduces environmental impact, and creates opportunities for local food producers to access high-protein ingredients with a smaller carbon footprint. The feedstock, mostly from local dairy producers, are widely available.

The process was developed and optimised in-house, drawing on CSIR biotechnology expertise, processing capabilities and piloting facilities for the upscaling of bio-based technologies. It has been demonstrated at pilot scale and proven to be commercially viable. A patent application has been filed. Funding is being pursued to up-scale the production process, which will aid the commercialisation process. This project was funded in part by the Department of Science, Technology and Innovation and the Technology Innovation Agency.



Sampling purified whey powder for testing.

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Improve the competitiveness of high-impact industries to support South Africa's re-industrialisation by collaboratively developing, localising and implementing technology

PAPER AND PULP WASTE TURNED INTO SUSTAINABLE ANIMAL FEED

The CSIR, in collaboration with a Gauteng-based biotechnology company, Khepri Biosciences, has developed a process for the beneficiation of paper and pulp waste into affordable and sustainable ruminant feed, particularly aimed at supporting farmers during droughts.

This innovation demonstrates how low-value waste streams can be converted into usable agricultural products, in this case, a cost-effective, locally produced feed solution, simultaneously reducing the environmental burden associated with paper and pulp waste.

The key innovation lies in the successful conversion of paper and pulp waste into glucose through enzymatic processing at optimised conditions. The cellulose fibre that remained after glucose extraction was shown to be suitable as a bulking agent in ruminant feed. The dual-use approach maximises resource efficiency by extracting value from both the sugar component and residual fibre, addressing both the limited availability of animal feed for smallholder and rural farmers, especially during droughts, and the growing volume of paper and pulp waste in South Africa.

A sample is ready for testing, and a licencing agreement has been signed to guide commercialisation. In addition to engagements with international and national feeding companies, Khepri Biosciences is working with the Agricultural Research Council to finalise feed formulations.

The work was undertaken by CSIR experts in biocatalysis as part of the Industrial Biocatalysis Hub, funded by the Department of Science, Technology and Innovation and the Technology Innovation Agency.



Pretreatment of paper and pulp waste before bioconversion to sugar. Researchers can now convert paper and pulp waste into an affordable ruminant feed.



Fibre remaining for ruminant feed following bioconversion.

CSIR SCALES UP PRODUCTION OF GROWTH FACTOR FOR LOCAL BIOTECH FIRM

The CSIR used advanced bioprocessing technologies to scale up the production of a key molecule for applications that include biopharmaceutical and cultivated meat production.

The molecule, fibroblast growth factor (FGF-2), is an essential protein that signals animal cells to grow and proliferate, making it critical for the development of cultivated meat and cell-based biopharmaceutical production. Its high production cost has been a major barrier to the commercial viability of the global cultivated meat industry.

The technology was brought to the CSIR by Immobazyme, a South African biotechnology company, to industrialise the genetically engineered bacterial process capable of producing FGF-2. The original laboratory-scale technology was further developed into a scalable and cost-effective biomanufacturing process.

CSIR researchers demonstrated production at a 50-litre bioreactor scale, confirming the process as technically and commercially relevant. This milestone puts South Africa at the forefront of biomanufacturing innovation and supports the localisation of high-value biological products.

Future work will focus on increasing production volumes, reducing costs and expanding into other growth factors to support the emerging bioeconomy and sustainable food systems.

This work was funded by the Department of Science, Technology and Innovation and the Technology Innovation Agency's Biomanufacturing Industry Development Programme.



The cultivation medium in a bioreactor during the upstream process. Bioreactors are precisely controlled in terms of temperature, nutrients and other parameters to ensure that the *E. coli* efficiently produces the growth factor on a large scale.



CSIR senior researcher Dr Veshara Ramdas uses a microscope to confirm a monoseptic culture and determine cell concentration as part of the process to scale up the production of a key molecule.



Nutrient preparation for the bioreactor cultivation.

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Improve the competitiveness of high-impact industries to support South Africa's re-industrialisation by collaboratively developing, localising and implementing technology

THREE NEW ORANGE-FLESHED SWEET POTATO PRODUCTS DESTINED FOR THE SHELVES



Orange-fleshed sweet potato flour developed for Success Foods.



Orange-fleshed sweet potato breakfast flakes developed for Sibocali Foods.

Three new food products, made from orange-fleshed sweet potatoes, are set to be introduced to the South African food market. The new products resulted from an incubation period at the CSIR and the Agricultural Research Council for small enterprises Kgarose Kgaros, Sibocali Foods and Success Foods.

Food and nutrition experts assisted the businesses with unlocking the economic potential of this healthy root vegetable, which is often hampered by post-harvest losses and fragmented supply chains.

Since market analysis showed that more than 90% of consumers find orange-fleshed sweet potato products acceptable, processing to reduce waste and improve shelf life offers a solution.

Success Foods was able to develop an orange-fleshed sweet potato cooking flour, while Kgarose Kgaros produced their SweetPot Delight Porridge and Sibocali Foods created breakfast flakes that can be eaten with milk.

With the initial development phase now complete, the project team is finalising a commercialisation plan for the products, focusing on market positioning, distribution and long-term sustainability of the value chain.

The initial product development phase was funded by the Technology Innovation Agency and implemented by the Agricultural Research Council, the CSIR and the Southern Africa Network for Biosciences, established under the African Union Development Agency's New Partnership for Africa's Development.



Orange-fleshed sweet potato SweetPot Delight Porridge developed for Kgarose Kgaros.

TESTS TO CHARACTERISE EXPLOSION RISK IN UNDERGROUND COAL MINES IMPROVED



The CSIR 20-litre explosion vessel applies international best practice explosibility test protocols to produce accurate explosion risk results for underground coal mines.

The CSIR has developed an improved method to evaluate and interpret coal dust explosibility characteristics.

Underground mining comes with inherent safety risks that require close measures and controls. Although the frequency of methane ignitions and coal dust explosions has declined significantly over time, they remain high-consequence hazards in underground coal mining. Effective monitoring, testing and control measures are essential to prevent rare but potentially catastrophic events. The accurate assessment of coal dust explosibility plays a critical role in designing effective safety measures and reducing the risk of large-scale explosions.

The method developed makes use of the internationally recognised 20-litre explosion vessel, enabling results that are aligned with global best practice. A key advancement in using this method is the ability to more accurately reflect real underground atmospheric conditions such as temperature, humidity and methane levels, all of which can significantly influence how coal dust ignites and propagates explosions. This allows for a more realistic and reliable assessment of explosion risk in underground coal mines.

Following the completion of the test programme, CSIR experts in dust explosibility shared the findings with industry stakeholders and made recommendations on expanding the testing scope and further strengthening the method. The method is set for adoption across the sector.



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Improve the competitiveness of high-impact industries to support South Africa's re-industrialisation by collaboratively developing, localising and implementing technology

A ROCK ENGINEERING ASSISTANT TO DIGITISE GEOTECHNICAL MONITORING AND ANALYSIS IN MINES



The Rock Engineering Assistant digital platform incorporates a range of software modules that deliver reliable and consistent information for use by rock engineers.

As part of the drive to improve mine safety, the CSIR has developed a cloud-based digital decision-support platform that helps practitioners perform key rock engineering functions more accurately and efficiently.

The Rock Engineering Assistant (REA) centralises data capture and storage, supports basic search and data export for further analysis, and automates parts of selected tasks, such as calculating rock mass ratings and executing support designs. It also guides users through embedded, step-by-step methods and calculations to promote consistent and reliable results.

The assistant can host multiple data types and run analyses for selected workplaces using user-defined filters. Embedded applications range from identifying potentially unstable underground wedges to performing advanced surface support designs, drawing on precise support laboratory test results.

By moving from paper-based processes to a digital workflow, REA helps practitioners track changes over time at specific mine locations. The monitoring and analyses of ground, pillar and support conditions within selected areas can highlight emerging trends and support timely remedial actions. Mine trials of the technology have commenced.

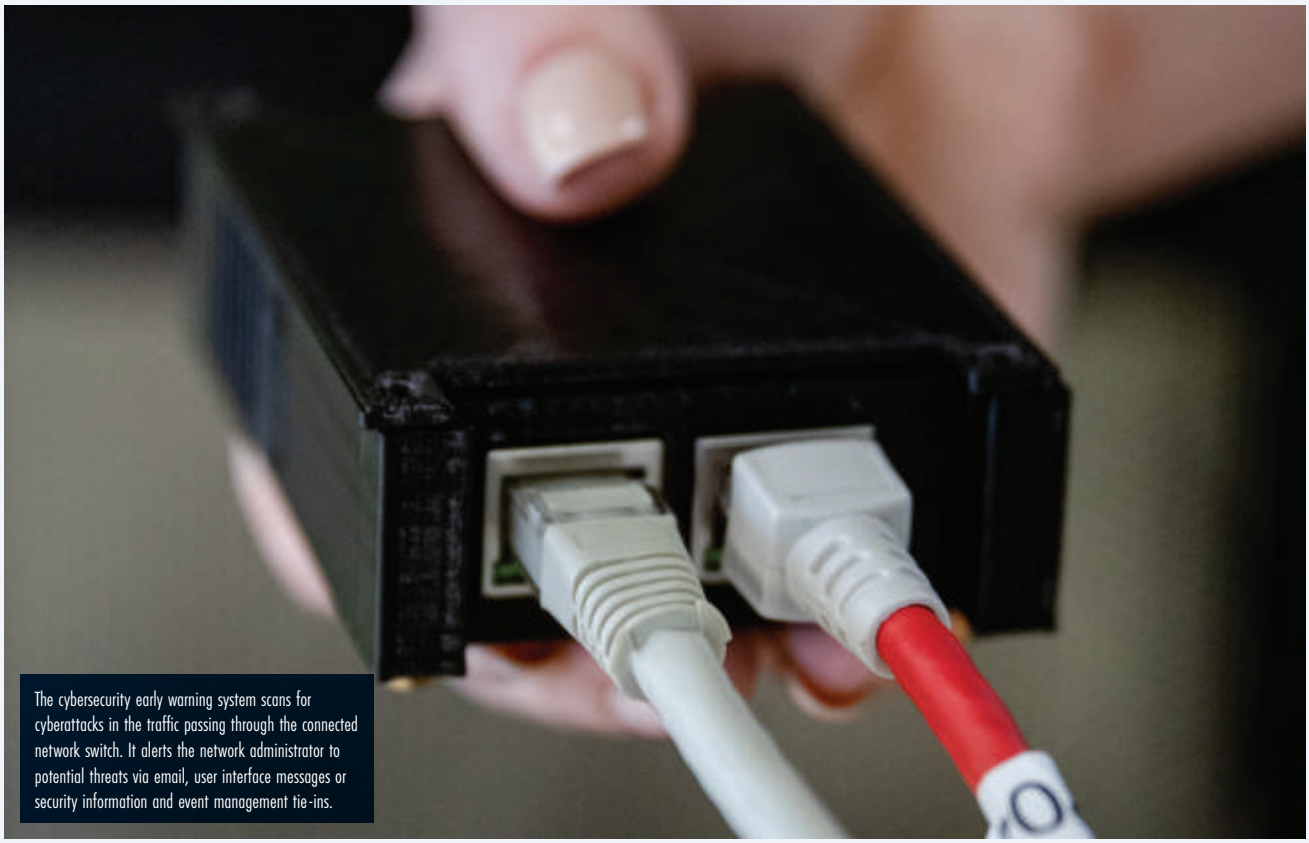
CYBERSECURITY EARLY WARNING SYSTEM FOR INTRANETS AWARDED PATENT

A CSIR cybersecurity early warning system is set to feature more widely in commercial network intrusion detection products or services following a successful local patent filing. This follows a 2025 patent award in the Netherlands and the subsequent appointment of two licensees, CyberGuard Solutions and BanzoType.

The CSIR-developed technology is used for the early detection and identification of cyber-security threats within intranet environments. It reliably detects adversaries scanning for vulnerabilities once they have breached the network through tactics such as phishing and social engineering. In doing so, it creates a window of opportunity for the network administrator to halt the attack and prevent information theft and service disruption. During an external evaluation carried out by an industry partner, the system proved reliable in detecting slow reconnaissance scans in a business network at low false positive rates. Its cost effectiveness puts it within reach of small businesses.

The early warning system is easy to deploy and manage. With appropriate configuration, it is highly resistant to circumvention by impersonation of legitimate hosts or users.





The cybersecurity early warning system scans for cyberattacks in the traffic passing through the connected network switch. It alerts the network administrator to potential threats via email, user interface messages or security information and event management tie-ins.

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WASTE-TO-RESOURCE SUPPORT FOR PROVINCIAL CIRCULAR ECONOMY EFFORTS

The CSIR, through the National Cleaner Production Centre, continued to support South Africa's transition to a circular economy through a waste-to-resource programme that connects companies with unused or unwanted resources that can be used by other businesses. Called the Industrial Symbiosis Programme, and implemented in partnership with provincial governments, it enables companies to divert waste from landfill, reduce greenhouse gas emissions and create opportunities for green enterprise development, particularly among small, medium and micro enterprises.

The Gauteng Industrial Symbiosis Programme has now marked ten years of implementation, while the Limpopo programme reached its five-year milestone, reflecting sustained provincial commitment and measurable environmental and economic impact. To date, more than 800 companies in Gauteng and Limpopo have been introduced to industrial symbiosis opportunities. Their participation has helped divert an estimated 371 300 tons of waste from landfill, avoid R140.2 million in landfill and virgin resource costs, and mitigate 1.8 million tCO2e (metric tonnes of carbon dioxide equivalent) in greenhouse gas emissions.

The programme also expanded its contribution through waste resource analyses in Gauteng and Mpumalanga. In Mpumalanga, feasibility studies in five mining towns identified circular economy opportunities that could help offset the potential loss of economic activity linked to coal mining. The resulting reports provide business cases and recommendations to support provincial policy, planning and investment decisions for a just transition.



Mudau Phathutshedzo, founder of Dziphathu Green Surfacing, dries Hasha Mulilo Charcoal Eco Briquettes that contain a combination of biomass, such as sawdust, wood chips and charcoal. The biomass is compressed and moulded into briquettes, and then the charcoal is added to give the briquettes their unique shape, texture and burning properties. Biomass charcoal briquettes are a renewable source of energy and can be used for heating and cooking.

NEW SUITE OF SAQA-REGISTERED ENERGY ADVISOR QUALIFICATIONS

Seven specialised energy advisor qualifications have been developed as National Cleaner Production Centre energy training courses, equipping postgraduate students with new green-skills qualifications.

The advanced postgraduate-level energy advisor qualifications are registered with the South African Qualifications Authority at National Qualifications Framework Level 08 and enable the mainstreaming of energy management opportunities in higher education. This will allow the National Cleaner Production Centre to train university staff and facilitate the integration of the material into academic curricula.

By focusing on a holistic, systems-based approach to reduce energy consumption, operational costs and environmental impact, the range of specialised energy advisor qualifications is unlocking opportunities to build an adequate skills infrastructure for industrial energy efficiency optimisation. Universities can now apply for accreditation to implement these qualifications and offer them to postgraduate students on a full-time basis.



The NCPC South Africa promotes a resource efficient, low-carbon and circular economy in South Africa.

REACHING GLOBAL VALUE CHAINS WITH SPECIALISED MARINE RADAR SOLUTIONS

The development of a new, light-weight radome – the weatherproof enclosure that protects a radar antenna – marks a noteworthy advancement in marine radar technology. The radome was developed by Lightweight Structures (Pty) Ltd for defence company Hensoldt, with support from the CSIR-managed Aerospace Industry Support Initiative (AISI).

Current radome enclosures are weighty and lack robustness to mitigate environmental factors in an unpredictable marine environment. The next-generation marine radar component has a 25% weight reduction, improved corrosion resistance and a scalable manufacturing process for serial production.

The antenna enclosure is designed for a commercial maritime security radar that features low-power, high-resolution imaging and immediate, detailed situational awareness. It will cover larger areas, filling gaps in individual radar coverage, minimising low-quality data to provide precise, real-time maritime surveillance.

These advancements strengthen local supplier development and position South Africa to compete in global radar supply chains.



The completed radome antenna enclosure provides weatherproof protection for radar antennas.

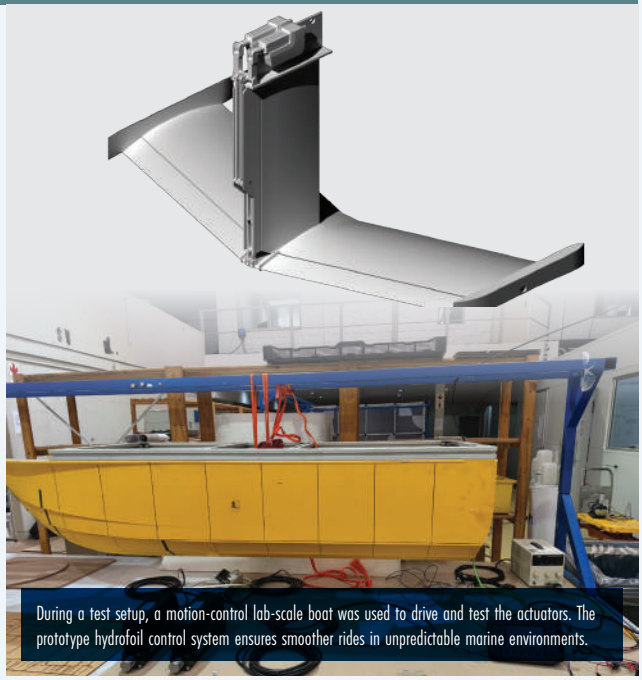
As an initiative of the Department of Trade, Industry and Competition, hosted and managed by the CSIR, the AISI supported the project under its Aerospace and Defence Industry and Supplier Development Programme.

SAFER, BETTER-PERFORMING HIGH-SPEED MARINE CRAFT ON THE CARDS WITH HYDROFOIL INNOVATION

South Africa's maritime transport sector stands to gain from a prototype active flapped hydrofoil control system to improve vessel efficiency, stability and ride comfort. The primary function of a hydrofoil is to lift a boat's hull out of the water at speed, reducing drag and hydrodynamic resistance to increase speed and efficiency. Developed by Icarus Marine (Pty) Ltd, the underwater wing system enables real-time adjustment of lift through automated pitch and roll control.

Using commercially available components, suitable for the marine environment, the project demonstrated a cost-effective, scalable solution for high-speed marine craft that will enhance vessel safety and performance. A successful technology readiness level 5 lab validation, testing and prototype demonstration was achieved, and the active flapped hydrofoil control system is now earmarked for further testing in its real operating environment.

The prototype development was supported through the Marine Supplier Development Programme of the Aerospace Industry Support Initiative (AISI), an initiative of the Department of Trade, Industry and Competition, hosted and managed by the CSIR.



During a test setup, a motion-control lab-scale boat was used to drive and test the actuators. The prototype hydrofoil control system ensures smoother rides in unpredictable marine environments.

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Improve the competitiveness of high-impact industries to support South Africa's re-industrialisation by collaboratively developing, localising and implementing technology

FIRE-DETECTING OPTICAL PAYLOAD FOR ZA-CUBE-3 SATELLITE TESTED



Optronics and sensor experts at the CSIR tested various design configurations of the K-line sensor – used for fire detection – at the Denel Overberg Test Range in the Western Cape.

The CSIR and industry partner Autonosky completed high-altitude flight tests to verify and validate the performance of an optical payload that comprises a sensor that detects potassium at various altitudes.

Central to this project is the CSIR's K-line camera technology, which detects emissions of potassium – symbol K on the periodic table – the optical signature specific to combusting vegetation. The sensor targets the potassium emission "line" in the near infrared spectrum, reducing false alarms common to conventional infrared systems.

The tests at Denel Overberg Test Range were key in determining the suitability of different types of optical front-end configurations – various lens and filter combinations. Test targets included vegetation and reference chemicals with potassium in an open field measured at ranges up to 4.1km.

In preparation for the Overberg Test Range deployment, the team conducted tests in a remote site in the Western Cape during February 2026. These tests confirmed the integration readiness between the K-line test-jig and the Autono-1 drone. The CSIR K-Line payload was mounted onto the Autono1 drone manufactured by Autonosky, with whom the CSIR entered into a technology licence agreement in 2024. The custom test rig was also developed through this partnership.

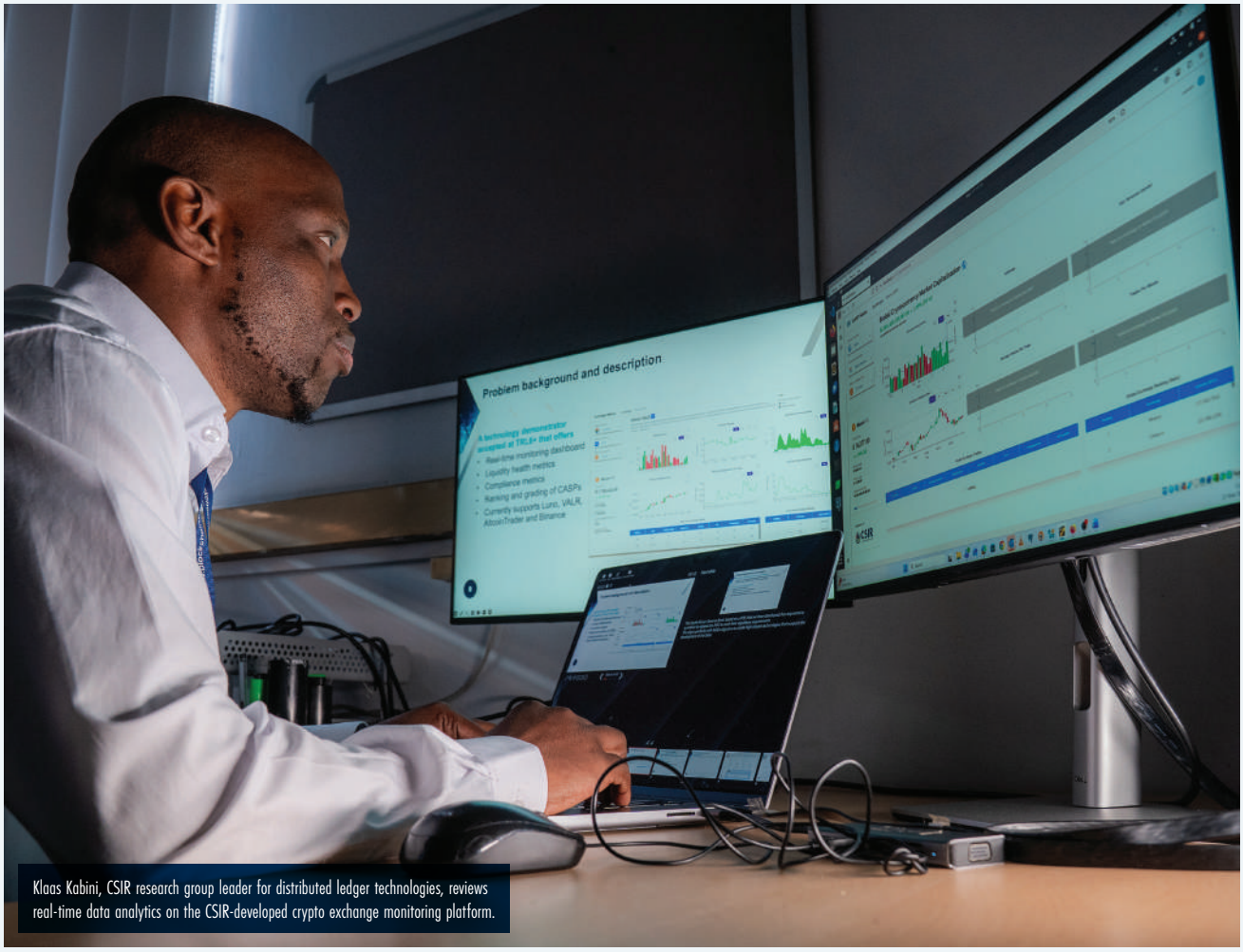
The work forms part of the K-line ZA-Cube-3 programme funded by the Department of Science, Technology and Innovation and supported by the South African National Space Agency, as well as the Directorate of Technology Development of the Department of Defence through Armscor.



The K-line sensor can be integrated on drones and satellites. It is lightweight, approximately 1.4 kg, including batteries and antennas.



INSIGHTS INTO SA'S CRYPTO MARKET WITH FIRST REAL-TIME CRYPTO EXCHANGE MONITORING TOOL



Klaas Kabini, CSIR research group leader for distributed ledger technologies, reviews real-time data analytics on the CSIR-developed crypto exchange monitoring platform.

The CSIR has developed a dashboard that delivers real-time insights into the South African crypto market for the South African Reserve Bank.

The system aggregates minute-by-minute trading data from the country's two leading exchanges. The dashboard provides regulators with live pricing of major cryptocurrencies, trading volumes and comparisons of local price premiums against international markets. It also generates automated reports to support decision-making.

In 2021, the Intergovernmental Fintech Working Group, of which the South African Reserve Bank is a member, released a position paper outlining a roadmap for monitoring and regulating the country's fast-growing cryptocurrency industry. A key element of this roadmap was tracking trading activity on local cryptocurrency exchanges, a direct signal of adoption and market dynamics. To support this mandate, the CSIR was contracted to build a proof-of-concept monitoring tool for the South African Reserve Bank.

One of the key technical challenges was ensuring data consistency across multiple high-frequency exchange feeds. To solve this, the team developed a robust real-time data pipeline capable of spotting anomalies such as sudden price spikes, unusual trading volumes or widening arbitrage gaps.

With the first phase completed, researchers have outlined future enhancements such as deeper analytics, including explainable risk scoring, cross-border financial flows, the detection of criminal activity and benchmarking against traditional financial markets.

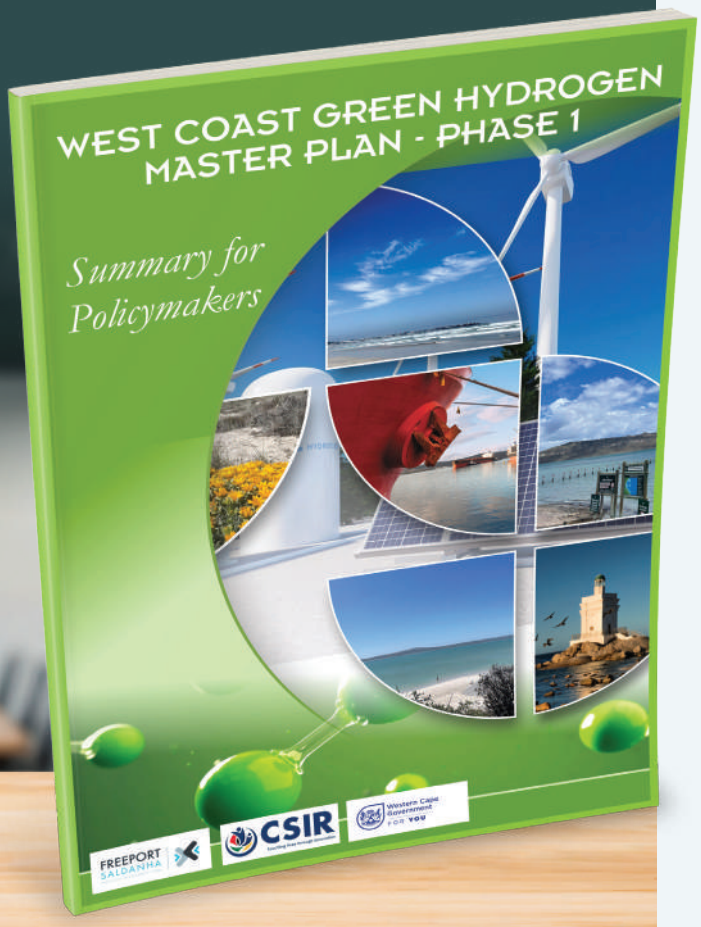
MASTER PLAN GUIDES GREEN HYDROGEN INDUSTRY ESTABLISHMENT ON SA'S WEST COAST

The CSIR provided technical evidence and scientific expertise to the Western Cape government, Port of Saldanha Bay, the associated Special Economic Zone and the West Coast through the completion of the first phase of a master plan that guides the establishment of a green hydrogen industry on the West Coast and Saldanha region.

Phase 1 of the Master Plan aligns with South Africa's Green Hydrogen Commercial Strategy. Coastal hubs, such as Saldanha, are earmarked by government, industry and research partners to be developed as green hydrogen export hubs to accelerate the use of green hydrogen in heavy industry as a decarbonisation and re-industrialisation opportunity.

In the foreseeable future, it is anticipated that leveraging the Port of Saldanha Bay's strategic location and infrastructure, import-export capabilities, and access to renewable wind and solar energy resources, will unlock the potential for midstream hydrogen processing in the region. This is set to accelerate South Africa's climate resilience targets and position it as a competitive candidate in the green hydrogen economy.





Scenario-based development pathways developed as part of the Phase 1 Master Plan (top) helped to test how different scales of green hydrogen development could shape infrastructure needs, investment requirements and regional growth trajectories on the West Coast.

EXPERTS MAP OUT PROCESS FOR SAFE RECYCLING AND MATERIAL RECOVERY FROM LITHIUM-ION BATTERIES

CSIR researchers developed a battery derisking protocol with South Africa's national mineral research organisation, Mintek. This protocol ensures that lithium-ion batteries, specifically lithium-iron-phosphate batteries, are inert before dismantling and materials recovery during the recycling process.

Mintek approached the team to address the growing end-of-life challenge for back-up batteries. These batteries contain materials that should be recovered and reused, rather than accumulating in landfills where they may release harmful chemicals.

A key risk is the assumption that a flat battery is safe. Even when a cell appears discharged, residual energy and voltage rebound can make handling hazardous, including sudden heating during discharge. The team developed a controlled procedure using programmable battery-testing equipment, with continuous monitoring through thermal imaging and temperature sensors to detect abnormal heating early.

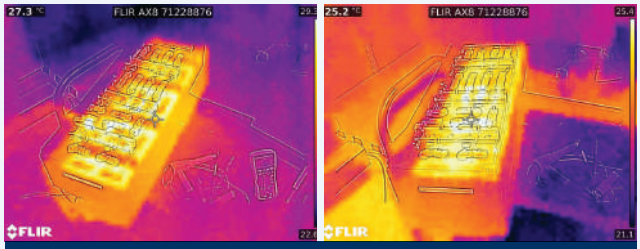
The approach is expected to be relevant to other battery chemistries as well. Safe pre-recycling procedures and clear disposal guidance will help reduce fire risk, prevent environmental harm and support responsible recovery of materials like lithium, copper, aluminium, steel and plastics.



Mintek approached the CSIR to address the growing problem of what to do with back-up batteries when they reach end of life. Researchers at the CSIR Energy Storage Testbed, a battery testing facility, developed a protocol to discharge lithium-ion batteries completely before they are dismantled for materials recovery.



The core machinery at the CSIR's Energy Storage Testbed includes a Chroma 17020, which repeatedly charges and discharges large batteries (such as those used in electric vehicles and power tools) to measure how safe, reliable and durable they are. The facility also houses a Weiss TempEvent Temperature Chamber (above), where researchers can simulate extreme environmental conditions in a controlled, accelerated way.



Thermal imaging shows how the temperature rises after one hour (left) and three hours (right) in an old back-up battery as it is discharged in a controlled environment at the CSIR's Energy Storage Testbed. A rapid rise in temperature means there is a risk of combustion. This means that before dismantling a battery for recycling, it should be fully discharged using a new protocol developed in partnership with Mintek.

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Drive socioeconomic transformation through RDI that supports the development of a capable state

BUILDING CAPABLE MUNICIPALITIES IN SOUTH AFRICA'S MINING REGIONS



Team members of the Municipal Capability and Partnership Programme and municipal officials from Blouberg, Fetakgomo Tubatse, Gamagara, Mogalakwena, Moses Kotane, Musina, Thabazimbi and Tsantsabane Local Municipalities during a peer learning session, held at the CSIR in May 2025.

The Municipal Capability and Partnership Programme, led by the CSIR as implementing partner on behalf of Anglo American, in close collaboration with participating municipalities, industry partners Kumba Iron Ore and De Beers and the Department of Co-operative Governance and Traditional Affairs as the government custodian, is demonstrating that sustained, evidence-based collaboration between industry and government can transform municipal performance and service delivery in South Africa's most pressured mining regions.

The CSIR works alongside municipal teams to address service delivery and developmental challenges – strengthening evidence, tools, technologies, strategies and governance for improved water services, infrastructure sustainability, settlement development and investment impact.

In Blouberg, Limpopo, strengthened asset management and project delivery contributed to the municipality's first unqualified Auditor-General audit in December 2025. In Musina, a new land use scheme and electronic planning system now guides development in a municipality facing 254% projected customer growth. In Gamagara, Northern Cape, Blue Drop scores improved from near zero to 54.71% across all water schemes. In Tsantsabane, a R1.2 billion bulk infrastructure funding application is underway – made possible by shared evidence, clear development pathways and multi-partner collaboration.

The programme's most strategically significant work is in the Northern Cape iron ore corridor, where the CSIR is driving regional transformation and diversification to mitigate the risks associated with expected regional mine closure.

Supporting the Gamagara and Tsantsabane municipalities alongside the Office of the Premier and industry partners, the CSIR has co-created a regional development compact that grew from 10 to 160 participants, building the shared evidence, post-mining scenarios and investment pipeline required for action.

ALGAE-BASED WATER TREATMENT IN MOSSEL BAY ACHIEVES A 10 000-FOLD REDUCTION IN *E. COLI*

Wastewater ponds in Mossel Bay are benefitting from a special algae treatment that is improving water quality in a low-energy, low-cost way, with tangible environmental and social benefits. The CSIR-developed treatment has resulted in a reduction of up to 90% of nitrates and phosphates and a 10 000 fold reduction in pathogens such as *E. coli*, thereby delivering clean groundwater for nearby agricultural use.

Researchers at the CSIR's microbiology laboratories cultivate the microalgae to support municipalities like Mossel Bay, which face ageing infrastructure, climate impact and urbanisation. As part of a long-running project, algae are grown, monitored and prepared in the laboratory to ensure stable strains perform effectively in operational wastewater systems. Cultures are then transported to wastewater treatment plants, where municipal teams scale them in bioreactors before releasing them into the pond system. The work is funded locally by the Department of Science, Technology and Innovation through a European Biodiversity Partnership programme.

In Mossel Bay, wastewater moves through seven ponds over about 10 days, during which algae reduce microbial load and remove unwanted nutrients. The improvements support compliance and protect groundwater used downstream for agriculture. As water quality improves, ecological recovery becomes visible in the final ponds. The CSIR is also assessing options to harvest algal biomass for beneficial reuse, subject to ongoing research and risk assessment.



In Mossel Bay, the system works across seven ponds, with water moving through the treatment process over a period of about 10 days. As the algae dominate each pond in sequence, researchers monitor changes in conductivity, pH, chemical oxygen demand and microbial load.



An aerial view of the project in Mossel Bay that is addressing some of South Africa's most pressing water challenges.



The CSIR's Dr Luyanda Ndlela monitors wastewater treatment ponds in which a special combination of *Chlorella* algae has been introduced to clear contaminants.



The CSIR's Dr Sam McCulloch-Jones demonstrates pond species diversity to Nelson Mandela University students at the Mossel Bay Wastewater Treatment Works as part of the nature-based solutions project. During the practical, the participants recorded the prevalence of macrofauna in the water, serving as indicators of water quality and ecosystem diversity.

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Drive socioeconomic transformation through RDI that supports the development of a capable state

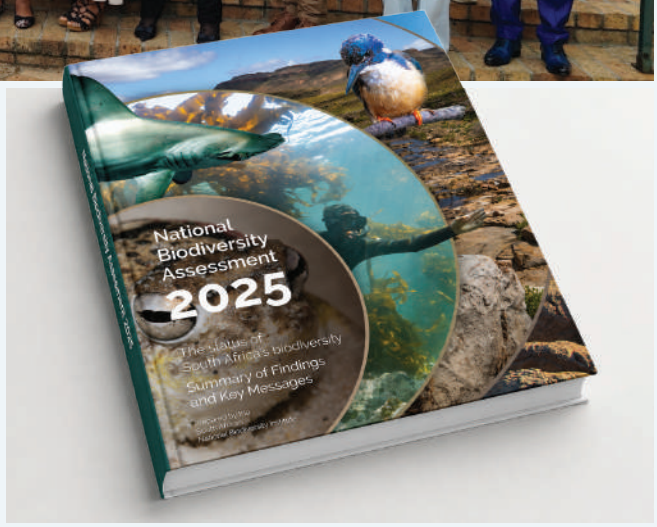
STATE OF SA'S ESTUARIES CAPTURED IN NATIONAL BIODIVERSITY ASSESSMENT 2025



The status of South Africa's biodiversity is captured in the 2025 National Biodiversity Assessment. It was launched on 9 December 2025 at SANBI in Cape Town by Deputy Minister of Forestry, Fisheries and the Environment, Bernice Swarts.



Scientific leads of the aquatic ecosystem section of the National Biodiversity Assessment 2025 are, from left, Dr Kerry Sink (SANBI), Dr Lara van Niekerk (CSIR) and Dr Linda Harris (Nelson Mandela University).



CSIR experts assessed the state of estuarine ecosystems and species for South Africa's National Biodiversity Assessment (NBA) 2025. The NBA is the most comprehensive evaluation of South Africa's biodiversity, covering the state of ecosystems and species across terrestrial, freshwater, estuarine and marine environments to guide conservation and policy decisions. It is overseen by the South African National Biodiversity Institute (SANBI).

South Africa's latest assessment is the fourth one published and it drew on the expertise of more than 490 experts from 110 institutions.

CSIR experts who served as scientific leads on estuaries based their inputs on the best available science, teaming up with experts from SANBI and the Nelson Mandela University.

South Africa's 290 estuaries and 42 micro-estuaries are classified into 22 estuarine ecosystem types and three micro-estuary types. The assessment found that estuaries, along with wetlands and rivers, are the most threatened but least protected ecosystems in South Africa.

The National Biodiversity Assessment 2025 was issued in digital format for the first time, allowing users to access in-depth analyses and statistics for terrestrial, freshwater, estuarine and marine realms, the coastal zone as well as South Africa's subantarctic territory. The digital infrastructure created will make future assessments less costly and more repeatable.

CSIR SYSTEM INTEGRATED WITH NATIONAL PLATFORM FOR SMARTER, CLIMATE-RESILIENT FARMING

The CSIR Precision Agriculture Information System has been incorporated into a national system that integrates credible data and research from multiple institutions into a single platform that supports real-time decision-making. The integration supports smallholder farmers with advanced soil analysis, pest identification, weather forecasting and artificial intelligence (AI)-driven insights.

The South African System of Systems for Agricultural Modernisation (SASSAM) was designed to enhance agricultural productivity, strengthen climate resilience and enable smarter decision-making across the sector. The CSIR Precision Agriculture Information System now provides soil analysis for organic and clay content, along with soil acidity, to the SASSAM platform, which is led by TerraClim, in partnership with the Agricultural Research Council, the CSIR and the Eastern Cape Department of Agriculture.

SASSAM supports national priorities to advance agricultural productivity, food security and sustainable rural development. It empowers smallholder farmers, particularly in climate-vulnerable regions, to respond more effectively to challenges such as drought, extreme temperatures and disease outbreaks.

The integration empowers smallholder farmers, particularly in climate-vulnerable regions, to respond more effectively to challenges such as drought, extreme temperatures and disease outbreaks.

This initiative is funded by the Department of Science, Technology and Innovation through the Technology Innovation Agency under the Agricultural Bio-economy Innovation Partnership Programme.



Prof Moses Cho, CSIR research group leader for precision agriculture (left), validates the SASSAM app, which integrates credible data from multiple institutions into a single platform that supports real-time agriculture-related decision-making, with a representative of the Eastern Cape Department of Agriculture at a field site in Mthatha, Eastern Cape.

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INVASIVE BLACK WATTLE BIOMASS BECOMES KEY INGREDIENT OF A SUSTAINABLE BUILDING SOLUTION

A new community centre in Elandskloof near Citrusdal in the Western Cape showcases a sustainable building solution using invasive black wattle biomass as a key material.

Sourced along the Boontjies mountain stream, the wattle biomass was blended with minimal cement and a proprietary binder to create the mix used to construct the low-carbon building. The mix is used to make bricks, as well as a novel precast floor and roof panel that includes the use of wood chips from the wattle trees. Its innovation lies in the mix as well as the geometric design to achieve optimal strength and material use.

The CSIR provided expert input on requirements for Agrément certification – an independent, technical assessment certifying that non-standardised building products, materials and systems are fit-for-purpose – and oversight of the design and construction of the demonstration building.

Waste biomass that would otherwise be burned or left to decompose, releasing carbon, is utilised in the nonCrete mixture, capturing carbon, providing employment and regenerating the natural environment while supporting infrastructure development in the built environment.

Implemented by nonprofit Phuhlisani and the Elandskloof community, the three-year "Alien biomass to housing" project was a collaboration between nonCrete, the CSIR and ETH Zurich. Funding was secured from the CSIR through the Circular Innovation Fund South Africa, the Department of Science, Technology and Innovation, with co-funding from the World Wide Fund for Nature South Africa and Nedbank Green Trust.



Launched on 25 March 2026, perched among the fynbos and Cederberg mountains, is the Elandskloof Community Centre. The building was built from bricks made from the biomass of invasive black wattle trees, cleared from local riverbanks that has been chipped and combined with a specially developed low-carbon binder.

The outcome of the collaboration is a novel design and construction methodology for affordable, sustainable, fire-resistant buildings, with the potential to revolutionise housing, building and conventional architectural practice.

NEW PLATFORM MATCHES SUPPLIERS OF INNOVATIVE BUILDING TECHNOLOGIES WITH USERS

The CSIR has developed a national repository to connect suppliers of building and service technologies with those who need them, creating a free and accessible space for service delivery innovation.

South Africa faces a challenge in promoting innovative building technologies. Inventors and entrepreneurs often struggle to showcase their ideas, while municipalities and developers lack a central place to find innovative solutions for water, sanitation, energy and housing. The CSIR provides the backbone of the Technology for Service Delivery (T4SD) platform for the Department of Science, Technology and Innovation.

It ensures that technologies are properly categorised, that intellectual property is protected and that suppliers can track interest in their products.

The users are diverse. On the supply side, inventors, entrepreneurs and distributors advertise their technologies. On the demand side, municipalities, provinces, agencies and private developers search for solutions to improve buildings, infrastructure and services. Support organisations also participate, offering finance, advice and regulatory guidance.

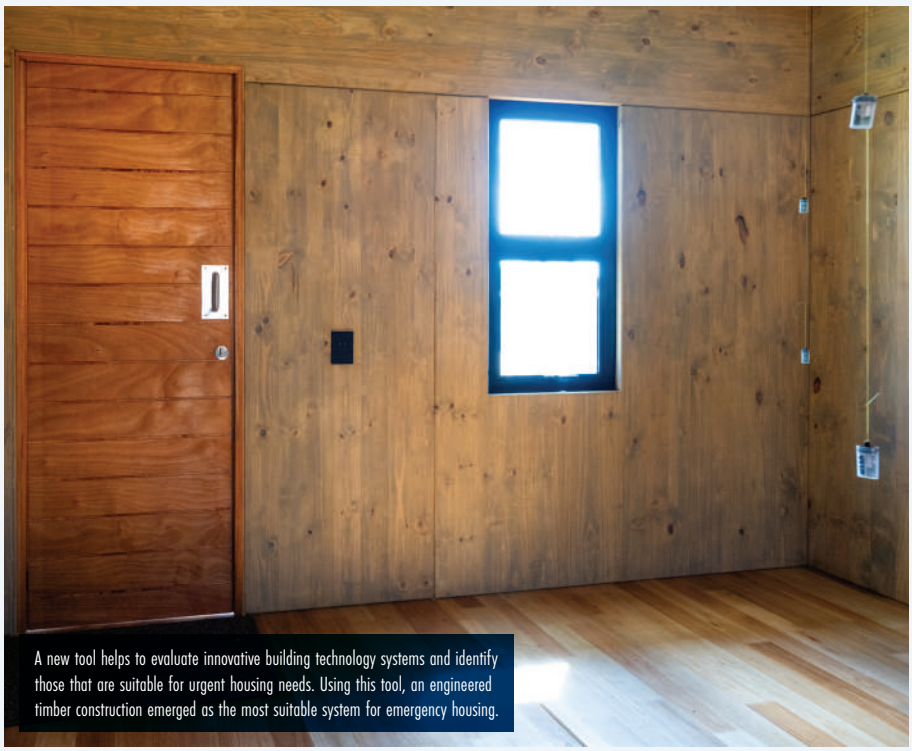
The platform lowers barriers to entry, encourages inclusive development, and provides a space where innovation can directly support South Africa's transformation of human settlements.

Visit https://t4sd.dsti.gov.za/

INNOVATIVE BUILDING TECHNOLOGY ANALYSER PINPOINTS SOLUTIONS FOR URGENT HOUSING NEEDS



This unit, evaluated for its suitability as emergency housing, consists of two rooms with a total floor area of approximately 38 m². In keeping with a typical emergency housing layout, the demonstration unit does not include a kitchen or bathroom.



A new tool helps to evaluate innovative building technology systems and identify those that are suitable for urgent housing needs. Using this tool, an engineered timber construction emerged as the most suitable system for emergency housing.

The CSIR has developed a decision support tool, known as the Innovative Building Technology (IBT) Analyser, to help decision-makers identify construction methods that are critical for rapid construction and sustainability. Drawing on expertise in decision support systems and modelling, the tool helps to evaluate innovative building technology systems and identify those that are suitable for urgent housing needs.

South Africa continues to face a growing housing backlog, while climate change increases the frequency and severity of floods and fires. These challenges require innovative approaches to housing delivery that are rapid, more cost-effective, sustainable and capable of being deployed at scale.

For this project, the CSIR focused on an IBT system suitable for fast construction and the creation of dignified, durable living spaces fit for long-term habitation. Key criteria for emergency housing units were identified and structured into a decision framework, including rapid assembly, minimal or no wet works, mechanical fixing, minimal earthworks and ease of construction using general skills. Using the IBT Analyser tool, developed for the National Home Builders Registration Council, and the decision framework, engineered timber construction emerged as the most suitable system. Its factory-based production and efficient on-site assembly enabled a housing unit to be completed in two days.

While engineered timber has been highlighted as optimal, the CSIR continues to investigate the resultant building performance as the study progresses.

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LOGISTICS ACCOUNTABILITY SCORECARD TO IMPROVE SAFETY AND EFFICIENCY FROM PIT TO PORT

Road safety and performance along key transport corridors in South Africa depend on numerous aspects, many of which can be controlled by the logistics operators who move freight along these corridors. These aspects include driver behaviour, overloading and document readiness.

To enable industry to play its role in improving logistics performance and safety, the CSIR, in collaboration with the South African Association of Freight Forwarders and Crickmay and Associates, has developed a web-based logistics accountability scorecard, with its first application in the mining sector. It addresses logistics challenges such as overloaded vehicles and infrastructure damage. The project was piloted on the Maputo corridor (using the N4 route) for bulk mineral exporters.

The CSIR developed the tool in response to the country's logistics crisis, with overloaded heavy vehicles, frequent accidents and illegal dumping of mineral commodities having damaged road infrastructure. The technology comprises a scorecard of critical factors that affect corridor performance, weighted according to their likely impact. Operational data is used to calculate company performance, allowing companies to benchmark against competitors and identify areas of improvement.

Compliance and improved accountability will contribute to safer and more efficient transport corridor operations. The tool builds on Crickmay and Associates' earlier success in the timber industry, where self-regulation improved road behaviour and reduced risks.

The CSIR mapped the mining logistics chain from pit to port by analysing truck movements, regulatory requirements and operational needs. The scorecard focuses on five compliance areas: consignor monitoring, customs compliance, foreign transit compliance, vehicle compliance and driver behaviour. The project pilot along the Maputo corridor demonstrated the value and long-term potential for bulk mineral exporters.

The technology has been licensed to Crickmay and Associates. This project was co-funded by the CSIR's Parliamentary Grant with support from the World Bank.

NATIONAL FREIGHT FLOW SIMULATION MODEL TRACKS AND PREDICTS FREIGHT MOVEMENT

The CSIR has developed a national freight flow simulation model that predicts future road freight movements across the country based on economic activity.

South Africa has been constrained by a limited freight flow mapping capability. By applying advanced simulation modelling, the CSIR has created a dynamic platform that forecasts freight movement, offering a practical alternative to conventional static gravity-based models.

The model has reached technology demonstrator-level, confirming its readiness for implementation. Unlike traditional methods, the simulation model visualises how trucks and goods will move across the road network. The technology holds significant value for stakeholders in the logistics sector, as it enables them to anticipate long-term changes in freight patterns and plan infrastructure investments accordingly. For example, for industries such as motor vehicle manufacturing, the model provides vital insights into how vehicles will be transported from production sites to demand points. By visualising supply and demand data, decision-makers can identify where freight flows will increase and ensure that road infrastructure supports industry growth.



A visualisation of the National Freight Flow Simulation Model, which simulates freight movement across South Africa to support strategic transport and logistics planning. The map reflects current or future freight flows across the major freight corridors.

The CSIR model will serve as a strategic tool for guiding investment in transport infrastructure. By forecasting freight flows, it empowers stakeholders to plan, thereby ensuring smoother movement of commodities and strengthening South Africa's economic competitiveness. The model has found its first use in updating the National Freight Data Bank for the Department of Transport.

LIMPOPO TACKLES HIGH ROAD FATALITY RATES WITH NEW ROAD SAFETY PLAN



The CSIR led the technical work that underpins the Limpopo Road Safety Strategy and Action Plan.

Limpopo has adopted a dedicated provincial road safety strategy to address high crash rates and fragmented safety efforts. The strategy establishes a clear, evidence-based framework for road safety improvements over the next five years. The CSIR led the technical development, integrating data-driven systems modelling to facilitate uptake of the Safe System Approach.

The CSIR was commissioned by the Impact Catalyst, with funding from the Anglo-American Foundation, to lead the technical work that underpins the Limpopo Road Safety Strategy and Action Plan. The organisation played a significant role in embedding data and evidence-based decision-making. It applied its expertise in systems modelling, data integration and policy design to ensure that the Safe System Approach was fully integrated.

The users of this strategy, aligned to the National Road Safety Strategy 2030, are provincial authorities, law enforcement and planners, who now have a clear framework aligned with national and global road safety goals. Together, the strategy and action plan provide a roadmap to safer roads, vehicles and users, as well as enhanced post-crash care.

NEW NUMBER PLATE SYSTEM TO COMBAT CRIME

The CSIR developed a new number plate system for Gauteng featuring a tamper-proof, digitally integrated plate, designed to curb vehicle-related crimes such as cloning and fraud.

In partnership with the Gauteng Department of Roads and Transport, the CSIR created a fully digitised back-end portal that integrates seamlessly with existing traffic management systems. The system features embedded QR codes and tamper-evident decals to ensure that each plate is traceable from manufacture to embossing and vehicle ownership. The technology allows law enforcement to track vehicles even if plates are damaged or removed.

The Gauteng number plate system was first developed in 2023, followed by prototyping and testing for reliability. The plates are assigned to registered embossers, who are authorised to print and fit them. This process ensures accountability and prevents fraudulent use. It has been implemented in government fleet vehicles to evaluate its effectiveness before full implementation. The development marks a step in strengthening vehicle traceability and public safety.



Gauteng Premier Panyaza Lesufi and Member of the Executive Committee for Gauteng Roads and Transport Kedibone Diale-Tlabela, officially unveil Gauteng's new high-tech, tamper-proof provincial number plate system.

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CRASH TEST UNDERLINES VALUE OF ADVANCED DRIVER TECH FOR ROAD SAFETY IN SA



A dummy equipped with a time-of-flight distance sensor mounted on the forehead to measure head movement during braking. A camera is mounted on the forehead and faces the front of the vehicle. A pressure sensor positioned on the chest beneath the seatbelt measures the pressure exerted by the seatbelt and monitors how tightly it restrains the dummy during impact. A weight sensor installed on the posterior of the dummy detects movement during hard braking.

Findings of a study – undertaken by the University of KwaZulu-Natal and a local company Accident Specialist, aided by CSIR experts in transport technology and data-driven analysis – highlighted the importance of adopting advanced driver technologies as well as traditional injury prevention mechanisms such as seatbelts to strengthen South Africa's road safety efforts.

The Safe System Approach to road safety, to which the country is a signatory, is premised on the notion that humans should not be killed or seriously injured because of the mistakes they make. The approach emphasises the need for a forgiving road environment as well as the design of vehicles that protect humans against the consequences (damage and injury) when errors do occur. In support of these principles, advanced driver assistance systems are increasingly used to enable automatic emergency braking, steering assistance or lane keeping.

The CSIR participated in a crash test experiment to investigate how advanced driver assistance systems could reduce road accidents and associated fatalities. The CSIR installed sensors on crash-test dummies to capture motion data from seatbelts, while vehicles equipped with advanced driver assistance systems were tested in the controlled experimental environment. Seatbelt restraint technology proved highly reliable, reducing the severity of side-swipe collisions and emergency stops.

The results show that integrating intelligent driver technologies alongside standard regulatory benchmarks is crucial for modernising the country's road safety strategy. The study confirmed that seatbelts are a proven safety device that reduces the risk of severe injury or death during crashes by restraining occupants, preventing ejection and distributing crash forces across stronger parts of the body.



A dummy seated in the rear seat is used to the effects of hard braking. The setup assesses head movement and determines whether the dummy's head moves forward sufficiently to contact the front seat.

SEA TRIALS FOR SYNTHETIC APERTURE RADAR AND NOVEL UNDERWATER WI-FI PROTOTYPE



CSIR researchers lower a towfish into the water at the CSIR underwater testing facility in Pretoria. The team developed a synthetic aperture sonar system that can be mounted on autonomous underwater vehicles or a towed underwater platform (towfish) pulled behind a small boat.

CSIR researchers completed sea trials of a prototype underwater communication system, as well as a synthetic aperture sonar system under development for the South African Navy. The trial demonstrated high data throughput for the broadband underwater data communication system, which relies on sound waves. The test system demonstrated a throughput rate up to five times higher than similar, commercially available products.

This acoustic "underwater Wi-Fi" will help address a long-standing limitation in subsea work, namely the need to wait for autonomous underwater vehicles to surface before retrieving information.

In parallel, the team tested synthetic aperture sonar imaging in real ocean conditions, where waves, currents and platform instability introduce variables that must be corrected through signal processing. The Simon's Town sea trials validated performance beyond controlled indoor laboratory and dam testing, and provided critical field data to further refine algorithms and system integration. Ultimately, the research team aims to combine real-time underwater communication with high-resolution sonar imaging to give underwater drones near real-time "eyes and ears". These technologies will be useful for pipeline inspections, subsea cable monitoring, mine detection and marine survey work, strengthening South Africa's underwater sensing and monitoring capabilities.





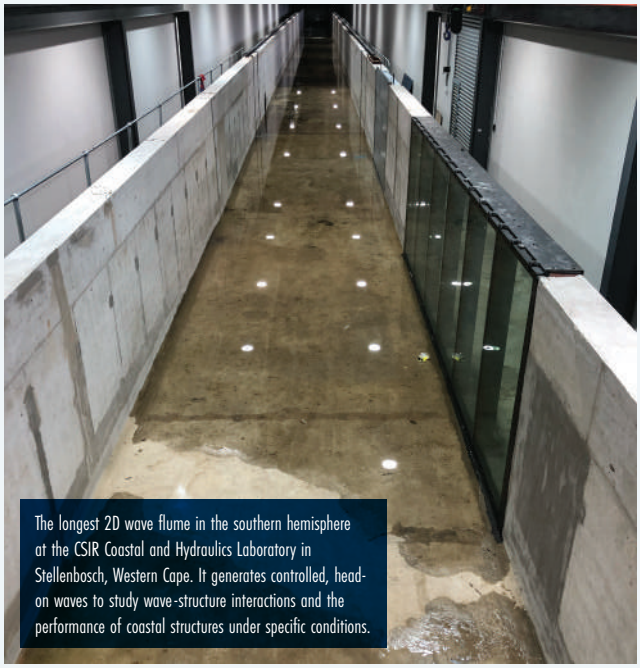
CSIR researchers headed to Simon's Town early in 2026 for a sea trial of the synthetic aperture sonar and underwater Wi-Fi technologies they are currently developing. Ocean conditions introduce uncontrollable variables such as waves, currents, speed changes and platform instability. Data collected during field tests are brought back to the CSIR's underwater testing facility for further fine-tuning. This iterative cycle between controlled testing and field deployment is central to the technology development process.

HOME TO THE SOUTHERN HEMISPHERE'S LONGEST 2D WAVE-GENERATION FACILITY

Coastal engineering in South Africa will benefit from a new upgraded 2D physical model facility at the CSIR's Coastal Hydraulics Laboratory in Stellenbosch. The facility is used to build small-scale versions of planned coastal infrastructure and its surrounding area. The coastal processes and wave conditions are then simulated to test the performance of the planned infrastructure as well as the impact such structures may have on the surrounding coastline and coastal processes.

The new facility enhances wave-generation capabilities. It offers enhanced verification of marine designs since the new flume can accommodate larger test structures or tests at deeper water depths. The flume is approximately 110 m in length, 3 m wide and 2 m high. The new three-axial large flume wavemaker can generate wave heights up to 0.8 m at a water depth of 1.6 m. The 2D flume is equipped with active wave absorption capabilities to reduce the adverse effects of wave reflection or wave resonance.

The upgrading was made possible through an investment by National Treasury's ring-fenced research infrastructure programme through the Department of Science, Technology and Innovation.



The longest 2D wave flume in the southern hemisphere at the CSIR Coastal and Hydraulics Laboratory in Stellenbosch, Western Cape. It generates controlled, head-on waves to study wave-structure interactions and the performance of coastal structures under specific conditions.

ULTRASONIC ATOMISER DELIVERS TITANIUM AND STAINLESS-STEEL POWDER FOR 3D PRINTING

Advanced manufacturing experts at the CSIR have produced 15 kg of titanium powder for use in the additive manufacturing (3D printing) sector using its ultrasonic atomiser facility. This follows an earlier batch of 9 kg of 316L stainless-steel powder, which was the first material produced following the acquisition of the ultrasonic atomiser.

The milestones contribute to the goal of establishing a sustainable, locally produced supply of high-quality metal powders. South Africa has, to date, depended on imports to access powders of the quality produced.

The CSIR's ultrasonic atomiser produces powders with the precise particle size, flowability and density required for additive manufacturing, specifically powder bed fusion. Powder bed fusion is a technique in which an object is constructed layer by layer using a heat source to fuse powder particles. The local production of these materials addresses a critical gap in the country's advanced manufacturing supply chain.



16L stainless-steel powder, a high-quality material used for 3D printing, produced at the CSIR.

The CSIR has applied the locally atomised powder to 3D print prototype tools with industrial value, using Hyrax, a printer designed and built by South African company Aditiv Solutions.

The ultrasonic atomiser was co-funded by the National Research Foundation, an entity of the Department of Science, Technology and Innovation.

HOT ISOSTATIC PRESS FACILITY BOOSTS LOCAL HIGH-PERFORMANCE METALS MANUFACTURING



CSIR researchers check complex metal parts for defects using an X-Ray machine.



The CSIR used its Hot Isostatic Press Facility to strengthen an impeller produced by an enterprise in the metals and metals processing industry.

The CSIR launched its Hot Isostatic Press (HIP) Facility in December 2025, establishing a critical capability to support South Africa's metals and metals processing industry. The facility is key in assisting manufacturers of high-performance metal components for industries such as aerospace, health, energy, railway and mining.

The HIP process involves the simultaneous application of high pressure and elevated temperature within an inert gas environment. This treatment enhances the structural integrity of metal components, making them stronger, more durable and suitable for complex applications. The process enhances material performance significantly, reducing costs over the long run.

Since the launch, the team has processed AlSi10Mg and AlSi7Mg aluminium alloy samples in collaboration with the University of Johannesburg to support ongoing research into advanced lightweight materials.

In addition, the CSIR has completed HIP processing of G20Mn5+QT components for Alstom, a high-quality cast steel used in heavy engineering and power generation applications, as well as stellite material for local company Metallurgical and Manufacturing Services (MMS). Stellite is a family of superalloys specifically designed to deliver outstanding resistance to wear, corrosion and elevated temperatures. During the process, X-ray inspection is conducted to verify the structural integrity of all the processed components.

The HIP facility was funded through the High-End Infrastructure Programme of the Department of Science, Technology and Innovation.



Maurice Maliage, a senior CSIR engineer, prepares the Hot Isostatic Press at the CSIR in Pretoria.

CSIR MICROWAVE TECHNOLOGY BOOSTS SHELF-LIFE OF FRUIT AND VEGETABLE PRODUCTS

The CSIR established a pilot-scale continuous-flow microwave processing facility to support small businesses in producing fruit and vegetable products with improved shelf-life at scale.

This facility enables the pulping and sterilisation of fruits and vegetables to produce shelf-stable items such as purees, soups and desserts that do not require refrigeration. The approach enhances food safety, preserves nutritional value and reduces post-harvest losses.

The Department of Science, Technology and Innovation awarded the CSIR funding towards the acquisition of the microwave processing facility, a mobile unit that complements Technology Innovation Agency (TIA) support projects that provide flexible processing capacity to producers and entrepreneurs.

The facility was acquired from the United States and is approved by the Food and Drug Administration, America's food safety regulatory body.

The facility is the first of its kind in South Africa and forms part of the CSIR's agro-processing upscaling programme. It allows for the continuous processing of raw materials that would otherwise be wasted by converting them into high-value products.

CSIR researchers are working with multiple small, micro and medium enterprises to develop and refine products using this technology. Initial beneficiaries include local TIA-funded start-up businesses focused on reducing food waste and expanding access to nutritious food products.

This process also supports the utilisation of crops such as orange-fleshed sweet potato, enabling the development of value-added products such as flours, porridges and breakfast cereals.



The SinnovaTek Nomatic™ Aseptic Continuous Microwaving and Filler System facilitates aseptic production of long-life puree-based food products for room temperature storage.



Lucia Mutsa, a senior process engineer at the CSIR, displays a highly nutritious puree made from a blend of locally sourced fruits and vegetables.



Aseptic filling and packaging of a sterilised pureed product enable storage for 12 to 24 months without the need for refrigeration.

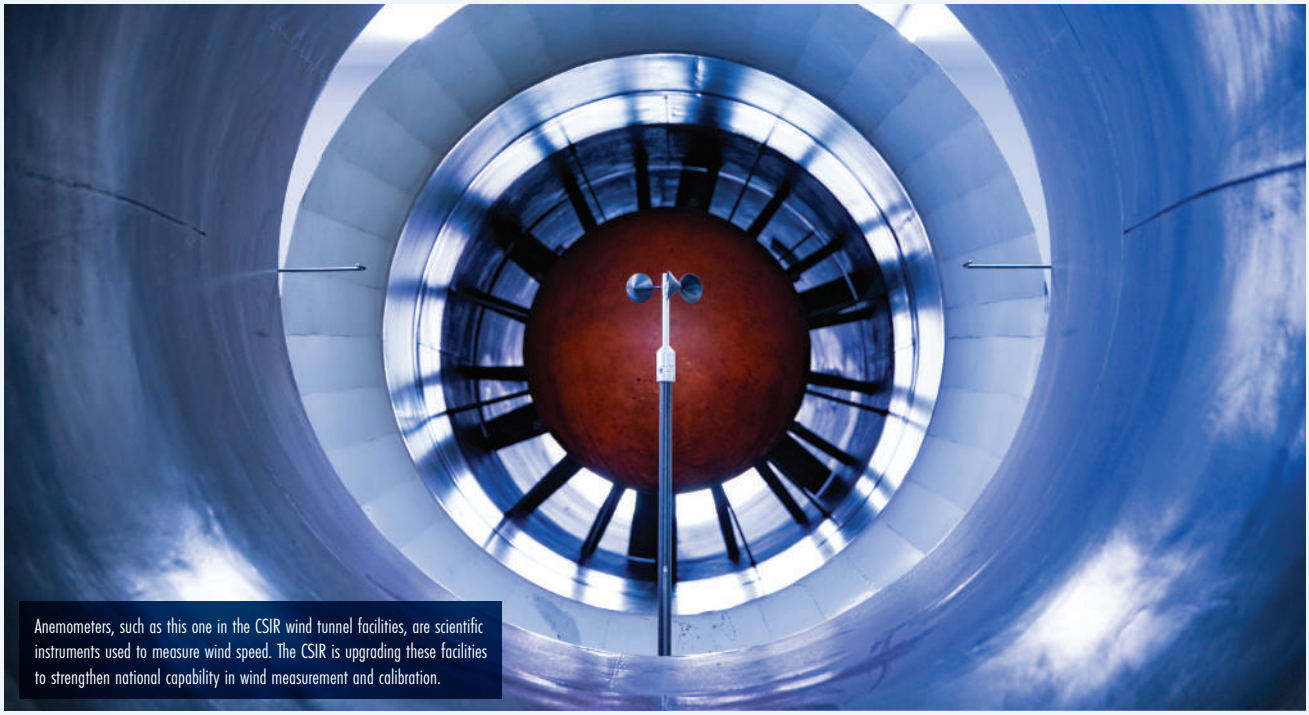


Kersch Naidoo, a senior chemical engineer at the CSIR, samples puree prior to final bag filling.



Aseptically produced puree.

CSIR SET TO BECOME ONLY AFRICAN TEST HOUSE FOR WIND-GENERATION ANEMOMETERS



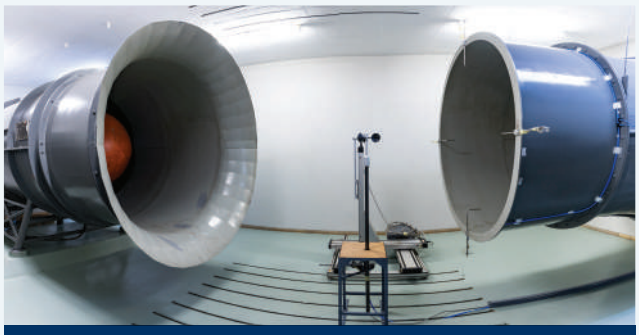
Anemometers, such as this one in the CSIR wind tunnel facilities, are scientific instruments used to measure wind speed. The CSIR is upgrading these facilities to strengthen national capability in wind measurement and calibration.

The CSIR is upgrading its two-metre open test section wind tunnel in Pretoria to strengthen national capability in wind measurement and calibration. The upgrade includes a laser-based reference instrument used in anemometer calibration and will enable the highly specialised process of International Network of Wind Energy Measurement Institutes accreditation.

The investment positions the CSIR to become the only African testing facility for wind-generation anemometers, expanding access to internationally recognised calibration and testing capacity on the continent. The accreditation process is expected to be completed by mid-2026. The enhanced facility will support improved accuracy, traceability and confidence in wind resource assessment and turbine performance measurement, which are critical enablers for a growing wind-energy sector and the broader energy transition.

The CSIR's suite of wind tunnels is also used in testing of other energy structures where wind interacts with solar or other renewable systems and aerodynamic devices such as vertical axis turbines and windsocks. In this way, the facilities demonstrate their sustained relevance to emerging energy technologies.

The project is supported by the Department of Science, Technology and Innovation.



A panoramic view of the CSIR's open test section two-meter wind tunnel. The CSIR has garnered support from the DSTI to upgrade this wind tunnel's reference instrument to calibrate anemometers. The funding also enables the highly specialised process of obtaining international accreditation. The tunnel had been used primarily for aerodynamic testing since its construction in the 1960s.



Anemometer preparation for calibration in the two-metre open-air wind tunnel in Pretoria.

A STRENGTHENED PIPELINE OF FUTURE LEADERS



CSIR staff members graduated as the third cohort of the CSIR's Leadership and Management Development Programme.

CSIR LEADERSHIP AND MANAGEMENT DEVELOPMENT PROGRAMME

In 2025, 29 staff members graduated as the third cohort of the CSIR's Leadership and Management Development Programme (LMDP), an initiative aimed at strengthening the pipeline of future leaders.

Participants in the programme engaged in project-based research and active learning, ensuring that their newly acquired knowledge could be applied within the CSIR environment. Their research addressed key organisational priorities, including collaboration, transformation, income diversification, cost-saving strategies, staff turnover in science, engineering and technology, data management, resource efficiency and waste management.

LEADING RESEARCHERS PROMOTED

In 2025, the CSIR promoted four staff members to chief researcher level 1 and 2, and 16 to principal researchers. These roles require local and international recognition and a sustained track record of outputs that impact society and the research community.

New chief researchers (level 1)



Dr Jenny-Lee Panayides: Chief researcher

Dr Jenny-Lee Panayides's promotion to chief researcher reflects her sustained research impact in pharmaceutical technologies. She holds a PhD in synthetic chemistry and microbiology from the University of the Witwatersrand and an advanced project management certificate from the University of Pretoria. She began her career at the South African Medical Research Council, supporting the search for new treatments, including for malaria. At the CSIR, her focus has shifted from discovery to strengthening local manufacturing capability, helping to develop practical, more efficient ways to make the key ingredients used to produce medicines. She leads the CSIR's FuturePHARMA continuous flow facility, where her team supports process improvement and scale-up, including work on celecoxib, a widely used anti-inflammatory medicine ingredient.



Prof. Luzango Mfupe: Chief researcher

As an information and communication technologies expert, Prof. Luzango Mfupe specialises in spectrum-sharing solutions that help expand affordable broadband. His work has helped enable internet service providers to use unused television frequencies (white spaces) safely and within approved rules. In 2021, his efforts led to the Independent Communications Authority of South Africa qualifying the CSIR's Secondary Geo-Location Spectrum Database, which supports compliant spectrum-sharing services and helps smaller network operators connect underserved areas. The wider television white spaces innovation has also been recognised externally, winning the CSIR a National Science and Technology Forum-South32 award in 2024. Mfupe provides technical leadership across the programme, working closely with regulators and partners to deliver pilot technologies and strengthen the evidence needed for wider adoption. He also helped expand the CSIR's spectrum-sharing work into additional frequency bands, thereby growing the toolbox for smarter spectrum use.

New chief researchers (level 2)



Dr Tsepo Tsekoa: Chief researcher

Dr Tsepo Tsekoa is a biotechnologist dedicated to translating research into local manufacturing capability. He holds a PhD in applied biotechnology from the University of the Western Cape. His work supports practical methods to produce vaccines, biologics and diagnostic reagents, and to take promising research from the laboratory to pilot-scale demonstration with partners. He has contributed to the CSIR's biopharming capability, including work that uses *N. benthamiana* plants to cost-effectively produce antibody-based health technologies for infectious diseases. In the area of vaccines and therapeutics, he leads the CSIR's FuturePHARMA Investigational Vaccines and Biologics Facility, supporting efforts to strengthen local readiness for future health threats and to expand local pharmaceutical manufacturing capability.



Dr Santosh Ramchuran: Chief researcher

Dr Santosh Ramchuran is committed to building biomanufacturing capability in South Africa and across the continent. As the CSIR's research group leader for bioprocess technology development, his work focuses on developing and scaling bio-based manufacturing processes and supporting the localisation of technologies needed for health and industrial applications. He also plays a leading role in the organisation's African Biomanufacturing Workforce Training and Skills Development Programme, which provides practical training to strengthen the pipeline of skilled professionals for biologics and vaccine manufacturing. He remains the CSIR project lead for the Southern African Regional Capability and Capacity Network Secretariat, appointed by the Africa Centres for Disease Control and Prevention, which supports workforce development through partnerships across the region. In addition, he contributes to the CSIR's FuturePharma platform and related Good Manufacturing Practice capacity-building initiatives, including a train-the-trainer model supported by international partners.

New principal researchers

Sixteen staff members were promoted to principal researcher positions. They are Dr Graham Barbour, Dr Ciara Blaauw, Dr Viren Chunilall, Sarah Dikgale, Dr Inus Grobler, Charmaine Johnston, Dr Hildegarde Koen, Dr Andre McDonald, Dr Isabel Meyer, Dr Ghaneshree Moonsamy, Dr Maretha O'Kennedy, Dr Bathabile Ramalapa, Dr Cloudius Sagandira, Dr Katlego Setshedi, Marius van Wyk and Carl-Peter Wehlitz. These researchers are specialists in diverse fields, such as bioprocess technology, aerodynamic testing and coastal engineering. Meet three of the new principal researchers.



Dr Ghaneshree Moonsamy: Principal researcher

After 20 years at the CSIR, having started as an in-service trainee in 2006, Dr Ghaneshree Moonsamy has been promoted to principal researcher. Her track record reflects applied outputs and leadership in bioprocess technology development. In 2019, she became the first student at the Durban University of Technology to have a master's degree in biotechnology converted to a PhD, based on research that advanced bioprocess technology for large-scale production of a probiotic used in abalone aquaculture. She also contributed to CSIR-developed bioprocess technology for local company, MycoSure, to produce a fungal-based protein (mycoprotein) in a bioreactor. This mycoprotein production process has been described as a first for Africa, with sustainability and cost advantages over conventional protein sources. Her current work focuses on establishing biopharmaceutical manufacturing using mammalian cell production platforms, localising specialised technologies to strengthen Africa's health security, and expanding access to essential therapies. She is a lead implementer of the African biomanufacturing workforce programmes at the CSIR and serves as an Africa Centres for Disease Control Manufacturing Science and Technology Training fellow and mentor.



Sarah Dikgale: Principal technologist

Sarah Dikgale began her career in aviation, building a strong technical foundation as an electrical engineering technologist. She started with a diploma in electrical engineering, advanced her expertise with a BTech in quality, focused on strengthening the quality and standards foundation that strengthens instrumentation calibration work and further developed her leadership and systems knowledge through a Master of Technology in operations management. She is currently completing a Master of Technology in industrial instrumentation, automation and engineering, further deepening her specialisation in advanced measurement systems, automation technologies and engineering integration. Dikgale is part of the CSIR wind tunnel test team, which has built a sound track record in aerodynamic testing. She has consistently received recognition for technical delivery and professional conduct. Among her ongoing contributions is supporting the modernisation of the wind tunnels' instrumentation calibration through the adoption of laser

measurement technology, an advancement that improves calibration accuracy and speed while reducing downtime and operational costs. She is also leading efforts to secure international accreditation for wind-farm anemometer calibration; only a small number of laboratories globally hold this accreditation, and none is currently in Africa or the southern hemisphere.



Carl Wehlitz: Principal engineer

Carl Wehlitz leads the CSIR's research group for coastal engineering and port infrastructure in Stellenbosch. His group focuses on physical modelling, numerical modelling, field investigations and decision support that help strengthen the safety and performance of ports, breakwaters and other coastal infrastructure under both regular and extreme storm conditions. He guides multidisciplinary teams that build and test scaled marine environments, generating realistic waves to evaluate designs, reduce risk and support evidence-based investment and maintenance decisions. Wehlitz helps build capacity through mentoring and collaboration with industry and academia. He has an extensive track record in coastal infrastructure projects and research, including recent investigations into the behaviour and stability of new concrete armour units tested at the CSIR. As a newly promoted principal engineer, he will continue to expand the laboratory's service and research offering and strengthen partnerships that translate coastal engineering science into practical outcomes for trade, resilience and the blue economy.



The CSIR acknowledged newly promoted principal and chief researchers at a ceremony at the end of 2025. From left: Dr Cloudius Sagandira, Dr Motodi Maserumule (CSIR Group Executive: Advanced Production and Security.), Dr Katlego Setshedi, Dr Jenny-Lee Panayides, Sarah Dikgale, Charmaine Johnston, Dr Thulani Dlamini (CSIR Chief Executive Officer), Dr Graham Barbour, Dr Andre McDonald, Dr Ciara Blaauw, Dr Hildegarde Koen, Dr Bathabile Ramalapa, Dr Sandile Malinga (CSIR Group Executive: Smart Society) and Dr Rachel Chikwamba (CSIR Group Executive: Advanced Chemistry and Life Sciences).

GRADUATES IN TRAINING ADD VALUE IN MULTIDISCIPLINARY FIELDS

The CSIR appointed 24 graduates into the Graduate-in-Training Programme in research and technical fields such as chemical engineering, applied mathematics, geology and remote sensing.

The cohort included nine master's, four honours and three PhD-qualified graduates, with the remainder holding bachelor-level qualifications (including engineering degrees). The CSIR Graduate-in-Training Programme functions as a structured workplace entry point for CSIR-supported graduates, converting postgraduate study and bursary investment into applied research capability. Graduates contribute directly to operational projects while gaining supervised, discipline-specific experience aligned with organisational research priorities.

WORK-BASED EXPERIENCE BRIDGES GAP BETWEEN ACADEMIC TRAINING AND PRACTICAL APPLICATION

Internships and Work Integrated Learning (WIL) programmes provide graduates and students with supervised, work-based experience that bridges academic training and practical application, while building skills aligned to the CSIR's research, development and innovation priorities, as well as the National System of Innovation.

The organisation offered internship opportunities to 160 unemployed black South African youth, with 75% of them being female South Africans. The interns are placed across various clusters and portfolios, with 58% appointed as SET interns and 42% in support roles. In total, 22 WIL students were supported, through partnerships with various SETAs, such as the Energy and Water Sector Education and Training Authority and the Manufacturing, Engineering and Related Services Sector Education and Training Authority.

The primary objective of the organisation's pipeline programme is to facilitate the transition from internships to permanent employment within the organisation and the broader industry, particularly in sectors aligned with the National System of Innovation. In total, 38 interns and WIL candidates were permanently appointed. This resulted in an absorption rate of 24%, marking a consistent improvement on the previous year.



A group of interns funded by Sector Education and Training Authorities and Work Integrated Learning students during an onboarding session at the CSIR in Pretoria.

CSIR BURSARS COMPLETE THEIR STUDIES

In 2025, the CSIR staff bursary programme continued to strengthen human capital development by supporting employees to complete formal qualifications across key levels. A total of 29 staff bursary recipients completed their studies: eight at undergraduate level, 14 at honours level, five at master's level and two at doctoral level. This brings the number of PhDs employed by the CSIR to 276. Qualifications completed spanned fields such as human resource management, computer science, physics, logistics, engineering and metallurgy, public health, information technology governance, project management, quality management, procurement and hospitality.

The CSIR also supported the educational advancement of employees' dependants, with 13 staff dependant bursary recipients completing undergraduate qualifications.

TECHNICAL AND VOCATIONAL APPRENTICESHIPS STRENGTHEN TECHNICAL CAPACITY

The CSIR strengthened its human capital pipeline by hosting and supporting TVET apprentices as part of a pilot programme implemented in partnership with Tshwane South TVET College. The programme builds scarce technical and artisan skills aligned with the CSIR's operational and research needs.

By the end of the reporting period, the programme comprised 19 apprentices across three occupational programmes, namely millwright (2), mechanical fitter (8) and fitter and turner (9). Apprentices were placed in different CSIR clusters and portfolios, where they received structured workplace-based training, supervision and mentorship, complemented by theoretical learning at the TVET college.

Funding for the apprenticeships was secured through a combination of Sector Education and Training Authorities and CSIR contributions, enabling the provision of monthly stipends. Several apprentices were formally appointed and integrated into CSIR teams, strengthening internal technical capacity while contributing to national objectives for skills development, youth employment and the training of qualified artisans.

YOUTH EMPLOYMENT SERVICE INTERNS

The Youth Employment Service (YES) Programme, which aims to reduce youth unemployment, resulted in 62 youth participant engagements. Seven participants, namely Boitumelo Latakgomo, Palesa Ramasenya, Yondela Zizonke Mngezana, Lindelwa Shongwe, Thsoledi Ngoasheng, Valencia Leshabela and My-Angel Mbebe secured permanent junior-level positions at the CSIR and are contributing to the organisation's research, development and innovation. Latakgomo, for example, is a cybersecurity specialist supporting software development and research projects, while Mngezana supports oceanographic and environmental data acquisition systems in the coastal engineering and port infrastructure group, helping to deploy, configure and maintain equipment such as wave buoys and weather stations. Ramasenya is a software engineer in the defence and security space, primarily supporting a CSIR vehicle tracking platform.

An additional placement was facilitated through Youth@Work and two participants were awarded six-month fixed-term contracts. Three others commenced 12-month internship opportunities within the CSIR.

SOUTH AFRICA AND EGYPT POWER UP ON AFRICAN SOLAR ELECTRICITY PRODUCTS

Across Africa, contractors and customers expect solar photovoltaic (PV) modules to perform reliably for 25 to 30 years. As solar installations expand, substandard or unsafe components can create safety, legal and financial risks and undermine investor confidence. In response, the CSIR has partnered with Egypt's Helwan University to strengthen local quality testing and support African manufacturers to improve the reliability of solar panels and inverters, reducing reliance on imports.

The CSIR's ISO 17025-accredited Solar PV Quality and Reliability Laboratory, operational since 2021, provides internationally recognised testing, including visual inspections, power output verification, defect detection using electroluminescence imaging and electrical safety assessments. Panels are also subjected to accelerated ageing and stress testing aligned with IEC 61215 to simulate harsh operating conditions and identify early performance losses or faults.

Test outcomes are documented in comprehensive technical reports that support quality assurance and, where required, evidence in dispute resolution. Helwan University contributes inverter reliability expertise and an established standards-testing platform, alongside links to industrial and regulatory partners.

Together, the collaboration aims to raise confidence in African solar electricity products, strengthen quality regulation and support energy security across the continent.



To measure power output, a solar PV module is exposed to a burst of bright, artificial "sun" in an environment-controlled dark chamber. The CSIR Solar PV Quality and Reliability Laboratory features a pulsating lamp that flashes for less than a second, allowing researchers to determine electrical parameters like power, voltage and current.

SOUTH-SOUTH COLLABORATION STRENGTHENS PLANS FOR E-WASTE RECYCLING

The CSIR contributed to a South-South partnership on electronic waste (e-waste) regulation and recycling at scale within Nigeria, South Africa, Colombia, India, Malaysia and the Dominican Republic. These countries share many e-waste challenges. South Africa hosted the final study tour following earlier tours in Colombia and India.

The experts shared practical lessons to help countries strengthen e-waste regulations and reporting, promote extended producer responsibility and move towards a circular economy for electronics. The formal exchange was implemented by the International Telecommunication Union (ITU), an agency of the United Nations, and the Presidential Agency for International Cooperation of Colombia. South Africa was represented by the CSIR, the Department of Communications and Digital Technologies and the Department of Forestry, Fisheries and the Environment.

Printed circuit boards are considered the most valuable prize in the e-waste value chain. However, these e-waste components are often exported rather than reclaimed locally. Often, perished electronics are dumped or dismantled unsafely.

The ITU has found that globally, 62 million tons of e-waste are generated annually, but only 22.3% is formally collected and recycled. Countries with e-waste regulation perform much better, with average collection rates of 25%, while countries without regulation have almost no recycling. Countries with extended producer responsibility laws also have improved collection and recycling.



Discarded electronic devices piling up in a recycling facility, a growing e-waste challenge globally.

Discussions as part of the final ITU study tour in South Africa confirmed that e-waste dumping remains the default, but that companies are willing to work within a proper recycling system.

The participating countries plan to publish guidelines and a toolkit that any other country can use to develop its own e-waste regulations.



Participants from Colombia, India, Malysia, the Dominican Republic and South Africa gathered in Pretoria, South Africa for an ITU global study tour and workshop, hosted in Pretoria. These countries share many e-waste challenges and plan to strengthen e-waste regulations and reporting.

RETIRED SUPERCOMPUTERS POWER AFRICA'S PIPELINE OF PROBLEM SOLVERS

In February 2026, CSIR researchers at the Centre for High Performance Computing (CHPC) delivered decommissioned scientific computing resources to students at the University of the Witwatersrand (Wits). These research-grade M1000 servers are especially suited for superfast data processing and will be used for artificial intelligence (AI) supercomputing and high-performance computing infrastructure.

The HPC Ecosystems Project, an initiative of the CHPC, redeploys decommissioned advanced research computing hardware from global big science and big data projects to deserving universities and research institutions in Africa. It aims to democratise access to high-performance computing so that Africa can become a major player with its own tailored models and solutions.

Wits is just one hub in a continent-spanning network of partner sites; to date, infrastructure has been redeployed to partners in Madagascar, Mauritius, Ghana, Malawi, Lesotho, eSwatini, Botswana, Namibia, Zambia and Kenya. The decommissioned hardware comes from the CSIR and from other high-performance institutions across the world, while South Africa's Square Kilometre Array project has funded the redeployment of hardware. These sites bring practical supercomputing capability to those who would otherwise have limited access to this kind of infrastructure.

Over its first decade, the project redeployed 35 entry-level HPC systems across 11 African countries, pairing each installation with skills transfer through more than 30 formal training workshops for over 700 participants. Overall, this strengthens regional cyberinfrastructure readiness and enables African teams to participate in data- and compute-intensive research and global HPC competitions.

The Wits HPC group has published two peer-reviewed papers about how they use the hardware to learn and compete in supercomputing challenges.

The CHPC is part of the National Integrated Cyber Infrastructure System, a national initiative of the Department of Science, Technology and Innovation that is implemented by the CSIR.



Members of the Wits HPC and Big Data Interest Group set up supercomputing hardware that has been decommissioned from global big science projects. Groups like these exist across Africa thanks to the HPC Ecosystems Project. The hardware enables students to practice and compete in global competitions to answer some of the world's biggest questions around climate change, artificial intelligence, astronomy, biological mechanisms, engineering and more. From left, Kevin Ebrahim, Lily de Melo, Reinhard Jansen van Vuuren and Samual Mathekga.



The CSIR delivered decommissioned scientific computing resources to students at the University of the Witwatersrand. These research-grade M1000 servers are especially suited for superfast data processing and will be used for AI supercomputing and high-performance computing infrastructure.

STRIKING GLOBAL SCIENTIFIC BALANCE IN TESTING FOR MERCURY



CSIR researcher Tabisa Ndlalo measures levels of mercury traced in sediment, biological tissue, plant material, sea water and wastewater in South Africa using a new direct mercury analyser.

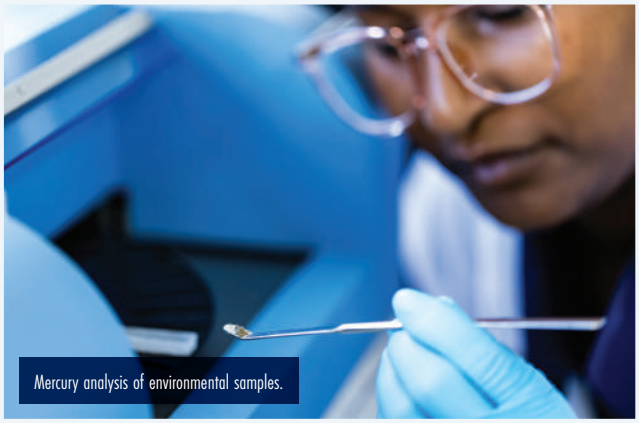
The CSIR has strengthened its ability to detect the prevalence of mercury entering marine and freshwater ecosystems and to undertake accredited testing of water and sediments following the procurement of a direct mercury analyser and a plasma mass spectrometer for its environmental chemistry laboratory.

The new equipment is also bolstering the CSIR water analysts' collaboration with the international mercury research community.

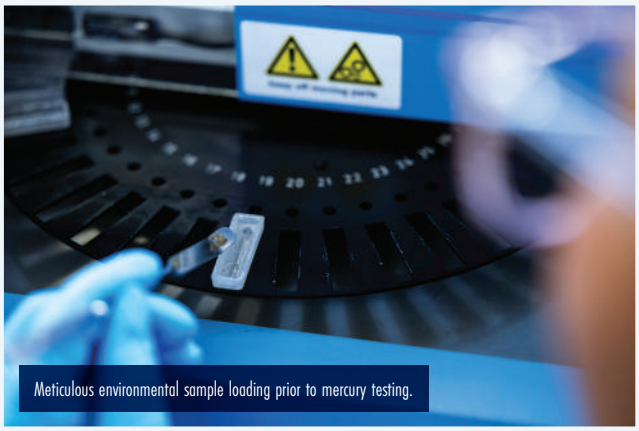
The CSIR is one of 16 laboratories located in 16 countries, aiming to unify and standardise the testing of mercury samples across the world. The partners are finalising the revision of the Mercury Consensus, a scientific agreement and guideline that aims to unify and standardise the testing of mercury samples across the world.

Mercury is a toxin prone to accumulation in sediments and living organisms, posing ecological and human health risks. Its prevalence in the natural environment is a global issue, affecting coastal towns and populations with high fish-based diets.

It is anticipated that the Mercury Consensus will enable the production and availability of comparable data to protect and regulate human and animal health from mercury emissions and compounds.



Mercury analysis of environmental samples.



Meticulous environmental sample loading prior to mercury testing.

NATURE-BASED SOLUTIONS PROPOSED TO TREAT MUNICIPAL WASTEWATER IN WEST INDIAN OCEAN REGION

In a new book, CSIR researchers are proposing constructed wetlands as a means of advancing sustainable, nature-based wastewater treatment in the Western Indian Ocean.

Coastal and marine pollution in the Western Indian Ocean region is increasingly becoming an environmental management challenge of concern, threatening local communities' wellbeing and livelihoods. The region, along with a combined coastline of more than 15 000 km, spans the mainland countries of Somalia, Kenya, Tanzania, Mozambique, South Africa, Madagascar, Comoros, Reunion, Mauritius and Seychelles.

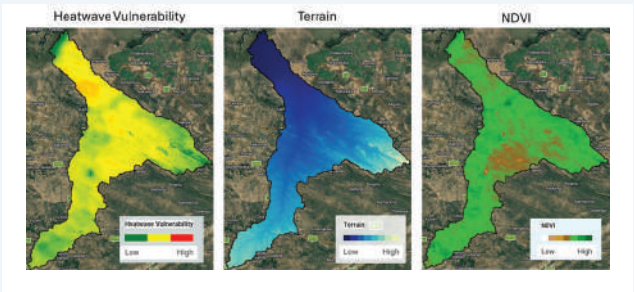
A CSIR team, comprising experts in coastal systems and Earth observation – in the first chapter of the book – provided a foundational synthesis of coastal and marine pollution across the region, drawing on a regional-scale analysis. The work characterises the extent, magnitude and key drivers of pollution, including urban development, agriculture and industry, and outlines associated risks to ecosystem health and human well-being.

By framing the pollution challenge to coastal and marine systems, which sustain people and the economies of the West Indian Ocean region, the chapter establishes the scientific basis for nature-based interventions such as constructed wetlands. These systems mimic natural wetland processes to treat wastewater and runoff, offering cost-effective and scalable alternatives to conventional infrastructure while supporting biodiversity and improving water quality.



Constructed wetlands act as nature-based, cost-effective filtration systems that treat municipal and industrial wastewater before it reaches coastal ecosystems. By mimicking natural wetland processes, they use vegetation, soil and microbial activity to break down contaminants, reducing land-based marine pollution in the Western Indian Ocean.

SCIENCE-LED DAM REHABILITATION AND IRRIGATION SCHEMES BOOST WATER SECURITY IN ZAMBIA



CSIR experts used geospatial data to assess climate risks and sensitivities in the Magoye River Catchment in Zambia. They mapped heatwave vulnerability (left), terrain (middle) and the normalised difference vegetation index, which is a measure of plant density and health.

The CSIR is supporting Zambia's efforts to improve water security and strengthen climate resilience in the Lower Kafue basin. The organisation is working in partnership with local company Sich Enviro-energy Engineering Solutions, as well as Zambia's Ministry of Water and Sanitation Development through the Ministry of Green Economy and Environment.

In the Magoye River Catchment in Southern Province, CSIR researchers assessed climate risks, community vulnerability and adaptation options to guide practical interventions for vulnerable communities.

This work informed rehabilitation and irrigation interventions at Chiyobola Dam and Mainza Dam, strengthening water security and climate resilience in surrounding communities. At Mainza Dam, the interventions are expected to benefit 11 villages, approximately 150 families, and support 9.7 hectares of irrigable land. At Chiyobola Dam, 21 villages with an estimated population of 4 500 people are expected to benefit, alongside the development of 5 hectares of irrigable land. Beyond dam rehabilitation and irrigation development, the CSIR provided integrated technical support through local climate modelling, hydrological and engineering assessments, early warning systems support, scenario planning and guidance on sustainable financing for long-term dam maintenance and catchment protection.

The project also helps link local water interventions to broader Zambian climate adaptation goals. Technical training was provided to government officials and communities, including support on funding mechanisms and access to wider climate finance opportunities. A strong focus was placed on gender-responsive water governance to ensure that adaptation measures better address the needs of women and other vulnerable groups.



A multidisciplinary research team assessed the state of several dams in Zambia's Magoye catchment to identify specific interventions that would secure water and reduce flood impacts for nearby vulnerable communities. The spillways of many dams were found to be too low, posing a flood risk if dam waters were to rise.



Community members start construction of an irrigation canal at Chiyobola Dam in the Monze district of Zambia's Magoye catchment.

SMART WILDFIRE SYSTEM SUPPORTS MEDITERRANEAN LANDSCAPES

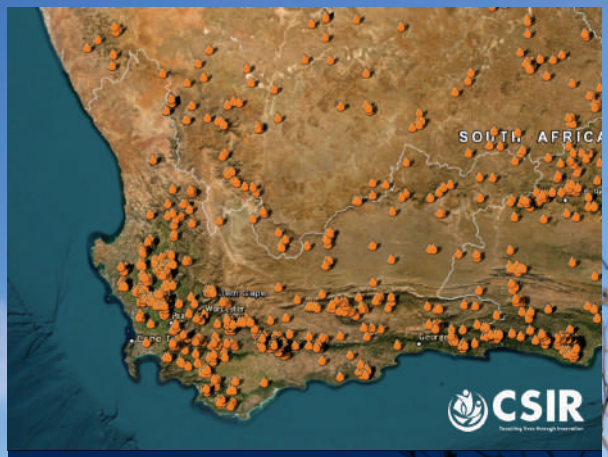
A new wildfire tool will benefit ecosystems in Mediterranean-climate regions like South Africa's Western Cape and the Catalonia region in Spain. The system will improve management of wildfire risks in fynbos and other Mediterranean shrublands by providing access to real-time wildfire data and supporting sustainable landscape restoration efforts.

The conceptual development of the tool was funded by the Resilient Cities Catalyst, an independent non-profit organisation created to empower change in the way cities plan and act. It was co-developed by the CSIR and CapeNature, with a range of international academic institutions, research councils, conservation agencies and fire protection association stakeholders.

The system drew on the CSIR's Greenbook and Advanced Fire Information System, the Settlement-Mesozone Geo-Frame open access tool and international open access services such as the European Forest Fire Information System and the Global Wildfire Information System.

Once implemented, the wildfire system will improve access to information before, during and after fires, by providing data access in the field, detailed maps of affected areas and their vulnerable assets, and other information needed for integrated wildfire management planning.

Researchers plan to further develop the system to provide longer-term views to enable proactive planning and responses to fire risks as well as cover additional Mediterranean areas.



The CSIR Advanced Fire Information System map viewer showing fire activity detected across the Western Cape province over one month during the fire season of February to March 2026.

During summer months, the hot, dry Mediterranean climate characteristic of the Western Cape means long, dry summers that create ideal conditions for wildfires. Due to the impact of climate change, these fires have become more frequent and intense.

05

Research, development and innovation in the rest of Africa and further afield

AFRICAN CELL INITIATIVE ADVANCES PAN-AFRICAN CELLULAR RESOURCES



A skin sample extracted from an African donor from which dermal fibroblasts can be isolated for biological research.



A professional dermatologist extracts a small skin sample from an African donor's upper arm during a quick and private procedure to enable global scientists to create medications that work better for patients of African descent.



CSIR research technician Sizwe Tshabalala examines dermal fibroblasts under a microscope to ensure that they are healthy and fit for purpose.

The CSIR is advancing the African Cell Initiative through a growing collaboration with the University of Nairobi's KAVI Institute of Clinical Research in Kenya. The partnership is helping to establish primary human cell line capabilities in Kenya for the first time, while linking laboratory research with future clinical applications through the Institute's strong experience in clinical trials.

The initiative is designed to ensure that these valuable and globally rare African cell lines are African owned, African housed and African access controlled. While still ethically regulated and available for global access, this represents an important shift from historical approaches in which biological samples were often exported for analysis with little reciprocation to the population from which the samples were acquired. While still a multicontinental collaborative project, sharing of the precious bioengineered cells across the African partners is a project priority, with sole future commercialisation of the cells shared between Kenya and South Africa. This will enable African institutions to build their own datasets and address research questions relevant to local populations.

The CSIR has conducted technology transfer activities in Kenya, enabling local teams to grow, expand and biobank cells. Indefinitely propagatable cell lines are generated from African donor skin cells, following reprogramming into stem cells at the CSIR using advanced techniques. Kenya's genetic diversity strengthens the development of a representative Pan-African initiative, improving understanding of disease and treatment response. Over time, the collaboration is expected to support African-led biomedical research and more accessible therapies.

The project is funded by the South African Medical Research Council, in partnership with the UK Research and Innovation Medical Research Council, carried out through a multi-institutional collaboration spanning Africa and the United Kingdom.

SKILLS DEVELOPMENT FOR AFRICAN VACCINE MANUFACTURING



A cohort of African Union member states after completing a Biomanufacturing and Good Manufacturing Practice course at the CSIR as part of the African Biomanufacturing Workforce Development and Training Programme.

The CSIR has, over the past three years, trained 226 (104 in 2025/26) researchers and scientists across Africa to help build local capacity for the manufacturing of biologics, vaccines, recombinant proteins and therapeutics. This concluded the CSIR's African Biomanufacturing Workforce Training and Skills Development Programme, which comprised theoretical and hands-on training and was supported by the Gates Foundation and the Deutsche Gesellschaft für Internationale Zusammenarbeit SAVAX programme.

Courses in biomanufacturing technologies, vaccine production and key areas such as good manufacturing practice, quality control, and downstream operations were presented during the 2025/26 financial year.

The programme was aimed at African manufacturers, scientists and other key players involved in the development and scaling-up of vaccine production processes and active pharmaceutical ingredients.

The training programme aligns with the African Union's target to produce 60% of Africa's vaccine needs by 2040 by building regional vaccine manufacturing capabilities, securing technology transfers and promoting demand for African-made vaccines.



Biomanufacturing and Good Manufacturing Practice course participants receive hands-on training, facilitated in collaboration with Sartorius.

CSIR AND TANZANIA COLLABORATE TO STRENGTHEN ROAD INFRASTRUCTURE



The CSIR's Gculisile Mvelase leads trainees during a site visit to the Kimara-Kibaha six-lane dual carriageway project along Morogoro Road in Tanzania. The visit formed part of the CSIR-Tanzania National Roads Agency training embedment programme, exposing participants to construction activities and quality control and assessment practices. The project provided a practical environment for understanding earthworks, material stockpiling, construction operations and site supervision.

The CSIR has developed a quality control framework for the Tanzania National Road Agency to provide engineers with practical guidelines to ensure durability and consistency in construction. The framework was commissioned to be used by the Tanzania National Roads Agency. It includes industry guidelines and checklists aligned with national specifications. It enables road engineers to escalate issues when workmanship fails to meet design standards and serves as a benchmark for road design and material selection.

This framework addresses Tanzania's long-standing challenge of premature road surface failure. The collaborative work between the two entities revealed that the lack of quality control measures was a key factor behind early deterioration. Road engineers often lacked the skills and frameworks needed to identify risks and mitigate problems during construction.



Participants in the TANROADS capacity-building programme comprised project engineers, materials engineers, maintenance engineers and managers from the organisation's headquarters and regional offices.

The CSIR drew on its expertise in pavement materials, laboratory testing and construction processes to create a framework tailored to Tanzanian conditions. By capacitating engineers and strengthening quality assurance, the initiative ensures that future road projects are built to last.

INTERNATIONAL UPTAKE FOR CSIR-DEVELOPED PASSIVE RADAR

The CSIR signed licence agreements with two international partners to manufacture, market, sell and distribute its passive radar technology. The technology is an affordable and effective radar-based solution for a range of target detection applications.

The latest partners in this ongoing technology development programme are Adler Aerospace Limited, a United States-headquartered company, specialising in the co-development and commercialisation of advanced unmanned aerial vehicle (UAV) technologies, and ACES Defense in the United Arab Emirates, which will be utilising the radar in civilian aviation applications.

The CSIR-developed radar is a next-generation frequency modulated (or FM-based) passive radar or passive coherent location sensor technology solution that makes use of third-party illuminators to illuminate, locate and track targets of interest. It can detect targets at up to 300 km for commercial airliner-size targets, 120 km for light aircraft, 80 km for fighter aircraft and up to 50 km for smaller UAVs.

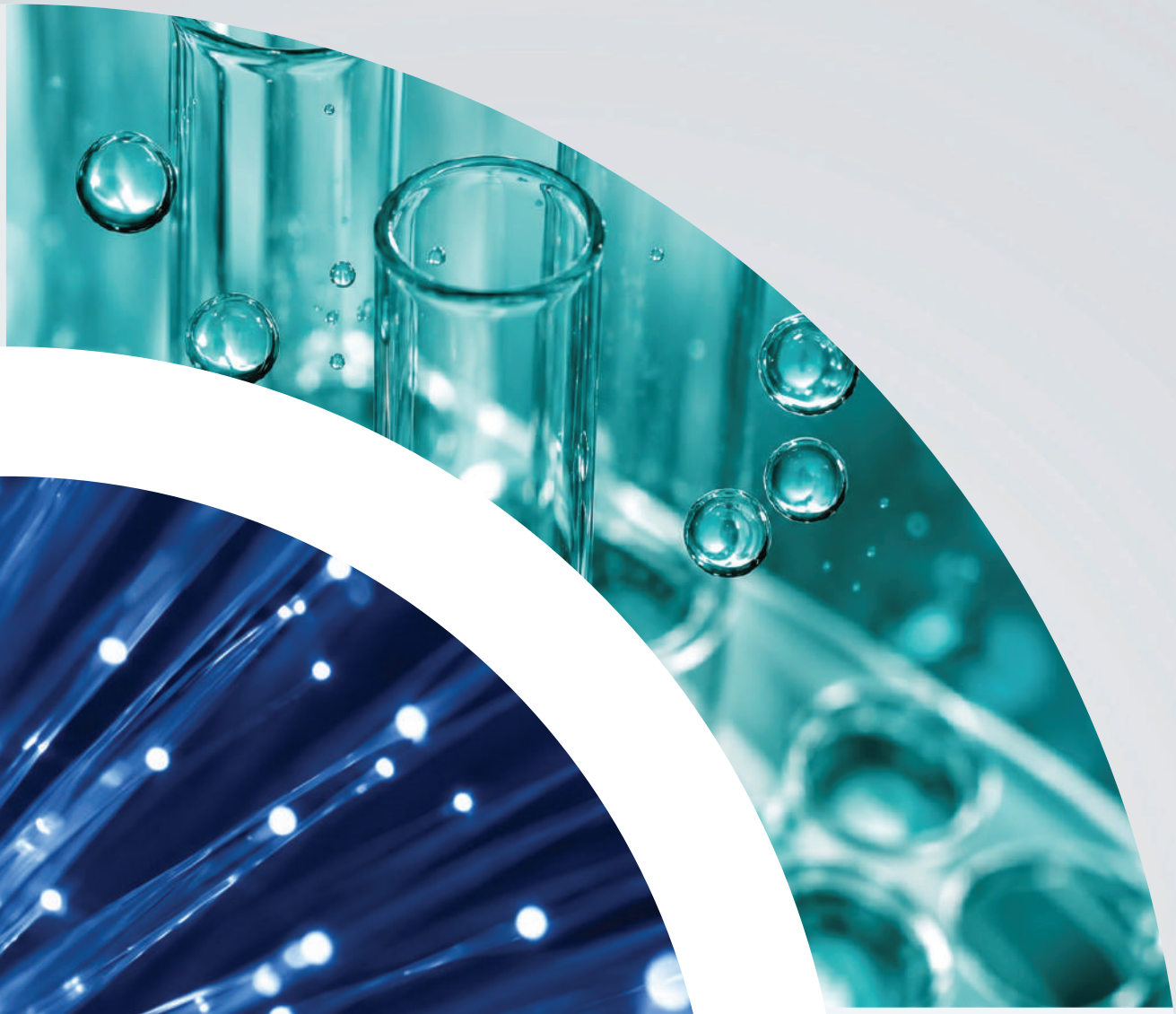
With minimal equipment requirements, the technology provides cost-effective, non-emitting and integrated radar capabilities across a wide spectrum of applications, including silent early warning, border surveillance, UAV detection, radar gap filling and primary surveillance radar replacement. It requires no regulatory approvals and, since it does not need its own dedicated transmitter section, it is also highly mobile.

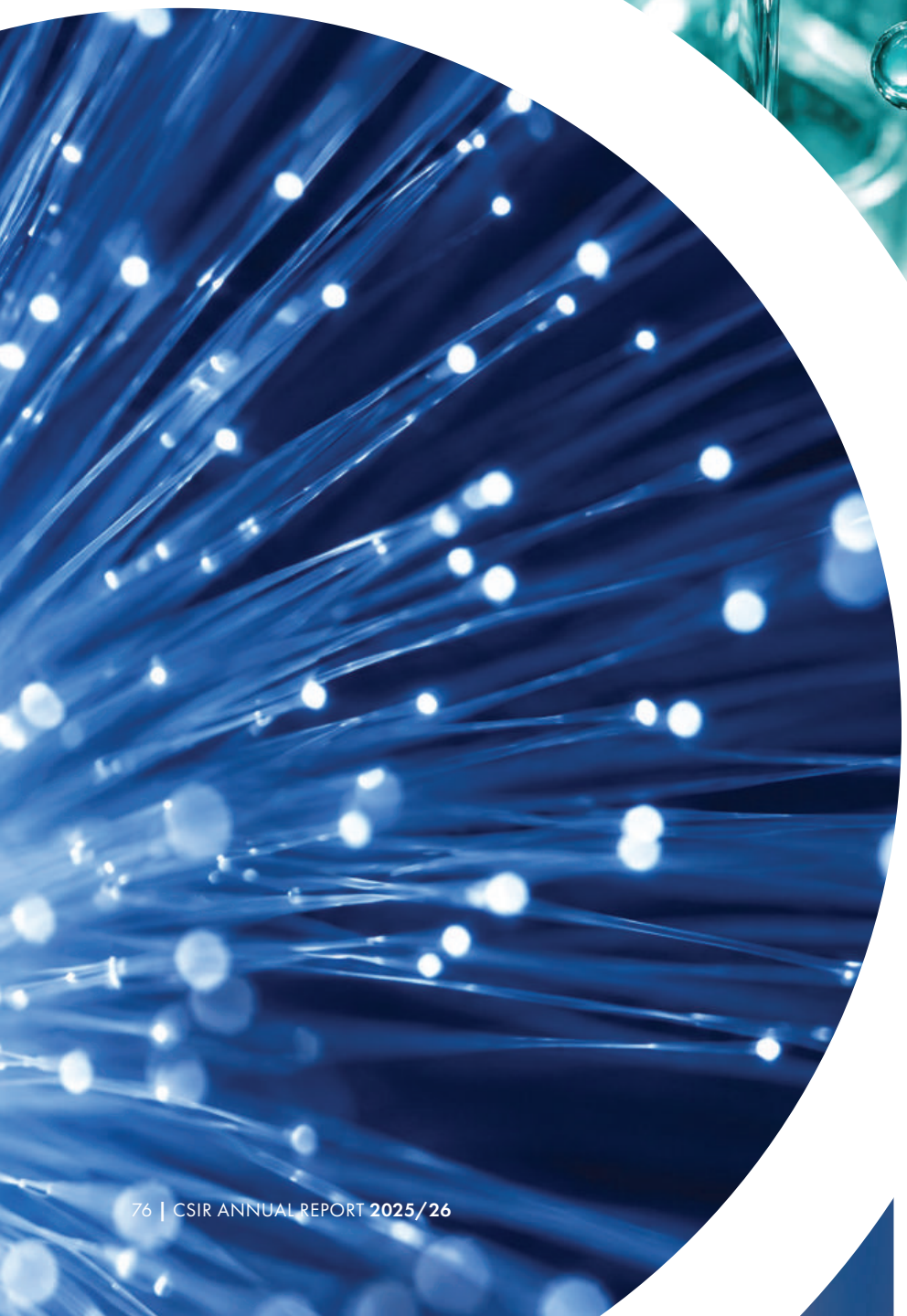


The agreement with ACES Defence was signed in Riyadh in Saudi Arabia on 10 February 2026, during the World Defense Show, by the Chief Executive Officer of the CSIR, Dr Thulani Dlamini and Dr Akram Aburas, the Chief Executive Officer of ACES.



With minimal components, designed to be mobile and cost effective, passive radars such as this one, developed by the CSIR, are used by air traffic navigation services, small aerodrome authorities and others in the aviation safety sector.





PART C
PERFORMANCE INFORMATION

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AUDITOR'S REPORT: PREDETERMINED OBJECTIVES

The Auditor-General of South Africa (AGSA) currently performs the necessary audit procedures on the performance information to report on the usefulness and reliability of selected material performance indicators. The material findings against predetermined objectives are reported in the Annual Performance Report section of the Auditor's Report.

Refer to pages 148 - 151 of this report for the Auditor's Report, published under Part G: Annual Financial Statements.

OVERVIEW OF PERFORMANCE

SERVICE DELIVERY ENVIRONMENT

The CSIR is a Schedule 3B public entity in terms of the Public Finance Management Act (PFMA) and operates as a national government business enterprise. As such, it combines public sector accountability with commercial operating principles, being accountable to the Executive Authority, National Treasury and Parliament, while maintaining operational and financial autonomy to conduct business activities. Unlike fully tax-funded entities, the CSIR generates a significant portion of its income through contract research and development, partnerships and commercialisation activities, and therefore reports on profits and losses. Its legislated mandate, derived from the Scientific Research Council Act, is to conduct directed, multidisciplinary research and technological innovation to foster industrial and scientific development to improve quality of life of the people in South Africa, thereby positioning the organisation as both a national innovation instrument and a commercially oriented research enterprise.

As such, the CSIR is not a service delivery entity, but an entity that conducts scientific and industrial research in support of government that enables service delivery, including but not limited to water and sanitation, energy, housing and human settlements, as well as road infrastructure. In the 2025/26 financial year, there are several examples of research and development, as well as technical advisory services that the CSIR provided across service delivery areas in support of national, provincial and municipal governments. These include:

a) Water and sanitation

- Research supporting improved maintenance and management of strategic water source areas, including policy support for resource quality objectives for the Department of Water and Sanitation.
- Establishment of a Water Technology Demonstrator Hub, focused on acid mine drainage treatment technologies, strengthening municipal and regional water resilience.
- Demonstration of the Source Treatment Optimisation Water Resource Management Decision Support Tool (STOWRM-DST), a digital platform for optimising water treatment operations, showcased at GovTech 2025 as a solution to improve municipal water quality management and operational efficiency.
- Direct support to mining-affected municipalities on water services, land use and asset management through the Municipal Capacity and Partnership Programme.

b) Energy

- Advanced manufacturing and repair technologies (e.g. turbine blade repair, laser shock peening, Hot Isostatic Press processing) supporting energy security and power generation assets.
- Led and coordinated the G20 Energy Transition Working Group on "Just, Affordable and Inclusive Energy Transitions" (Priority 2), delivering all technical reports and negotiated documents for the Department of Electricity and Energy.
- Progress on Phase 4 of the Wind Atlas for South Africa (WASA) programme, expanding wind and solar resource validation to coal-dependent provinces (Mpumalanga, Limpopo, North West), directly supporting municipal and provincial energy planning.
- Development of Internet of Things-based trust tools and demonstrated tokenised energy trading, which is a building block for energy transactions in a market and even wider for smart contracts to trade anything that can be tokenised.
- Development of an emulated microgrid controller and the building of a demonstration microgrid hardware-in-the-loop system with simulated hardware in order to test, optimise, or train energy management algorithms.
- The release of the draft strategic environmental assessment and completion of stakeholder engagements for the development of the Green Hydrogen Hub and new port in Boegoebaai, Northern Cape.

c) Housing and human settlements

- Supported municipal innovation strategies via the Viability and Validation of Innovations for Service Delivery Programme with the adoption of the Smart City Strategy by uMhlathuze Local Municipality (Council Resolution 18392) and the Innovation Strategy by Waterberg (Council Resolution A234/2025).
- Strengthened visibility through contributions to the Presidential Innovative Building Technologies (IBTs) Summit.

d) Transport

- An Urban Growth Model has been developed for the Gauteng Department of Roads and Transport to inform integrated transport and spatial planning.
- Development and deployment of road asset management systems, a logistics accountability scorecard (Pits to Ports), and road safety analytics supporting provincial and national transport authorities.
- Development of road pavement technologies, including guidelines addressing premature asphalt failure, in partnership with regional road authorities (e.g. Tanzania National Roads Agency), strengthening road longevity and cost-efficiency.
- Successful research on the use of Eskom's legacy coal ash in road construction, delivering guidelines and toolkits for sustainable and lower-cost road materials.
- Provision of road asset management systems, abnormal load vehicle registration platforms, and traffic modelling support to provincial road departments and metros (e.g. Gauteng, City of Johannesburg).
- Support to the South African National Roads Agency SOC Limited (SANRAL), Transnet National Ports Authority (TNPA), provincial departments of transport, enhancing infrastructure planning, maintenance and safety.
- Deployment of Logistics Observatory platforms to support data-driven decision-making for transport and logistics systems.

More in-depth research, development and innovation (RD&I) highlights for 2025/26 are illustrated in Part B earlier.

ORGANISATIONAL ENVIRONMENT

The CSIR implemented a targeted organisational reorganisation during the 2025/26 financial year. It was concluded on 31 July 2025 to address sustained underperformance and financial pressures within selected clusters. The intervention focused on restructuring business areas that were unable to achieve financial targets. These clusters included Future Production: Manufacturing, Future Production: Mining, NextGen Enterprises and Institutions, Smart Mobility and Smart Places, with additional impact areas incorporated following internal review processes.

The reorganisation entailed the consolidation and rationalisation of business units, as well as the closure of non-viable areas, to align organisational capacity better with market demand and financial sustainability. A key outcome was a net reduction of 54 science, engineering and technology positions across affected clusters, including losses at principal researcher and PhD levels.

Despite associated effects, overall institutional performance targets remained within acceptable thresholds, and no formal compact change order was required at the CSIR level.

Post-reorganisation, clusters experienced transitional challenges, including workforce instability, recruitment constraints and misalignment between skills supply and demand, requiring ongoing change management and strategic workforce planning interventions.

Overall, the reorganisation represented a strategic corrective measure to restore financial sustainability and operational alignment, while acknowledging short- to medium-term impacts on human capital.

The CSIR maintains a robust, compliant and well-integrated governance environment, underpinned by strong Board oversight, structured committees and a mature risk management framework. However, the organisation faces material systemic and operational challenges, notably:

- **Funding constraints** - The declining Parliamentary Grant funding limits necessary investment in infrastructure, systems and RD&I initiatives.
- **Procurement inefficiencies** - The public sector procurement environment (PFMA-driven) introduces complex approval processes, which delay contracting and collaboration with government and industry partners. The reluctance of the National Treasury to apply certain preferential procurement provisions (sole/single sourcing) further exacerbates the issue. Slow contracting impacts project initiation, execution and the earning of income.
- **Skills shortages and infrastructure limitations** - Shortage of critical science, technology, engineering, and mathematics skills impacts the ability to deliver on contracts and pipeline projects, as well as reduces capacity for commercialisation and innovation. Ageing infrastructure and ICT systems reduce operational efficiency and system effectiveness and affect the ability to support advanced research and innovation activities.

These challenges are compounded by external risks, including geopolitical developments and economic pressures.

While mitigation mechanisms are in place, the pace of implementation and resource limitations remain key risks to governance effectiveness.

KEY POLICY DEVELOPMENTS AND LEGISLATIVE CHANGES

As a Schedule 3B state-owned entity entrusted with advancing public interest RD&I, the CSIR recognises legal and regulatory compliance as a cornerstone of ethical leadership, institutional credibility and sustainable value creation.

The CSIR Board exercises oversight of compliance through integrated governance arrangements that align statutory obligations with enterprise risk management, assurance processes and ethical standards. This approach ensures that compliance is not treated as a standalone activity, but as an essential enabler of responsible research, sound financial management and public accountability.

During the financial year under review, the CSIR operated within the framework of applicable legislative and regulatory requirements governing scientific research, public finance, procurement, occupational health and safety, data protection and intellectual property, just to name a few. The external audit identified certain matters of non-compliance, arising from the classification and disclosure of transactions in the financial statements. No other material deficiencies in the system of internal control were reported. Management remains committed to strengthening preventive controls, monitoring mechanisms and accountability across the organisation.

The organisation continues to strengthen internal compliance capability, particularly in relation to the prevention and management of irregular, fruitless and wasteful expenditure, the responsible use of artificial intelligence and cybersecurity. Other emerging regulatory developments that affect public procurement reform include the enacted Public Procurement Act and its related regulations, climate-related obligations, data governance, and the evolving regulatory environment for state-owned enterprises (SOEs). Ongoing training and awareness initiatives during the 2025/26 financial year supported a culture of compliance and ethical conduct across research and support functions.

Through sustained governance oversight and a forward-looking compliance posture, the CSIR remains committed to upholding the highest standards of integrity, transparency and responsible stewardship of public resources in fulfilment of its mandate.

PROGRESS TOWARDS ACHIEVEMENT OF INSTITUTIONAL IMPACT AND OUTCOMES

Seven years of focus on industrial development

The current CSIR Strategy was launched in the 2019/20 financial year with the goal of amplifying the 'I' in CSIR through RD&I activities that support industrial development. It also introduced a business model designed to increase the relevance of the CSIR's technologies and services to the private sector.

The strategy is driven by a clear intention: to achieve growth, sustainability, impact and relevance. In alignment with this intention and the organisation's strategic objectives, the CSIR has established a set of key performance indicators (KPIs) to guide its actions, inform decision-making and track progress in the implementation of the CSIR Strategy.

Deepening partnerships with industry

A key focus has been to forge stronger relationships with private sector partners. In 2025/26, the CSIR achieved a 329% increase in the number of technologies localised for industry partners compared to 2019/20, a 109% increase in joint technology development activities with industry partners and a 42% increase in the number of small, micro and medium enterprises (SMMEs) supported. Staff exchange programmes with industry partners also increased significantly by 336% in 2025/26 compared to 2019/20.

Some examples of key partnerships with industry in 2025/26 are listed in Table 1.

Table 1: Examples of some active partnerships with industry during 2025/26

Cluster/Programme	Industry partner	Nature of work	Output
Advanced Agriculture and Food	United States National Aeronautics and Space Administration (NASA)	Precision agriculture research (NASA BioSCape Project)	Research outputs
	L'Oréal	Biodiversity innovation collaboration	Cosmetic ingredient development
	Mashaba Herbs	Joint technology development	Product development pipeline
	Cefas (UK)	Aquaculture trials	Validated aquaculture systems
	Food and Agriculture Organization (FAO)	Agri-system planning	Planning inputs
Smart Places	Noncrete	Low-carbon materials project	Demonstration outputs
	Solarev/Jomta/MLX Ventures	Licensing agreements	Commercialised technologies
	Anglo American/Coca-Cola/Foskor	Water RD&I projects	Research outputs

Cluster/Programme	Industry partner	Nature of work	Output
Smart Mobility	Crickmay and Associates	Licensing	Logistics Scorecard
	Datron/ThinkNinjas	Joint development	Digital platforms
Future Production: Mining	Afrox	Safety system development	Mining technologies
	AfriCoal/Tharisa	Technology deployment	Digital twin solutions
Future Production: Manufacturing	De Beers	Laser systems deployment	Operational systems
	Eskom Rotek	Turbine repair	Maintenance outputs
Defence and Security	Adler Aerospace	Licensing	Radar technology
	SVI Engineering	Joint development	Vehicle systems
NextGen Enterprises and Institutions	Vodacom/Telkom	ICT collaboration	Digital platforms
Future Production: Chemicals	Immobazyme	Biotech licensing	Commercialised biotech
Hosted Programmes	Richards Bay Minerals	Infrastructure localisation	Industrial systems

Collaborating with SOEs and government

In support of building a capable state, the CSIR's performance has been strong. In 2025/26, the number of standards developed for the state increased by 90%, in comparison to 2019/20. The CSIR also achieved a 266% increase in projects implemented on behalf of government departments and SOEs, as well as a 33% increase in the number of reports supporting policy development. These results reflect strong alignment with the organisation's strategic intentions.

Several examples demonstrating the CSIR's commitment to collaborate with government in general are listed earlier.

Deepening partnerships with higher education institutions

Although there are no specific KPIs for partnerships with higher education institutions (HEIs), the CSIR continues to invest in strategic research and capacity-building collaborations with HEIs (see Table 2).

Table 2: A list of active collaborations with universities during 2025/26

Cluster/Programme	University/HEI	Nature of collaboration (Detailed)	Purpose/Output
Mandela Mining Precinct	University of Pretoria (UP), University of Free State (UFS), University of Limpopo, multiple universities	South African Mining Extraction, Research, Development and Innovation research centres hosted at universities supporting postgraduate (PhD, master's, honours) research; student engagement (Student Representative Council visits); participation in academic colloquia (e.g. the DSTI-NRF Centre of Excellence for Integrated Mineral and Energy Resource Analysis colloquium) and structured supervision and research pipeline.	Postgraduate development, mining RD&I, pipeline strengthening
National Cleaner Production Centre of South Africa	University of Johannesburg (UJ), UFS, Tshwane University of Technology (TUT), Cape Peninsula University of Technology (CPUT), University of Venda, University of South Africa (UNISA)	Accreditation and delivery of Resource Efficiency and Cleaner Production Short Learning Programme with UJ; integration into formal university curriculum; structured student enrolment and delivery; Memoranda of Agreements under development with multiple institutions to expand academic network.	Curriculum integration, skills development, institutional network expansion
Technology Localisation Implementation Unit	Nelson Mandela University (NMU)	Joint R&D on specialised material development, including formulation, laboratory testing and validation using university expertise and facilities.	Technology development and industrial application

Cluster/Programme	University/HEI	Nature of collaboration (Detailed)	Purpose/Output
Advanced Agriculture and Food cluster	Multiple universities	Research collaboration contributing to publication outputs; involvement in postgraduate supervision; integration into funded research programmes (e.g. NASA BioSCape Project) producing academic outputs.	Publications and human capital development
	Université du Québec en Abitibi-Témiscamingue (UQAT)	Proposed Research Chair collaboration facilitated by the Science Diplomacy Capital for Africa initiative of the DSTI involving joint research engagement and funding (proposal stage).	Development of research capacity and international collaboration; supports the Southern Africa Network for Biosciences pipeline
Future Production: Manufacturing cluster	UJ	Technical collaboration involving additive manufacturing / HIP processing, including testing and processing of university-provided samples within CSIR facilities.	Experimental validation and process development
	UP	Clinical trials collaboration through manufacturing and delivery of Umbiflow probes for UP-led studies.	Support clinical trials and progression toward commercialisation
Defence and Security	Mississippi State University (CAVS)	Participation in international collaborative research programmes focused on autonomous systems modelling and simulation with academic partners.	Advanced RD&I and international knowledge exchange
	CPUT	Collaboration on satellite bus development with formal contract arrangements.	Advancement of space-related technology and systems
	University of the Witwatersrand (WITS)/UP	Participation in aerospace research programmes including Unmanned Aerial Vehicle (UAV) system development.	Technology development and Technology Readiness Level progression in aerospace systems
Smart Places cluster	North-West University	Participation in collaborative RD&I projects in the water sector involving multiple partners.	Applied research and sector capability development
	University of Cape Town (UCT)	Participation in WASA 4 project via sub-consultancy agreements with project partners.	Delivery of energy transition research and technical work packages

Cluster/Programme	University/HEI	Nature of collaboration (Detailed)	Purpose/Output
NextGen Enterprises and Institutions	UP, UFS, South African Centre for Digital Language Resources	Development of a formal Memorandum of Understanding to establish a Natural Language Processing ecosystem, including joint research, data and machine learning resource development and knowledge exchange.	Ecosystem development and collaborative RD&I
	University of the Western Cape (UWC)/CPUT/WITS	Participation in high-performance computing ecosystem including student programmes, infrastructure use, and research outputs.	Human capital development and research outputs
	Stellenbosch University (SU)	Knowledge exchange via guest lectures on software-defined networking.	Skills development and academic–research linkage strengthening
	UCT	Joint research collaboration on health diagnostics human papillomavirus with academic and industry partners.	Technology innovation and health systems support

Creating a balanced innovation portfolio

The CSIR recognises the need to shift its innovation portfolio towards technology development and transfer activities to create a more balanced approach alongside basic research activities. In 2025/26, this shift yielded a 22% increase in technology demonstrators compared to 2019/20.

Increasing the focus on innovation and commercialisation

In 2025/26, there was a 260% increase in the number of technology licence agreements signed with industry partners compared to 2019/20. However, the number of patents granted decreased by 62%.

The year has seen the evolution of the organisation's commercialisation activities with the successful execution of the MycoSure equity transaction, the securing of international licensing agreements, and the advancement of key commercialisation activities. This indicates a transition from pipeline development to active execution of investments and transactions.

In terms of co-investment mobilisation, the CSIR secured over R130 million in external co-investment. This demonstrates the ability of the CSIR to attract external capital and validate its investment propositions, while also confirming the effectiveness of its partnership approach.

During 2025/26, the CSIR successfully concluded an equity investment through the MycoSure transaction and also progressed an investment in Stratafy to an advanced stage.

Transformation of SET staff

By the end of 2025/26, the total number of science, engineering and technology (SET) staff was 12% higher than in 2019/20. The percentage of black SET staff increased by 12%, while the percentage of female SET staff rose by 5% over the same period.

At the chief researcher level, the number of researchers increased by 73% compared to 2019/20. The percentage of black researchers at this level increased by 8% and the percentage of female staff rose by 8% as well.

Among principal researchers, there was a 25% increase in numbers since 2019/20. Over this period, the percentage of black principal researchers grew by 12% and the percentage of female principal researchers increased by 9%.

Infrastructure investment

By the end of 2025/26, the organisation invested 84% more in property, plant and equipment compared to 2019/20.

Income diversification

Compared to 2019/20, total revenue has increased by 21%. Income from the private sector increased by 63%, while income from international sources grew by 114%. Public sector income also showed growth over the same period.

Good governance

The CSIR's B-BBEE level improved from Level 4 in 2019/20 to Level 1 in 2021/22 and has been consistently maintained at Level 1 since. The recordable incident rate decreased significantly from 1.82 to 0.12, reflecting a strong safety culture.

The CSIR has also maintained an unqualified audit record consecutively for several years.

INSTITUTIONAL PROGRAMME PERFORMANCE INFORMATION

SO1: CONDUCT RESEARCH, DEVELOPMENT AND INNOVATION OF TRANSFORMATIVE TECHNOLOGIES AND ACCELERATE THEIR DIFFUSION

Key insights on the performance against this strategic objective (see Table 3) are as follows:

- By the end of 2025/26, the CSIR's publication output totalled 409 publication equivalents (with 465 total accredited publications). This achievement was 36% beyond the target. The publications reflect a strong alignment to national priority areas (energy security, climate resilience, health, advanced manufacturing, digital technologies) and highlight CSIR's strengths in advanced materials, health and biotechnology, climate and environmental science, manufacturing innovation, as well as digital technologies.

- The annual target for the number of priority patents filed (see Table 4) was achieved. The filings were balanced across the agricultural (plant-based vaccine, protein purification), manufacturing (mobility device, optical systems) and chemicals (lab-on-chip systems, packaging sensors) sectors, while in the previous financial year they were predominantly in the chemicals sector. The two agricultural priority patents are filed in the United Kingdom, suggesting maturation of commercialisation intent and global positioning.

- The annual target for patents granted (see Table 5) was achieved within the threshold margin. There is a clear positioning around food processing technologies, advanced materials, security systems, and detection technologies in India, the United Arab Emirates, New Zealand and the European region.

- The number of technology demonstrators (TDs) was lower than the target; several pipeline technologies did not achieve the level of maturity required for a TD. Further development will continue on these technologies and the pipeline remains strong for the future. The 2025/26 list includes diagnostics, medical technologies, sustainable materials, digital compliance tools, infrastructure systems, and defence applications. The portfolio shows strong thematic alignment with societal, industrial and national priorities such as health, sustainability, food security, digital systems, and security, with fewer platform-type developments and more product- or system-specific demonstrations.

- The number of licence agreements signed (see Table 6) in 2025/26 was 29% above the target. This performance in technology licence agreements signed demonstrates clear growth in both volume and strategic focus of licensing activity. The 2025/26 portfolio shows a step-change towards digital and security-driven technologies, increased repeat licensing, and stronger alignment with national priority areas such as cybersecurity, smart infrastructure and safety.

Table 3: Actual achievement for 2025/26 versus target for KPIs 1 to 5 compared with audited performance for 2024/25 and 2023/24

SO1: Conduct research, development and innovation of transformative technologies and accelerate their diffusion						
Output indicator	**Audited actual performance 2023/2024**	**Audited actual performance 2024/2025**	**Planned annual target 2025/2026**	**Actual achievement 2025/2026**	**Deviation from planned target to actual achievement 2025/2026**	**Reasons for deviations**
KPI 1: Publication equivalents	390	497	300	**409**	109	The over-achievement was driven by strong national and international collaborations, active postgraduate supervision, and a deliberate drive to convert completed research into accredited journal articles and conference papers. Several long-term/multi-year programmes reached sufficient maturity during the financial year, enabling publication earlier than expected.
KPI 2: New priority patent applications filed	5	6	6	**6**	-	-
KPI 3: New patents granted	16	17	9	**8**	(1)	The annual target for patents granted was achieved within the threshold margin.
KPI 4: New technology demonstrators	77	61	58	**45**	(13)	Several pipeline technologies did not achieve the level of maturity required for a technology demonstrator. Further development will continue on these technologies and the pipeline remains strong for the future.
KPI 5: Number of technology licence agreements signed	13	12	14	**18**	4	This overachievement was enabled by active industry engagement and commercialisation support to accelerate deal closures. Clusters also benefitted from mature technology pipelines, private-sector demand, and deliberate prioritisation of licensable assets.

Table 4: List of new priority patent applications filed in 2025/26

No.	Title	Application No.	Filing date	Country
1	A plant-produced core-like particle-based vaccine against brucellosis	2512230	28 Jul 25	United Kingdom
2	Process for obtaining purified proteins from protein containing feedstocks	2520679.8	03 Dec 25	United Kingdom
3	Adjustable mobility device	2025/10203	28 Nov 25	South Africa
4	An optical system and method for diffractive rectification of structured beams	2026/03371	26 Mar 26	South Africa
5	A fluid dispensing system for a Lab-on-Chip device	2026/03555	31 Mar 26	South Africa
6	Ecofriendly colorimetric sensor for packaging applications based on polymer composite comprised of nanoparticles	2026/03517	30 Mar 26	South Africa

Table 5: New patents granted in 2025/26

No.	Patent title	Patent No.	Issue date	Country
1	Microwave egg pasteurisation method and apparatus	757001	04 Jun 25	New Zealand
2	Films for packaging of foodstuffs	3822306	13 Aug 25	European Patent Office
3	A method and system for performing port scan detection in a network	2037252	26 Sept 25	Netherlands
4	Microwave egg pasteurisation method and apparatus	3585175	22 Oct 25	European Patent Office
5	Polymer-lipid nanocomplex for enhanced aqueous solubilisation and absorption of hydrophobic active compounds	572529	24 Oct 25	India
6	A method of calibrating a helmet and a system therefor	8407	08 Jul 25	UAE
7	A composite material and method to prepare the composite	3924103	12 Nov 25	European Patent Office
8	Threat detection method and system	585708	30 Mar 26	India

Table 6: Technology licence agreements signed in 2025/26

No.	Licensee	Technology	Effective date
1	Crickmay & Associates (Pty) Ltd	Accountability scorecard	29 May 25
2	Immobazymes (Pty) Ltd	Technology used to produce a Fibroblast Growth Factor (FGF2) expressed in a genetically modified Escherichia coli BL21 (DE3)	30 Jun 25
3	Ambani Media (Pty) Ltd	Qfrency TTS	20 Aug 25
4	Known Video (Pty) Ltd	Next Generation Cloud Streaming system	27 Aug 25
5	Omniolytics (Pty) Ltd	Ilima	17 Sept 25
6	Intsha Consultancy CC	Face recognition biometric authentication	03 Feb 26
7	Intsha Consultancy CC	Veristic Print - contactless fingerprint biometric authentication	02 Feb 26
8	Stillhoek Boerdery (Pty) Ltd	Bacillus velezensis and Bacillus subtilis cell suspensions and cell free preparations (and optimised formulations thereof) to be applied to plants	27 Feb 26
9	Solarev Solutions (Pty) Ltd	SolarAIDD	27 Feb 26
10	Groove Tech (Pty) Ltd	Plastic roads	03 Mar 26
11	K2025506387 (South Africa) (Pty) Ltd t/a Cyberguard Solutions	Cybersecurity early warning system (CEWS)	16 Mar 26
12	Biotech Group (Pty) Ltd	Production of Reishi mushroom powder reinforced PLA composites for packaging items	26 Mar 26
13	Khepri Innovations (Pty) Ltd	Beneficiation of paper and pulp waste for ruminant feed	26 Mar 26
14	Sabafuraha (Pty) Ltd	An anti-microbial fabric technology	27 Mar 26
15	Banzotype Technologies (Pty) Ltd	CEWS	31 Mar 26
16	Afrimeasure (Pty) Ltd	Physical Security Intelligence (PSI)	31 Mar 26
17	Banzotype Technologies (Pty) Ltd	Veristic Print - contactless fingerprint biometric authentication	31 Mar 26
18	Microsquared (Pty) Ltd	PSI	30 Mar 26

SO2: IMPROVE THE COMPETITIVENESS OF HIGH-IMPACT INDUSTRIES TO SUPPORT SOUTH AFRICA'S RE-INDUSTRIALISATION BY COLLABORATIVELY DEVELOPING, LOCALISING AND IMPLEMENTING TECHNOLOGY

Key insights on the performance against this strategic objective (see Table 7) are as follows:

- The actual achievement for 2025/26 in the number of localised technologies was 200% above the target. Areas of focus were predominantly in the defence and security sector, and they included embedded security systems, surveillance, sensing, and defence-related technologies reflecting the CSIR's role in supporting national capability, localisation, and sovereign defence technology.

- The actual achievement for 2025/26 in the number of joint technology development agreements being implemented for industry was 45% above the target. There has been a clear step-change, however, in maturity, with co-development focused on deployable, partner-ready technologies. These technologies include a portfolio of defence systems, industrial manufacturing technologies, chemical products, digital platforms, and energy resource tools, just to name a few.
- The actual achievement for 2025/26 in the number of SMMEs supported was 43% above the target. The emphasis has shifted from demonstration, piloting, and technical assistance to technology application, industrial readiness and market-oriented support. The use of the CSIR's digital platforms, including access to the Centre for High Performance Computing, as well as SMME technology enablement has gained prominence in the 2025/26 financial year.

Table 7: Actual achievement for 2025/26 versus target for KPIs 6 to 8 in comparison to audited performance for 2024/25 and 2023/24

SO2: Improve the competitiveness of high-impact industries to support South Africa's re-industrialisation by collaboratively developing, localising and implementing technology						
Output indicator	**Audited actual performance 2023/2024**	**Audited actual performance 2024/2025**	**Planned annual target 2025/2026**	**Actual achievement 2025/2026**	**Deviation from planned target to actual achievement 2025/2026**	**Reasons for deviations**
KPI 6: Number of localised technologies	28	31	10	**30**	20	The target was exceeded mainly due to the localisation of technologies arising from new and late-stage contracts, and increased focus on import substitution aligned with national priorities.
KPI 7: Number of joint technology development agreements being implemented for industry	42	49	33	**48**	15	The target was exceeded primarily from unplanned but strategically aligned industry collaborations and strengthened inter-cluster cooperation. Increased industry demand for co-development of near-market technologies, together with deeper SMME engagement focused on joint design and implementation rather than transactional support, further contributing to the higher-than-target outcomes.
KPI 8: Number of SMMEs supported	170	175	115	**165**	50	The over-achievement was primarily attributable to programme support that was extended to more SMMEs than initially planned. The embedding of SMME enablement within joint development and localisation initiatives also contributed to the performance. Additional contributing factors included cross-cluster collaboration and the scaling of structured training, technology access, and digital platform programmes.

SO3: DRIVE SOCIOECONOMIC TRANSFORMATION THROUGH RESEARCH, DEVELOPMENT AND INNOVATION THAT SUPPORTS THE DEVELOPMENT OF A CAPABLE STATE

Key insights on the performance against this strategic objective (see Table 8) are as follows:

- The actual achievement for 2025/26 in the number of reports contributing to national policy development was 88% above the target. This overachievement is characterised by the CSIR's role as a strategic policy adviser and shaper in influencing nationally and internationally

significant policy agendas (energy transition, artificial intelligence [AI], climate, G20 priorities). Dominant thematic areas included climate, energy, and environmental governance (clean energy and green transport strategies, climate adaptation and mitigation frameworks, air quality and environmental regulation), national industrial and sectoral policy (critical minerals frameworks, circular economy and waste policy, manufacturing and trade related policy inputs), as well as digital, AI and spectrum regulation (AI strategy, dynamic spectrum access regulations, digital and data governance frameworks).

- The actual achievement for 2025/26 in the number of standards delivered or contributed in support of the state was 111% above the target. The CSIR's role in delivering implementation-ready standards and regulatory instruments that enable enforcement, compliance, and sector stability has yet again been demonstrated. Dominant thematic areas include defence and security specifications (operational equipment standards, security-related standard operating procedures and specifications), energy and sustainability standards (storage systems, hydrogen and energy transition related standards), industrial and manufacturing compliance (medical device standards, accreditation frameworks), as well as transport and aviation regulations (civil aviation and related regulatory support).

- The actual achievement for 2025/26 in the number of projects implemented to increase the capability of the state was 109% above the target. Dominant thematic areas include national and provincial government programmes (infrastructure delivery support, municipal capacity and service delivery tools), digital public sector platforms (health, oceans/coastal, data and monitoring systems), climate, environment, and sustainability services (environmental management, modelling and adaptation support), as well as transport, ports and logistics support (freight, port operations and transport system tools).

Table 8: Actual achievement for 2025/26 versus target for KPIs 9 to 11 in comparison to audited performance for 2024/25 and 2023/24

SO3: Drive socioeconomic transformation through research, development and innovation that supports the development of a capable state						
Output indicator	**Audited actual performance 2023/2024**	**Audited actual performance 2024/2025**	**Planned annual target 2025/2026**	**Actual achievement 2025/2026**	**Deviation from planned target to actual achievement 2025/2026**	**Reasons for deviations**
KPI 9: Number of reports contributing to national policy development	27	20	17	**32**	15	The overachievement was primarily driven by unplanned and emerging policy demands at national and international levels. Key contributors included G20-related policy submissions, finalisation of major transport and ports policy initiatives, and increased defence and security advisory support to the state.
KPI 10: Number of standards delivered or contributed in support of the state	21	28	9	**19**	10	The target was exceeded primarily due to unplanned requirements from national departments, regulators and priority programmes (including G20, civil aviation, health research and defence).
KPI 11: Number of projects implemented to increase the capability of the state	184	224	117	**245**	128	The over-achievement was mainly driven by accelerated delivery of a number of state-focused contracts across clusters, including several unplanned and cross-cluster initiatives. Expanded support to national, provincial and municipal institutions resulted in a significantly higher number of implemented capability-building projects than originally planned.

SO4: BUILD AND TRANSFORM HUMAN CAPITAL AND INFRASTRUCTURE

Key insights on the performance against this strategic objective (see Table 9) include:

- The number of total SET staff did not reach the anticipated level of 1 642 due to the reorganisation impacts, retirements, and exits exceeding recruitment due to high market competition for SET skills. The organisation had 1 534 SET staff at the end of the financial year, 83 fewer SET staff than at the end of 2024/25.
- Despite the overall headcount pressure, the percentage of SET staff who are black exceeded the target and has improved compared to that of 2024/25. Female representation in SET remained at 40%, unchanged from the previous financial year.
- There have been improvements in gender representation at senior researcher levels; the percentage of chief, as well as principal researchers who are female, exceeded targets.
- The number of chief researchers declined slightly from 21 in 2024/25 to 19 in 2025/26 due to one resignation and the unfortunate passing away of another. The 2025/26 target was achieved within the threshold margin.
- The percentage of chief researchers who are black declined from 29% in 2024/25 to 26% in 2025/26 due to retirement of a black chief researcher. Despite the decline, the 2025/26 target was achieved within the threshold margin.
- The number of principal researchers declined slightly from 202 in 2024/25 to 186 in 2025/26 due to retrenchments and retirements. The 2025/26 target was achieved within the threshold margin.
- The percentage of SET staff with PhDs also decreased from 19% in 2024/25 to 18% in 2025/26 due to the loss of PhD-qualified staff during the reorganisation. Despite the decline, the 2025/26 target was achieved within the threshold margin.
- Staff in exchange programmes with industry exceeded the target, supported by strong partnerships with industry and SMMEs.
- The CSIR spent R157 million on property, plant and equipment (PPE) investment in 2025/26, achieving the target within the threshold margin despite being short of the R165 million target by R8 million. Further insights are discussed in section 5 (Capital investment).

Table 9: Actual achievement for 2025/26 versus target for KPIs 12 to 23 in comparison to audited performance for 2024/25 and 2023/24

SO4: Build and transform human capital and infrastructure						
Output indicator	**Audited actual performance 2023/2024**	**Audited actual performance 2024/2025**	**Planned annual target 2025/2026**	**Actual achievement 2025/2026**	**Deviation from planned target to actual achievement 2025/2026**	**Reasons for deviations**
KPI 12: Total science, engineering and technology staff (SET)	1 605	1 617	1 642	**1 534**	(108)	- The reorganisation of SET staff in July 2025. - Retirements of SET staff which accounted for 83% of retirements in the financial year. - Exits being higher than recruitment because of high market competition for SET skills.
KPI 13: Percentage of South African SET staff who are black	72%	73%	72%	**75%**	3%	Target exceeded due to the decrease in the overall total SET number.
KPI 14: Percentage of South African SET staff who are female	39%	40%	40%	**40%**	0%	Target achieved due to the decrease in the overall total SET number.
KPI 15: Percentage of SET staff with a doctoral qualification	19%	19%	19%	**18%**	(1%)	Largely impacted by the loss of 20 staff with PhDs during the reorganisation. The target is, however, achieved as it is within the threshold target margin.

SO4: Build and transform human capital and infrastructure						
Output indicator	**Audited actual performance 2023/2024**	**Audited actual performance 2024/2025**	**Planned annual target 2025/2026**	**Actual achievement 2025/2026**	**Deviation from planned target to actual achievement 2025/2026**	**Reasons for deviations**
KPI 16: Total Chief Researchers	16	21	20	**19**	(1)	Despite gaining two Chief Researchers in the financial year, the organisation lost four Chief Researchers (two retirements, one deceased and one resignation), which led to the KPI not meeting the target but remaining within the threshold target margin.
KPI 17: Percentage of Chief Researchers who are black	25%	29%	30%	**26%**	(4%)	Target not met due to the retirement of one black Chief Researcher, although the percentage is within the threshold target margin.
KPI 18: Percentage of Chief Researchers who are female	19%	24%	20%	**26%**	6%	Target exceeded due to the decrease in the overall total number of Chief Researchers.
KPI 19: Total Principal Researchers	195	202	195	**186**	(9)	Performance within threshold target margin. Target not met largely due to the loss of 18 Principal Researchers who were retrenched (10) and who retired (8).
KPI 20: Percentage of Principal Researchers who are black	41%	41%	40%	**40%**	0%	Target achieved due to the decrease in the overall total number of Principal Researchers.
KPI 21: Percentage of Principal Researchers who are female	22%	23%	23%	**25%**	2%	Target exceeded due to the decrease in the overall total number of Principal Researchers.
KPI 22: Number of staff involved in exchange programmes with industry	47	53	31	**48**	17	Target exceeded. Strong partnerships with Industry and SMMEs.
KPI 23: PPE Investment (Rm)	263	505	165	**157**	(8)	95% of the target was met, which is within the threshold target margin. More funding was secured for the investment in grant-funded assets. This was offset by lower-than-anticipated investment in vehicles, furniture and fixtures, IT equipment and equipment.

SO5: DIVERSIFY INCOME AND MAINTAIN FINANCIAL SUSTAINABILITY AND GOOD GOVERNANCE

Income diversification remains a key objective for the CSIR (for more details, see Part G later, page 147). The aim is to reduce financial risks associated with significant reliance on public sector income, while also enhancing the CSIR's profitability. As part of its business model, the CSIR aims to increase R&D income from the private sector and actively pursue international opportunities, especially across Africa. Commercialisation and technology transfer efforts will be intensified, in line with the CSIR's strategic intent, to drive impact and grow royalty and licensing income.

Good governance underpins the CSIR's performance objectives. The organisation remains committed to maintaining an unqualified audit outcome, upholding a strong safety record and preserving its B-BBEE credentials.
The CSIR exceeded the performance targets for four of the KPIs under this SO (see Table 10), namely:

- Total income;
- Net profit;

- South African public sector income (% of total); and
- South African private sector income (% of total).

The organisation achieved a net profit of R38.61 million, surpassing the targeted loss of R30.82 million by a powerful positive swing of R69.43 million. This turnaround showcases robust financial stewardship, sharp operational discipline and focused execution in a tough operating climate. The net profit represents a marginal decrease of R2.01 million compared to the prior financial year. The 4.9% decrease reflects the net effect of the following offsetting movements:

- R188.81 million decrease in total operating income;
- R249 million decrease in operating expenses;
- R48.81 million increase in employees' remuneration; and
- net decrease in finance income and depreciation of R13.39 million.

The net profit reflects stability in the financial performance of the organisation, and it remains a strong result in the context of a difficult operating environment and the pressures experienced across several clusters during the year.

Total operating income amounted to R3 354.69 million for the financial year, exceeding the target of R3 207.22 million by R147.47 million, or 4.6%.

This performance was mainly driven by stronger-than-budget revenue in selected clusters, supported by the execution of high-impact projects aligned with national priorities. Income from both the South African public and private sectors also exceeded budget, contributing positively to the overall income.

The change in income mix, particularly the increased contribution from the private sector, is consistent with the CSIR's diversification strategy. However, the organisation's continued dependence on the local public sector remains a structural feature of its revenue base.

Overall, the financial position remains robust as evidenced by the liquidity position being materially above set compliance levels as determined by the National Treasury. The current ratio has also improved from 1.40 in the previous financial year to 1.46 in the current financial year.

The CSIR has maintained its Level 1 B-BBEE rating following the latest verification period, which was concluded in August 2025.

The recordable incident rate for the current financial year is 0.12, well below the target of less than or equal to 0.3.

The audit for 2025/26 was completed with an unqualified audit opinion.

Table 10: Actual achievement for 2025/26 versus target for KPIs 24 to 31 in comparison to audited performance for 2024/25 and 2023/24

SO5: Diversify income and maintain financial sustainability and good governance						
Output indicator	**Audited actual performance 2023/2024**	**Audited actual performance 2024/2025**	**Planned annual target 2025/2026**	**Actual achievement 2025/2026**	**Deviation from planned target to actual achievement 2025/2026**	**Reasons for deviations**
KPI 24: Total income (Rm)	3 179	3 543	3 207	**3 355**	148	Higher conversion of advances held on behalf of customers into revenue, as well as increased revenue generated from contracts.
KPI 25: Net profit/(loss) (Rm)	36.47	40.62	(30.82)	**38.61**	69.43	Higher finance income, along with savings on operating expenses, compared to the target.
KPI 26: South African public sector income (% total income)	59%	64%	59%	**62%**	3%	More contracts secured from this sector.

SO5: Diversify income and maintain financial sustainability and good governance						
Output indicator	**Audited actual performance 2023/2024**	**Audited actual performance 2024/2025**	**Planned annual target 2025/2026**	**Actual achievement 2025/2026**	**Deviation from planned target to actual achievement 2025/2026**	**Reasons for deviations**
KPI 27: South African private sector income (% total income)	8%	7%	8%	**9%**	1%	More contracts secured from this sector.
KPI 28: International contract income (% total income)	10%	10%	11%	**8%**	(3%)	Delays in expected contracts in some clusters which have been deferred to the 2026/27 financial year.
KPI 29: B-BBEE rating	1	1	1	**1**	None	-
KPI 30: Recordable incident rate	0.09	0.12	≤0.3	**0.12**	None	-
KPI 31: Audit opinion	Unqualified audit opinion	Unqualified audit opinion	Unqualified audit opinion	**Unqualified audit opinion**	-	-

Strategy to overcome areas of underperformance

Looking ahead, the organisation will continue its business development and commercialisation drive to diversify income streams that boost local and international contract income as well as commercialisation income.

REVENUE COLLECTION

The CSIR received the full baseline Parliamentary Grant (PG) for 2025/26. The over-collection reflected in Table 11 relates to projects that commenced in the prior financial year and were completed in the current financial year.

The revenue targets were exceeded, as reflected in Table 11, with various factors contributing to the total revenue performance.

The revenue composition continues to reflect the CSIR's strong reliance on the local public sector, which contributed 62% of total revenue (FY 2024/25: 64%).

Revenue from the local public sector and the private sector income was positively impacted by several contracts that contributed to the year's results.

Local private sector income increased to R286.13 million (8.6% of total revenue), up from R244.57 million in the prior year, against a target of 8.0%, exceeding the target by R25.17 million. This was supported by contracts secured and delivered in the latter part of the year, notwithstanding a subdued domestic business environment.

International sector revenue amounted to R277.43 million, falling short of the target of R354.85 million by R77.42 million. This was mainly due to the deferral of several anticipated contracts in certain clusters, which did not materialise within the financial year and are expected to be realised in the next financial year. Despite the underperformance against target, this is considered a timing-related variance rather than an indication of a structural weakness in the CSIR's international competitiveness. The international pipeline remains healthy and continues to support the organisation's medium-term revenue growth prospects.

PG income increased to R718.64 million, from R697.12 million in the previous financial year.

Royalty income exceeded expectations following increased earnings from certain existing arrangements.

The trade debtors' book decreased by R6.85 million from R374.15 million at the end of March 2025 to R367.30 million at the end of March 2026, with the collection of long-standing debt remaining one of the key focus areas of the entity. This has proven to be successful over the years, despite the economic strain experienced and customers delaying payments. Although debt older than 30 days has increased from R60.22 million in March 2025 to R87.22 million in March 2026, payments for amounts outstanding are closely monitored. Debtors over 90 days also increased by R13.72 million, from R42.18 million (March 2025) to R55.90 million (March 2026) and represent 15.2% of the debtor's book (March 2026), up from 11.3%; however, a significant portion was collected post-year-end.

The bad debt provision reduced by R4.30 million, from R33.93 million (March 2025) to R29.63 million (March 2026). Debt greater than 90 days that has not been provided has been carefully considered in accordance with IFRS 9, and the CSIR has firm written commitments from customers to pay outstanding balances.

Debt older than 365 days increased from R24.13 million (6.5%) in March 2025 to R31.32 million (8.5%) in March 2026. R20.81 million (66.4%) of this debt has been handed over for external debt collection.

Table 11: 2025/26 sources of revenue generation for the CSIR in comparison to 2024/25

Sources of revenue	2025/2026			2024/2025		
	Estimate	Actual amount collected	Over collection	Estimate	Actual amount collected	Over collection
	R'000	R'000	R'000	R'000	R'000	R'000
PG	702 070	718 639	16 569	679 721	697 120	17 399
Contract income and other government grants	2 503 139	2 623 791	120 652	2 439 267	2 840 489	401 222
Royalty income	1 835	4 220	2 385	1 916	2 463	547
Total	**3 207 044**	**3 346 650**	**139 606**	**3 120 904**	**3 540 072**	**419 168**

CAPITAL INVESTMENT

The CSIR targeted an investment of R165 million in property, plant and equipment for the 2025/26 financial year (Tables 9 and 12). 95% of this target was achieved, with an additional R29 million funding secured than what was targeted (R64 million) for the investment in grant-funded assets that amounted to R93 million. This amount was, however, offset by a reduced investment in IT equipment of R24 million (R31 million below the target), as well as lower than expected investment in vehicles, furniture and fixtures and equipment.

Asset maintenance is prioritised to ensure operational efficiency, reduce risks, maximise the value of investments in assets and support the continued generation of future economic benefits from these assets.

During the financial year, CSIR assets with a cost of R70 million were disposed of, mainly due to reaching the end of their useful life or being sold. A small percentage was disposed of due to theft (net loss of R0.19 million). The total net loss due to the disposal of assets amounted to R0.66 million. Management prioritises the safeguarding of assets and has implemented a Mobile Asset Management Framework. This framework promotes the effective monitoring of mobile assets and the implementation of necessary controls to maintain their integrity and optimise their use. Asset administration is further governed by the Fixed Assets Policy, which includes the requirements for annual asset verification by asset custodians and the review of the useful life of assets where applicable. The policy also further guides the appropriate actions required to safeguard assets and update their status on the fixed asset register.

Table 12: 2025/26 actual PPE investments per asset category versus target, and in comparison to 2024/25

Asset category	2025/2026			2024/2025		
	Budget	Actual expenditure	Over/(under) expenditure	Budget	Actual expenditure	Over/(under) expenditure
	R'000	R'000	R'000	R'000	R'000	R'000
IT Equipment	55 169	24 011	(31 158)	11 885	32 483	20 598
Equipment	29 732	28 564	(1 168)	31 225	24 330	(6 895)
Buildings	9 074	10 319	1 245	11 000	19 487	8 487
Vehicles	3 610	840	(2 770)	1 700	1 006	(694)
Furniture and fixtures	2 915	391	(2 524)	4 150	356	(3 794)
Total CSIR assets	**100 500**	**64 125**	**(36 375)**	**59 960**	**77 662**	**17 702**
Grant-funded assets	64 200	93 219	29 019	99 940	427 037	327 097
Total	**164 700**	**157 344**	**(7 356)**	**159 900**	**504 699**	**344 799**





PART D
GOVERNANCE INFORMATION

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INTRODUCTION

Corporate governance encompasses the processes and systems that direct, control, and hold public entities accountable. In addition to legislative requirements derived from an entity's enabling legislation and the Companies Act, 2008 (Act 71 of 2008), corporate governance in public entities is applied through the precepts of the Public Finance Management Act (PFMA), 1999 (Act 1 of 1999) and its associated regulations. These operate in tandem with the principles outlined in the King IV Report on Corporate Governance. While the King IV Report on Corporate Governance is not legally binding, it serves as a benchmark against which the conduct and performance of the CSIR's governance structures are measured. This allows the CSIR to act independently in the best interest of the organisation and in support of its mandate to accelerate socioeconomic prosperity through leading innovation.

Corporate governance is the responsibility of Parliament, the Executive and the Accounting Authority of the public entity.

The CSIR Board, along with its various committees, is responsible for overseeing the implementation of the organisation's mandate through the execution of the annual plan and performance of the organisation. This section provides an overview of the governance systems, processes and controls that have been established to hold the organisation to account.

PORTFOLIO COMMITTEES

PORTFOLIO COMMITTEE MEETINGS BETWEEN THE CSIR AND EXECUTIVE AUTHORITY

The Chairperson of the Board and the CSIR Executive Committee (Exco) hold bilateral meetings with the Executive Authority to ensure that organisational performance is in line with the Shareholder's Compact.

Table 1: CSIR/Parliamentary engagements

Date	Activity	Details	Responsible person/party
8 April 2025	Tabling of the 2025/26 CSIR Shareholder's Compact in the Announcements, Tablings and Committee Reports (ATC) 52 of 2025.	Minister of Science, Technology and Innovation	Board and Exco
17 June 2025	Briefing on the 2025/26 CSIR Shareholder's Compact.	Portfolio Committee on Science, Technology, and Innovation	Board Chair and Exco
30 September 2025	Tabling of the Report and Financial Statements of the CSIR for 2024/25, including the Report of the Auditor-General on the Financial Statements and Performance Information for 2024/25, in ATC 166 of 2025.	Minister of Science, Technology, and Innovation	Board and Exco
21 October 2025	Briefing on the 2024/25 CSIR Annual Report.	Portfolio Committee on Science, Technology, and Innovation	Board Chair and Exco
30 March 2026	Tabling of the CSIR's Shareholder's Compact for 2026/27 in ATC 55 of 2026.	Minister of Science, Technology and Innovation	Board and Exco

EXECUTIVE AUTHORITY

Quarterly performance reports are submitted to the Department of Science, Technology, and Innovation (DSTI) (the Executive Authority) by the 20th of the month following the end of each quarter. The submission dates were as follows: Q1 Report: 20 July 2025, Q2 Report: 20 October 2025, Q3 Report: 20 January 2026 and Q4 Report: 18 April 2026.

No issues have been raised by the Executive Authority.

THE ACCOUNTING AUTHORITY/BOARD

INTRODUCTION

The governance infrastructure of the CSIR comprises a collection of governance operating models – encompassing people, processes, and systems – established to govern the organisation's day-to-day activities.

This infrastructure also includes the processes used to gather and report information to the Board, management, and external stakeholders.

The Board is responsible for oversight across the organisation, including areas such as business and risk strategy, organisational structure, financial soundness, and regulatory compliance.

The CSIR's governance operating model supports the Board in engaging with management to obtain the information necessary for effective governance and risk oversight. It ensures that the appropriate level of oversight is maintained, provides input into policies that shape governance practices and enables active engagement with management to understand governance activities across various levels of the organisation. Additionally, it supports management in efforts to enhance programme efficiency and effectiveness.

The Board Committees are governed by committee charters that define their responsibilities and outline the linkages between each committee, the broader executive team, and the Board of Directors.

The CSIR's organisational design and reporting structure provides a clear and comprehensive organisational structure that defines reporting lines for decision-making, risk management, financial and regulatory reporting, public disclosures, and crisis preparedness and response.

The Board of Directors, which serves as the Accounting Authority, is responsible for the preparation and fair presentation of the consolidated and separate financial statements in accordance with International Financial Reporting Standards and the requirements of the PFMA. It is also responsible for implementing internal controls deemed necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error. In preparing the consolidated and separate financial statements, the Accounting Authority is responsible for assessing the Group's ability to continue as a going concern, disclosing, where applicable, matters related to going concern and applying the going concern basis of accounting.

The role of the Board is as follows:

The responsibilities of the Board are governed by the Scientific Research Council Act, 1988 (Act 46 of 1988) and the PFMA. The Board approves the strategy, goals, operating policies and priorities of the organisation and monitors compliance with policies, applicable legislation, and progress against objectives. Except for the Chief Executive Officer (CEO) of the CSIR, all Board members are non-executive. They are actively involved in Board deliberations and bring independent judgement to bear on decisions. The Board, whose current membership complies with the statutory minimum requirements, meets quarterly.

For the year under review, the Board met five times. Meetings were held on 29 May 2025, 31 July 2025, 30 October 2025, 4 December 2025 (special) and 12 February 2026. A two-day Board strategy session was held on 27 and 28 August 2025. The Annual Financial Statements for the 2024/25 financial year were approved on 31 July 2025. The Board also held various ad hoc meetings to receive updates and provide specific input on matters of strategic importance.

The Board comprises three sub-committees: the Audit and Risk Committee (ARC); the Human Resources, Social and Ethics Committee (HRSEC) and the RD&I Committee. These committees are selected according to the skill sets required to fulfil their functions. The Board operates under formal terms of reference set out in the Board Charter, while the Board Committees are governed by their respective charters, which define their roles and responsibilities in an advisory capacity to the Board of Directors.

BOARD CHARTER

The CSIR Board Charter outlines the functions and responsibilities of the Board and addresses matters relevant to its operations. These responsibilities are aligned with the provisions of the Scientific Research Council Act, PFMA and the King IV Report on Corporate Governance.

The CSIR Board of Directors has committed to applying the principles of corporate governance as set out in the Protocol on Corporate Governance in the Public Sector and the King IV Code on Corporate Governance. This commitment aims to regularise and improve corporate governance practices within the CSIR. Accordingly, this Board Charter sets out the CSIR's corporate governance policies as adopted by the Board and must be read in conjunction with the Shareholder's Compact between the CSIR and the Minister of Science, Technology, and Innovation.

While the Charter references minimum acceptable standards of governance, it underscores the importance of prioritising substance over form in pursuit of sound governance. The Board is committed to exceeding these standards where reasonable, taking into consideration:

- Recognised governance standards;
- Local and international best practices;
- The recommendations of the King IV Code on Corporate Governance;
- The Protocol on Governance of state-owned entities; and
- The objectives outlined in Section three of the Scientific Research Council Act.

The Board Charter aims to regulate the parameters within which the Board operates and to ensure the consistent application of good corporate governance principles in all actions taken by, on behalf of or in respect of the organisation.

The Board has made considerable progress in complying with the Charter and, in doing so:

- Has guided the continued integration of the CSIR's values and standards of conduct, ensuring that these are adhered to through its input and oversight of the review and re-alignment of all CSIR policies;
- Provides leadership to the CSIR within a framework of prudent and effective controls that enable the assessment and management of risk;
- Reviews the CSIR's direction, strategies, and financial objectives, annually, and ensures that the necessary resources are in place for the CSIR to meet its objectives, while assessing progress on a quarterly basis;
- Oversees and ensures that the performance of the CSIR Executive Management, the Board itself and committees is assessed and monitored regularly; and
- Oversees information technology governance through quarterly engagements on business development, commercialisation and technology innovation through the Research, Development, and Industrialisation Committee and through annual interaction with and reporting by the Research Ethics Committee.

COMPOSITION OF THE BOARD: APRIL 2025 TO MARCH 2026

The members of the CSIR Board are as follows:

- Vuyani Jarana (Chairperson)
- Prof. Arnold van Zyl
- Dr Thulani Dlamini (CEO)
- Jules Newton
- Dr Vuyo Mthethwa
- Dr Christine Render
- Prof. Yunus Ballim
- Maleke Matolong
- Mike Mulcahy
- Michelle Govender
- Mahesh Fakir



Name	Designation (in terms of the public entity board structure)	Date appointed	Date resigned	Qualifications
Vuyani Jarana	Chairperson	January 2023	Active	Stellenbosch University: Masters (Business Administration) Honours (Business Administration) University of Transkei (Walter Sisulu University): BCom (Economics, Business, Commercial Law) University of South Africa (UNISA): Advanced Executive Programme Olifantsfontein College: Diploma (Telecommunications Institution)
Dr Thulani Dlamini	CEO ex-officio Board Member	2017	Active	University of the Witwatersrand: BSc (Chemistry) BSc Honours (Chemistry) PhD (Chemistry, Catalysis) UNISA: Master of Business Leadership
Prof. Arnold van Zyl	Chairperson of the Research, Development, and Industrialisation Committee	January 2023	Active	University of Cape Town: PhD (Engineering) MSc (Engineering) BSc (Engineering)
Prof. Yunus Ballim		January 2023	Active	University of the Witwatersrand: PhD & MSc (Engineering) BSc (Civil Engineering)
Dr Christine Render		2019	Active	Leeds University (England): PhD (Chemical Engineering) BSc Honours. (Chemical Engineering)
Dr Vuyo Mthethwa	Chairperson of the Human Resources and Social and Ethics Committee	2019	Active	University of KwaZulu-Natal: Doctor of Philosophy (Student Governance) Master of Social Sciences (Industrial and Labour Studies) Bachelor of Social Science (Honours) Bachelor of Social Science Stellenbosch University: Certificate Programme in Labour Dispute Resolution Practice Cum Laude

	Board directorships	Other committees or task teams	Number of meetings attended
	Non-Executive Director: ECDC Board Member: Cricket South Africa Executive Director: Teconica Telecommunications Ilitha Telecommunications Ilitha Infrastructure (Pty) Ltd Jarana Investment Holdings Council Member: Walter Sisulu University Related party company (spouse:) JBV Consulting Agency		Five
	Council Member: National Advisory Council on Innovation Board Member: - Industry Advisory Board of the Faculty of Engineering and Built Environment, University of the Witwatersrand - United Nations Development Programme South Africa Director: Stellar Ventures	ARC RDIC HRSEC	Seven
		ARC RDIC HRSEC	Seven
	Trustee Chair: Gallagher Foundation Trust Council Trustee: Umalusi (Chair) Gallagher Foundation Trust	HRSEC RDIC	Seven
	Partner: Owner Team Consultation (Pty) Ltd	RDIC	Seven
	Independent Consultant	HRSEC	Seven

Name	Designation (in terms of the public entity board structure)	Date appointed	Date resigned	Qualifications
Mahesh Fakir		January 2023	Active	University of London: MSc (Development Finance) University of Durban – Westville: Master of Business Administration MSc (Civil Engineering) University of Natal: Postgraduate Diploma (Civil Engineering) BSc (Civil Engineering) ML Sultan Technikon: National Diploma (Electrical Engineering) Professional Registration (Engineering) Council of South Africa: Registered Professional Engineer
Jules Newton		January 2023	Active	University of the Witwatersrand: Bachelor of Arts (Education)
Maleke Matolong		January 2023	Active	North-West University: Master of Business Administration BCom (Accounting) UNISA: Short Learning programme (Project Management) Programme in Entrepreneur and Small Business Management Professional Registrations: Southern African Institute of Business Accountant BAP (SA) The Chartered Institute of Government: Finance, Audit and Risk Officers Associate Member
Mike Mulcahy	Chairperson of the Audit and Risk Committee	July 2023	Active	University of Cape Town Graduate School of Business: MPhil (Development Finance) University of Cape Town: Bachelor of Business Science with Honours (Economics)
Michelle Govender		January 2023	Active	University of KwaZulu-Natal: BSc (Electrical Engineering) UNISA: Postgraduate Diploma (Applied Risk Management) Professional Certification Engineering Council of South Africa: Professional Engineer Gordon Institute of Business: Leaders of Entrepreneurship Networks

	Board directorships	Other committees or task teams	Number of meetings attended
	Non-Executive Director: SANRAL Employee: Technical Expert: National Treasury	RDIC	Six
	Non-Executive Director: Inhlabathi (Pty) Ltd Trustee: Jeppe Trust Executive Director, Shareholder: Newton van Rensburg Properties	HRSEC RDIC	Seven
	Audit Performance Committee: Rustenburg Municipality	ARC	Seven
	Non-Executive Director (Chair): The International Cleantech Network Executive Director: The Green Cape Sector Development Agency K2024072063 (South Africa) NPC	ARC	Seven
	Executive Director: Octarity (Pty) Ltd (Managing Director and Chief Executive Officer)	ARC RDIC	Six

BOARD COMMITTEES

The CSIR Board has three sub-committees, namely, the RD&I Committee, Audit and Risk Committee (ARC) and the Human Resources, Social and Ethics Committee (HRSEC). The members of these committees are:

Committee	No. of meetings held	No. of members	Name of members
RD&I Committee	Four	Six	• Prof. Arnold van Zyl (Chairperson) • Mahesh Fakir • Dr Christine Render • Jules Newton • Prof. Yunus Ballim • Michelle Govender
ARC	Four	Four	• Mike Mulcahy (Chairperson) • Prof. Arnold van Zyl • Michelle Govender • Maleke Matolong
HRSEC	Four	Four	• Dr Vuyo Mthethwa (Chairperson) • Prof. Yunus Ballim • Jules Newton • Prof. Arnold van Zyl

REMUNERATION OF BOARD MEMBERS

Name	Remuneration	Other re-imbursements	Total
Vuyani Jarana (Chairperson)	R 139 134.77	-	R 139 134.77
Prof. Arnold van Zyl	R 199 050.00	R 4 095.00 (Travel) R 660.00 (Police clearance)	R 203 805.00
Prof. Yunus Ballim	R 135 114.00	R 1 004.88 (Travel)	R 136 118.88
Dr Christine Render	R 130 945.00	R 1 333.48 (Travel)	R 132 278.48
Dr Vuyo Mthethwa	R 176 104.00	R 391.65 (Police clearance)	R 176 495.65
Mahesh Fakir	-	-	-
Jules Newton	R 143 452.00	R 6 487.94 (Travel)	R 149 939.94
Maleke Matolong	R 130 945.00	R 1 674.80 (Travel)	R 132 619.80
Mike Mulcahy	R 145 609.15	-	R 145 609.15
Michelle Govender	R 143 973.00	R 313.86 (Police clearance application and related expenses)	R 144 286.86



RISK MANAGEMENT

RISK GOVERNANCE, STRATEGY AND CULTURE

The CSIR has established and implemented five lines of assurance (commonly known as lines of defence) as a pillar for its risk governance model. The model ensures proactive accountability with clear roles and responsibilities on the delivery of the CSIR enterprise risk management plan as required by the PFMA and highlighted by best practice standards like King IV and King V. The model (depicted in the following figure) ensures that the CSIR maintains adequate and effective risk governance and proactive risk management that support the delivery of the organisation's objectives and goals. The five lines of defence/assurance underpins the CSIR's combined assurance model to give effect to a risk-aware culture within the organisation.



Figure 1: CSIR five lines of assurance model

The five lines of assurance/defence model is underpinned by the CSIR risk management policy, framework and supporting guidelines, process, standards and methodology (risk assessment process). The lines of assurance model highlight the following key risk management principles in the CSIR:

- First (1st) line of assurance represents the CSIR business areas, i.e. divisions, clusters, centres and support portfolios responsible for the management of risk in their respective functions. They are accountable and responsible for implementing an adequate and effective system of risk management that supports the delivery of the organisation's objectives and goals. CSIR EXCO (Executive Management) has delegated this responsibility to the divisions and support portfolios through the CSIR operating model. The business areas are, in turn, required to provide assurance to EXCO on the state of risk management by providing regular reports. EXCO provides risk management assurance to the CSIR Board of Directors (Accounting Authority).
- Second (2nd) line of assurance represents the CSIR functions that oversee risk management and provide assurance to EXCO and line management on the adequacy and effectiveness of the risk management processes.

- Third (3rd) line assurance role is the responsibility of the CSIR Internal Audit Services (IAS) function that provides independent and objective assurance to the CSIR Board of Directors through the Audit and Risk Committee (ARC).
- Fourth (4th) line assurance role is the accountability and responsibility of the Auditor-General of South Africa to provide independent and objective assurance to the CSIR Board of Directors and Minister of the Department of Science, Technology and Innovation (Executive Authority).
- Fifth (5th) line assurance role is the CSIR Board of Directors who are accountable for CSIR risk governance and provides assurance to the Minister: Science, Technology and Innovation. The Board has delegated the risk governance responsibility to the ARC.

In addition, the CSIR has established an enterprise risk management operating model supported by the Enterprise Risk Management Services Department (ERMS), as well as organisational structures and periodic risk assessments (strategic and operational) that all ensure a consistent system of risk management and risk-aware culture.

RISK POLICY AND FRAMEWORK

The CSIR has a Board-approved Risk Management Policy, which is supported by a Framework, Risk Appetite and Tolerance Guideline, as well as the risk assessment methodology. The Policy sets a clear position and tone on risk management in the organisation and it is implemented through the five-year strategic and operational risk management plan. The risk management plan is approved as part of the CSIR Shareholder's Compact approved by the CSIR Board and Minister: Science, Technology and Innovation.

STRATEGIC AND OPERATIONAL RISK ASSESSMENTS

The CSIR conducts quarterly business risk assessments with the business areas. This constitutes a bottom-up strategic and operational risk assessment that identifies, analyses and evaluates risks and opportunities that impact the organisation's objectives and goals. The risk assessments are used to assess the adequacy and effectiveness of the current risk mitigation mechanisms (controls), develop remedial action plans to address identified gaps and identification of new/emerging business risks. EXCO conducts the review of the CSIR risk profile (top-down) and from this identifies CSIR top risks. These risks are monitored and reported as part of the monthly EXCO performance meetings, and the quarterly reporting to the ARC. The following figure depicts the CSIR top risk profile as at the end of 2025/26:

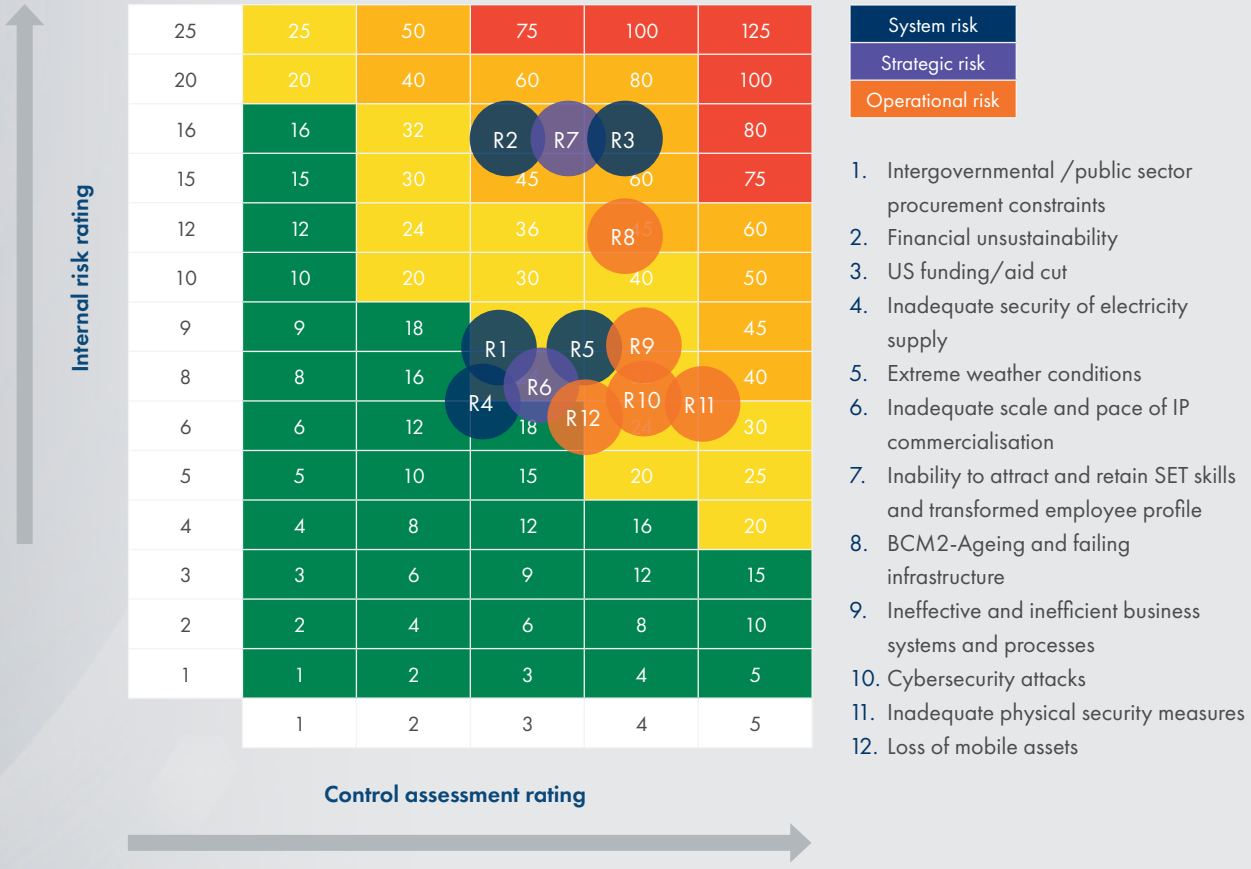


Figure 2: CSIR top risk profile

KEY RISK DRIVERS

The CSIR risk profile is driven by internal or external factors that influence the organisation's ability to effectively and efficiently implement key remedial action plans. These risk drivers influence more than one risk. The key risk drivers are economic conditions, regulatory requirements, technological advancements, human factors, operational processes, and environmental conditions. The speed and effectiveness in the implementation of key risk mitigation actions on the risk drivers will drive the successful mitigation of other risks, as depicted in the following diagram, and therefore leading to the achievement of one or more strategic goals.

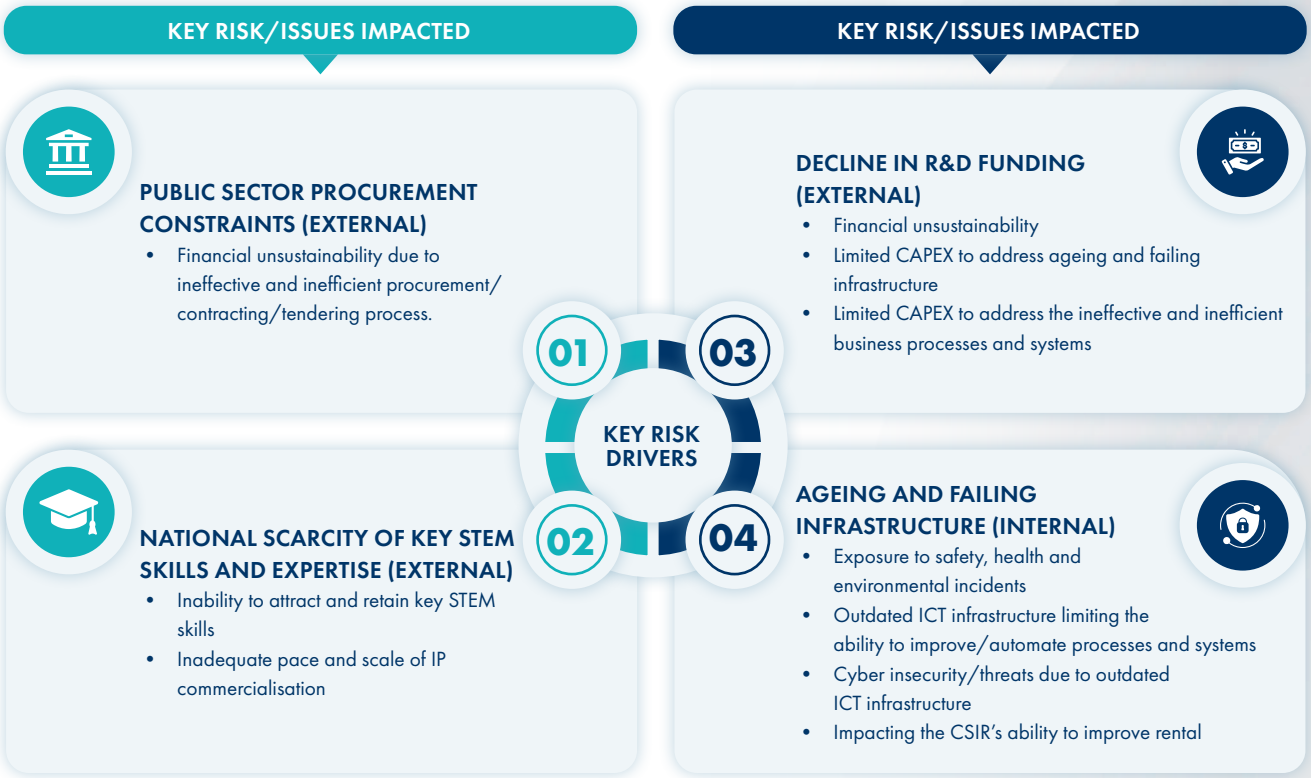


Figure 3: Overview of key risk drivers for the CSIR

The above figure provides an overview of top risk drivers and challenges that have affected the CSIR's ability to effectively and efficiently mitigate the risks to acceptable levels (within appetite and tolerance level). Management is concerned about the slow pace of progress in implementing key remedial actions, which has impacted the overall effectiveness of the risk mitigation process. These remedial action plans are medium to long term in nature and depend heavily on the availability of resources. The continued decline in Parliamentary Grant funding exacerbates the organisation's ability to mitigate, among other risks, investment in new RD&I infrastructure, acquisition of new systems (including enhancement of existing systems) and the ability to advance some of the RD&I initiatives. Additionally, the reluctance of state institutions to implement National Treasury Note 3 (sole and single source procurement) adversely affects the mitigation efforts, particularly in addressing public sector procurement constraints introduced by PFMA compliance requirements. This results in delays in finalising contracting and collaboration agreements due to cumbersome governance and compliance processes related to procurement/contracting deviations and exemptions. While memoranda of understanding and memoranda of agreement are in place with some organisations, these do not always transition smoothly into formal contracts, which affects the commencement of actual project work.

The loss of and/or inability to attract and retain key skills set affects some contract work, pipeline projects and revenue due to limited capacity to deliver on commitments. This also affects the organisation's ability to offer certain capabilities due to a lack of adequate skills and expertise.

The United States executive order to cut funding aid to South Africa and the strained relations are a key risk driver, potentially affecting the sustainability of some contract work and having a direct negative impact on contract income.

EMERGING RISKS

The CSIR is actively monitoring and proactively implementing appropriate mitigation measures to address the following emerging business risks:

- Geopolitical conflict (Middle East) has potential to negatively affect delivery of contract work and collaboration with partners. The conflict has resulted in an exponential fuel cost increase that has negatively impacted the organisation's operational budget. Insurance companies are also cancelling war cover in the affected region, resulting in a negative impact on the import and export of goods.
- Irregular, fruitless, wasteful and non-compliant transactions have the potential to affect the organisation's financial reporting and reputation. The CSIR has comprehensive internal controls to prevent this unwanted expenditure; however, there are instances where proper procurement process is not followed, giving rise to irregular, fruitless and wasteful expenditure incidents. The organisation provides regular and compulsory training and awareness sessions as a measure to improve/ensure compliance. A consequence management process is in place to manage irregular and non-compliant transactions and to recover funds in instances where fruitless and wasteful expenditure was incurred.
- Potential misuse or uncontrolled use of artificial intelligence (AI) tools. The CSIR has developed and implemented AI user guidelines. Regular training and awareness sessions are conducted to foster a shared understanding of the responsible, ethical and professional use of generative AI.
- Extreme weather conditions that may impact on infrastructure, field projects and other operational activities.
- The impact of US trade tariffs on CSIR imports.

INTERNAL AUDIT AND AUDIT COMMITTEES

The CSIR has an Internal Audit function responsible for reviewing the design and operating effectiveness of the organisation's governance, risk, and internal control processes. The CSIR Internal Audit function reports to the ARC, which is responsible for approving the Internal Audit Charter, the annual audit plan, and the budget to maintain its independence.

The annual audit plan is based on the key risks to the organisation, the outcomes of the enterprise risk assessment conducted by management, as well as specific areas highlighted by senior management, Internal Audit, and the ARC. In addition, areas identified by the external auditors during internal control reviews are incorporated into the Internal Audit plan for follow-up.

In line with the PFMA requirements, the Internal Audit activity assured the ARC and management that the internal controls were appropriate and effective. This was achieved through objective appraisal and evaluation of the risk management processes, internal controls and governance processes, as well as by identifying corrective actions and suggesting enhancements to controls and processes. A comprehensive report on the implementation status of the annual audit plan, key findings identified and the status of resolving the previously reported internal and external audit findings is presented to the ARC quarterly.

The Internal Audit activity is fully supported by management, the Board, and the ARC, and has full, unrestricted access to all organisational activities, records, property, and personnel.

KEY ACTIVITIES AND OBJECTIVES OF THE ARC

The ARC enhances the independence of the Internal Audit activity and provides oversight of risk management, governance, and control processes. The ARC assists the Board in effectively executing its responsibilities, thereby supporting achievement of the CSIR's objectives. The ARC continues to function and met four times during the period under review. It is responsible for improving the operations of the organisation by overseeing the audit functions, internal controls, and financial reporting process. The ARC assists the CSIR to:

- Create and maintain an effective internal control environment, financial controls, accounting systems and reporting;
- Address all matters prescribed by the regulations issued under the PFMA and the Scientific Research Council Act;
- Identify material risks and ensure their management;
- Agree on the scope and review the annual external audit plan and the work of the CSIR's Internal Auditors;
- Review and approve the Internal Audit Charter, the three-year risk-based strategic Internal Audit plan and the annual audit plan;
- Act independently to understand the dynamics and performance of the organisation without restrictions;
- Ensure the CSIR can prevent, detect, and respond to fraud and allegations of fraud; and
- Discharge its responsibilities relating to:
  - safeguarding of assets;
  - operation of adequate procedures and controls;
  - reviewing financial information and the preparation of the financial statements; and
  - attendance of ARC meetings by its members.

The following table discloses relevant information on the ARC members:

Name	Qualifications	Internal or external	If internal, position in the public entity	Date appointed	Date resigned	Number of meetings attended
Mike Mulcahy (Chairperson)	University of Cape Town Graduate School of Business: MPhil (Development Finance) University of Cape Town: Bachelor of Business Science with Honours (Economics)	External	N/A	2023		Four
Prof. Arnold van Zyl	University of Cape Town: PhD (Engineering) MSc (Engineering) BSc (Engineering) University of the Witwatersrand: PhD MSc (Engineering) BSc (Civil Engineering)	External	N/A	2023		Four
Michelle Govender	University of KwaZulu-Natal: BSc (Electrical Engineering) University of South Africa: Postgraduate Diploma (Applied Risk Management) Professional Certifications: Engineering Council of South Africa: Professional Engineer Gordon Institute of Business: Leaders of Entrepreneurship Networks	External	N/A	2023		Four
Maleke Matolong	North-West University: Master of Business Administration BCom (Accounting) University of South Africa: Short Learning Programme (Project Management) Programme in Entrepreneur and Small Business Management Professional Registrations: Southern African Institute of Business Accountants: BAP (SA) The Chartered Institute of Government: Finance, Audit and Risk Officers Associate Member	External	N/A	2023		Four

COMPLIANCE WITH LAWS AND REGULATIONS

As a Schedule 3B state-owned entity entrusted with advancing public interest research, development, and innovation, the CSIR recognises legal and regulatory compliance as a cornerstone of ethical leadership, institutional credibility, and sustainable value creation.

The CSIR Board exercises oversight of compliance through integrated governance arrangements that align statutory obligations with enterprise risk management, assurance processes, and ethical standards. This approach ensures that compliance is not treated as a standalone activity, but as an essential enabler of responsible research, sound financial management, and public accountability.

During the year under review, the CSIR operated within the framework of applicable legislative and regulatory requirements governing scientific research, public finance, procurement, occupational health and safety, data protection and access to information, and intellectual property. The external audit identified certain matters of non-compliance, arising from the classification and disclosure of transactions in the financial statements. No other material deficiencies in the system of internal control were reported. Management remains committed to strengthening preventive controls, monitoring mechanisms and accountability across the organisation.

The organisation continues to strengthen internal compliance capability, particularly in relation to the prevention and management of irregular, fruitless, and wasteful expenditure, the impact of artificial intelligence (AI) on research, development, and innovation (RD&I), and cybersecurity challenges and impact. Other emerging regulatory developments affecting the organisation were public procurement reform, the enacted Public Procurement Act and ensuing regulations, climate-related obligations, data governance, and the evolving state-owned enterprise regulatory environment. Ongoing training and awareness initiatives supported a culture of compliance and ethical conduct across research, operational, and support functions.

Through sustained governance oversight and a forward-looking compliance posture, the CSIR remains committed to upholding the highest standards of integrity, transparency, and responsible stewardship of public resources in fulfilment of its mandate.

FRAUD AND CORRUPTION

The CSIR remains committed to upholding the highest standards of integrity, transparency and accountability across all areas of its operations, particularly in the context of RD&I. Fraud prevention is a key component of the enterprise risk management framework and the CSIR has implemented proactive measures to mitigate the risks of fraud, corruption and unethical conduct.

The CSIR Fraud Prevention and Management Policy and Fraud Prevention Plan (FPP) have been developed in compliance with section 3.2.1 of the Treasury Regulations under the PFMA. The plan is reviewed annually to ensure its relevance to the evolving RD&I landscape, with particular focus on risks associated with:

- Misuse of research funds and grants;
- Research integrity breaches, manipulation of research data or intellectual property theft;
- Irregular procurement practices;
- Conflict of interest in innovation partnerships;
- The impact of Generative AI on research and innovation; and
- Other forms of risks prevalent in the operations of the CSIR.

Key measures implemented under the FPP to safeguard the activities of the CSIR include:

- Conducting fraud risk assessments as part of the enterprise risk assessment process;
- Providing guidance through the CSIR's Ethics Statement and Code of Conduct on expected standards of business ethics and the reporting of unethical behaviour and fraud;
- Maintaining a confidential Fraud and Ethics Hotline, independently managed by an external service provider, available to all stakeholders to report fraud, corruption, or unethical conduct;
- Offering ongoing awareness and training initiatives to educate staff and researchers on fraud risks, prevention strategies and reporting mechanisms;
- Implementing internal controls across procurement, payroll, finance, and key activities to detect and deter fraudulent activity; and
- To support a culture of enforcement by promptly investigating all reported allegations of fraud and applying appropriate disciplinary, civil, or criminal action where warranted.

Monitoring and oversight of the fraud prevention framework are exercised by the HRSEC, with regular reporting to the Board. The Internal Audit function also provides assurance on the adequacy and effectiveness of controls related to fraud risk. The CSIR continues to cultivate a culture of integrity and ethical research conduct, recognising that fraud prevention is critical not only for compliance but also for maintaining trust in public research and innovation systems.

MINIMISING CONFLICT OF INTEREST

Board members and CSIR employees (internal stakeholders) must not place themselves in a position in which their personal interests conflict, or may potentially conflict, with their duty to act in the best interests of the CSIR. This obligation gives rise to the following duties:

- To act bona fide in the interests of the CSIR;
- Not to compete improperly with the CSIR; and
- For Board members, to disclose any direct or indirect personal or private interests, as envisaged in section 50(3)(a) of the PFMA, with such disclosures duly recorded in the meeting minutes. CSIR employees must also disclose direct or indirect personal or private interests, fulfilling their common law duty to act in good faith and in the best interests of their employer.

Board members are required to inform the Board, through the Board Secretary, in advance of any conflicts or potential conflicts of interest relating to items of business to be transacted at a meeting. Equally, CSIR employees must disclose any interests they hold in any organisation, whether or not that organisation conducts business with the CSIR. This duty to disclose applies upon joining the CSIR and must be updated as circumstances change or positions arise that could pose a conflict of interest.

For the CSIR Board, declarations are managed by the Company Secretariat function; for CSIR employees, they are managed by the Human Capital Development function.

Board members may not vote on, and must not be counted in the quorum for, any resolution concerning a matter in which they have a direct or indirect interest.

If a Board member wilfully or negligently fails to disclose an interest as required or participates in Board proceedings despite a conflict, the relevant proceedings may, at the discretion of the other Board members, be declared null and void.

In exceptional circumstances, the Board may decide that, in the light of interests disclosed by a Board member, the member will not be entitled to receive further information on the matter before the Board and will instruct the Board Secretary accordingly. A Board member aggrieved by such a decision may make representations to the Board, which will refer the matter to an independent governance expert. The expert's decision will be final and binding on all parties.

CODE OF CONDUCT

Ethical governance remains fundamental to the ability of the CSIR to deliver credible research, development and innovation that has public value. During the year under review, the CSIR Board and Executive Management strengthened institutional ethics oversight by embedding ethical conduct as a central pillar of organisational culture, accountability, and risk management.

The CSIR Ethics Statement and Code of Conduct serves not only as a compliance instrument but as a behavioural framework guiding decision-making across research and development, procurement, partnerships and stakeholder engagement. Ethical risks, including conflicts of interest, research integrity and financial misconduct, are actively monitored through integrated controls, independent assurance mechanisms and established confidential reporting channels.

Ongoing ethics awareness initiatives, including IP Awareness Day in April and International Ethics Awareness Week observed in October every year, are positioned to reinforce ethical leadership and shared responsibility across the organisation. These interventions contribute directly to sustaining stakeholder trust, safeguarding public resources and supporting the CSIR's mandate as a responsible Schedule 3B public entity.

HEALTH, SAFETY AND ENVIRONMENTAL ISSUES

The CSIR is committed to upholding the highest standards of responsibility for safety, health and environmental (SHE) matters. A dedicated and capacitated SHE portfolio ensures diligence and accountability in these areas. The mandate of this portfolio is to:

- Achieve zero harm by establishing and maintaining a safe, healthy, and environmentally sustainable working environment across all CSIR operations;
- Maintain certification against international standards for SHE systems;
- Comply with relevant legislative requirements while fostering a culture of compliance and excellence;
- Continuously engage with key internal and external stakeholders on SHE requirements and performance; and
- Establish and embed a mature, integrated SHE Management System.

The CSIR is committed to achieving a state of zero harm for its community and the areas in which it operates, through the sustainable advancement and continual improvement of SHE practices. To foster a positive SHE culture, the CSIR implements key initiatives and ensures compliance with all applicable legislative and other requirements.

The CSIR's SHE objectives include:

- Creating a safe and healthy work environment;
- Achieving zero harm as per policy directive;
- Preventing the spread of transmittable diseases or infections in the workplace;
- Demonstrating care for the health and wellbeing of employees, tenants, contractors and visitors;
- Providing leadership in SHE matters within the CSIR community;
- Promoting the responsible use and conservation of natural resources;
- Implementing a carbon and energy management system;
- Establishing an integrated SHE management system within the CSIR; and
- Complying with strategic legislative and best practice standards.

COMPANY/BOARD SECRETARY

The responsibilities of the Board Secretary include:

- Providing the Board and individual Board members with guidance on the nature and extent of their duties and responsibilities, and how these must be properly discharged in the best interests of the CSIR and the shareholder;
- Ensuring the induction of new and inexperienced Board members and, together with the Chairperson, developing mechanisms for the ongoing education and training of all Board members to improve and maintain the Board's effectiveness;
- Assisting the Chairperson in determining the Annual Calendar, Annual Board Plan and addressing other administrative matters; and
- Serving as a central source of guidance and advice to the Board on matters of business ethics and good governance. The appointment of the Board Secretary is subject to the same 'fit and proper' test as that applied to new Board members.

SOCIAL RESPONSIBILITY

CORPORATE SOCIAL INVESTMENT

The CSIR participated once again in the International Mandela Day 2025, with the support of 106 CSIR staff members and reaching approximately 1 014 learners. The activities were in Gauteng, KwaZulu-Natal and the Western Cape with the following activities per province:

- In Gauteng, the Pretoria office supported Mapenane School of Specialisation by resourcing the physical science laboratory. The items required for the lab included four burettes, four pipettes, two volumetric flasks, two Burdon gauges, and 50 laboratory chairs. Additionally, the CSIR donated two printers that were no longer in use but still in good working condition for the school's benefit.
- In the Western Cape, the Stellenbosch regional office assisted Kayamandi High School by conducting career guidance classes, landscaping work at the school and painting the school hall.
- Meanwhile, in KwaZulu-Natal, the Durban office provided Margot Fonteyn Secondary School with office furniture for the staff rooms and the principal's office, along with a photocopier and a printer. They also undertook renovation of the science laboratory, which included fixing windows, doors, painting and plumbing.

In continuing with the support for entrepreneurship development, after the successful completion by 20 aspiring entrepreneurs in the inaugural programme, the CSIR supported a second cohort of entrepreneurs through its CSI Entrepreneurship Development Programme. The second cycle commenced with a rigorous screening process of 1 200 applications, which was narrowed down to approximately 130 candidates. Twenty-five entrepreneurs were successful, five more than the previous cohort, and received eight months of mentorship from 50 assigned mentors from the CSIR Alumni members. In addition, 12 months would be spent on various aspects of entrepreneurship development, including support in developing fundable and bankable business plans. In preparation for the final pitches, scheduled for 27 May 2026, the entrepreneurs concluded a dry run session in February 2026. The programme continues to receive significant support from key partners, namely the National Mentorship Programme, the Industrial Development Corporation, CSIR C^3 and the Small Business Enterprise Development Agency. The CSIR and its partners continue to explore external funding opportunities, particularly for providing technical support to entrepreneurs.

AUDIT AND RISK COMMITTEE REPORT

We are pleased to present our report for the financial year ended 31 March 2026.

AUDIT AND RISK COMMITTEE RESPONSIBILITY

The Audit and Risk Committee was established in line with Sections 51(a)(ii) and 77 of the Public Finance Management Act, 1999, as amended (PFMA).

The Audit and Risk Committee reports that it has complied with its responsibilities arising from Section 77 of the PFMA and Treasury Regulation 27.1. The Audit and Risk Committee also reports that it has adopted appropriate formal Terms of Reference as outlined in its Audit and Risk Committee Charter, as approved by the Board. The Audit and Risk Committee has regulated its affairs in compliance with this Charter, discharging all its responsibilities as contained therein.

AUDIT AND RISK COMMITTEE COMPOSITION AND MEETING ATTENDANCE

The Audit and Risk Committee consist of members as stated in the Committees summary on page 104 of this report. The Committee is properly constituted, with a balanced representation of independent members with a diverse and appropriate mix of qualifications, expertise, and experience. In terms of its Terms of Reference, the Committee convened at least four meetings for the period under review. The key activities and objectives of the Audit and Risk Committee, the number of meetings held, the member details and attendance of meetings are noted on pages 109 - 110 of the report.

The Chief Executive Officer, Executive Management, and representatives of Internal and External Audit have a standing invitation to all Committee meetings. The internal and external auditors have unrestricted access to the Committee, and the Committee may periodically meet separately with Internal and External Audit.

The Chairperson of the Audit and Risk Committee reports to the Board quarterly about the Audit and Risk Committee's deliberations, decisions, recommendations, and approvals per its Terms of Reference.

THE EFFECTIVENESS OF INTERNAL CONTROL

Section 51(1)(a)(i) of the PFMA states that the Accounting Authority must ensure that a public entity has and maintains effective, efficient, and transparent systems of financial and risk management and internal control.

The Audit and Risk Committee was responsible for overseeing risk management and reviewing internal controls. As such, independent reviews of the effectiveness of internal controls were conducted by the Internal Audit function, covering areas of financial, operational, compliance, and risk management.

In line with the Public Finance Management Act and King IV report, the Internal Audit function provides the Committee and management with assurance that the internal controls are appropriate and effective. Based on the results of Internal Audit reviews for the 2025/2026 financial year, in our opinion, the system of internal control that the CSIR applies to financial risk management is effective, efficient and transparent. This is achieved by means of the risk management process, as well as the identification of mitigating measures and an ongoing assessment thereof.

The following Internal Audit work was completed during the year under review:

- Performance reporting
- Royalty income and licensing
- Intellectual Property management
- Hosted programmes
- Conferencing and accommodation
- Facilities management
- Supply chain management
- Imports and exports management
- Revenue management
- Property, plant and equipment
- Accounts payable and expenses
- Treasury cash and investment management
- Human capital performance management
- Human capital development
- Payroll
- ICT governance and risk management, general controls, supplier contract management, and information and cyber security management.

- Business continuity management
- Communications
- Safety, Health and Environment (SHE) Management
- Board of Directors and Executive's remuneration and expenses
- Follow-up of previous audit findings.

The Audit and Risk Committee is satisfied that the Internal Audit function is operating effectively and that it has addressed the risks pertinent to the organisation.

From the reports of Internal Audit, no matters that include any material deficiencies in the system of internal control or any deviations therefrom were reported.

The Committee noted the Auditor-General's recommendation in the audit report on the Annual Financial Statements and the management report, that management strengthen the financial reporting process by ensuring the accurate and consistent application of IFRS requirements, supported by an enhanced review of internal controls. Management has acknowledged this matter and committed to a remediation plan, that addresses the underlying root cause, the implementation of which the Committee will monitor. Save for the area for improvement noted above, no material deficiencies in the system of internal control were reported.

IN-YEAR MANAGEMENT AND QUARTERLY REPORTS

The Committee has noted and is satisfied with the content and quality of the reports prepared and issued by the CSIR during the year under review. The CSIR has reported quarterly to the National Treasury, as is required by the PFMA.

EVALUATION OF FINANCIAL STATEMENTS

We have reviewed the Annual Financial Statements prepared by the CSIR for the year ended 31 March 2026. Based on the information provided, the Committee considers that it complies, in all material respects, with the requirements of the various Acts governing disclosure and reporting on the Annual Financial Statements.

AUDITOR'S REPORT

We have reviewed the entity's implementation plan for audit issues raised in the prior year and we are satisfied that the matters have been adequately resolved.

The Committee accepts the audit opinion of the external auditors on the consolidated Annual Financial Statements and recommends that the audited consolidated Annual Financial Statements be accepted and read together with the report of the external auditors.

The external audit function, performed by the Auditor-General South Africa, is independent of the organisation.



Mike Mulcahy
Chairperson of the Audit and Risk Committee
CSIR
31 July 2026

B-BBEE COMPLIANCE PERFORMANCE INFORMATION

The table below illustrates how the CSIR's broad-based black economic empowerment (B-BBEE) governance activities align with the objectives of the Broad-Based Black Economic Empowerment Act, 2003 (Act 53 of 2013), as determined by the Department of Trade, Industry and Competition.

Has the Sphere of Government / Public Entity / Organ of State applied any relevant Code of Good Practice (B-BBEE Certificate Levels 1 – 8) with regards to the following:		
Criteria	**Response Yes/No**	**Discussion**
Determining qualification criteria for the issuing of licences, concessions or other authorisations in respect of economic activity in terms of any law	No	The CSIR does not issue any licenses/concessions or authorisations to allow economic activity in terms of any law. This would likely only apply to entities responsible for issuing trade licences or mining/exploration licences and the like.
Developing and implementing a preferential procurement policy	Yes	We developed and implemented a procurement policy that incorporates preferential procurement, together with various templates, evaluation criteria, frameworks, etc. to ensure same is achieved. This is monitored monthly.
Determining qualification criteria for the sale of state-owned enterprises	No	We do not generally engage in such sales, but when we do, certain criteria would be developed on a case-by-case basis to align with the nature of the asset / technology on sale, the CSIR mandate, and to secure sustainable offerings in the interest of South Africa. Case in point is the sale of laboratories where we set criteria to secure a buyer that would allow for the service offering to remain sustainable and available in the South African context.
Developing criteria for entering into partnerships with the private sector	No	Certain criteria would be developed on a case-by-case basis to align with the objective of the collaboration to align with the CSIR mandate and to secure sustainable offerings and commercialisation of technology in the interest of South Africa. In these instances, where the opportunity allows for feasible and sustainable commercialisation through SMMEs, criteria such as B-BBEE levels/status or black/female ownership could be included. There is no firm policy on this as the nature of the technology and available markets would determine the feasibility of such criteria.
Determining criteria for the awarding of incentives, grants and investment schemes in support of Broad Based Black Economic Empowerment	No	The award of grants, incentives and investments is not a core activity in the CSIR, and we do not make material investments in this context, save for the context of the YES Programme application, bursary awards and corporate social investment initiatives that would target previously disadvantaged categories of individuals or institutions (such as schools, higher education institutions etc.).

APPROVED BY:



Dr Thulani Dlamini
Chief Executive Officer
5 August 2026



PART E
HUMAN CAPITAL MANAGEMENT

This section provides a detailed account of the **strategies, programmes and interventions implemented during the year under review**, as well as their outcomes within the Human Capital (HC) portfolio.

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INTRODUCTION

The CSIR acknowledges that a capable and future-ready workforce is central to achieving its mandate and advancing national strategic priorities. As such, it invests deliberately in developing staff within science, engineering and technology (SET) disciplines. This strengthens a diverse, innovative talent pool that can respond to South Africa's socio-economic needs through research excellence and technological solutions. In doing so, the CSIR enhances its contribution to sustainable development and the country's long-term growth.

Over the past year, the organisation has made significant progress across various areas, reflecting its commitment to excellence and growth. The Youth Employment Service (YES) Programme was successfully implemented, supporting 62 youths and contributing positively to efforts to reduce youth unemployment. Additionally, 25 entrepreneurs completed the Entrepreneurship Development Programme, implemented in partnership with the Industrial Development Corporation and the National Mentorship Movement.

Continuing with human capital development, we have awarded 24 bursaries to date to learners from the CSIR Corporate Social Investment (CSI) beneficiary schools for tertiary studies in disciplines aligned with our strategic focus areas. Strategic partnerships also enabled the CSIR to leverage over R55 million in funding from various entities. The Staff Dependant Bursary Programme continued in the financial year (FY), supporting 158 staff dependants.

In talent management, we continued to enhance our sourcing strategies by strengthening partnerships with external stakeholders, thereby broadening the reach and visibility of CSIR vacancies. We also improved turnaround times for filling executive and senior management positions, reducing our reliance on external recruitment agencies.

Our rewards and recognition efforts included the approval and implementation of short-term incentive payments and annual cost-of-living salary adjustments. In addition, a total reward statement portal was launched which allows employees to easily find information about their pay, incentives, pension fund benefits, leave, wellbeing programmes, personal development opportunities and the environment that supports them. All of this is conveniently packaged on one clear platform.

In the area of employee relations and transformation, the CSIR was certified as compliant with the Employment Equity Act (EEA), and a new five-year Employment Equity Plan was submitted and approved by the Department of Employment and Labour. The Employee Relations and Transformation Capability Building Initiative continued in the 2025/26 FY, surpassing the previous FY's attendance by 18%.

Organisational behaviour and wellness achievements included increased participation in mental health and wellbeing webinars, and the successful hosting of the CSIR Road Race and Golf Charity Day events, which enhanced corporate engagement.

STAFF AND TRANSFORMATION PROFILE

TOTAL STAFF PROFILE (2 220)

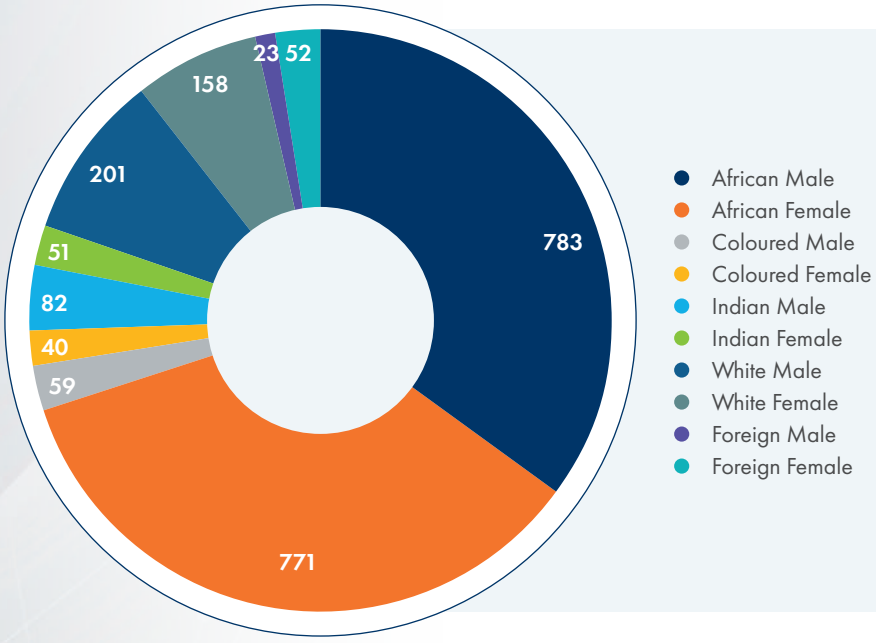


Figure 1: Staff profile

As of the end of the 2025/26 FY, the CSIR's total staff headcount stood at 2 220, reflecting a decrease of 78 from 2 298 in the previous FY. Of this total, 1 534 employees (69%) occupy SET roles, while 686 (31%) are in support positions. The demographic breakdown includes 1 786 (80%) black South Africans and 1 020 (46%) female South Africans.

Table 1: CSIR staff profile as at 31 March 2026

Staff category	SET staff	SET staff as % of total staff	Support staff	Support staff as % of total staff	Total	Staff category as % of grand total
Permanent	1 314	59.2%	552	24.9%	**1 866**	84.1%
Temporary*	63	2.8%	16	0.7%	**79**	3.5%
Pipeline: Studentships	21	0.9%	0	0.0%	**21**	0.9%
Pipeline: Graduates-In-Training (GIT)	24	1.1%	0	0.0%	**24**	1.1%
Pipeline: Interns	89	4.0%	49	2.2%	**138**	6.2%
Pipeline: Post-doctorate	13	0.6%	0	0.0%	**13**	0.6%
Pipeline: YES Programme	6	0.3%	51	2.3%	**57**	2.6%
Pipeline: Work Integrated Learning (WIL) students	4	0.2%	18	0.8%	**22**	1.0%
Grand total	**1 534**	**69%**	**686**	**31%**	**2 220**	**100%**

* *Staff contracts less than 12 months*

SET AND SUPPORT STAFF PROFILE

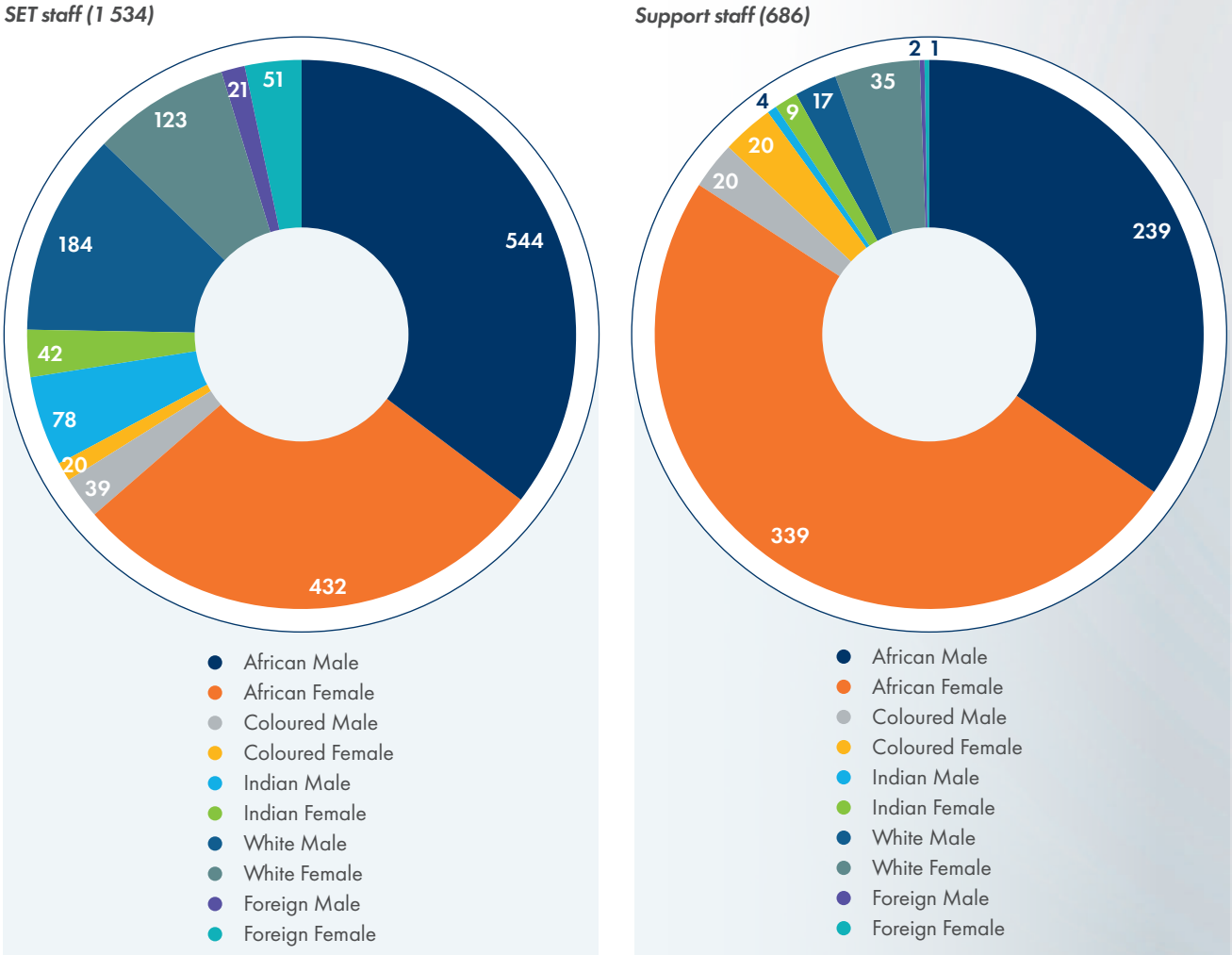


Figure 2: SET and support staff profile

CSIR'S EMPLOYMENT EQUITY PERFORMANCE AGAINST NEAP TARGETS

As at 31 March 2026, the CSIR's employment equity performance against the National Economically Active Population (NEAP) targets shows a 6% increase in the representation of black South Africans compared to the 2021/22 FY. Notably, there has been significant progress in the representation of black South African females over the past five years, with a gap between actual performance and NEAP targets narrowing from -4.2% to only -1.1% in the 2025/26 FY.

Table 2: Performance against NEAP targets

Performance	AM	AF	CM	CF	IM	IF	WM	WF	Total SA	FM	FF	Total foreign	Grand total
Target %	42.7	35.8	5.2	4.4	1.7	1.1	5.1	4.0	100	0	0	0	100
FY21/22 Average %	30.7	31.6	3.0	2.2	4.3	2.7	12.5	8.7	95.7	3.4	0.9	4.3	100
FY22/23 Average %	32.1	32.1	3.0	2.0	4.4	2.5	11.5	8.4	96.0	3.0	1.0	4.0	100
FY23/24 Average %	32.9	32.8	3.1	1.8	4.2	2.7	10.8	7.8	96.0	3.0	1.0	4.0	100
FY24/25 Average %	33.0	34.2	3.0	2.1	3.9	2.4	10.4	7.3	96.3	2.6	1.1	3.7	100
FY25/26 Average %	35.3	34.7	2.7	1.8	3.7	2.3	9.1	7.1	96.7	2.3	1.0	3.3	100
GAP % (FY25/26 Ave versus Target %)	**-7.4**	**-1.1**	**-2.5**	**-2.6**	**2.0**	**1.2**	**4.0**	**3.1**	**-3.3**	**2.3**	**1.0**	**3.3**	**0**

NUMBER OF STAFF WITH DISABILITIES

The CSIR continues to exceed its target for the employment of people with disabilities. As at the end of March 2026, 70 staff with disabilities were employed, representing 3.2% of the total workforce, surpassing the organisation's minimum target of 2%.

A summary of the number of staff with disabilities by occupational category is provided in Table 3 below.

Table 3: Staff with disabilities by occupational level

Occupational level	AM	AF	CM	CF	IM	IF	WM	WF	FM	FF	Grand total	Total staff	% of total staff
Top management	0	0	0	0	0	0	0	0	0	0	0	18	0.0%
Senior management	0	0	0	0	0	0	1	1	0	0	2	96	0.1%
Middle management	2	0	0	0	0	1	4	1	1	0	9	823	0.4%
Skilled	1	1	0	0	3	0	2	1	0	0	8	936	0.4%
Semi-skilled	0	0	0	0	0	0	0	0	0	0	0	206	0.0%
Unskilled	17	34	0	0	0	0	0	0	0	0	51	141	2.3%
Total	**20**	**35**	**0**	**0**	**3**	**1**	**7**	**3**	**1**	**0**	**70**	**2 220**	**3.2%**

STAFF MOVEMENTS

APPOINTMENTS

From 1 April 2025 to 31 March 2026, a total of 316 employees were appointed, including 233 temporary employees. Of these appointments, 294 (93%) were black South Africans and 139 (44%) were female South Africans. This total includes 83 permanent appointments, of which 74 (89%) were black South Africans and 28 (34%) were female South Africans. Furthermore, of the permanent appointments, 50 (60%) were in SET roles and 33 (40%) in support positions for the 2025/26 FY.

Table 4: Appointments by occupational level

Occupational level	AM	AF	CM	CF	IM	IF	WM	WF	Total (SA)	FM	FF	Total (foreign)	Grand total
Top management	0	0	0	0	0	0	0	0	0	0	0	0	0
Senior management	1	0	0	0	0	0	0	0	1	1	0	1	2
Middle management	18	5	2	0	0	1	2	1	29	0	0	0	29
Skilled	20	14	1	0	1	0	2	2	40	1	0	1	41
Semi-skilled	4	2	0	0	0	0	0	0	6	0	0	0	6
Unskilled	1	3	1	0	0	0	0	0	5	0	0	0	5
Total permanent	**44**	**24**	**4**	**0**	**1**	**1**	**4**	**3**	**81**	**2**	**0**	**2**	**83**
Fixed-term contracts*	13	5	0	0	1	0	5	6	30	0	0	0	30
Pipeline: studentship	1	3	0	1	0	0	1	0	6	0	0	0	6
Pipeline: GIT	11	5	0	0	0	0	0	1	17	0	0	0	17
Pipeline: Internships	36	33	1	1	1	0	0	0	72	0	0	0	72
Pipeline: post doctorate	1	1	0	0	0	0	0	0	2	0	0	0	2
Pipeline: YES programme	20	37	0	0	0	0	0	0	57	0	0	0	57
Pipeline: WIL	18	6	0	0	0	0	0	0	24	0	0	0	24
Pipeline: apprenticeship	13	12	0	0	0	0	0	0	25	0	0	0	25
Total temporary	**113**	**102**	**1**	**2**	**2**	**0**	**6**	**7**	**233**	**0**	**0**	**0**	**233**
Grand total	**157**	**126**	**5**	**2**	**3**	**1**	**10**	**10**	**314**	**2**	**0**	**2**	**316**

* Staff *contracts less than 12 months*

CSIR STAFF EXITS

In the 2025/26 FY, a total of 383 employees exited the CSIR, including 179 temporary employees. Of the total exits, 298 (78%) were black South Africans and 174 (45%) were female South Africans. Additionally, 268 (70%) of the exits were from SET roles, while 115 (30%) were from support roles.

Table 5: Total staff exits

Employment type	AM	AF	CM	CF	IM	IF	WM	WF	Total (SA)	FM	FF	Total (foreign)	Grand total
Total permanent	**67**	**47**	**8**	**2**	**7**	**5**	**41**	**16**	**193**	**8**	**3**	**11**	**204**
Fixed-term contracts*	15	11	0	0	2	0	3	8	39	2	0	2	41
Pipeline	45	74	5	9	0	1	2	1	137	1	0	1	138
Total temporary	**60**	**85**	**5**	**9**	**2**	**1**	**5**	**9**	**176**	**3**	**0**	**3**	**179**
Grand total	**127**	**132**	**13**	**11**	**9**	**6**	**46**	**25**	**369**	**11**	**3**	**14**	**383**

* Staff *contracts less than 12 months*

A total of 204 permanent staff exited the CSIR from the beginning of the FY to the end of March 2026. Of these, 136 (67%) were black South Africans and 70 (34%) were female South Africans. Among the exits, 167 (82%) were from SET roles, while 37 (18%) were from support roles. The annualised turnover rate as of the end of March 2026 was 10.9% for all permanent staff and 12.7% for permanent staff in SET.

Table 6: Permanent staff exits by occupational category

Occupational category	AM	AF	CM	CF	IM	IF	WM	WF	Total (SA)	FM	FF	Total (foreign)	Grand total
Top management	1	0	0	0	0	0	0	0	1	0	0	0	1
Senior management	3	0	1	0	0	0	3	1	8	2	0	2	10
Middle management	21	18	3	1	4	2	28	10	87	6	2	8	95
Skilled	35	24	3	1	2	3	10	5	83	0	1	1	84
Semi-skilled	7	5	1	0	1	0	0	0	14	0	0	0	14
Unskilled	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand total	**67**	**47**	**8**	**2**	**7**	**5**	**41**	**16**	**193**	**8**	**3**	**11**	**204**

Table 7: Permanent staff exits by category

Permanent staff exits	AM	AF	CM	CF	IM	IF	WM	WF	Total (SA)	FM	FF	Total (foreign)	Grand total
Deceased	2	0	0	0	0	0	1	0	3	1	0	1	4
Dismissal	0	2	0	0	1	0	0	1	4	0	0	0	4
No-fault dismissal: incapacity	2	0	0	0	0	0	1	0	3	0	0	0	3
No-fault dismissal: retrenchment	22	15	2	2	1	1	9	3	55	2	0	2	57
Resignation	36	29	4	0	4	4	14	4	95	3	3	6	101
Retirement	5	1	2	0	1	0	16	8	33	2	0	2	35
Grand total	**67**	**47**	**8**	**2**	**7**	**5**	**41**	**16**	**193**	**8**	**3**	**11**	**204**

Table 8: Exits of staff on fixed-term contracts

Staff on fixed-term contracts exits*	AM	AF	CM	CF	IM	IF	WM	WF	Total (SA)	FM	FF	Total (foreign)	Grand total
End of contract	60	85	5	9	2	1	5	9	176	3	0	3	179

**Staff contracts less than 12 months*

HC DEVELOPMENT

STUDENT PIPELINE DEVELOPMENT

The number of students in the student pipeline programmes as at 31 March 2026 is presented in the table below, along with their demographic breakdown.

Table 9: Student pipeline programmes

Programme	AM	AF	CM	CF	IM	IF	WM	WF	Total SA	FM	FF	Total (foreign)	Grand total
CSIR Bursary programme	41	45	2	8	2	5	8	6	117	1	0	1	118
IBS Bursary programme	61	133	2	7	2	4	6	13	228	4	3	7	235
MerSETA bursaries	2	3	0	0	0	0	0	1	6	0	0	0	6
Studentships	14	11	0	0	1	0	2	0	28	1	1	2	30
Post doctorate	2	6	0	0	0	1	0	1	10	0	3	3	13
GIT	13	9	0	0	0	0	0	2	24	0	0	0	24
Total	**133**	**207**	**4**	**15**	**5**	**10**	**16**	**23**	**413**	**6**	**7**	**13**	**426**
Percentage	**31%**	**49%**	**1%**	**4%**	**1%**	**2%**	**4%**	**5%**	**97%**	**1%**	**2%**	**3%**	**100%**

CSIR Bursary Programme

In 2026, the CSIR Bursary Programme, in collaboration with the Sasol Foundation, awarded bursaries to 70 students, bringing the total number of currently funded bursary students to 118.

Inter-Bursary Support Bursary Programme

The Department of Science, Technology and Innovation (DSTI) allocated over R40 million for the 2025/26 FY to support the 235 currently funded students.

merSETA Bursary Programme

Currently, six students are funded under this programme: three undergraduates, one Master's student and two Doctoral candidates.

Studentships

In the 2025/26 FY, a total of 21 studentships were awarded.

GIT programme

In the 2025/26 FY, the GIT programme supported 16 new beneficiaries leading to a total of 24 GITs supported by the end of March 2026. Since its inception in 2019/20, 127 graduates have benefited from the programme.

UNEMPLOYED YOUTH DEVELOPMENT PROGRAMMES

Table 10: Unemployed youth development programmes

Programme	AM	AF	CM	CF	IM	IF	WM	WF	Total SA	FM	FF	Total foreign	Grand total
YES	20	37	0	0	0	0	0	0	57	0	0	0	57
Internship	45	66	1	0	1	0	0	0	113	0	0	0	113
WIL	17	5	0	0	0	0	0	0	22	0	0	0	22
Apprenticeship	13	12	0	0	0	0	0	0	25	0	0	0	25
Total	**95**	**120**	**1**	**0**	**1**	**0**	**0**	**0**	**217**	**0**	**0**	**0**	**217**
Percentage	**44%**	**55%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**100%**	**0%**	**0%**	**0%**	**100%**

YES programme

The YES programme continues to support the state's efforts to reduce youth unemployment. In the 2025/26 FY, a new cohort of 57 YES participants was appointed, comprising 65% women and 90% individuals with disabilities.

WIL

Currently, 22 students are funded under the Manufacturing Engineering and Related Services Sector Education Training Authority (merSETA) Bursary programme. Since 2019, the programme has supported 73 students through their training, all of whom have successfully graduated.

Internship programme

During the 2025/26 FY, the organisation offered internship opportunities to 160 unemployed black South African youth, with 75% of them being female South Africans. The interns are placed across various clusters and portfolios, with 58% appointed as SET interns and 42% in support roles.

Absorption of unemployed youth and graduate appointments

The primary objective of the organisation's pipeline programme is to facilitate the transition of the unemployed youth to permanent employment within the organisation and the broader industry, particularly in sectors aligned with the National System of Innovation. In the current FY, 46 pipeline students were permanently appointed, resulting in an absorption rate of 22%, marking a significant improvement compared to previous years.

The CSIR continues to monitor and increase its return on investment in the bursary students it supports. In FY 2025/26, the CSIR appointed 20 graduates into various pipeline programmes, as well as into permanent positions.

CSIR STAFF TRAINING

Technical training

During the 2025/26 FY, the CSIR invested a total of R13 852 049 in staff training, with 1 534 employees enrolled for training. Fourteen of these training activities were specifically designed for employees living with disabilities.

The figure and tables following illustrate classroom-based training at the CSIR for the 2025/26 FY:

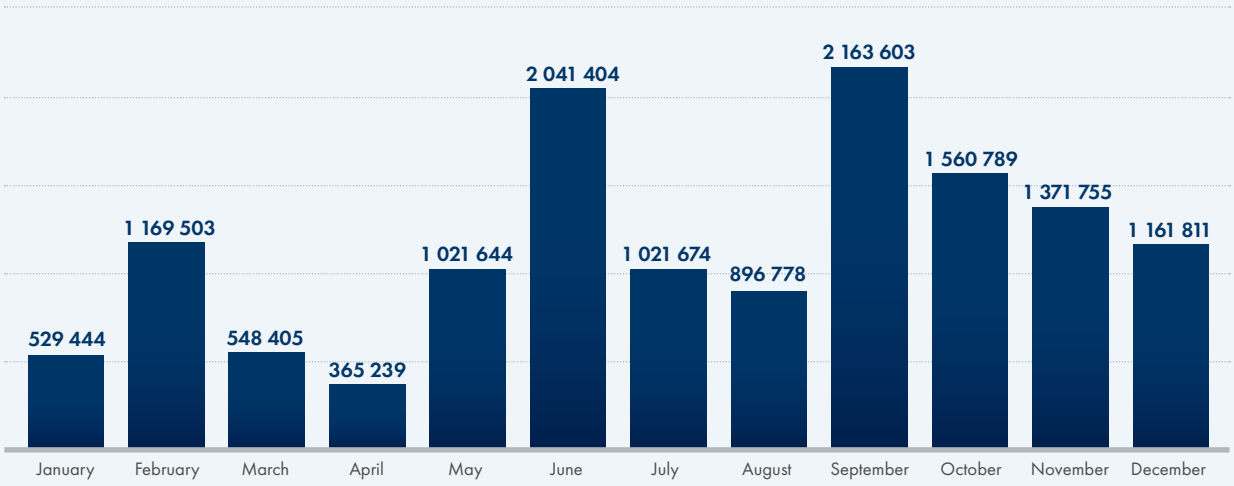


Figure 3: Summary of training costs by month

Table 11: Training costs by occupational category

Category	Rand	% of total training cost
Top management	242 936	1.75%
Senior management	835 263	6.03%
Professional and middle management	7 315 458	52.81%
Skilled and junior management	4 863 730	35.11%
Semi-skilled	474 513	3.43%
Unskilled	120 149	0.87%
Grand total	**13 852 049**	**100.00%**

Table 12: Training costs by event type

Training event	Number of staff	Amount (Rand)
Computer-based training	302	2 369 300
Conferences	476	4 018 879
Seminars	756	7 463 870
Total	**1 534**	**R13 852 049**

Table 13: Training provided by occupational categories, race and gender

Occupational category	AM	AF	CM	CF	IM	IF	WM	WF	Total (SA)	FM	FF	Total (foreign)	Grand total
Top management	2	5	0	0	0	0	1	3	11	0	0	0	**11**
Senior management	28	3	3	0	5	0	20	9	68	0	0	0	**68**
Middle management	184	178	14	10	40	40	92	83	641	0	0	0	**641**
Skilled	283	280	22	6	16	12	24	14	657	0	0	0	**657**

Occupational category	AM	AF	CM	CF	IM	IF	WM	WF	Total (SA)	FM	FF	Total (foreign)	Grand total
Semi-skilled	96	22	9	2	0	0	0	1	130	0	0	0	**130**
Unskilled	14	13	0	0	0	0	0	0	27	0	0	0	**27**
Grand total	**607**	**501**	**48**	**18**	**61**	**52**	**137**	**110**	**1 534**	**0**	**0**	**0**	**1 534**

e-Learning

As at 31 March 2026, a total of 3 026 courses and 59 743 videos had been completed online. Furthermore, analysis across the organisation indicated that the most prominent learning themes centred on the increasing significance of digital and artificial intelligence (AI) capabilities. The most frequently accessed skills were related to AI, Microsoft Copilot, AI for business, and Generative AI. These patterns demonstrate a clear prioritisation among employees towards learning initiatives that enhance their understanding of emerging technologies and digital transformation. This focus positions the CSIR to more effectively leverage advanced technologies within its research, innovation, and operational activities.

Leadership and management development training programmes

Graduation ceremonies for the various programmes under the Leadership and Management Development Programme (LMDP) were held in the third quarter of the 2025/26 FY.

A graduation ceremony was held on 8 December 2025 for the third cohort of the LMDP programme. Twenty-nine staff members graduated, comprising 15 participants from the "Future Leaders Development Programme" and 14 participants from the "Management Development Programme". The demographic profile of the graduates included 52% female South Africans and 86% black South Africans. Both programmes were delivered in partnership with Wits Business School / Wits Plus.

During the 2025/26 financial year, the CSIR progressed the implementation of its Mentorship Programme as a structured human capital development initiative. The mentorship process flow and certification templates were approved, while the mentorship guideline was further developed to support consistent application across the organisation. The programme was socialised throughout the organisation, including a CSIR Connect session, with mentor training expanded considerably to nearly 300 employees by year-end. In parallel, the development of an internal digital platform to support the administration and monitoring of the programme was initiated to enable sustainable, long-term implementation.

CSIR staff bursaries

The CSIR continues to invest in its employees by offering staff bursaries. In the 2025/26 FY, the CSIR Staff Bursary Programme recorded a significant increase in demand, with 321 applications received, representing an increase compared to the previous FY. Following the evaluation process, 242 were awarded with bursaries, comprising 54% SET staff and 46% support staff.

External stakeholder engagements on skills development

Strategic partnerships continued during this FY, securing over R55 million in funding from entities including the DSTI and Sector Education and Training Authorities (SETAs).

An apprenticeship programme in collaboration with Tshwane South TVET College was implemented and 25 graduates benefited from the programme. The programme is being funded by the FoodBev SETA, NSF and LGSETA.

In addition to the above programme, the CSIR also provided practical training to 17 engineering WIL students and 13 chef students from the Tshwane North TVET College.

There is continued engagement with key stakeholders such as the National Skills Authority, National Skills Fund and the Quality Council for Trades and Occupations to support the co-development and implementation of the CSIR Skills Strategy.

TALENT MANAGEMENT

TALENT REVIEW

During FY 2025/26, the CSIR advanced the implementation of its succession plan through rigorous talent reviews conducted from the executive level down to senior management, including scarce and critical roles. Succession plans for the CEO and for Group Executives' direct reports were finalised, approved, and submitted to the Board for noting.

CAREER PATHING

The CSIR continued promoting the Experience Navigator Tool, which helps employees identify gaps between their current profile and desired future roles, allowing them to take proactive steps to address these gaps and prepare for future career opportunities. In FY 2025/26, the focus was on creating a digitised platform to assist employees to navigate their career aspirations. A functionality on LinkedIn Learning has been identified for such a platform for career mapping.

CAREER LADDERS

The organisation conducted two cycles of the career ladder assessment process, providing SET employees with opportunities for promotion. During the 2025/26 financial year, targeted roadshows were held to educate SET staff on the process and the required administration, helping to improve their chances of promotion. Consequently, seven employees were promoted to principal researcher level, including one employee from the Accelerated Researcher Development Programme. In addition, 22 employees were promoted to senior researcher level, 38 to researcher level, and two to candidate researcher level, bringing the total number of promotions for the FY to 69.

Attraction and retention initiatives

The implementation of approved frameworks continued in the 2025/26 FY as part of efforts to attract and retain SET staff at identified levels. These initiatives include:

- Attraction and retention of chief and principal researchers;
- Attraction and retention of SET females;
- The Accelerated Principal Researcher Programme; and
- The Capability Development Investment Programme aimed at attracting chief researchers from the external market.

Staff dependants' bursaries

In line with the CSIR's commitment to transforming human capital and enhancing the employee value proposition for attraction and retention, bursaries continued to be offered for staff dependants in FY 2025/26. This opportunity is available to all dependants of employees who are currently pursuing or planning to pursue tertiary education in the 2026 academic year.

In the 2025 academic year, a pass rate of 86% was achieved by the staff dependants. For the 2026 academic intake, a total of 199 applications were received, reflecting an increase of 10 applications compared to the 189 received in 2025. Following the evaluation and approval process, 158 applications were approved (81% black South Africans and 57% female South Africans) in 2026, representing an increase compared to 127 approvals in 2025.

Performance management

In 2025/26, the CSIR maintained a strong commitment to performance management, supporting employees with the tools and guidance needed to succeed. The process aligns individual objectives with organisational priorities, strengthens execution of strategic goals, and fosters continuous improvement. The cycle achieved 100% performance contracting and 98% completion of performance reviews for FY 2025/26.

REWARDS AND RECOGNITION

Total reward statement

In keeping with the organisation's commitment to continuous improvement by finding ways to make life easier and information more accessible, the CSIR launched a Total Reward Statement functionality on 9 February 2026. This allows employees to easily access information about their pay, incentives, pension fund benefits, leave, wellbeing programmes, personal development opportunities, and the work environment that supports them.

Pension Fund

With the three-year term of Pension Fund Trustees having expired in July 2025, employer-selected members were identified and appointed for the next term. This was followed by member-selected trustees through a nomination process conducted with all staff eligible to participate. All members assumed their membership as trustees of the CSIR Pension Fund on 1 August 2025.

Alumni Programme

Following the launch of the CSIR Alumni and Emeritus Programme in FY 2023/24, there has been a significant increase in former employees joining the programme during the 2025/26 FY. The programme currently has 1 560 members, reflecting an increase of 199 from the previous FY. Some alumni continue to volunteer by mentoring aspiring entrepreneurs through the CSIR Entrepreneurship Development Programme.

Bank preferential rates for CSIR staff

As part of enhancing staff benefits, the CSIR continued its initiative to support the financial well-being of employees by collaborating with three major banks, namely First National Bank, Absa and Standard Bank, to offer exclusive preferential rates to CSIR staff. Additionally, the banks conducted a series of webinars on financial education to further support employees' financial well-being.

EMPLOYEE RELATIONS AND TRANSFORMATION

The CSIR continued to implement the capacity-building initiative to educate and empower line managers and employees on employee relations and employment equity topics and processes. These workshops aimed to inform and empower managers and employees about relevant legislation, policies, procedures, guidelines, and processes pertaining to employee relations. Nine sessions were conducted in the 2025/26 FY with a total attendance of 2 162, surpassing the previous FY's attendance by 18%.

Internal and external employee relations matters

Table 14: Summary of internal and external employee relations matters

Matters	Investigations	Disciplinary	Grievances	Incapacity	CCMA	Labour court	Total
Carried over from FY 2024/25	5	3	4	10	3	0	**25**
Opened in FY2025/26	20	7	10	5	6	1	**49**
Closed in FY2025/26	23	9	13	9	9	0	**63**
Active end of FY2025/26	2	1	1	6*	0	1	**11**

** All six active incapacity cases are incapacity due to ill health or injury*

Employment Equity Report

The EEA2 and EEA4 forms (employment equity reports) for 2024 were submitted to the Department of Employment and Labour on 19 December 2025.

EMPLOYEE WELLNESS

Psychosocial intervention

The CSIR continued to support the mental wellbeing of its staff through carefully curated wellness webinars throughout the FY. In FY 2025/26, 13 webinars were delivered in partnership with Lyra Health. A combined attendance of over 3 600 across the various topics such as "personal agility", "healthy lifestyle-healthy mind", "depression and anxiety", to mention a few, was reported, with employees showing great engagement during the sessions. In addition, six meditation workshops were held in the FY to assist employees with mindfulness practices. Furthermore, the CSIR implemented resilience training for a cohort of 53 employees. This programme was intended to provide staff with strategies that enhance productivity while supporting their mental wellbeing.

Organisation climate

The second phase of the Values-Based Leadership Programme for the Executive Committee members was completed in the last quarter of the FY. The last session on 27 February 2026 marked the end of the personal development and team alignment journey for Exco members, which commenced in 2023 with the first phase focusing on laying the CSIR leadership foundations (i.e. leadership mindset, communication, inspirational leadership, team collaboration, team alignment, and care and accountability). The completed second phase focused on building great teams, coaching for problem solving, growth, emotional intelligence, why culture matters and building strategic planning skills. The outcome of the process extends beyond the personal impact it had on individual Exco members and the team. The team identified and committed to several initiatives that be rolled out to embed a values-based approach to leadership and improve the effectiveness of teams and performance across the organisation.

The CSIR also provided targeted interventions in various clusters and portfolios on a needs basis. Some of the initiatives included interventions designed to address team dynamics and improve the functioning of teams while other interventions included workshops focusing on stress management, relationship building and team alignment through a team charter.

Sports and recreation

The Comrades Marathon took place on 8 June 2025, with 26 participants comprising CSIR Running Club members and CSIR employees taking part in the ultimate human race. All 26 runners reached the finish line, resulting in a 100% completion rate.

The 32nd CSIR Road Race, in collaboration with BestMed, was held in October 2025. The race attracted 3 800 participants across the various distances and was sold out. The 21 km distance attracted 1 026 participants while the 10 km run distance attracted 1 808. Notably, race participation increased by 26% in 2025 compared to 2024, reflecting growing employee interest in an active lifestyle and wellness programmes.

HC SYSTEM IMPROVEMENTS AND EFFICIENCIES

Bursaries connect portal

As part of efficiency improvement for the bursary application across various programmes, the CSIR developed a bursary connect portal to manage all applications for the programmes. The system processed over 13 000 applications for the DSTI-CSIR Inter Programme, and the CSIR and Sasol bursary applications.

Recruitment interview application

For effective recruitment and to reduce the recruitment turnaround times, the CSIR has developed a Recruitment Interview Application that will enhance the standardisation of the interview process. The system has been piloted in some areas of the organisation and will be rolled out to the entire organisation in the next FY.

AI chatbot for policies, procedures and guidelines

The CSIR developed an artificial intelligence (AI) chatbot to assist employees with self-service and ease of accessing information for HC policies, procedures and guidelines. The system allows for any employee to engage with the content of the policies, procedures and guidelines without the reliance on HC queries.

HC OVERSIGHT STATISTICS

PERSONNEL-RELATED EXPENDITURE

Table 15: Personnel cost by division/portfolio

Division/portfolio	Total expenditure for the entity (R'000)	Personnel cost (R'000)	Personnel cost as a % of total expenditure	Number of employees	Average personnel cost per employee (R'000)
CSIR Advanced Chemistry and Life Sciences	296 468	176 234	59%	217	812
CSIR Advanced Production and Security	910 707	588 301	65%	617	953
CSIR Smart Society	922 815	584 562	63%	617	947
Business Excellence and Integration	289 927	119 501	41%	146	818
Chief Financial Officer	212 213	152 054	72%	200	760
Human Capital and Communications	180 945	84 231	47%	138	610
Legal Compliance and Business Enablement	375 886	146 040	39%	255	573
CSIR Leadership and Governance	63 096	55 073	87%	30	1 836
Total	**3 252 057**	**1 905 996**	**59%**	**2 220**	**859**
Provision for STI 2025/26	129 519	129 519			
Post-retirement medical benefit 2025/26	1 090	1 090			
Total costs	**3 382 666**	**2 036 605**			

Table 16: Personnel cost by occupational level

Occupational level	Personnel cost (R'000)	Personnel cost per level as a % of total personnel cost	Number of employees	Average personnel cost per employee (R'000)
Top management	69 982	4%	18	3 888
Senior management	218 030	11%	96	2 271
Professional qualified	1 021 002	54%	823	1 241
Skilled	522 199	27%	936	558
Semi-skilled	64 623	3%	206	314
Unskilled	10 160	1%	141	72
Total	**1 905 996**	**100%**	**2 220**	**859**
Provision for STI 2025/26	129 519			
Post-retirement medical benefit 2025/26	1 090			
Total employees' remuneration	**2 036 605**			

Table 17: Performance rewards

Occupational level	Performance rewards (R'000)	Personnel cost (R'000)	% of performance rewards to total personnel cost
Top management	7 571	69 982	11%
Senior management	19 455	218 030	9%
Professional qualified	58 239	1 021 002	6%
Skilled	22 950	522 199	4%
Semi-skilled	2 600	64 623	4%
Unskilled	6	10 160	0%
Total	**110 821**	**1 905 996**	**6%**
Provision for STI 2025/26		129 519	
Post-retirement medical benefit 2025/26		1 090	
Total employees' remuneration		**2 036 605**	

Table 18: Employment and vacancies per division/portfolio

Division/portfolio	2024/2025 number of employees	2025/2026 approved posts	2025/2026 number of employees	2025/2026 vacancies	Vacancies as % of number of employees (2025/26)
CSIR Advanced Chemistry and Life Sciences	224	227	217	10	4.61%
CSIR Advanced Production and Security	620	648	617	31	5.02%
CSIR Smart Society	756	652	617	35	5.67%
Business Excellence and Integration	80	148	146	2	1.37%
Chief Financial Officer	206	208	200	8	4.00%
Human Capital and Communications	133	139	138	1	0.72%
Legal Compliance and Business Enablement	250	275	255	20	7.84%
CSIR Leadership and Governance	29	30	30	0	0.00%
Total	**2 298**	**2 327**	**2 220**	**107**	**4.82%**

Table 19: Employment and vacancies by occupational level

Occupational level	2024/2025 no. of employees	2025/2026 approved posts	2025/2026 number of employees	2025/2026 vacancies	Vacancies as % of number of employees (2025/26)
Top management	19	20	18	2	11.11%
Senior management	106	99	96	3	3.13%
Professional qualified	870	865	823	42	5.10%
Skilled	989	974	936	38	4.06%
Semi-skilled	214	217	206	11	5.34%
Unskilled	100	152	141	11	7.80%
Total	**2 298**	**2 327**	**2 220**	**107**	**4.82%**

Table 20: Employment changes by occupational level

Occupational level	Employment at beginning of period	Appointments	Terminations	Internal movements (promotions, type changes, renewal of contracts)	Employment at end of the period
Top management	19	0	1	0	18
Senior management	106	4	15	1	96
Professional qualified	870	42	115	26	823
Skilled	989	132	172	(13)	936
Semi-skilled	214	18	32	6	206
Unskilled	100	120	63	(16)	141
Total	**2 298**	**316**	**398**	**4**	**2 220**

The turnover rate for permanent employees was 10.9%, while the turnover rate for permanent SET employees was 12.7%.

Table 21: Reasons for staff leaving

Reason	Number	% of total no. of staff leaving
Death	4	1.01%
Resignation	107	26.88%
Dismissal	4	1.01%
Retirement	34	8.54%
Ill health	2	0.50%
Expiry of contract	188	47.24%
Retrenchment	59	14.82%
Total	**398**	**100.00%**

Primary reasons for employees exits, aside from contract expiration, were resignations (26.88%), retrenchment (14.82%) and retirements (8.54%). To address these departures, the organisation continues to implement interventions such as external recruitment and the absorption of candidates from its internal talent pipeline.

Table 22: Labour relations – Misconduct and disciplinary action

Nature of disciplinary action	Number
Verbal warning	7
Written warning	9
Final written warning	5
Dismissal	4

Table 23: Equity target and employment equity status – Male

Levels	Male							
	African		Coloured		Indian		White	
	Current	Target	Current	Target	Current	Target	Current	Target
Top management	9	10	0	0	1	1	2	2
Senior management	32	35	4	4	8	8	17	19
Professional qualified	228	224	21	20	50	54	149	169
Skilled	349	356	22	24	23	23	33	44
Semi-skilled	100	93	11	10	0	2	0	5
Unskilled	65	40	1	7	0	0	0	1
Total	**783**	**758**	**59**	**65**	**82**	**88**	**201**	**240**

Table 24: Equity target and employment equity status – Female

Levels	Female							
	African		Coloured		Indian		White	
	Current	Target	Current	Target	Current	Target	Current	Target
Top management	3	3	0	0	0	0	2	2
Senior management	9	9	1	2	0	1	11	12
Professional qualified	186	197	8	10	29	28	102	108
Skilled	419	421	20	22	21	28	39	45
Semi-skilled	79	83	11	10	1	2	4	5
Unskilled	75	40	0	5	0	1	0	2
Total	**771**	**753**	**40**	**49**	**51**	**60**	**158**	**174**

Table 25: Equity target and employment equity status – People with disabilities

Levels	Disabled staff			
	Male		Female	
	Current	Target	Current	Target
Top management	0	0	0	0
Senior management	1	1	1	1
Professional qualified	6	8	2	3
Skilled	6	6	2	2
Semi-skilled	0	0	0	0
Unskilled	17	10	34	20
Total	**30**	**25**	**39**	**26**



PART F
PFMA COMPLIANCE REPORT

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IRREGULAR, FRUITLESS AND WASTEFUL EXPENDITURE AND MATERIAL LOSSES

IRREGULAR EXPENDITURE

a) Reconciliation of irregular expenditure

Description	2025/2026	2024/2025
	R'000	R'000
Opening balance	7 689	5 328
Adjustment to opening balance [1]	-	(3 211)
Opening balance as restated	7 689	2 117
Add: Irregular expenditure confirmed [2] [3]	8 152	7 585
Less: Irregular expenditure condoned [4]	-	(708)
Less: Irregular expenditure not condoned and removed [4]	-	(1 305)
Less: Irregular expenditure recoverable [1]	-	-
Less: Irregular expenditure not recoverable and written off	-	-
Closing balance	**15 841**	**7 689**

(1) The adjustment to the 2024/2025 opening balance is made up of the following net movements relating to pre-2024/2025 expenditure:
- *R21 000 inclusion which was identified and confirmed in 2025/2026;*
- *R1.041 million deduction for expenditure condoned in the current year;*
- *R2.191 million deduction for expenditure removed in the current year.*

(2) The 2024/2025 disclosed amount has been restated from R5.661 million to R7.585 million, being the amount which was under assessment in the prior financial year and confirmed in the current financial year (R325,000), as well as expenditure relating to the prior financial year which was identified and confirmed in the current financial year (R1,599 million).

(3) The 2025/2026 disclosed amount includes R6.370 million identified during the audit performed by the Auditor-General of South Africa. Management is yet to make an assessment and determination on this amount in line with the 2022 PFMA Compliance and Reporting Framework.

(4) Expenditure condoned/removed in 2025/2026 relating to 2024/2025.

Reconciling notes to the annual financial statement disclosure

Description	2025/2026	2024/2025
	R'000	R'000
Irregular expenditure that was under assessment	-	325
Irregular expenditure that relates to the prior year and identified in the current year [5]	-	1 599
Irregular expenditure for the current year	8 152	5 661
Total	**8 152**	**7 585**

(5) Expenditure that relates to 2024/2025, identified and confirmed in 2025/2026.

1 *Transfer to receivables*

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

Description	2025/2026	2024/2025
	R'000	R'000
Irregular expenditure under assessment [6]	6 691	325
Irregular expenditure under determination	-	-
Irregular expenditure under investigation	-	-
Total	**6 691**	**325**

(6) During the 2025/2026 financial year, a total of R6.691 million was under assessment at the end of the period, of which, R2.509 million relates to 2023/2024 and R 4.182 million relates to the 2025/2026 financial year.

c) Details of irregular expenditure condoned

Description	2025/2026	2024/2025
	R'000	R'000
Irregular expenditure condoned [7]	-	708
Total	**-**	**708**

(7) In 2025/2026, irregular expenditure amounting to R1.041 million, relating to pre-2024/2025 years, was considered and condoned by National Treasury in line with the Instruction Note. This removal has been adjusted for in the "Reconciliation of irregular expenditure" table (2024/2025 opening balance).

d) Details of irregular expenditure removed (not condoned)

Description	2025/2026	2024/2025
	R'000	R'000
Irregular expenditure NOT condoned and removed [8]	-	1 305
Total	**-**	**1 305**

(8) In 2025/2026, irregular expenditure amounting to R2.191 million, relating to pre-2024/2025 years, was considered and approved by the CSIR Board for removal in line with the relevant National Treasury Instruction Notes. This removal has been adjusted for in the "Reconciliation of irregular expenditure" table (2024/2025 opening balance).

e) Details of irregular expenditure recoverable

Description	2025/2026	2024/2025
	R'000	R'000
Irregular expenditure recoverable	-	-
Total	**-**	**-**

f) Details of current and previous year irregular expenditure written off (irrecoverable)

Description	2025/2026	2024/2025
	R'000	R'000
Irregular expenditure written off	-	-
Total	**-**	**-**

Additional disclosure relating to Inter-Institutional Arrangements

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

Description	2025/2026	2024/2025
	R'000	R'000
None	-	-
Total	**-**	**-**

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

Disciplinary steps taken
During the reporting period, instances of irregular expenditure were identified through reviews. Each case was thoroughly investigated to determine the root cause, identify responsible parties and implement appropriate remedial actions. Targeted and process related training sessions were conducted for staff involved in procurement and expenditure management transgressions, to reinforce compliance with applicable legislation and internal policies. The CSIR undertook organisation-wide compulsory irregular, fruitless and wasteful expenditure awareness training and 93% of staff have been trained in 2025/2026. Disciplinary processes were initiated in cases where staff were found to have acted negligently or in breach of policy. Sanctions imposed included written warnings, final warnings, and, in serious cases, termination of employment. All outcomes were in line with the organisation's disciplinary code and relevant labour regulations. No transactions that have criminal elements or financial misconduct were identified in the reviews and action.

FRUITLESS AND WASTEFUL EXPENDITURE

a) Reconciliation of fruitless and wasteful expenditure

Description	2025/2026	2024/2025
	R'000	R'000
Opening balance	230	141
Adjustment to opening balance	-	-
Opening balance as restated	230	141
Add: Fruitless and wasteful expenditure confirmed [9]	39	89
Less: Fruitless and wasteful expenditure recoverable [2]	(114)	-
Less: Fruitless and wasteful expenditure not recoverable and written off	-	-
Closing balance	**155**	**230**

(9) The 2024/2025 disclosed amount has been restated from Rnil to R89 000, being the amount which was under assessment in the prior financial year and confirmed in the current financial year (R40 000), as well as expenditure relating to the prior financial year which was identified and confirmed in the current financial year (R49 000).

Reconciling notes to the annual financial statement disclosure

Description	2025/2026	2024/2025
	R'000	R'000
Fruitless and wasteful expenditure that was under assessment	-	40
Fruitless and wasteful expenditure that relates to the prior year and identified in the current year [10]	-	49
Fruitless and wasteful expenditure for the current year	39	-
Total	**39**	**89**

(10) Expenditure that relates to 2024/2025, identified and confirmed in 2025/2026.

2 *Transfer to receivables*

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

Description [3]	2025/2026	2024/2025
	R'000	R'000
Fruitless and wasteful expenditure under assessment	-	40
Fruitless and wasteful expenditure under determination	-	-
Fruitless and wasteful expenditure under investigation	-	-
Total	**-**	**40**

c) Details of fruitless and wasteful expenditure recoverable

Description	2025/2026	2024/2025
	R'000	R'000
Fruitless and wasteful expenditure recoverable [(11)]	114	-
Total	**114**	**-**

(11) R88 000 of the recoverable amount has been recovered in the current financial year with the balance to be recovered in the next financial year.

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

Description	2025/2026	2024/2025
	R'000	R'000
Fruitless and wasteful expenditure written off	-	-
Total	**-**	**-**

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

Disciplinary steps taken
During the reporting period, instances of fruitless expenditure were identified through reviews. Each case was thoroughly investigated to determine the root cause, identify responsible parties and implement appropriate remedial actions. Targeted and process related training sessions were conducted for staff involved in procurement and expenditure management transgressions, to reinforce compliance with applicable legislation and internal policies. The CSIR undertook organisation-wide compulsory irregular, fruitless and wasteful expenditure awareness training and 93% of staff have been trained in 2025/2026. Disciplinary processes were initiated in cases where staff were found to have acted negligently or in breach of policy. Sanctions imposed included written warnings, final warnings, and, in serious cases, termination of employment. All outcomes were in line with the organisation's disciplinary code and relevant labour regulations. No transactions that have criminal elements or financial misconduct were identified in the reviews and action.

3 *Group similar items*

ADDITIONAL DISCLOSURE RELATING TO MATERIAL LOSSES IN TERMS OF PFMA SECTION 55(2)(B)(I) &(III)) [4]

a) Details of material losses through criminal conduct

Material losses through criminal conduct	2025/2026	2024/2025
	R'000	R'000
Theft	-	-
Other material losses	-	-
Less: Recoverable	-	-
Less: Not recoverable and written off	-	-
Total	**-**	**-**

b) Details of other material losses

Nature of other material losses	2025/2026	2024/2025
	R'000	R'000
None	-	-
Total	**-**	**-**

c) Other material losses recoverable

Nature of losses	2025/2026	2024/2025
	R'000	R'000
None	-	-
Total	**-**	**-**

d) Other material losses not recoverable and written off

Nature of losses	2025/2026	2024/2025
	R'000	R'000
None	-	-
Total	**-**	**-**

4 *Information related to material losses must also be disclosed in the Annual Financial Statements.*

LATE AND/OR NON-PAYMENT OF SUPPLIERS

Description	Number of invoices	Consolidated value
		R'000
Valid invoices received	45 631	1 569 870
Invoices paid **within** 30 days or agreed period	38 918	1 366 684
Invoices paid **after** 30 days or agreed period	6 561	199 675
Invoices older than 30 days or agreed period *(unpaid and without dispute)*	84	809
Invoices older than 30 days or agreed period *(unpaid and in dispute)*	68	2 702

PFMA SCM Instruction Note number 3 of 2021/22 states that payment should be made within 30 days from receipt of an invoice "unless determined otherwise in a contract or other agreement".

Clause 9.4 of the CSIR standard terms and conditions of purchase reads "Unless otherwise specified on the purchase order, the purchaser shall pay the invoiced amount within forty-five (45) days after receipt of a valid invoice at the Accounts Payable Office of the purchaser, subject thereto that the goods and/or services fully complied with the specifications of the purchase order."

The CSIR's standard contractually agreed payment terms are 45 days from the invoice date, unless otherwise explicitly stipulated.

Our view is that the CSIR complies with the requirements of the instruction note.

SUPPLY CHAIN MANAGEMENT

PROCUREMENT BY OTHER MEANS

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract
				R'000
Syspro Cloud ERP Software	Syspro (Pty) Ltd	Sole Source Procurement	SSP 4393	R4 991
Replacement cooler buckets and heads for MSWT PES Compressor C1000	Ingersoll-Rand Company South Africa (Pty) Ltd	Sole Source Procurement	SSP 4408	R3 152
Annual renewal of PLEXOS Power Module License and Additional Gas Module Licence	Energy Exemplar (Pty) Ltd	Sole Source Procurement	SSP 4426	R1 349
Provision of software license for planned RSA Health Projectathon (Republic of South Africa Digital Health Interoperability Projectathon)	IHE Catalyst AISBL	Sole Source Procurement	SSP 4459	R4 603
The removal of the CPUT Tygerberg site within the existing Cape Town fibre ring.	Dark Fibre Africa (Pty) Ltd	Sole Source Procurement	SSP 4466	R2 183
The supply of Microrider and oxygen Mounting brackets for G3 Slocum Glider, a SUNA Nitrate Sensor, rechargeable batteries for G3 extended and SFMC.	Teledyne Instruments Inc	Sole Source Procurement	SSP 4469	R2 303
OPO laser system	EKSPLA Ltd	Sole Source Procurement	SSP 4496	R1 685
ARCHIBUS Upgrade, Maintenance, and Support	Archibus Solution Centre South Africa (Pty) Ltd	Sole Source Procurement	SSP 4504	R2 883

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Replacement of outdated, obsolete IR Cameras (Scientific Cooled Infrared Cameras)	Yellow Technical Services (Pty) Ltd	Sole Source Procurement	SSP 4532	R12 758
Pressure Scanner	Aurora 2000 Information Services CC	Sole Source Procurement	SSP 4533	R1 904
Renewal of ProCAST license	Concilium Technologies (Pty) Ltd	Sole Source Procurement	SSP 4539	R3 586
The supply of Research simulator tool/Real Time Digital Simulator (RTDS) for advance smart transactive microgrid research for the CSIR.	EtalumiSe (Pty) Ltd	Sole Source Procurement	SSP 4540	R8 753
Microsoft Unified Support Renewal	Microsoft (S.A.)	Sole Source Procurement	SSP 4568	R2 296
Procurement of Gartner License Subscription.	Gartner South Africa (Pty) Ltd	Sole Source Procurement	SSP 017	R2 977
PCIe Board with 4-channel 200 MHz A/D with DDCs and Kintex UltraScale FPGA	Rugged Interconnect	Sole Source Procurement	SSP 042	R2 843
Local Innovation Advancement Tools (LIAT)	Human Science and Research Council (HSRC)	Sole Source Procurement	SSP 077	R1 565
Supply of Globus software license to the CSIR	Globus at the University of Chicago	Single Source Procurement	SIN 479	R1 739
Multispectral Imaging Kit	AE Solutions (Pty) Ltd	Single Source Procurement	SIN 484	R8 594
Extension of support and warranty services for Dell enterprise hardware (Dell Unity ERP storage unit)	First Technology National (Pty) Ltd	Single Source Procurement	SIN 511	R2 980
Precision steel cutting and bending	Kare Sheet Metal Products (Pty) Ltd	Single Source Procurement	SIN 525	R2 000
Renewal of thirteen (13) Oracle Coterminous agreements to align the start and end dates.	Oracle Corporation South Africa (Pty) Ltd	Single Source Procurement	SIN 529	R7 523
As and when required overhead lifting equipment and tackles, repairs and parts replacements, and all required costs and equipment for Scientia campus, Cottesloe, Klopperbos and Paardefontein regional sites at CSIR	Limax Technical services (Pty) Ltd	Single Source Procurement	SIN 530	R1 500
LinkedIn Learning online platform.	Ayanda Mbanga Communications (Pty) Ltd	Single Source Procurement	SIN 533	R2 989
Provision of an Occupational Hygienist for the mining industry on behalf of the CSIR for Heat Tolerance Screening (HTS) supervisor training and practical assessment and Accreditation of the HTS Centres.	Deon Jansen van Vuuren	Single Source Procurement	SIN 536	R3 000
Software License Renewal - Siemens Simcenter STAR-CCM+ 1-Year Power Session Plus (CPU & GPU)	Aerotherm Computational Dynamics CC	Single Source Procurement	SIN 546	R1 833

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Developing a Real-Time Underground Location System for GPS-deprived environments such as mines and tunnels.	Eliko Location Technologies	Single Source Procurement	SIN 551	R2 058
Provision of Exhibition Stands and Temporary Structure Design, Construction and On-Site Project Management for the 2025 CSIR Biennial Conference taking place at the CSIR ICC In Pretoria	Garona Communications and Projects CC	Single Source Procurement	SIN 552	R2 245
Appointment of service provider to provide seasonal casual workers at the CSIR Conferencing and Accommodation on an "as and when required" basis for a five (05) year period	Adcorp Workforce Solutions (Pty) Ltd	Single Source Procurement	SIN 563	R27 354
Execution of underground stress measurements using CCBO and DCDA methods.	Groundwork Consulting (Pty) Ltd	Single Source Procurement	SIN 564	R2 633
Retrofit Centac CMC to Siemens S7 1500 PLC upgrade.	Ingersoll-Rand Company South Africa (Pty) Ltd	Single Source Procurement	SIN 565	R2 908
36 Core Low-Impedance miniature Cables.	Agilink Microwires	Single Source Procurement	SIN 576	R3 325
Wind tunnel model design and analysis and wind tunnel rig upgrade design and analysis.	TechnoStar Engineering (Pty) Ltd	Single Source Procurement	SIN 586	R3 228
Renewal of thirteen (13) Oracle agreements on an-as-and- when required basis for a period two (2) years.	Oracle Corporation South Africa (Pty) Ltd	Single Source Procurement	SIN 587	R27 578
The JSM-IT710HR Field Emission SEM (Scanning Electron Microscope)	Angstrom Scientific (Pty) Ltd	Single Source Procurement	SIN 592	R7 243
Renewal of Perceptive Content licensing for a period of three (3) years.	Orange Now (Pty) Ltd	Single Source Procurement	SIN 011	R3 195
Microsoft Enterprise Agreement license for a period of three (3) years.	Microsoft Ireland Corporation Ltd	Single Source Procurement	SIN 012	R51 738
Provision of UAV platform for high altitude multispectral imaging.	Autonosky (Pty) Ltd	Single Source Procurement	SIN 021	R7 981
Procurement of a Counter UAV (i.e., handheld drone Jammer) and the procurement of a UAV detection device.	Safomar Technologies (Pty) Ltd	Single Source Procurement	SIN 022	R1 914
Wind tunnel systems design, procurement, integration and commissioning (DYANMIC PITCH RIG (DPR) DESIGN UPDATE FOR A 1.2 M TRISONIC WIND TUNNEL.	Technostar Engineering (Pty) Ltd	Single Source Procurement	SIN 027	R3 829
Photron NOVA S20 High Speed Camera with 128 GB storage memory.	ECM Technologies (Pty) Ltd	Single Source Procurement	SIN 028	R2 245

Project description	Name of supplier	Type of procurement by other means	Contract number	Value of contract R'000
Expertise in military operations specifically EW, including the use of optical EW sensors in battle for incorporation into the ongoing development of the electronic countermeasure training tool.	Midnite Aerospace Solution (Pty) Ltd	Single Source Procurement	SIN 044	R4 198
Upgrades and integration of smart cabinets, mobile trommels and asset sensors into the CSIR smart surveillance platform.	Ekasilam Technologies (Pty) Ltd	Single Source Procurement	SIN 045	R2 397
Procurement of ArcGIS Maintenance and Enterprise License Agreement for a period of three (3) years.	ESRI South Africa (Pty) Ltd	Single Source Procurement	SIN 050	R11 332
Laboratory equipment, consumables, and related items.	LTC Tech South Africa (Pty) Ltd	Single Source Procurement	SIN 055	R2 500
Procurement of Oracle Market-Driven Support licences from Oracle for Oracle E-Business Suite (EBS) Release 12.1.3	Oracle Corporation South Africa (Pty) Ltd	Single Source Procurement	SIN 060	R4 391
PeopleSoft Enterprise eProcurement - Application User Perpetual and Software Update License & Support	Oracle Corporation South Africa (Pty) Ltd	Single Source Procurement	SIN 065	R2 032
Procurement of Open Text Software Assurance and SUSE Products for twelve (12) months to the CSIR.	Axiz (Pty) Ltd	Single Source Procurement	SIN 063	R3 191
Provision of a Procurement Risk and Vetting Solution to the CSIR for a period of two (2) years	ProbityX Consulting (Pty) Ltd	Multi-Source Procurement	CSIR-MSP002	R1 500
Juniper MX204 equipment with support and maintenance to upgrade the SANReN's Tshwane metropolitan area network.	NEC XON Systems (Pty) Ltd	Multi Source Procurement	CSIR-MSP010	R1 910
Supply of Fibre Optic Transceivers for SANReN networking routers and switches.	Digital Community Architect (Pty) Ltd	Multi Source Procurement	CSIR-MSP011	R1 597
Total				**R 276 511**

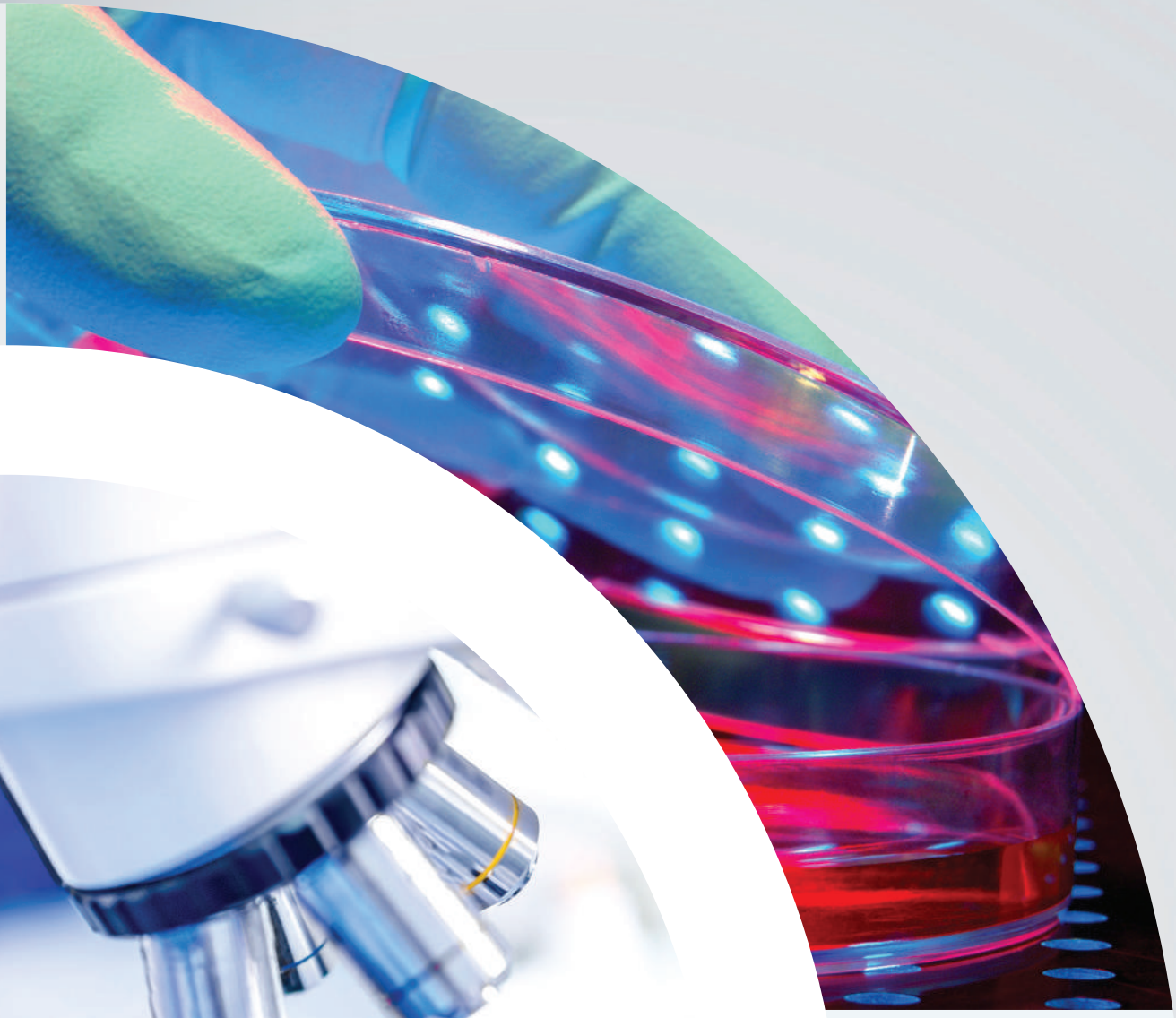
CONTRACT VARIATIONS AND EXPANSIONS

Project description	Name of supplier	Contract modification type (Expansion or Variation)	Contract number	Original contract value	Value of previous contract expansion/s or variation/s (if applicable)	Value of current contract expansion or variation
				R'000	R'000	R'000
SharePoint Storage Expansion (Additional 10TB)	Microsoft Ireland Operations Ltd	Expansion	EV 355	R1 455	R31 275	R332
Expansion of the contract for the provisioning of managed bandwidth connectivity for the University of South Africa in Makhado.	Openserve (Pty) Ltd	Expansion	EV 363	R1 295	N/A	R216

Project description	Name of supplier	Contract modification type (Expansion or Variation)	Contract number	Original contract value	Value of previous contract expansion/s or variation/s (if applicable)	Value of current contract expansion or variation
				R'000	R'000	R'000
Provision of Seasonal Casual Labour/Temporary Staffing Solutions to the CSIR International Convention Centre (ICC)	Beta Group (Pty) Ltd	Expansion	EV 365	R4 000	R4 000	R4 500
Strip and assessment of the multi-stage pump in building 33	Integrated Pump Rental (Pty) Ltd	Variation	EV 370	R21	N/A	R30
Additional software enhancement on the Innovation Bridge to integrate with the CIPC BizPortal, accommodate the Technology Challenges, G20 Open Innovation Platform and Community Events.	Starbright IT Solutions (Pty) Ltd	Expansion	EV 372	R331	N/A	R50
SMAIM-10 Inverter Manager	WSW Tech (Pty) Ltd	Expansion	EV 378	R87	N/A	R18
Request for the Compressor major service at building 46 in the Council for Scientific and Industrial Research (CSIR) Scientia	Super Air Technologies (Pty) Ltd	Variation	EV 383	R6	N/A	R13
Provision of an Employee Wellness Programme (EWP) to the CSIR	LYRA Southern Africa (Pty) Ltd	Expansion	EV 384	R2 170	R160	R914
Installation and commissioning of inverter manager	WSW Tech (Pty) Ltd	Expansion	EV 385	R87	R18	R10
Provision of an on-line SHEQ tool software programme, training and on-going licensing for the product.	Combined Source Trading (Pty) Ltd	Expansion	EV 399	R2 875	R1 965	R517
Nessus Professional on Premises Subscription on an as and when required basis for a period of five (5) years.	Aariva (Pty) Ltd	Expansion	EV 389	R2 415	N/A	R413
Compressor supply and corrective action on unit 4 leak test and repair on CR35	Vertiv (South Africa) (Pty) Ltd	Variation	EV 391	R362	N/A	R167
EMC Testing on ultrasound device only for Conducted Immunity in 3 input/output at 2 Hz modulation frequency	UL GmbH	Variation	EV 393	R47	N/A	R234
The provision of Occupational Health Doctor services to the CSIR Medical Centre at the Pretoria Campus for a period of 12 months	Moyreg (Pty) Ltd	Expansion	EV 394	R702	R370	R387

Project description	Name of supplier	Contract modification type (Expansion or Variation)	Contract number	Original contract value	Value of previous contract expansion/s or variation/s (if applicable)	Value of current contract expansion or variation
				R'000	R'000	R'000
Golf Cart Differential Inspection and Oil Replacement.	Pro7 Trading Solutions (Pty) Ltd	Variation	EV 395	R4	N/A	R24
Provision of monthly statutory service of goods lifts and passenger lifts.	Schindler Lifts (SA) (Pty) Ltd	Expansion	EV 396	R4 380	N/A	R1 144
Global connectivity – SANREN Connection service for the following: DPSS TSO DPSS Project CSIR DHA POC Project Ad-hoc request for link	The Tertiary Education and Research Network of South Africa	Expansion	EV 400	R10 608	R1 281	R2 693
Transport of Coolers From and return to site. Pressure test and clean 1st STG cooler and 2nd STG cooler. Replace GASKET KIT 5CII 1ST STG and GASKET KIT 5CII 2ST STG	Ingersoll-Rand Company South Africa (Pty) Ltd	Variation	EV 402	R68	N/A	R380
NetApp Support and Maintenance	Altron TMT (Pty) Ltd	Expansion	EV 408	R2 486	N/A	R2 591
Ad hoc services to the existing Schindler contract	Schindler Lifts SA	Expansion	EV 410	R4 380	R1 144	R600
Provision of general waste management services to CSIR Gauteng sites for a period of three months.	Wasteplan Gauteng (Pty) Ltd	Expansion	EV 415	R971	N/A	R461
Repair of a Compressor at the CSIR Klopperbos.	Airpress (Pty) Ltd	Variation	EV 416	R9	N/A	R5
Provisioning of Multiple 10Gbps managed bandwidth services for the refresh of Eastern Cape rural links expansion.	Openserve (Pty) Ltd	Expansion	EV 418	R7 123	N/A	R1 068
Financial Advisory Services of Liquidation Values of CSIR assets.	A and Sons Property Group (Pty) Ltd	Variation	EV 420	R230	N/A	R101
QDR SRAM used on the 5th Generation DRFM Module Part numbers: CY7C1665KV18-450BZXC CY7C1665KV18-550BZXC Manufacturer: Cypress Semiconductor/ Infineon Technology	Arrow Altech Distribution (Pty) Ltd	Expansion	EV 421	R91	N/A	R33
Exhibition infrastructure and furnishing for the World Conference of Science Journalists (WCSJ) Conference.	Scan Display Solutions (Pty) Ltd	Expansion	EV 422	R324	N/A	R385

Project description	Name of supplier	Contract modification type (Expansion or Variation)	Contract number	Original contract value	Value of previous contract expansion/s or variation/s (if applicable)	Value of current contract expansion or variation
				R'000	R'000	R'000
Ethernet Test Board Ethernet Extension Connector Board.	Electronic Design Technologies CC	Variation	EV 423	R48	N/A	R48
Provision of Design, Manufacturing and Verification Testing of Mechanical Structure for the Spaceborne SAR Payload.	Petrawell (Pty) Ltd	Variation	EV 431	R5 359	N/A	R979
SUSE True-up products	Axis (Pty) Ltd	Variation	EV 432	R3 863	N/A	R1 297
Human Foreskin Fibroblasts (HFFs)	Industrial Analytical (Pty) Ltd	Variation	EV 436	R60	N/A	R46
Provision of general waste management services to CSIR Gauteng sites for a period of three months.	Wasteplan Gauteng (Pty) Ltd	Expansion	EV 443	R967	R461	R333
Provision of specialised ocean engineering and R&D services to CSIR	Sea Technology Services	Expansion	EV 445	R9 866	R496	R1 018
Provision of Occupational Health Doctor services to the CSIR Medical Centre at the Pretoria Campus for a period of 12 months.	Moyreg (Pty) Ltd	Expansion	EV 455	R611	R757	R180
Supply and delivery of cybersecurity Servers to the CSIR.	PC Palace Gauteng (Pty) Ltd	Expansion	EV 457	R611	N/A	R292
Servicing of the UVH-170 Helicopter UAV armed system in accordance with aviation regulatory standards.	Dinkwanyana Aerospace (Pty) Ltd	Expansion	EV 458	R10 000	N/A	R1 495
Contract Extension of the PeopleSoft Applications and Database Administration.	Alcina Investments (Pty) Ltd t/a Integreat	Expansion	EV 460	R8 439	N/A	R6 495
Replacement of air conditioning system compressor.	AC Air Conditioning (Pty) Ltd	Variation	EV 462	R29	N/A	R52
Uninterrupted continuation of CSIR C&A (ICC, Entabeni, Newton's & Knowledge Commons) customer feedback and reporting	At Zone Hospitality Consulting	Expansion	EV 473	R136	N/A	R144
Total				**R86 516**	**R41 927**	**R29 665**





PART G
ANNUAL FINANCIAL STATEMENTS

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REPORT OF THE AUDITOR-GENERAL TO PARLIAMENT ON THE COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH

REPORT ON THE AUDIT OF THE CONSOLIDATED AND SEPARATE FINANCIAL STATEMENTS

Opinion

1. I have audited the consolidated and separate financial statements of the Council for Scientific and Industrial Research and its subsidiaries (the group) set out on pages 152 to 213, which comprise of the consolidated and separate statements of financial position as at 31 March 2026, consolidated and separate statements of profit or loss and other comprehensive income, consolidated and separate statements of changes in equity and the consolidated and separate statement of cash flows for the year then ended, as well as notes to consolidated and separate financial statements including material accounting policy information.
2. In my opinion, the consolidated and separate financial statements present fairly, in all material respects, the financial position of the group as at 31 March 2026 and their consolidated and separate financial performance and consolidated and separate cash flows for the year then ended, in accordance with the International Financial Reporting Standards (IFRS) and the requirements of the Public Finance Management Act 1 of 1999 (PFMA).

Basis for opinion

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

Emphasis of matter

6. I draw attention to the matter below. My opinion is not modified in respect of this matter.

Restatement of corresponding figures

7. As disclosed in Note 35 to the financial statements, the corresponding figures for 31 March 2025 were restated as a result of an error in the financial statements of the entity at, for the year ended, 31 March 2026.

Responsibilities of the accounting authority for the consolidated and separate financial statements

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

Responsibilities of the auditor-general for the audit of the consolidated and separate financial statements

10. My objective is to obtain reasonable assurance about whether the consolidated and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated and separate financial statements.
11. A further description of our responsibilities for the audit of the consolidated and separate financial statements is included in the annexure to this auditor's report. This description, which is located on page 151 of the annexure to the auditor's report, forms part of my auditor's report.

REPORT ON THE AUDIT OF THE ANNUAL PERFORMANCE REPORT

12. In accordance with the Public Audit Act 25 of 2004 (PAA) and the general notice issued in terms thereof; I must audit and report on the usefulness and reliability of the reported performance against predetermined objectives for the selected material performance indicators presented in the annual performance report. The accounting authority is responsible for the preparation of the annual performance report.
13. I selected the following material performance indicators related to strategic objective (SO) 1: conduct research, development and innovation of transformative technologies and accelerate their diffusion presented in the annual performance report for the year ended 31 March 2026. I selected those indicators that measure group's performance on its primary mandated functions and that are of significant national, community or public interest.
    - Publication equivalents
    - New priority patent applications filed
    - New patents granted

REPORT OF THE AUDITOR-GENERAL TO PARLIAMENT ON THE COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH

- New technology demonstrators
- Number of technology licence agreements signed.

14. I evaluated the reported performance information for the selected material performance indicators against the criteria developed from the performance management and reporting framework, as defined in the general notice. When an annual performance report is prepared using these criteria, it provides useful and reliable information and insights to users on the group's planning and delivery on its mandate and objectives.
15. I performed procedures to test whether:
    - the indicators used for planning and reporting on performance can be linked directly to the group's mandate and the achievement of its planned objectives
    - all the indicators relevant for measuring the group's performance against its primary mandated and prioritised functions and planned objectives are included
    - the indicators are well defined to ensure that they are easy to understand and can be applied consistently, as well as verifiable so that we can confirm the methods and processes to be used for measuring achievements
    - the targets can be linked directly to the achievement of the indicators and are specific, time bound and measurable to ensure that it is easy to understand what should be delivered and by when, the required level of performance as well as how performance will be evaluated
    - the indicators and targets reported on in the annual performance report are the same as those committed to in the approved initial or revised planning documents
    - the reported performance information is presented in the annual performance report in the prescribed manner
    - there is adequate supporting evidence for the achievements reported and for the reasons provided for any over or underachievement of targets
16. I performed the procedures for the purpose of reporting material findings only; and not to express an assurance opinion or conclusion.
17. I did not identify any material findings on the reported performance information for the selected indicators.

Other matter

18. I draw attention to the matter below.

Achievement of planned targets

19. The annual performance report includes information on reported achievements against planned targets and provides explanations for over- and under achievements.
20. The table that follows provide information on the achievement of planned targets and lists the key indicators that were not achieved as reported in the annual performance report. The reasons for any underachievement of targets are included in the annual performance report on pages 85 to 92.

SO1: Conduct research, development and innovation of transformative technologies and accelerate their diffusion

Targets for key indicators not achieved

Target achieved: 60% **The budget spent per strategic objective could not be determined as the entity do not budget per strategic objective.**		
Key performance indicators (KPIs) not achieved	**Planned target**	**Reported achievement**
KPI -3: New patents granted	9	8
KPI -4: New technology demonstrators	58	45

REPORT ON COMPLIANCE WITH LEGISLATION

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

Annual Financial Statements

25. The financial statements submitted for auditing were not prepared in accordance with the prescribed financial reporting framework as required by section 55(1) (b) of the PFMA.
26. Material misstatements of revenue – contract research and development and statement of cash flow identified by the auditors were corrected, resulting in the financial statements receiving an unqualified audit opinion.

OTHER INFORMATION IN THE ANNUAL REPORT

27. The accounting authority is responsible for the other information. The other information comprises the information included in the annual report, which includes the accounting authority's' report,

REPORT OF THE AUDITOR-GENERAL TO PARLIAMENT ON THE COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH

the audit committee's report and the chief executive officer's report. The other information does not include consolidated and separate financial statements, the auditor's report and those selected material indicators in scoped-in strategic objective presented in the annual performance report that have been specifically reported on in this auditor's report.

28. My opinion on the consolidated and separate financial statements and my reports on the audit of the annual performance report and compliance with legislation do not cover the other information and we do not express an audit opinion or any form of assurance conclusion on it.
29. In connection with my audit, my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated and separate financial statements, and the selected material indicators presented in the annual performance report, or our knowledge obtained in the audit, or otherwise appears to be materially misstated.
30. I did not receive final information prior to the date of this auditor's report. When I do receive and read this information, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance and request that the other information be corrected. If the other information is not corrected, I may have to retract this auditor's report and re-issue an amended report as appropriate. However, if it is corrected this will not be necessary.

INTERNAL CONTROL DEFICIENCIES

31. I considered internal control relevant to our audit of the consolidated and separate financial statements, annual performance report and compliance with applicable legislation; however, our objective was not to express any form of assurance on it.
32. The matters reported below are limited to the significant internal control deficiencies that resulted in the findings on the annual performance report and the material findings on compliance with legislation included in this report.
33. Management did not implement adequate review processes to ensure preparation of regular, accurate and complete financial reports that are supported and evidenced by reliable information.

Auditor-General

Pretoria
30 July 2026

AUDITOR-GENERAL
SOUTH AFRICA

Auditing to build public confidence

REPORT OF THE AUDITOR-GENERAL TO PARLIAMENT ON THE COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH

ANNEXURE TO THE AUDITOR'S REPORT

The annexure includes the following:

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

Auditor's responsibilities for the audit

Professional judgement and professional scepticism

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

Consolidated and separate financial statements

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

- identify and assess the risks of material misstatement of consolidated and separate 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 group's internal control
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- conclude on the appropriateness of the use of the going concern basis of accounting in the preparation of the consolidated and separate financial statements. We also conclude, based on the audit evidence obtained, whether a material uncertainty exists relating to events or conditions that may cast significant doubt on the ability of the group 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 consolidated and separate financial statements about the material uncertainty or, if such disclosures are inadequate, to modify our opinion on the consolidated and separate financial statements. Our conclusions are based on the information available to us at the date of this auditor's report. However, future events or conditions may cause a group to cease operating as a going concern
- evaluate the overall presentation, structure and content of consolidated and separate financial statements including the disclosures and determine whether the consolidated and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Communication with those charged with governance

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

Compliance with legislation – selected legislative requirements

The selected legislative requirements are as follows:

Legislation	Sections or regulations
Public Finance Management Act 1 of 1999	Section 50(3)(a); 50(3)(b); 51(1)(a)(iii); 51(1)(b)(i); 51(1)(b)(ii); 51(1)(e)(iii); 52(b); 54(2)(c); 54(2)(d); 55(1)(a); 55(1)(b); 55(1)(c)(i); 56; 57(b); 66(3)(b)
Treasury Regulations, 2005	Regulation 29.1.1; 29.1.1(a); 29.1.1(c); 29.2.1; 29.2.2; 29.3.1; 31.1.2(c); 31.2.5; 31.2.7; 33.1.1; 33.1.3
Companies Act 71 of 2008	Section 45(2); 45(3)(a)(ii); 45(3)(b)(i); 45(3)(b)(ii); 45(4); 46(1)(a); 46(1)(b); 46(1)(c); 112(2)(a); 129(7)
Construction Industry Development Board Regulations, 2004	Regulation 17; 25(7A)
National Treasury SCM Instruction No. 03 of 2021/22	Paragraph 4.2
Preferential Procurement Policy Framework Act 5 of 2000	Section 1; 2.1(a); 2.1(f)
Preferential Procurement Regulations, 2022	Regulation 4.1; 4.2; 4.3; 4.4; 5.1; 5.2; 5.3; 5.4
Prevention and Combating of Corrupt Activities Act 12 of 2004	Section 34(1)

STATEMENTS OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

for the year ended 31 March 2026

	Notes	GROUP 2026 R '000	GROUP 2025 R '000	CSIR 2026 R '000	CSIR 2025 R '000
Revenue	2	3,346,650	3,540,072	3,346,650	3,540,072
Other income	3	8,036	3,424	8,036	3,424
Total operating income		**3,354,686**	**3,543,496**	**3,354,686**	**3,543,496**
Expenses					
Employees' remuneration		(2,036,889)	(1,987,935)	(2,036,605)	(1,987,798)
Depreciation		(51,933)	(50,496)	(51,933)	(50,496)
Operating expenses		(1,296,732)	(1,548,227)	(1,297,973)	(1,546,976)
Operating loss	4	**(30,868)**	**(43,162)**	**(31,825)**	**(41,774)**
Finance income	5	86,628	102,878	85,956	102,285
Finance expense	6	(15,520)	(19,888)	(15,520)	(19,888)
Share of (loss)/profit of joint venture and associate		(1,443)	1,191	-	-
Profit for the year		**38,797**	**41,019**	**38,611**	**40,623**
Other comprehensive income:					
Items that will not be reclassified to profit or loss:					
Remeasurement of post-retirement medical benefit obligation		471	181	471	181
Revaluation of land	8	-	48,933	-	48,933
Total items that will not be reclassified to profit or loss		**471**	**49,114**	**471**	**49,114**
Items that may be reclassified to profit or loss:					
Gains on valuation of investments in debt instruments		705	14,807	705	14,807
Other comprehensive income for the year		**1,176**	**63,921**	**1,176**	**63,921**
Total comprehensive income for the year		**39,973**	**104,940**	**39,787**	**104,544**

STATEMENTS OF FINANCIAL POSITION

as at 31 March 2026

	Notes	GROUP 2026 R '000	GROUP 2025 R '000	CSIR 2026 R '000	CSIR 2025 R '000
ASSETS					
Non-Current Assets					
Property, plant and equipment	8	899,018	886,498	899,018	886,498
Right-of-use assets	9	2,242	5,254	2,242	5,254
Interest in subsidiaries	10	-	-	4,650	4,650
Interests in joint venture and associate	11	-	-	-	-
Government grant receivable	12	110,196	158,279	110,196	158,279
Investments at fair value through other comprehensive income	17	10,000	-	10,000	-
		1,021,456	**1,050,031**	**1,026,106**	**1,054,681**
Current Assets					
Government grant receivable	12	63,009	63,009	63,009	63,009
Inventories	13	2,027	676	2,027	676
Other receivables from contracts with customers	14	230,295	200,112	230,295	200,112
Trade and other receivables	15	402,074	428,489	402,046	428,487
Contract assets	16	3,963	2,992	3,963	2,992
Investments at fair value through other comprehensive income	17	707,960	656,649	707,960	656,649
Cash and cash equivalents	18	377,776	545,666	368,014	536,099
		1,787,104	**1,897,593**	**1,777,314**	**1,888,024**
TOTAL ASSETS		**2,808,560**	**2,947,624**	**2,803,420**	**2,942,705**
EQUITY AND LIABILITIES					
EQUITY					
Reserves		216,873	216,168	216,873	216,168
Retained income		1,251,073	1,211,805	1,245,954	1,206,872
		1,467,946	**1,427,973**	**1,462,827**	**1,423,040**
LIABILITIES					
Non-Current Liabilities					
Lease liabilities	9	1,177	4,207	1,177	4,207
Post-retirement medical benefits	19	11,008	10,547	11,008	10,547
Long-term payables	20	110,196	158,279	110,196	158,279
		122,381	**173,033**	**122,381**	**173,033**
Current Liabilities					
Lease liabilities	9	2,397	2,950	2,397	2,950
Post-retirement medical benefits	19	2,386	2,228	2,386	2,228
Long-term payables	20	63,009	63,009	63,009	63,009
Trade and other payables	21	300,405	337,716	300,384	337,730
Advances from customers	22	719,450	828,827	719,450	828,827
Provisions	23	130,586	111,888	130,586	111,888
		1,218,233	**1,346,618**	**1,218,212**	**1,346,632**
TOTAL LIABILITIES		**1,340,614**	**1,519,651**	**1,340,593**	**1,519,665**
TOTAL EQUITY AND LIABILITIES		**2,808,560**	**2,947,624**	**2,803,420**	**2,942,705**

STATEMENTS OF CHANGES IN EQUITY

for the year ended 31 March 2026

	Revaluation reserve	Reserve for valuation of investments	Total reserves	Retained income	Total equity
	R '000	R '000	R '000	R '000	R '000
GROUP					
Balance at 1 April 2024	**133,571**	**18,857**	**152,428**	**1,170,605**	**1,323,033**
Profit for the year	-	-	-	41,019	41,019
Other comprehensive income	48,933	14,807	63,740	181	63,921
Total comprehensive income for the year	**48,933**	**14,807**	**63,740**	**41,200**	**104,940**
Balance at 1 April 2025	**182,504**	**33,664**	**216,168**	**1,211,805**	**1,427,973**
Profit for the year	-	-	-	38,797	38,797
Other comprehensive income	-	705	705	471	1,176
Total comprehensive income for the year	**-**	**705**	**705**	**39,268**	**39,973**
Balance at 31 March 2026	**182,504**	**34,369**	**216,873**	**1,251,073**	**1,467,946**
CSIR					
Balance at 1 April 2024	**133,571**	**18,857**	**152,428**	**1,166,068**	**1,318,496**
Profit for the year	-	-	-	40,623	40,623
Other comprehensive income	48,933	14,807	63,740	181	63,921
Total comprehensive income for the year	**48,933**	**14,807**	**63,740**	**40,804**	**104,544**
Balance at 1 April 2025	**182,504**	**33,664**	**216,168**	**1,206,872**	**1,423,040**
Profit for the year	-	-	-	38,611	38,611
Other comprehensive income	-	705	705	471	1,176
Total comprehensive income for the year	**-**	**705**	**705**	**39,082**	**39,787**
Balance at 31 March 2026	**182,504**	**34,369**	**216,873**	**1,245,954**	**1,462,827**

STATEMENTS OF CASH FLOWS

for the year ended 31 March 2026

	Notes	GROUP 2026 R '000	GROUP 2025 Restated R '000	CSIR 2026 R '000	CSIR 2025 Restated R '000
Cash flows from operating activities					
Cash receipts from external customers		2,491,480	2,389,015	2,491,480	2,389,015
Parliamentary Grant received	2	702,070	679,721	702,070	679,721
Cash paid to suppliers and employees		(3,220,980)	(3,056,094)	(3,220,531)	(3,055,897)
Cash (utilised in)/generated from operating activities	24	(27,430)	12,642	(26,981)	12,839
Finance income received		23,035	30,561	22,391	29,945
Net cash (outflow)/inflow from operating activities		**(4,395)**	**43,203**	**(4,590)**	**42,784**
Cash flows from investing activities					
Acquisition of property, plant and equipment (PPE)	8	(63,322)	(77,662)	(63,322)	(77,662)
Proceeds on disposal of property, plant and equipment		737	576	737	576
Acquisition of grant-funded PPE		(87,919)	(155,417)	(87,919)	(155,417)
Acquisition of equity investments at fair value though other comprehensive income	17	(10,000)	-	(10,000)	-
Acquisition of government grant funded property, plant and equipment on deferred payment terms	20	(63,009)	(69,401)	(63,009)	(69,401)
Capital portion		*(48,083)*	*(50,332)*	*(48,083)*	*(50,332)*
Finance expense portion		*(14,926)*	*(19,069)*	*(14,926)*	*(19,069)*
Net cash outflow from investing activities		**(223,513)**	**(301,904)**	**(223,513)**	**(301,904)**
Cash flows from financing activities					
Payment on lease liabilities	28	(3,128)	(2,566)	(3,128)	(2,566)
Payment received on long-term government grant receivable	12	63,009	69,401	63,009	69,401
Capital portion		*48,083*	*50,332*	*48,083*	*50,332*
Finance income portion		*14,926*	*19,069*	*14,926*	*19,069*
Net cash inflow from financing activities		**59,881**	**66,835**	**59,881**	**66,835**
Unrealised exchange gains on foreign cash balances		137	241	137	241
Net decrease in cash and cash equivalents		**(167,890)**	**(191,625)**	**(168,085)**	**(192,044)**
Cash and cash equivalents at the beginning of the year		545,666	737,291	536,099	728,143
Cash and cash equivalents at the end of the year	18	**377,776**	**545,666**	**368,014**	**536,099**

ENTITY INFORMATION

The CSIR is a national government business enterprise (enacted by The Scientific Research Council Act, 1988 (Act 46 of 1988) as amended by Act 71 of 1990) domiciled in the Republic of South Africa. The address of the CSIR's principal place of business is Meiring Naudé Road, Brummeria, Pretoria. The CSIR undertakes directed and particularly multi-disciplinary research and technological innovation, to foster, in the national interest and in fields which in its opinion should receive preference, industrial and scientific development, either by itself or in co-operation with principals from the private or public sectors, and thereby to contribute to the improvement of the quality of life of the people of the Republic.

The consolidated financial statements of the Group as at and for the year ended 31 March 2026 comprise the entity and its subsidiaries (together referred to as the Group) and the Group's interest in associates and jointly controlled entities.

1. MATERIAL ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below.

1.1 Basis of preparation

The consolidated financial statements have been prepared on the going concern basis in accordance with, and in compliance with, International Financial Reporting Standards ("IFRS® Accounting Standards") and International Financial Reporting Interpretations Committee Interpretations ("IFRIC® Interpretations") issued and effective at the time of preparing these consolidated financial statements, and the Public Finance Management Act (PFMA), 1999 (Act 1 of 1999) as amended by Act 29 of 1999.

The going concern basis presumes that funds will be available to finance future operations and that the realisation of assets and settlement of liabilities, contingent obligations and commitments will occur in the ordinary course of business.

The CSIR Board believes that the Group has adequate financial resources to continue in operation for the foreseeable future and accordingly the financial statements have been prepared on the going concern basis. The Board is satisfied that the Group is in a sound financial position and that it has access to sufficient funds to meet its foreseeable cash requirements. The Board is not aware of any new material changes that may adversely impact the Group's ability to continue as a going concern.

The consolidated financial statements have been prepared on the historic cost convention, unless otherwise stated. They are presented in South African Rand (R), which is the Group and entity's functional currency.

The Group has consistently applied the following accounting policies to all periods presented in these consolidated financial statements, except if mentioned otherwise.

1.2 Consolidation

Basis of consolidation

The consolidated financial statements incorporate the separate financial statements of the CSIR and all subsidiaries. Subsidiaries are entities (including structured entities) which are controlled by the Group.

The Group has control of an entity when it is exposed to or has rights to variable returns from its involvement with the entity and it has the ability to affect those returns through the use of its power over the entity.

The results of subsidiaries are included in the consolidated financial statements from the effective date of control to the effective date of loss of control.

All inter-company transactions, balances, and unrealised gains on transactions between Group companies are eliminated in full on consolidation. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred.

1.2 Consolidation (continued)

Investments in subsidiaries in the separate financial statements

In the CSIR's separate financial statements, investments in subsidiaries are carried at cost less any accumulated impairment losses.

1.3 Joint arrangements

A joint arrangement is an arrangement where two or more parties have joint control. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. A joint arrangement is classified either as a joint operation or a joint venture.

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. The Group has assessed the nature of its joint arrangement and determined it to be a joint venture.

Refer to 1.12 for the accounting policy on impairment of joint arrangements.

Joint ventures

An interest in a joint venture is accounted for using the equity method. Under the equity method, interests in joint ventures are carried in the Statements of Financial Position at cost, adjusted for post-acquisition changes in the Group's share of net assets of the joint venture, less any impairment losses.

The Group's share of post-acquisition profit or loss is recognised in profit or loss, and its share of movements in other comprehensive income is recognised in other comprehensive income with a corresponding adjustment to the carrying amount of the investment. Losses in a joint venture in excess of the Group's interest in that joint venture, including any other unsecured losses, are recognised only to the extent that the Group has incurred a legal or constructive obligation to make payments on behalf of the joint venture.

Gains or losses on transactions between the Group and a joint venture are eliminated to the extent of the Group's interest therein. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group.

Investments in joint ventures in the separate financial statements

In the CSIR's separate financial statements, investments in joint ventures are carried at cost less any accumulated impairment losses.

1.4 Investments in associates

An associate is an entity over which the Group has significant influence, and which is neither a subsidiary nor a joint arrangement. Significant influence is the power to participate in the financial and operating policy decisions of the investee but has no control or joint control over those policies. It generally accompanies a shareholding of between 20% and 50% of the voting rights.

Investments in associates are accounted for using the equity method. Under the equity method, investments in associates are carried in the Statements of Financial Position at cost, adjusted for post-acquisition changes in the Group's share of net assets of the associate, less any impairment losses.

The Group's share of post-acquisition profit or loss is recognised in profit or loss, and its share of movements in other comprehensive income is recognised in other comprehensive income with a corresponding adjustment to the carrying amount of the investment. Losses in an associate in excess of the Group's interest in that associate, including any other unsecured losses, are recognised only to the extent that the Group has incurred a legal or constructive obligation to make payments on behalf of the associate.

Gains or losses on transactions between the Group and an associate are eliminated to the extent of the Group's interest therein. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.

1.4 Investments in associates (continued)

Refer to 1.12 for the accounting policy on impairment of associates.

Investments in associates in the separate financial statements

In the CSIR's separate financial statements, investments in associates are carried at cost less any accumulated impairment losses.

1.5 Significant judgements and sources of estimation uncertainty

The preparation of consolidated financial statements in conformity with IFRS Accounting Standards requires management, from time to time, to make judgements, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, income and expenses. These estimates and associated assumptions are based on experience and various other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates. The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

Critical judgements in applying accounting policies

The critical judgements made by management in applying accounting policies, apart from those involving estimations, that have the most significant effect on the amounts recognised in the financial statements, are outlined as follows:

Revenue recognition

The nature of the CSIR's business is varied, in that there are contracts with customers which give rise to single performance obligations, and others which give rise to multiple performance obligations. Judgement is applied in the determination of distinct performance obligations, as well as to when transfer of control of the identified performance obligations is satisfied.

In identifying distinct performance obligations, judgement is applied in assessing whether certain deliverables are separately identifiable from other items to be transferred to the customer in terms of the contract.

Classification of equity investments — assessment of significant influence

Judgement is applied at the date of acquisition of any equity investment in determining whether the Group has significant influence over the investee and consequently whether the investment is to be accounted for as an associate under IAS 28 Investments in Associates and Joint Ventures (using the equity method) or as a financial asset under IFRS 9 Financial Instruments.

IAS 28 paragraph 5 establishes a rebuttable presumption that the holding of 20% or more of the voting power of an investee gives rise to significant influence. Where the Group's voting power is below 20%, the rebuttable presumption is that significant influence does not exist, although it may still be demonstrated by other indicators including representation on the investee's board, participation in policy-making processes, material transactions between the parties, the interchange of managerial personnel, or the provision of essential technical information.

In assessing whether significant influence exists in cases where the Group holds less than 20% of the voting power but where qualitative indicators are present, the Group considers the cumulative weight of the qualitative factors, the existence of any contractual or constitutional restrictions on the Group's ability to direct or participate in the financial and operating policies of the investee, and the substance of the relationship rather than its form. Where the qualitative factors are insufficient to rebut the presumption that significant influence does not exist, the investment is classified as a financial asset under IFRS 9 and the accounting policy for equity investments at fair value through other comprehensive income (refer to accounting policy 1.7) is applied.

An assessment was made during the year in respect of the Group's 10.75% holding in MycoSure (Pty) Ltd, where the Group concluded that the qualitative factors present were insufficient to rebut the presumption that significant influence does not exist. Refer to note 17 for further information on this investment and the basis of the assessment.

Key sources of estimation uncertainty

Impairment of financial assets

The loss allowance for doubtful accounts in trade and other receivables is based on assumptions about risk of default and expected

1.5 *Significant judgements and sources of estimation uncertainty (continued)*

loss rates. The Group uses judgement in making these assumptions and selecting the inputs to the calculation of the loss allowance for doubtful accounts, based on the expected credit loss model (used in IFRS 9).

Impairment testing: Property, plant and equipment

At each reporting date, property, plant and equipment in use are assessed for impairment. To assess whether any impairment exists, estimates of expected future cash flows are used. Actual outcomes could vary significantly from such estimates. Factors such as changes in discount rates, the planned use of buildings, machinery or equipment or closure of facilities and technical obsolescence could lead to shorter useful lives or impairment.

Useful lives of property, plant and equipment

Management assesses the appropriateness of the useful lives of property, plant and equipment at the end of each reporting period. The useful lives of vehicles, furniture and fixtures, Information Technology (IT) equipment and equipment are determined based on Group replacement policies for the various assets.

When the estimated useful life of an asset differs from previous estimates, the change is applied prospectively in the determination of the depreciation charge.

Provisions

Provisions are inherently based on assumptions and estimates using the best information available. Additional disclosure of these estimates of provisions are included in note 23.

Estimates of post-retirement medical benefit liabilities

An actuarial valuation is carried out at the end of each financial year for the post-retirement medical benefit liabilities of the Group. Key assumptions used to determine the net assets and liabilities of these obligations and their sensitivities are set out in note 19.

Fair value measurement of unlisted equity investments

The Group holds equity investments in unlisted entities that are designated at fair value through other comprehensive income (refer to accounting policies 1.7 and 1.5 above, and to notes 17 and 29). For these investments, fair value is determined using valuation techniques that involve unobservable inputs and are accordingly classified at Level 3 of the fair value hierarchy in accordance with IFRS 13 Fair Value Measurement.

Estimation uncertainty arises from the use of unobservable inputs in determining fair value, including but not limited to:

- the appropriateness of recent transaction prices as a proxy for fair value at the reporting date;
- the assessment of whether observable market or entity-specific indicators have arisen since the most recent transaction that would suggest a change in the entity's risk profile or commercialisation prospects;
- the appropriateness of comparable transactions or valuation multiples drawn from broadly similar entities; and, where applicable,
- the assumptions used in discounted cash flow models including forecast cash flows, discount rates and terminal values.

Where an unlisted equity investment has been acquired in a recent arm's-length transaction, and where no observable indicators of a change in fair value have arisen since the transaction date, the Group considers the original transaction price to be a reasonable estimate of fair value at the reporting date. This approach is reassessed at each reporting date.

Further information on the specific application of this framework, including the inputs considered and the sensitivity of the carrying amount to changes in those inputs, is set out in note 29.

1.6 Property, plant and equipment

Property, plant and equipment are tangible assets which the Group holds for its own use or for rental to others and which are expected to be used for more than one year.

1.6 Property, plant and equipment (continued)

An item of property, plant and equipment is recognised as an asset when it is probable that future economic benefits associated with the item will flow to the Group, and the cost of the item can be measured reliably.

Property, plant and equipment is initially measured at cost. Cost includes all of the expenditure which is directly attributable to the acquisition or construction of the asset.

Expenditure incurred subsequently for major services, additions to or replacements of parts of property, plant and equipment are capitalised if it is probable that future economic benefits associated with the expenditure will flow to the Group and the cost can be measured reliably. The carrying amount of those parts that are replaced is derecognised. Day-to-day servicing costs are included in profit or loss in the year in which they are incurred.

Major inspection costs which are a condition of continuing use of an item of property, plant and equipment and which meet the recognition criteria are included as a replacement in the cost of the item of property, plant and equipment. Any remaining inspection costs from the previous inspection are derecognised.

Major spare parts and standby equipment which are expected to be used for more than one year are included in property, plant and equipment.

Property, plant and equipment is subsequently stated at cost less accumulated depreciation and any accumulated impairment losses, except for land which is stated at its revalued amount less any accumulated impairment losses.

Increases in the carrying amounts arising on the revaluation of land are recognised in other comprehensive income and shown in the revaluation reserve in the Statements of Changes in Equity. In the event of a sale of land, any balance in the reserves in relation to that land is transferred to retained income.

Depreciation of an asset commences when the asset is available for use as intended by management. Depreciation is charged to write off the asset's carrying amount over its estimated useful life to its estimated residual value, using a method that best reflects the pattern in which the asset's economic benefits are consumed by the Group. Leased assets are depreciated in a consistent manner over the shorter of their expected useful lives and the lease term. Depreciation is not charged to an asset if its estimated residual value exceeds or is equal to its carrying amount. Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale, or derecognised.

The depreciation methods and assessed useful lives of items of property, plant and equipment are as follows:

Item	Depreciation method	Average useful life
Buildings	Straight line	90 years
Furniture and fixtures	Straight line	3 to 20 years
Vehicles	Straight line	10 years
Equipment	Straight line	3 to 20 years
IT equipment	Straight line	3 to 5 years
Land	Straight line	Indefinite

The residual value, useful life and depreciation method of assets are reviewed at the end of each reporting year. If the expectations differ from previous estimates, the change is accounted for prospectively as a change in accounting estimate.

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately.

Where a significant part of an item of property, plant and equipment has a useful life and a depreciation method that is the same as the useful life and the depreciation method of another significant part of that same item, such parts are grouped in determining the depreciation charge.

1.6 Property, plant and equipment (continued)

The depreciation charge for each year is recognised in profit or loss unless it is included in the carrying amount of another asset.

Impairment tests are performed on property, plant and equipment when there is an indicator that they may be impaired. When the carrying amount of an item of property, plant and equipment is assessed to be higher than the estimated recoverable amount, an impairment loss is recognised immediately in profit or loss to bring the carrying amount in line with the recoverable amount.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its continued use or disposal. Any gain or loss arising from the derecognition of an item of property, plant and equipment, determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item, is included in profit or loss when the item is derecognised.

Capital commitments

Capital commitments disclosed in the consolidated financial statements represent amounts associated with binding agreements that the Group has entered into with other parties for the acquisition of property, plant and equipment, that will be incurred in periods after the current reporting date.

Capital commitments are disclosed but not recognised as liabilities in the current reporting period.

1.7 Financial instruments

Financial instruments held by the Group are classified in accordance with the provisions of IFRS 9 Financial Instruments. Broadly, the applicable classification possibilities, which are adopted by the Group, are as follows:

Financial assets that are debt instruments:

- Amortised cost. (This classification applies only when the contractual terms of the instrument give rise, on specified dates, to cash flows that are solely payments of principal and interest on principal, and where the instrument is held under a business model whose objective is met by holding the instrument to collect contractual cash flows).
- Fair value through other comprehensive income. (This classification applies only when the contractual terms of the instrument give rise, on specified dates, to cash flows that are solely payments of principal and interest on principal, and the instrument is held under a business model whose objective is achieved by both collecting contractual cash flows and selling the instruments).
- Fair value through profit or loss. (This classification automatically applies to all debt instruments that do not qualify as at amortised cost or at fair value through other comprehensive income).

Financial assets that are equity instruments:

- Fair value through other comprehensive income (designated).

Financial liabilities:

- Amortised cost

The financial instruments and risk management note (note 27) presents the financial instruments held by the Group based on their specific classifications.

All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require the delivery of assets within the time frame established by regulation or convention in the marketplace.

The specific accounting policies for the classification, recognition and measurement of each type of financial instrument held by the Group are presented as follows.

1.7 Financial instruments (continued)

Trade and other receivables

Classification

Trade and other receivables, excluding, when applicable, VAT and prepayments, are classified as financial assets subsequently measured at amortised cost (note 15).

They have been classified in this manner because their contractual terms give rise, on specified dates to cash flows that are solely payments of principal and interest on the principal outstanding. The Group's business model is to collect the contractual cash flows on trade and other receivables.

Recognition and measurement

Trade and other receivables are recognised when the Group becomes a party to the contractual provisions of the receivables. They are measured, at initial recognition, at transaction price.

They are subsequently measured at amortised cost.

The amortised cost is the amount recognised on the receivable initially, minus principal repayments, plus cumulative amortisation (interest) using the effective interest method of any difference between the initial amount and the maturity amount, adjusted for any loss allowance.

Trade and other receivables denominated in foreign currency

When trade and other receivables are denominated in a foreign currency, the carrying amount of the receivables are determined in the foreign currency. The carrying amount is then translated to the Rand equivalent using the spot rate at the end of each reporting period. Any resulting foreign exchange gains or losses are recognised in profit or loss.

Details of foreign currency risk exposure and the management thereof are provided in the financial instruments and risk management note (note 27).

Impairment

The Group recognises a loss allowance for expected credit losses on trade and other receivables, excluding VAT and prepayments. The amount of expected credit losses is updated at each reporting date.

The Group measures the loss allowance for trade and other receivables at an amount equal to lifetime expected credit losses (lifetime ECL), which represents the expected credit losses that will result from all possible default events over the expected life of the receivable.

Measurement and recognition of expected credit losses

The Group applies the simplified approach to trade receivables, contract assets and lease receivables of measuring the loss allowance at an amount equal to lifetime expected credit losses in terms of IFRS 9. The Group applies the ECL valuation model as follows:

- It rebuts the more than 30 days past due presumption. Instead, the CSIR presumes that there is a significant increase in credit risk when payments are more than 90 days outstanding from dates of invoices. Based on historical experience for most of the CSIR's debtors if contractual payments become more than 30 days past due, this does not represent a significant increase in the credit risk of a financial instrument. It is rather due to their extensive administrative systems for local debtors, or timing differences in moving money outside of the borders of their countries for international customers instead of financial difficulty of the debtors.
- When a receivable (i.e. an invoice) is more than 90 days outstanding, an allowance for loss is raised for 100% of the outstanding amount excluding VAT (thus a 100% loss probability is assumed). However, no allowance is raised when there is a firm commitment by the debtor that they will settle the amount due even if the receivable is more than 90 days outstanding.
- An allowance for loss is raised even if a receivable (invoice) is less than 90 days outstanding when there is evidence indicating a significant increase in credit risk of a debtor.

1.7 Financial instruments (continued)

Write off policy

The Group writes off a receivable when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings. Receivables written off may still be subject to enforcement activities under the Group recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognised in profit or loss.

Credit risk

Details of credit risk are included in the trade and other receivables note (note 15) and the financial instruments and risk management note (note 27).

Derecognition

Refer to the derecognition section of the accounting policy for the policies related to derecognition.

Debt instruments at fair value through other comprehensive income

Classification

Certain investments in debt instruments are classified as at fair value through other comprehensive income. This classification applies when the debt instrument meets both the following conditions and is not designated as at fair value through profit or loss:

- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

The Group holds investments in debt instruments (flexible income fund) which are classified as at fair value through other comprehensive income (note 17).

Recognition and measurement

These debt instruments are recognised when the Group becomes a party to the contractual provisions. They are measured, at initial recognition, at fair value plus transaction costs, if any.

They are subsequently measured at fair value.

Even though they are measured at fair value, the Group determines the amortised cost of each instrument as if they were measured at amortised cost. The difference, at reporting date, between the amortised cost and the fair value of the debt instruments, is recognised in other comprehensive income and accumulated in equity in the reserve for valuation of investments.

The amortised cost is the amount recognised on the instrument initially, minus principal repayments, plus cumulative amortisation (interest) using the effective interest method of any difference between the initial amount and the maturity amount, adjusted for any loss allowance.

Fair value hierarchy

Investments in debt instruments are classified as Level 2 in the fair value hierarchy where their valuations contain market-corroborated inputs that might not be directly observable, but are based on or supported by observable market data, because such inputs are less subjective than unobservable inputs classified within Level 3.

The Group reassesses the fair value of these investments at each reporting date.

Impairment

The Group assesses on a forward-looking basis the expected credit losses associated with its debt instruments carried at fair value through other comprehensive income. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

1.7 Financial instruments (continued)

At each reporting date, the Group assesses whether debt instruments at fair value through other comprehensive income are credit-impaired. A financial asset is "credit-impaired" when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

The loss allowance is charged to profit or loss.

If the financial instrument is determined to have low credit risk at the reporting date, the Group assumes that the credit risk on a financial instrument has not increased significantly since initial recognition.

Derecognition

Refer to the derecognition section of the accounting policy for the policies related to derecognition.

Investments in equity instruments at fair value through other comprehensive income

Classification

The Group holds investments in equity instruments that are not held for trading and that are acquired for strategic, long-term commercialisation and innovation purposes rather than for the realisation of short-term capital gains.

For each such investment, the Group makes the irrevocable election available under IFRS 9.5.7.5 at initial recognition to present subsequent changes in the fair value of the investment in other comprehensive income, with no subsequent reclassification of fair value gains or losses to profit or loss on derecognition.

This election is considered to provide the most relevant presentation of the Group's strategic equity holdings, given that the Group's intention in respect of these instruments is the realisation of long-term scientific, industrial and commercialisation outcomes rather than periodic fair value gains or losses recognised through profit or loss.

Recognition and measurement

Equity instruments designated at fair value through other comprehensive income are recognised when the Group becomes a party to the contractual provisions of the instrument. These investments are initially measured at fair value plus transaction costs, where applicable.

Subsequently, these investments are measured at fair value. Changes in fair value are recognised in other comprehensive income and accumulated in equity within the reserve for valuation of investments.

Dividends are recognised in profit or loss when the Group's right to receive payment is established, unless the dividend clearly represents a recovery of part of the cost of the investment.

Upon derecognition, cumulative gains or losses previously recognised in other comprehensive income are transferred within equity to retained earnings and are not reclassified to profit or loss.

Fair value hierarchy

Investments in unlisted equity instruments are classified as Level 3 in the fair value hierarchy where valuation inputs are not based on observable market data.

The Group reassesses the fair value of these investments at each reporting date. Where appropriate, cost may be considered an estimate of fair value where there has been no significant change in circumstances.

Impairment

Equity instruments designated at fair value through other comprehensive income are not subject to impairment testing. Changes in fair value are recognised in other comprehensive income.

Derecognition

Refer to the derecognition section of the accounting policy for the policies related to derecognition.

1.7 Financial instruments (continued)

Trade and other payables (including long-term payables)

Classification

Trade and other payables (note 21) and long-term payables (note 20), excluding VAT and amounts received in advance, are classified as financial liabilities subsequently measured at amortised cost.

Recognition and measurement

They are recognised when the Group becomes a party to the contractual provisions, and are measured, at initial recognition, at fair value plus transaction costs, if any.

Trade and other payables are subsequently measured at amortised cost using the effective interest method.

Trade and other payables expose the Group to liquidity risk and possibly to interest rate risk. Refer to note 27 for details of risk exposure and management thereof.

Trade and other payables denominated in foreign currencies

When trade payables are denominated in a foreign currency, the carrying amount of the payables are determined in the foreign currency. The carrying amount is then translated to the Rand equivalent using the spot rate at the end of each reporting period. Any resulting foreign exchange gains or losses are recognised in profit or loss.

Details of foreign currency risk exposure and the management thereof are provided in the financial instruments and risk management note (note 27).

Derecognition

Refer to the derecognition section of the accounting policy for the policies related to derecognition.

Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instrument.

Financial guarantee contracts issued by the Group are initially measured at their fair values and, if not designated as at fair value through profit or loss and do not arise from a transfer of a financial asset, are subsequently measured at the higher of:

- The amount of the loss allowance determined in accordance with IFRS 9; and
- The amount initially recognised less, where appropriate, cumulative amount of income recognised in accordance with the revenue recognition policies.

Refer to note 33 for details of financial guarantee contracts.

Cash and cash equivalents

Cash and cash equivalents comprising cash on hand and demand deposits, and other short-term highly liquid investments that are readily convertible to a known amount of cash, are subject to an insignificant risk of changes in value, and are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes.

Cash and cash equivalents are initially and subsequently recorded at amortised cost, which approximates fair value.

Cash and cash equivalents denominated in foreign currency

When cash and cash equivalents are denominated in a foreign currency, the carrying amount of the cash and cash equivalents are determined in the foreign currency. The carrying amount is then translated to the Rand equivalent using the spot rate at the end of each reporting period. Any resulting foreign exchange gains or losses are recognised in profit or loss.

1.7 *Financial instruments (continued)*

Details of foreign currency risk exposure and the management thereof are provided in the financial instruments and risk management note (note 27).

Derecognition

Financial assets

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised liability for the proceeds received.

On derecognition of a financial asset in its entirety, the difference between the carrying amount (measured at the date of derecognition) and the consideration received, is recognised in profit or loss.

On derecognition of a debt instrument at fair value through other comprehensive income, the cumulative gain or loss on that instrument which was previously accumulated in equity in the reserve for valuation of investments is reclassified to profit or loss.

On derecognition of equity instruments at fair value through other comprehensive income, the cumulative gain or loss on that instrument which was previously accumulated in equity in the reserve for valuation of investments is transferred within equity to retained earnings. Equity instruments at fair value through other comprehensive income are derecognised when the contractual rights to the cash flows from the investment expire or when the investment is disposed of.

Financial liabilities

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or they expire. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable, including any non-cash assets transferred or liabilities assumed, is recognised in profit or loss.

1.8 Tax

Income tax

The CSIR is exempt from South African income tax in terms of section 10(1)(t)(i) of the Income Tax Act, 1962 (Act 58 of 1962). The income tax expense or assessed loss of subsidiary companies is reflected at Group level.

1.9 Leases

The Group assesses whether a contract is, or contains a lease, at the inception of the contract.

A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

In order to assess whether a contract is, or contains a lease, management determines whether the asset under consideration is "identified", which means that the asset is either explicitly or implicitly specified in the contract and that the supplier does not have a substantial right of substitution throughout the period of use. Once management has concluded that the contract deals with an identified asset, the right to control the use thereof is considered. To this end, control over the use of an identified asset only exists when the Group has the right to substantially all of the economic benefits from the use of the asset as well as the right to direct the use of the asset.

In circumstances where the determination of whether the contract is or contains a lease requires significant judgement, the relevant disclosures are provided in the significant judgements and sources of estimation uncertainty section of these accounting policies.

Group as lessee

A lease liability and corresponding right-of-use asset are recognised at the lease commencement date, for all lease agreements for which the Group is a lessee, except for short-term leases of 12 months or less, or leases of low value assets. For these leases, the Group

1.9 Leases (continued)

recognises the lease payments as an operating expense on a straight-line basis over the term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

The various lease and non-lease components of contracts containing leases are accounted for separately, with consideration being allocated to each lease component on the basis of the relative stand-alone prices of the lease components and the aggregate stand-alone price of the non-lease components (where non-lease components exist).

However, as an exception to the preceding paragraph, the Group has elected not to separate the non-lease components for leases of land and buildings.

Details of leasing arrangements where the Group is a lessee are presented in note 9.

Lease liability

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the Group uses its incremental borrowing rate.

Lease payments included in the measurement of the lease liability comprise the following:

- Fixed lease payments, including in-substance fixed payments, less any lease incentives;
- Variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- The amount expected to be payable by the Group under residual value guarantees;
- The exercise price of purchase options, if the Group is reasonably certain to exercise the option;
- Lease payments in an optional renewal period if the Group is reasonably certain to exercise an extension option; and
- Penalties for early termination of a lease, if the lease term reflects the exercise of an option to terminate the lease.

Variable lease payments that do not depend on an index or rate are not included in the measurement of the lease liability (or right-of-use asset). The related payments are recognised as an expense in the period incurred and are included in operating expenses.

The lease liability is presented as a separate line item in the Statements of Financial Position.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect lease payments made. Interest charged on the lease liability is included in finance expense (note 6).

The Group remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) when:

- There has been a change to the lease term, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate;
- There has been a change in the assessment of whether the Group will exercise a purchase, termination or extension option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate;
- There has been a change to the lease payments due to a change in an index or a rate, in which case the lease liability is remeasured by discounting the revised lease payments using the initial discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used);
- There has been a change in expected payment under a residual value guarantee, in which case the lease liability is remeasured by discounting the revised lease payments using the initial discount rate;
- A lease contract has been modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured by discounting the revised payments using a revised discount rate.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recognised in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

1.9 Leases (continued)

Right-of-use assets

Right-of-use assets are presented as a separate line item in the Statements of Financial Position.

Lease payments included in the measurement of the right-of-use assets comprise the following:

- The initial amount of the corresponding lease liability;
- Any lease payments made at or before the commencement date;
- Any initial direct costs incurred;
- Any estimated costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, when the Group incurs an obligation to do so, unless these costs are incurred to produce inventories; and
- Less any lease incentives received.

Right-of-use assets are subsequently measured at cost less accumulated depreciation and impairment losses.

Right-of-use assets are depreciated over the shorter period of the lease term and useful life of the underlying asset. However, if a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Group expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. Depreciation starts at the commencement date of a lease.

For right-of-use assets which are depreciated over their useful lives, the useful lives are determined consistently with items of the same class of property, plant and equipment. Refer to the accounting policy for property, plant and equipment for details of useful lives.

The residual value, useful life and depreciation method of assets are reviewed at the end of each reporting year. If the expectations differ from previous estimates, the change is accounted for prospectively as a change in accounting estimate. Each part of a right-of-use asset with a cost that is significant in relation to the total cost of the asset is depreciated separately.

The depreciation charge for each year is recognised in profit or loss unless it is included in the carrying amount of another asset.

Group as lessor

Leases for which the Group is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases. Lease classification is made at inception and is only reassessed if there is a lease modification.

When the Group is an intermediate lessor, it accounts for the head lease and the sublease as two separate contracts. The sublease is classified as a finance or operating lease by reference to the right-of-use asset arising from the head lease. If the head lease is a short-term lease to which the Group applies the exemption described previously, then it classifies the sub-lease as an operating lease.

1.10 Inventories

Inventories are measured at the lower of cost and net realisable value on the weighted average method.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

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

1.11 Other receivables from contracts with customers

This accounting policy needs to be read in conjunction with the accounting policies for revenue from contracts with customers, contract assets and advances on contracts with customers. The Group presents as an asset the gross amount due from customers for contract work for all contracts in progress for which costs incurred plus recognised profits (less recognised losses) exceed progress billings. These are included in other receivables from contracts with customers under current assets. Progress billings that are invoiced but not yet paid by customers are included in trade and other receivables.

1.11 Other receivables from contracts with customers (continued)

Other receivables from contracts with customers denominated in foreign currency

When other receivables from contracts with customers are denominated in a foreign currency, the carrying amount of the receivable is determined in the foreign currency. The carrying amount is then translated to the Rand equivalent using the spot rate at the end of each reporting period. Any resulting foreign exchange gains or losses are recognised in profit or loss.

1.12 Impairment of non-financial assets

The Group assesses at each end of the reporting period whether there is any indication that an asset may be impaired. If any such indication exists, the Group estimates the recoverable amount of the asset.

If there is any indication that an asset may be impaired, the recoverable amount is estimated for the individual asset. If it is not possible to estimate the recoverable amount of the individual asset, the recoverable amount of the cash-generating unit to which the asset belongs is determined.

The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs to sell and its value in use.

If the recoverable amount of an asset is less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. That reduction is an impairment loss.

An impairment loss of assets carried at cost less any accumulated depreciation is recognised immediately in profit or loss.

An entity assesses at each reporting date whether there is any indication that an impairment loss recognised in prior periods for assets may no longer exist or may have decreased. If any such indication exists, the recoverable amounts of those assets are estimated.

The increased carrying amount of an asset attributable to a reversal of an impairment loss shall not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior periods.

A reversal of an impairment loss of assets carried at cost less accumulated depreciation is recognised immediately in profit or loss. Any reversal of an impairment loss of a revalued asset is treated as a revaluation increase.

1.13 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.

The expected cost of compensated absences is recognised as an expense as the employees render services that increase their entitlement or, in the case of non-accumulating absences, when the absence occurs.

Defined contribution plans

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

Pension fund

The Group operates a defined contribution plan, the assets of which are held in a separate trustee-administered fund. The benefits payable by the fund in the future, due to retirements and withdrawals from the fund, are contributions to the fund together with fund interest at a rate determined by the valuator with the consent of the trustees. The rate is so determined that the value of the total of the fund shall not exceed the value of the total assets of the fund.

1.13 Employee benefits (continued)

Defined benefit plans

Post-retirement medical benefits

The Group provides post-retirement medical benefits to qualifying employees, which is deemed to be a defined benefit plan. Contributions were made to the relevant funds over the expected service lives of the employees entitled to those funds. The estimated cost of providing such benefits was charged to profit or loss on a systematic basis over the employees' working lives within the Group.

For defined benefit plans the cost of providing the benefits is determined using the projected unit credit method. Actuarial valuations are conducted on an annual basis by independent actuaries separately for each plan.

Consideration is given to any event that could impact the funds up to the end of the reporting period where the interim valuation is performed at an earlier date.

Past service costs are recognised immediately to the extent that the benefits are already vested, and are otherwise amortised on a straight-line basis over the average period until the amended benefits become vested.

Actuarial gains and losses are recognised in the year in which they arise, in other comprehensive income.

Gains or losses on the curtailment or settlement of a defined benefit plan is recognised when the Group is demonstrably committed to curtailment or settlement.

When it is virtually certain that another party will reimburse some or all of the expenditure required to settle a defined benefit obligation, the right to reimbursement is recognised as a separate asset. The asset is measured at fair value. In all other respects, the asset is treated in the same way as plan assets. In profit or loss, the expense relating to a defined benefit plan is presented as the net of the amount recognised for a reimbursement.

The amount recognised in the Statements of Financial Position represents the present value of the defined benefit obligation, reduced by the fair value of plan assets.

Any asset is limited to unrecognised actuarial losses and past service costs, plus the present value of available refunds and reduction in future contributions to the plan.

1.14 Provisions and contingencies

Provisions are recognised when:

- The Group has a present legal or constructive obligation as a result of a past event;
- It is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and
- A reliable estimate can be made of the obligation.

The amount of a provision is the present value of the expenditure expected to be required to settle the obligation. Contingent assets and contingent liabilities are not recognised. Contingencies are disclosed in note 26.

1.15 Government grants

Government grants are recognised when there is reasonable assurance that:

- The Group will comply with the conditions attached to them; and
- The grants will be received.

Government grants are recognised as income over the periods necessary to match them with the related costs that they are intended to compensate.

1.15 Government grants (continued)

A government grant that becomes receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the entity with no future related costs is recognised as income for the period in which it becomes receivable.

Government grants related to assets, including non-monetary grants at fair value, are presented in the Statements of Financial Position by deducting the grant to arrive at the carrying amount of the asset.

Conditional government grants received relating to assets other than property, plant and equipment is recognised as revenue to the extent that the entity has complied with all the criteria, conditions or obligations embodied in the agreement. To the extent that the criteria, conditions or obligations have not been met, a liability is recognised.

Where government grants have been committed by the grantor and relate to past events, but the corresponding funds are receivable over time, the amounts are recognised as assets and classified between current and non-current portions based on their expected settlement dates.

1.16 Revenue from contracts with customers

The Group derives revenue from contracts with customers for the following:

- Contract income, including CSIR International Convention Centre revenue
- Operating leases
- Royalty income

The Group measures and accounts for revenue based on the specifications of each individual contract with a customer, excluding any amounts received on behalf of third parties, and based on the contractual obligations either accounts for the revenue at a specific point in time or over time as control of the goods or services are transferred to the customer.

The Group recognises revenue over time if a customer simultaneously receives and consumes all of the benefits provided by the Group. The Group recognises revenue at a point in time if the over time criteria are not met. Revenue is recognised when control is transferred to the customer which is usually when legal title passes to the customer and the business has the right to payment. Refer below for further explanation of the different products and services and when control is transferred to the customer and when the Group has right to payment.

Contract income (including CSIR International Convention Centre revenue)

Contract income comprises the consideration received or receivable on contracts entered into with customers in the ordinary course of the Group's activities. Revenue is shown net of amounts collected on behalf of third parties (e.g. VAT). Revenue is recognised at the amount of the transaction price that is allocated to each performance obligation, determined at an amount that depicts the consideration to which the Group expects to be entitled in exchange for transferring the goods and services promised to the customer. Where a contract contains multiple performance obligations, the transaction price is allocated to each performance obligation based on their relative stand-alone selling prices.

Contract income is recognised when the transfer of control of the identified performance obligation(s) has been satisfied. In term contracts, where milestones and invoicing dates are not aligned, revenue is recognised according to the stage of completion. Stage of completion is measured based on costs incurred as a percentage of total estimated costs required to satisfy the performance obligation.

Operating leases

Contract income from operating leases is recognised on a straight-line basis over the lease term.

Royalty income

Royalty income arises from agreements permitting customers to use the Group's intellectual property under license. It is recognised when it falls due to the Group, when the licensee completes a sale of products or services incorporating the licensed intellectual property.

1.17 Contract assets and advances on contracts with customers

The accounting policy for contract assets needs to be read in conjunction with the accounting policy for revenue from contracts with customers. Contract assets arise on the basis that costs are incurred to satisfy performance obligations. The related payment timing is determined based on each individual contract. These costs include costs to fulfil a contract and includes costs such as direct labour, materials, professional/consulting services and allocation of overhead costs which relate directly to satisfying performance obligations of the contract.

Contract assets are recovered from the customer when the relevant performance obligations are completed and payment can be obtained from the customer. If costs are incurred on a contract without a corresponding payment being receivable it is shown as contract assets at the reporting period.

If the customer has paid in advance for performance obligations to be satisfied it is shown as advances from customers within current liabilities. The Group presents as a liability the gross amount due to customers for contract work for all contracts in progress for which progress billings exceed costs incurred plus recognised profits (less recognised losses).

Contract assets and advances on contracts with customers denominated in foreign currency

When contract assets and advances on contracts with customers are denominated in a foreign currency, the carrying amount of the asset is determined in the foreign currency. The carrying amount is then translated to the Rand equivalent using the spot rate at the end of each reporting period. Any resulting foreign exchange gains or losses are recognised in profit or loss.

1.18 Related parties

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

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

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

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

Key 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. All individuals from the level of Executive Management up to the Board of Directors are regarded as key management.

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

The Group 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.

The Group operates in an economic sector currently dominated by entities directly or indirectly owned by the South African Government. As a consequence of the constitutional independence of the three spheres of government in South Africa, all national and provincial government departments, as well as their related entities, are considered to be related parties.

1.19 Finance income and finance expense

The Group's finance income and finance expense amounts include:

- Interest income on bank balances, investments in debt instruments, trade and other receivables and government grant receivables.
- Interest expense on lease liabilities, trade and other payables and long-term payables.

Interest income and expense is recognised in profit or loss as it accrues, using the effective interest rate method.

Classification in the Statements of Cash Flows

Cash flows from interest received and interest paid that arise on financial instruments unrelated to specific investing or financing transactions (including bank balances, investments in debt instruments, trade and other receivables and trade and other payables) are classified as operating activities in the Statements of Cash Flows.

Cash flows from interest received and interest paid that arise on deferred-payment-terms transactions (where the interest component represents the unwinding of the discount applied at initial recognition under IFRS 9 and IFRS 13) are classified within the same section of the Statements of Cash Flows as the corresponding capital cash flow. This presentation reflects the economic substance of the transaction, in which the contractual instalment is a single, indivisible cash flow that has been unbundled into capital and interest components solely for the purpose of present-value measurement at initial recognition. The Group considers that this presentation provides more relevant and reliable information about the cash flows associated with such transactions than would be provided by separating the interest component into operating activities.

2. REVENUE

	GROUP		CSIR	
	2026 R '000	2025 Restated R '000	2026 R '000	2025 Restated R '000
Revenue				
Parliamentary Grant	718,639	697,120	718,639	697,120
Other government grants	1,002,963	1,256,759	1,002,963	1,256,759
Contract income	1,620,828	1,583,730	1,620,828	1,583,730
Royalty income	4,220	2,463	4,220	2,463
	3,346,650	**3,540,072**	**3,346,650**	**3,540,072**
The Group disaggregates revenue as follows:				
Parliamentary Grant				
Parliamentary Grant received	702,070	679,721	702,070	679,721
Less:				
Grant received for projects started before year-end but not completed	(7,260)	(23,829)	(7,260)	(23,829)
Add:				
Grant received in prior year for projects completed in this year	23,829	41,228	23,829	41,228
	718,639	**697,120**	**718,639**	**697,120**
Contract income - disaggregation by sector				
Local private sector	286,131	244,574	286,131	244,574
Local public sector	1,057,270	982,939	1,057,270	982,939
International sector (including Africa)	277,427	356,217	277,427	356,217
	1,620,828	**1,583,730**	**1,620,828**	**1,583,730**
Contract income - disaggregation by revenue stream				
Revenue from contracts with customers	1,403,132	1,388,420	1,403,132	1,388,420
Rental income from operating leases	96,342	80,235	96,342	80,235
CSIR International Convention Centre revenue *	47,842	40,374	47,842	40,374
Ad-hoc revenue	73,512	74,701	73,512	74,701
	1,620,828	**1,583,730**	**1,620,828**	**1,583,730**

* The rental income earned by the CSIR International Convention Centre is included in the rental income revenue stream.

Royalty income				
Royalty income	4,220	2,463	4,220	2,463
Other government grants				
Other government grants	1,002,963	1,256,759	1,002,963	1,256,759
Total revenue	**3,346,650**	**3,540,072**	**3,346,650**	**3,540,072**

2. Revenue (continued)

	GROUP		CSIR	
	2026 %	2025 Restated %	2026 %	2025 Restated %
Parliamentary Grant				
Parliamentary Grant	21.47 %	19.69 %	21.47 %	19.69 %
Contract income				
Local private sector	8.55 %	6.91 %	8.55 %	6.91 %
Local public sector	31.59 %	27.77 %	31.59 %	27.77 %
International sector (including Africa)	8.29 %	10.06 %	8.29 %	10.06 %
Other government grants				
Other government grants	29.97 %	35.50 %	29.97 %	35.50 %
Royalty income				
Royalty income	0.13 %	0.07 %	0.13 %	0.07 %
	100.00 %	**100.00 %**	**100.00 %**	**100.00 %**

Estimates on Parliamentary Grant recognition are based on cost to completion, budgets and percentage of completion.

Other government grants relate to income from contracts with government that impose specified performance conditions on the CSIR.

Included in other government grants is R156,0 million (2025: R140,9 million) ring-fenced allocation from the Department of Science, Technology and Innovation for specific initiatives managed through memorandums of agreement.

The amount of R501,1 million included in advances from customers as at the beginning of the financial year, has been recognised in revenue in 2026 (2025: R633,1 million).

3. OTHER INCOME

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Bad debts recovered	468	332	468	332
Compensation from insurance claims	922	865	922	865
Other recoveries	2,801	2,227	2,801	2,227
Movement in credit loss allowances - Trade and other receivables	3,845	-	3,845	-
	8,036	**3,424**	**8,036**	**3,424**

4. OPERATING LOSS

Operating loss for the year is arrived at after taking the following items, amongst others, into account:

	Notes	GROUP 2026 R '000	GROUP 2025 R '000	CSIR 2026 R '000	CSIR 2025 R '000
Depreciation					
Depreciation of property, plant and equipment	8	50,209	47,656	50,209	47,656
Depreciation of right-of-use assets	9	1,724	2,840	1,724	2,840
Total depreciation		**51,933**	**50,496**	**51,933**	**50,496**
Movement in credit loss allowances					
Trade and other receivables		(3,845)	254	(3,845)	254
Other					
Bad debts written off		3,588	515	3,588	515
Foreign exchange losses		114	4,358	114	4,358
(Reversal of impairment)/impairment on investments in joint venture and associate		(1,443)	1,191	-	-
Loss on disposal and write-off of property, plant and equipment		660	91	660	91

5. FINANCE INCOME

Interest on bank balances	21,068	29,719	20,396	29,126
Other investment income	50,606	54,090	50,606	54,090
Interest on grant receivable	14,926	19,069	14,926	19,069
Interest on trade and other receivables	28	-	28	-
Total	**86,628**	**102,878**	**85,956**	**102,285**

6. FINANCE EXPENSE

Interest on lease liabilities	594	819	594	819
Interest on long-term payables	14,926	19,069	14,926	19,069
Total	**15,520**	**19,888**	**15,520**	**19,888**

7. TAXATION

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Opening balance	4,827	5,223	-	-
Adjustment to opening balance	(470)	-	-	-
Assessed tax loss utilised for the year	(187)	(396)	-	-
Assessed tax loss carried forward	**4,170**	**4,827**	**-**	**-**

A subsidiary in the Group (CSIR C3 SOC Ltd) is in an assessed loss position and no deferred tax was raised for the assessed loss due to the uncertainty of the recoverability in future periods in respect of the carry forward of unused tax losses.

The CSIR is exempt from South African income tax in terms of section 10(1)(t)(i) of the Income Tax Act, Act 58 of 1962.

8. PROPERTY, PLANT AND EQUIPMENT

	2026			2025		
GROUP	Cost or revaluation R '000	Accumulated depreciation R '000	Carrying value R '000	Cost or revaluation R '000	Accumulated depreciation R '000	Carrying value R '000
Land	187,333	-	187,333	187,333	-	187,333
Buildings	620,201	(121,864)	498,337	611,903	(116,797)	495,106
Furniture and fixtures	16,268	(13,457)	2,811	16,315	(13,415)	2,900
Vehicles	8,488	(6,123)	2,365	7,784	(5,970)	1,814
Equipment	543,265	(410,811)	132,454	561,477	(436,260)	125,217
IT equipment	264,825	(189,107)	75,718	261,275	(187,147)	74,128
Total	**1,640,380**	**(741,362)**	**899,018**	**1,646,087**	**(759,589)**	**886,498**

	2026			2025		
CSIR	Cost or revaluation R '000	Accumulated depreciation R '000	Carrying value R '000	Cost or revaluation R '000	Accumulated depreciation R '000	Carrying value R '000
Land	187,333	-	187,333	187,333	-	187,333
Buildings	620,201	(121,864)	498,337	611,903	(116,797)	495,106
Furniture and fixtures	16,268	(13,457)	2,811	16,315	(13,415)	2,900
Vehicles	8,488	(6,123)	2,365	7,784	(5,970)	1,814
Equipment	543,265	(410,811)	132,454	561,477	(436,260)	125,217
IT equipment	264,825	(189,107)	75,718	261,275	(187,147)	74,128
Total	**1,640,380**	**(741,362)**	**899,018**	**1,646,087**	**(759,589)**	**886,498**

8. Property, plant and equipment (continued)

Reconciliation of property, plant and equipment - Group - 2026

	Opening balance	Additions	Disposals and write-offs	Revaluations	Depreciation	Closing balance
	R '000	R '000	R '000	R '000	R '000	R '000
Land	187,333	-	-	-	-	187,333
Buildings	495,106	10,319	-	-	(7,088)	498,337
Furniture and fixtures	2,900	391	(25)	-	(455)	2,811
Vehicles	1,814	840	-	-	(289)	2,365
Equipment	125,217	28,564	(592)	-	(20,735)	132,454
IT equipment	74,128	24,011	(779)	-	(21,642)	75,718
	886,498	**64,125**	**(1,396)**	**-**	**(50,209)**	**899,018**

Reconciliation of property, plant and equipment - Group - 2025

	Opening balance	Additions	Disposals and write-offs	Revaluations	Depreciation	Closing balance
	R '000	R '000	R '000	R '000	R '000	R '000
Land	138,400	-	-	48,933	-	187,333
Buildings	482,034	19,487	-	-	(6,415)	495,106
Furniture and fixtures	3,119	356	(5)	-	(570)	2,900
Vehicles	1,003	1,006	(4)	-	(191)	1,814
Equipment	120,729	24,330	(257)	-	(19,585)	125,217
IT equipment	62,943	32,483	(403)	-	(20,895)	74,128
	808,228	**77,662**	**(669)**	**48,933**	**(47,656)**	**886,498**

Reconciliation of property, plant and equipment - CSIR - 2026

	Opening balance	Additions	Disposals and write-offs	Revaluations	Depreciation	Closing balance
	R '000	R '000	R '000	R '000	R '000	R '000
Land	187,333	-	-	-	-	187,333
Buildings	495,106	10,319	-	-	(7,088)	498,337
Furniture and fixtures	2,900	391	(25)	-	(455)	2,811
Vehicles	1,814	840	-	-	(289)	2,365
Equipment	125,217	28,564	(592)	-	(20,735)	132,454
IT equipment	74,128	24,011	(779)	-	(21,642)	75,718
	886,498	**64,125**	**(1,396)**	**-**	**(50,209)**	**899,018**

8. Property, plant and equipment (continued)

Reconciliation of property, plant and equipment - CSIR - 2025

	Opening balance	Additions	Disposals and write-offs	Revaluations	Depreciation	Closing balance
	R '000	R '000	R '000	R '000	R '000	R '000
Land	138,400	-	-	48,933	-	187,333
Buildings	482,034	19,487	-	-	(6,415)	495,106
Furniture and fixtures	3,119	356	(5)	-	(570)	2,900
Vehicles	1,003	1,006	(4)	-	(191)	1,814
Equipment	120,729	24,330	(257)	-	(19,585)	125,217
IT equipment	62,943	32,483	(403)	-	(20,895)	74,128
	808,228	**77,662**	**(669)**	**48,933**	**(47,656)**	**886,498**

Revaluations

The Group's land is stated at revalued amounts, being the fair value at the date of revaluation, less any subsequent accumulated impairment losses. Revaluations are performed every five years and in intervening years if the carrying amount of the land differs materially from its fair value.

The valuations were performed in the prior financial year by Mr Paul Ntjie Mowasa, an independent valuer not related to the Group. At the time of the valuations, Mr Mowasa was a member of the South African Council for the Property Valuers Profession and had the appropriate qualifications and recent experience in the fair value measurement of properties in the relevant locations.

The valuations were performed using the comparable sales approach, which reflects transaction prices for similar properties in the same location and condition. These resulted in a revaluation surplus of R48,9 million for the prior financial year. No revaluation was performed in the current financial year, as Management considers the carrying value of land at the reporting date to approximate fair value (refer to note 29).

The carrying value of the revalued assets under the cost model would have been:

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Land	4,829	4,829	4,829	4,829

Details of properties

Land and buildings are unencumbered and full details of the titles are available at the registered office of the CSIR.

A change in the depreciation estimate due to a change in the useful lives of equipment, IT equipment, furniture and fixtures and vehicles resulted in a R7,3 million (2025: R3,4 million) decrease in the depreciation amount for the current financial year.

During the current financial year, assets to the value of R93,2 million (2025: R427,0 million) were purchased with government grant funds. Included in the prior year amount is R271,6 million pertaining to the acquisition of a High-Performance Computing (HPC) System. Grant receivable and long-term payable amounts have been recognised relating to the acquisition of, and funding for, this system. Refer to notes 12 and 20. At year-end, the cumulative value of assets purchased with government grant funds and shown at a nil cost is R1,6 billion (2025: R1,5 billion).

9. LEASES (GROUP AS LESSEE)

The Group leases several assets, including buildings and motor vehicles. The average lease term is four years. Details pertaining to leasing arrangements, where the Group is lessee are presented below:

Net carrying amounts of right-of-use assets

The carrying amounts of right-of-use assets are included in the following line items:

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Buildings	60	1,818	60	1,818
Motor vehicles	2,182	3,436	2,182	3,436
	2,242	**5,254**	**2,242**	**5,254**
Additions to right-of-use assets				
Motor vehicles	-	640	-	640
Depreciation recognised on right-of-use assets				
Depreciation recognised on each class of right-of-use assets, is presented below:				
Buildings	266	1,220	266	1,220
Motor vehicles	1,458	1,620	1,458	1,620
	1,724	**2,840**	**1,724**	**2,840**
Other disclosures				
Interest expense on lease liabilities	594	819	594	819

Lease liabilities

The following table sets out a maturity analysis of lease liabilities, showing the undiscounted lease payments to be made after the reporting date.

Within one year	2,663	2,950	2,663	2,950
Two to five years	1,251	4,207	1,251	4,207
	3,914	**7,157**	**3,914**	**7,157**
Carrying amount of lease liabilities (discounted):				
Non-current liabilities	1,177	4,207	1,177	4,207
Current liabilities	2,397	2,950	2,397	2,950
	3,574	**7,157**	**3,574**	**7,157**

The difference between contractual cash flows and the recognised lease liability represents future interest charges that will accrue under the effective interest method.

10. INTEREST IN SUBSIDIARIES

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Shares at cost less impairment losses	-	-	4,650	4,650
Indebtedness				
- by subsidiaries	-	-	-	-
- impairment of loans	-	-	-	-
	-	**-**	**4,650**	**4,650**

The following table provides details of the entity which is controlled directly by the CSIR, and the carrying amount of the investment in the CSIR's separate financial statements.

	CSIR					
	% voting power	% voting power	% holding	% holding	Carrying amount	Carrying amount
	2026	2025	2026	2025	2026 R '000	2025 R '000
Name of company						
CSIR C³ SOC Ltd	100 %	100 %	100 %	100 %	4,650	4,650

11. INTERESTS IN JOINT VENTURE AND ASSOCIATE

	GROUP			
	% ownership interest	% ownership interest	Carrying amount	Carrying amount
	2026	2025	2026 R '000	2025 R '000
Name of company				
Joint venture				
Sera (Pty) Ltd - South Africa	- %	50.00 %	-	-
Associate				
Persomics AB - Sweden	35.03 %	35.03 %	19,534	20,977
			19,534	20,977
Impairment			(19,534)	(20,977)
			-	-

11. Interests in joint venture and associate (continued)

	CSIR			
	% ownership interest 2026	% ownership interest 2025	Carrying amount 2026 R '000	Carrying amount 2025 R '000
Name of company				
Joint venture				
Sera (Pty) Ltd - South Africa	- %	50.00 %	-	-
Associate				
Persomics AB - Sweden	35.03 %	35.03 %	26,325	26,325
			26,325	26,325
Impairment			(26,325)	(26,325)
			-	-

Sera (Pty) Ltd

Sera (Pty) Ltd has been deregistered.

Persomics AB

The investment in Persomics AB has been fully impaired at CSIR and Group level as at 31 March 2026.

The investee resolved to enter voluntary liquidation during 2025, and a liquidator was formally appointed on 12 June 2025 to administer the process. As at the reporting date, the statutory notice period to unknown creditors had expired, the company had been deregistered for F-tax, VAT and employer contributions, and the final VAT and employer tax filings had been completed.

The liquidator has confirmed that the liquidation is in its final administrative stage. The remaining steps are the finalisation of the 2025 Swedish annual report, the preparation of the final liquidation accounts, the holding of the final shareholders' meeting, and thereafter the formal filing of the dissolution with the Swedish Companies Registration Office.

The Group expects the liquidation to be formally completed and registered during the 2026/27 financial year, at which point final confirmation and supporting documentation will be provided by the liquidator.

The combined effect of the appointment of the liquidator, the expiry of the statutory creditors' notice period, the completion of the deregistration and tax matters, and the absence of any prospect of distribution to shareholders constitutes objective evidence of impairment in accordance with the Group's accounting policy on impairment of investments in associates (refer to accounting policy 1.4 and 1.12.).

The following are details of the significant joint venture's and associate's assets, liabilities, income and expenses:

	GROUP JOINT VENTURE		GROUP ASSOCIATE	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Non-current assets	-	-	-	4,149
Expenses/(income) *	-	-	4,120	(3,401)

* The CSIR consolidates Persomics AB using management accounts to address differing financial year-ends (by three months), adjusting for final figures as needed. The prior period includes a reversal of losses to eliminate the duplication of results from overlapping months. While this creates a technical accounting profit at the point of adjustment, it reflects a timing alignment rather than operational performance. The adjustments are non-material.

12. GOVERNMENT GRANT RECEIVABLE

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Government grant receivable	173,205	221,288	173,205	221,288
Non-current asset	110,196	158,279	110,196	158,279
Current asset	63,009	63,009	63,009	63,009
	173,205	**221,288**	**173,205**	**221,288**

The government grant receivable pertains to the acquisition of a High-Performance Computing (HPC) System (refer to note 8) during the prior financial year on deferred payment terms (refer to note 20). This system is funded through a ring-fenced allocation in the Estimates of National Expenditure (ENE) under the National Integrated Cyberinfrastructure System (NICIS) line item. The Department of Science, Technology and Innovation confirmed their commitment to fund this system for the duration of the five year agreement.

The grant receivable fully matches the ageing, the inverse value and amortisation of the long-term payable. Refer to note 20 for further detail.

Reconciliation of the government grant receivable:

Opening balance	221,288	-	221,288	-
Initial recognition at present value	-	271,620	-	271,620
Finance income recognised (note 5)	14,926	19,069	14,926	19,069
Government grant payment received	(63,009)	(69,401)	(63,009)	(69,401)
Closing balance	**173,205**	**221,288**	**173,205**	**221,288**

The present value of the grant payment receivable within 12 months from the reporting date, including the interest portion, is reflected as a current asset.

13. INVENTORIES

Finished goods	1,088	676	1,088	676
Raw materials and consumables	939	-	939	-
	2,027	**676**	**2,027**	**676**

The cost of inventories recognised as an expense for the year amounted to R23,4 million (2025: R21,4 million).

14. OTHER RECEIVABLES FROM CONTRACTS WITH CUSTOMERS

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Contracts in progress at the end of the reporting period				
Other receivables from contracts with customers	230,295	200,112	230,295	200,112

Other receivables from contracts with customers arise as result of the time lag between customer billing and revenue recognition. Contract assets (refer to note 16) constitute capitalised costs on point in time contracts with customers. Advances received in excess of work completed are included in advances from customers under current liabilities (refer to note 22).

15. TRADE AND OTHER RECEIVABLES

Financial instruments:				
Trade receivables	367,288	373,897	367,288	373,895
Trade receivables loss allowance	(29,634)	(33,931)	(29,634)	(33,931)
Trade receivables at amortised cost	337,654	339,966	337,654	339,964
Deposits	6,910	2,679	6,910	2,679
Other receivables	8,878	9,030	8,850	9,030
Other receivables loss allowance	(5,507)	(5,055)	(5,507)	(5,055)
	347,935	346,620	347,907	346,618
Non-financial instruments:				
Prepayments	54,139	81,869	54,139	81,869
Total trade and other receivables	**402,074**	**428,489**	**402,046**	**428,487**

16. CONTRACT ASSETS

Contract assets	3,963	2,992	3,963	2,992

Contract assets constitute capitalised costs on point in time contracts with customers.

Reconciliation of contract assets				
Opening balance	2,992	4,856	2,992	4,856
Increase in contract assets	2,680	2,517	2,680	2,517
Transfers of contract assets to receivables	(1,709)	(4,381)	(1,709)	(4,381)
	3,963	**2,992**	**3,963**	**2,992**

17. INVESTMENTS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Investments in debt instruments	707,960	656,649	707,960	656,649
Unlisted equity investments	10,000	-	10,000	-
	717,960	**656,649**	**717,960**	**656,649**
Split between non-current and current portions				
Non-current assets	10,000	-	10,000	-
Current assets	707,960	656,649	707,960	656,649
	717,960	**656,649**	**717,960**	**656,649**

Investments in debt instruments

The amount represents the Group's interest in Stanlib's Flexible Income Fund, which is designed to take advantage of exposure to income-generating investments through various interest-rate environments. The fund invests mainly in South African investment markets (but may allocate capital to foreign markets) and is benchmarked against the Alexander Forbes Short-Term Fixed Interest (STeFI) Composite Index.

Interest distributions from the fund are made quarterly.

Unlisted equity investments

During the year, the Group purchased 5,376 Pre-Series A preference shares in MycoSure (Pty) Ltd at a subscription price of R10 million (R1,860.12 per share) as part of an approved strategic commercialisation initiative. The investment is held for strategic commercialisation and innovation purposes and is not held for trading.

Assessment of significant influence

The Group's holding represents 10.75% of the voting power of MycoSure (Pty) Ltd, which is below the 20% threshold at which IAS 28 paragraph 5 establishes a rebuttable presumption of significant influence. The Group has assessed whether the qualitative indicators set out in IAS 28 paragraph 6 are nonetheless sufficient to demonstrate that significant influence exists, and has concluded that they are not. The basis of this conclusion is summarised as follows:

- the Group holds one of three director seats on the MycoSure board, which provides input into board deliberations but does not confer the ability to influence outcomes given the founder shareholders' control of the remaining two directorships;
- the Memorandum of Incorporation contains extensively reserved matters which are protective in nature and which preserve the Group's interest as a minority investor, but which do not afford the Group participative rights over the financial and operating policies of MycoSure;
- the Group has no contractual, constitutional or other ability to direct the financial or operating policies of MycoSure; and
- the founder shareholders hold dominant control of MycoSure through holdings of more than 75% of the ordinary shares.

The material transactions between the Group and MycoSure (the licensing of intellectual property by the Group to MycoSure) and the provision of technical information by the Group to MycoSure, while qualitative indicators contemplated by IAS 28 paragraph 6, are insufficient on their own or in combination with the other factors above to rebut the presumption that significant influence does not exist.

Accordingly, the investment in MycoSure does not fall within the scope of IAS 28 and has been classified as a financial asset under IFRS 9. Refer to accounting policy 1.5 for further information on the application of this judgement.

17. Investments at fair value through other comprehensive income (continued)

Designation under IFRS 9

At initial recognition, the Group made the irrevocable election under IFRS 9.5.7.5 to designate the investment at fair value through other comprehensive income. This election is consistent with the Group's accounting policy for strategic equity investments (refer to accounting policy 1.7).

The subscription was funded through a government grant received from the Department of Science, Technology and Innovation. The grant is subject to commercialisation and royalty-based conditions and accordingly a corresponding liability is recognised under advances from customers (note 22). Grant income will be recognised in profit or loss when the conditions attached to the grant are satisfied, in accordance with accounting policy 1.15.

Fair value

The Group has assessed the fair value of the investment at the reporting date as equal to the original subscription price of R10 million.

This assessment is supported by:

- the recency of the transaction,
- the absence of any observable indicators that would suggest a change in the entity's risk profile or commercialisation prospects since the subscription date, and
- the absence of any subsequent transactions in the entity's equity at a different price.

Accordingly, no fair value gains or losses have been recognised in other comprehensive income during the current reporting period.

The fair value of the investment has been classified as Level 3 in the fair value hierarchy (refer to note 29).

A conditional obligation exists in respect of a further subscription of R7 million (tranche 2), which is contingent on the achievement of specified technical and commercial milestones. This contingent obligation is disclosed in note 26.

There were no dividends received during the current reporting period.

18. CASH AND CASH EQUIVALENTS

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Cash and cash equivalents consist of:				
Cash on hand	90	85	90	85
Bank balances	54,166	64,073	53,998	63,477
Short-term deposits	323,520	481,508	313,926	472,537
	377,776	**545,666**	**368,014**	**536,099**

Cash on hand comprises petty cash.

19. POST-RETIREMENT BENEFITS

CSIR Pension Fund

The fund is registered in terms of the Pension Funds Act, 1956 (Act 24 of 1956), and is a defined contribution plan. The CSIR's liability to the fund was limited to paying the employer contributions up until 29 February 2016. The impact of the tax reform effective from 1 March 2016 is that the CSIR package structure was changed to reflect all retirement fund contributions as employee contributions. All permanent CSIR employees are members of the fund.

Employee contributions of R227,2 million (2025: R224,1 million) were expensed during the year.

19. Post-retirement benefits (continued)

Post-retirement medical benefits

The CSIR has a post-retirement medical benefit obligation to certain qualifying retired CSIR employees (pensioners) who joined the CSIR prior to 30 September 1996. An offer was made to qualifying pensioners in December 2005 to accept an annuity, payable from an independent source, equivalent to the value of their medical subsidy. The pensioners who accepted the offer are no longer entitled to a subsidy from the CSIR.

The accumulated benefit obligation and the annual cost of accrual of benefits are assessed by independent, qualified actuaries using the projected unit credit method. The estimated present value of the anticipated expenditure for the remaining 18 continuation members (2025: 18 continuation members) was recalculated by the actuaries as at 31 March 2026 and will be funded through cash and cash equivalents. These cash and cash equivalents have not been set aside specifically for this benefit.

The amount included in the Statement of Financial Position arising from the CSIR's obligation in respect of post-retirement medical benefits is as follows:

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Carrying value				
Present value of the defined benefit obligation - wholly unfunded	13,394	12,775	13,394	12,775
Non-current liabilities	11,008	10,547	11,008	10,547
Current liabilities	2,386	2,228	2,386	2,228
	13,394	**12,775**	**13,394**	**12,775**

Amounts recognised in the Statement of Profit or Loss and Other Comprehensive Income in respect of the scheme are as follows:

Net amount recognised				
Interest cost	**1,090**	**1,131**	**1,090**	**1,131**
- Changes in financial assumptions	228	312	228	312
- Experience adjustment: Actual versus expected healthcare cost inflation	371	832	371	832
- Experience adjustment: Actual versus expected membership profile	(1,070)	(1,325)	(1,070)	(1,325)
Actuarial gain	**(471)**	**(181)**	**(471)**	**(181)**
Net amount recognised	**619**	**950**	**619**	**950**

19. *Post-retirement benefits (continued)*

Movement in the net liability recognised in the Statement of Financial Position is as follows:

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Net liability at the beginning of the year	12,775	11,825	12,775	11,825
Net expense recognised in the Statement of Profit or Loss and Other Comprehensive Income	619	950	619	950
Net liability at the end of the year	**13,394**	**12,775**	**13,394**	**12,775**

	GROUP		CSIR	
	2026 %	2025 %	2026 %	2025 %
Principal actuarial assumptions at the reporting date:				
Discount rate	8.13%	9.42%	8.13%	9.42%
Consumer Price Index (CPI) inflation rate	3.86%	4.76%	3.86%	4.76%

The above results are sensitive to changes in the discount rate and the CPI inflation rate.

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
The effect of a one percent increase in the assumed discount rate would have the following effects:				
Effect on defined benefit obligation	(563)	(548)	(563)	(548)
The effect of a one percent decrease in the assumed discount rate would have the following effects:				
Effect on defined benefit obligation	616	599	616	599
The effect of a one percent increase in the assumed CPI inflation rate would have the following effects:				
Effect on defined benefit obligation	616	599	616	599
The effect of a one percent decrease in the assumed CPI inflation rate would have the following effects:				
Effect on defined benefit obligation	(576)	(548)	(576)	(548)

The above sensitivity analyses are based on a change in an assumption while all other assumptions are assumed to remain unchanged. This may not always be realistic as some of the assumptions tend to be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the liability recognised within the Statement of Financial Position.

19. Post-retirement benefits (continued)

	2026	2025	2024	2023	2022
	R '000	R '000	R '000	R '000	R '000
Historical information					
Present value of the defined benefit obligation	13,394	12,775	11,825	11,978	12,204

The average term (undiscounted) of the defined benefit obligation is 6.7 years (2025: 7.3 years) and the average duration (discounted) of the defined benefit obligation is 4.8 years (2025: 4.9 years).

20. LONG-TERM PAYABLES

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Long-term payable	173,205	221,288	173,205	221,288
Non-current liability	110,196	158,279	110,196	158,279
Current liability	63,009	63,009	63,009	63,009
	173,205	**221,288**	**173,205**	**221,288**

The long-term payable pertains to the acquisition of a High-Performance Computing (HPC) System (refer to note 8) in the prior financial year on deferred payment terms. The HPC System is funded through a ring-fenced allocation in the Estimates of National Expenditure (ENE) under the National Integrated Cyberinfrastructure (NICIS) line item over the duration of the agreement (refer to note 12).

The nominal value of the system is R321,4 million, to be settled in annual instalments over a five year period ending in the 2029 financial year. The terms of the contract do not include an expressly defined interest component, however the liability is measured at present value, resulting in an interest expense of 9.43% per annum. This rate represents the market rate for similar or indicative financing arrangements for this organisation.

The long-term payable is amortised as follows:

	Opening balance	Contractual instalment	Finance cost	Capital payment	Closing balance
	R '000	R '000	R '000	R '000	R '000
Financial year ending					
31 March 2025	271,620	69,401	19,069	50,332	221,288
31 March 2026	221,288	63,009	14,926	48,083	173,205
31 March 2027	173,205	63,009	10,392	52,617	120,588
31 March 2028	120,588	63,009	5,430	57,579	63,009
31 March 2029	63,009	63,009	-	63,009	-
		321,437	**49,817**	**271,620**	

The difference between the nominal value and the present value is recognised as finance expense over the term of the payment arrangement, using the effective interest method.

20. *Long-term payables (continued)*

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Reconciliation of the long-term payable:				
Opening balance	221,288	-	221,288	-
Initial recognition at present value	-	271,620	-	271,620
Finance expense recognised (note 6)	14,926	19,069	14,926	19,069
Repayments	(63,009)	(69,401)	(63,009)	(69,401)
Closing balance	**173,205**	**221,288**	**173,205**	**221,288**

The present value of the payment due within 12 months from the reporting date, including the interest portion, is reflected as a current liability.

21. TRADE AND OTHER PAYABLES

Financial instruments:				
Trade payables	159,451	200,130	159,430	200,144
Salary related payables	87,392	100,078	87,392	100,078
	246,843	**300,208**	**246,822**	**300,222**
Non-financial instruments:				
VAT	53,562	37,508	53,562	37,508
Total trade and other payables	**300,405**	**337,716**	**300,384**	**337,730**

22. ADVANCES FROM CUSTOMERS

Advances from customers	719,450	828,827	719,450	828,827

Advances from customers constitute advances received in excess of work completed.

Refer to note 2 for disclosure of the portion of advances from customers recognised as revenue during the current and prior financial years.

23. PROVISIONS

Reconciliation of provisions - Group - 2026

	Opening balance	Additions	Utilised during the year	Reversed during the year	Closing balance
	R '000	R '000	R '000	R '000	R '000
Employee-related provision	111,888	130,586	(110,821)	(1,067)	130,586

Reconciliation of provisions - Group - 2025

	Opening balance	Additions	Utilised during the year	Closing balance
	R '000	R '000	R '000	R '000
Employee-related provision	74,496	114,003	(76,611)	111,888

Reconciliation of provisions - CSIR - 2026

	Opening balance	Additions	Utilised during the year	Reversed during the year	Closing balance
	R '000	R '000	R '000	R '000	R '000
Employee-related provision	111,888	130,586	(110,821)	(1,067)	130,586

Reconciliation of provisions - CSIR - 2025

	Opening balance	Additions	Utilised during the year	Closing balance
	R '000	R '000	R '000	R '000
Employee-related provision	74,496	114,003	(76,611)	111,888

The employee-related provision relates to short-term employees' performance incentives. The provision was based on the approved Short-Term Incentive (STI) guideline and was estimated based on past established practice.

24. RECONCILIATION OF PROFIT FOR THE YEAR TO CASH (UTILISED IN)/GENERATED FROM OPERATING ACTIVITIES

	GROUP		CSIR	
	2026 R '000	2025 Restated R '000	2026 R '000	2025 Restated R '000
Profit for the year	38,797	41,019	38,611	40,623
Adjusted for:				
Depreciation	51,933	50,496	51,933	50,496
Loss on disposal and write-off of property, plant and equipment	660	91	660	91
Net unrealised foreign exchange gains	(376)	(4,462)	(376)	(4,462)
Bad debts written off	3,588	515	3,588	515
Finance income	(86,628)	(102,878)	(85,956)	(102,285)
Finance expense	15,520	19,888	15,520	19,888
Impairments	(5,288)	1,445	(3,845)	254
Movement in post-retirement medical benefits	1,090	1,131	1,090	1,131
Movements in provisions	18,698	37,392	18,698	37,392
Leave accrual	1,146	17,687	1,146	17,687
Share of loss/(profit) of joint venture and associate	1,443	(1,191)	-	-
Acquisition of grant-funded PPE	93,219	155,417	93,219	155,417
Other non-cash items	238	524	238	524
Changes in working capital:				
Inventories	(1,351)	61	(1,351)	61
Trade and other receivables	25,347	(27,543)	25,332	(27,543)
Contract assets	(971)	1,864	(971)	1,864
Other receivables from contracts with customers	(35,696)	(2,931)	(35,696)	(2,931)
Trade and other payables	(44,568)	(30,603)	(44,590)	(30,603)
Advances from customers	(104,231)	(145,280)	(104,231)	(145,280)
Cash (utilised in)/generated from operating activities	**(27,430)**	**12,642**	**(26,981)**	**12,839**

25. BOARD MEMBERS, DIRECTORS AND EXECUTIVE MANAGEMENT'S REMUNERATION

2026

	Emoluments	Directors' fees	Total
	R '000	R '000	R '000
Board members and Executive Directors			
Dr TH Dlamini	8,324	-	8,324
Non-executive Board members			
V Jarana	-	139	139
Prof. Y Ballim	-	135	135
M Fakir *	-	-	-
M Govender	-	144	144
M Matolong	-	131	131
Dr V Mthethwa	-	176	176
M Mulcahy	-	146	146
J Newton	-	143	143
Dr C Render	-	131	131
Prof. A Van Zyl	-	199	199
Executive Management			
Dr RK Chikwamba	4,824	-	4,824
Adv. E Kennedy	4,170	-	4,170
MC Mabindisa	3,969	-	3,969
Dr S Malinga	4,773	-	4,773
Dr MS Maserumule	5,481	-	5,481
Dr K Naidoo	3,818	-	3,818
E Opperman	3,818	-	3,818
	39,177	**1,344**	**40,521**

* As an employee of an organ of state (effective August 2024), M Fakir is not entitled to payment of directors' fees by the CSIR.

25. Board members, Directors and Executive Management's remuneration (continued)

2025

	Emoluments	Directors' fees	Total
	R '000	R '000	R '000
Board members and Executive Directors			
Dr TH Dlamini	7,643	-	7,643
Non-executive Board members			
V Jarana	-	141	141
Prof. Y Ballim	-	138	138
M Fakir	-	85	85
M Govender	-	142	142
M Matolong	-	126	126
Dr V Mthethwa	-	158	158
M Mulcahy	-	139	139
J Newton	-	138	138
Dr C Render	-	126	126
Prof. A Van Zyl	-	192	192
Executive Management			
Dr RK Chikwamba	4,516	-	4,516
Adv. E Kennedy	3,897	-	3,897
MC Mabindisa	3,614	-	3,614
Dr S Malinga	4,395	-	4,395
Dr MS Maserumule	5,035	-	5,035
Dr K Naidoo	3,544	-	3,544
E Opperman	3,579	-	3,579
	36,223	**1,385**	**37,608**

26. CONTINGENCIES

Due to the nature of the CSIR's business, agreements with complex deliverables may be entered into. All necessary steps are taken to manage the risks inherent to these transactions. If, and when, it is evident that there is a reasonable probability that a dispute on a transaction could lead to costs against the CSIR, such costs will be disclosed. Refer to note 33 for financial guarantees issued by the CSIR.

Investment in MycoSure (Pty) Ltd

The CSIR has a conditional obligation to subscribe for an additional 7,000 Pre-Series A preference shares in MycoSure (Pty) Ltd at a cost of R7 million (tranche 2). This obligation is contingent upon MycoSure achieving 80% of specified technical and commercial milestones within a 6-month period including fermentation optimisation trials, recruitment of technical personnel, process engineering design, financial model refinement, and food product development. The subscription amount may be reduced by any third-party funding raised by MycoSure prior to milestone achievement. As at 31 March 2026, the milestones had not been met and no liability has been recognised.

26. Contingencies (continued)

Supplier dispute

A supplier instituted legal proceedings against the CSIR in the Gauteng Regional Court for R206 thousand in respect of services allegedly rendered. The CSIR negotiated a settlement agreement for R90 thousand, payable in full and final settlement of all claims, interest, and legal costs, with the plaintiff's withdrawal of action contingent on receipt of payment. The agreement was agreed-upon in principle but not yet finalised at the issue date.

27. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

Categories of financial instruments

Categories of financial assets

	Notes	Fair value through other comprehensive income	Amortised cost	Total
		R '000	R '000	R '000
Group - 2026				
Trade and other receivables	15	-	347,935	347,935
Investments at fair value through other comprehensive income	17	717,960	-	717,960
Cash and cash equivalents	18	-	377,776	377,776
		717,960	**725,711**	**1,443,671**
Group - 2025				
Trade and other receivables	15	-	346,620	346,620
Investments at fair value through other comprehensive income	17	656,649	-	656,649
Cash and cash equivalents	18	-	545,666	545,666
		656,649	**892,286**	**1,548,935**
CSIR - 2026				
Trade and other receivables	15	-	347,907	347,907
Investments at fair value through other comprehensive income	17	717,960	-	717,960
Cash and cash equivalents	18	-	368,014	368,014
		717,960	**715,921**	**1,433,881**
CSIR - 2025				
Trade and other receivables	15	-	346,618	346,618
Investments at fair value through other comprehensive income	17	656,649	-	656,649
Cash and cash equivalents	18	-	536,099	536,099
		656,649	**882,717**	**1,539,366**

27. Financial instruments and risk management (continued)

Categories of financial liabilities

	Notes	Amortised cost R '000	Total R '000
Group - 2026			
Long-term payables	20	173,205	173,205
Trade and other payables	21	246,843	246,843
		420,048	**420,048**
Group - 2025			
Long-term payables	20	221,288	221,288
Trade and other payables	21	300,208	300,208
		521,496	**521,496**
CSIR - 2026			
Long-term payables	20	173,205	173,205
Trade and other payables	21	246,822	246,822
		420,027	**420,027**
CSIR - 2025			
Long-term payables	20	221,288	221,288
Trade and other payables	21	300,222	300,222
		521,510	**521,510**

Capital management

As a public entity established by statute, the CSIR has no share capital and does not raise funding through external debt markets. The CSIR is subject to the general financial management requirements of the Public Finance Management Act, 1999 (Act 1 of 1999) as amended by Act 29 of 1999, rather than externally imposed capital ratios.

Capital comprises financial liabilities (including lease obligations), working capital and cash and cash equivalents. The Group's objectives when managing capital is to safeguard the Group's ability to continue as a going concern while taking advantage of strategic opportunities in order to maximise stakeholder returns sustainably.

The capital structure and gearing ratio of the Group at the reporting date were as follows:

		GROUP		CSIR	
	Notes	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Lease liabilities	9	3,574	7,157	3,574	7,157
Trade and other payables	21	300,405	337,716	300,384	337,730
Long-term payables	20	173,205	221,288	173,205	221,288
Total capital liabilities		**477,184**	**566,161**	**477,163**	**566,175**
Cash and cash equivalents	18	(377,776)	(545,666)	(368,014)	(536,099)
Net capital liabilities		**99,408**	**20,495**	**109,149**	**30,076**
Equity		1,467,946	1,427,973	1,462,827	1,423,040
Gearing ratio		7%	1%	7%	2%

Financial risk management

Overview

The Group is exposed to the following risks from its use of financial instruments:

- Market risk (e.g. currency risk, interest rate risk and price risk);
- Credit risk; and
- Liquidity risk.

This note presents information about the Group's exposure to each of the above risks and the Group's objectives, policies and processes for measuring and managing risk. Further quantitative disclosures are included throughout these consolidated financial statements.

The Board has overall responsibility for the establishment and oversight of the Group's risk management framework.

The Group's risk management policies are established to identify and analyse the risks faced by the Group, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Group's activities. The Group, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Audit and Risk Committee oversees how management monitors compliance with the Group's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group Audit and Risk Committee is assisted in its oversight role by Internal Audit. Internal Audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Audit and Risk Committee.

27.1 Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates and interest rates will affect the Group's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return.

Foreign currency risk

The Group is exposed to currency risk on sales and purchases that are denominated in a currency other than the respective functional currency of the Group entities.

The Group's exposure to foreign currency risk was as follows:

	ZAR	EURO	USD	GBP	Other	Total
31 March 2026	**R '000**	**R '000**	**R '000**	**R '000**	**R '000**	**R '000**
Trade receivables - net of loss allowance	292,932	8,079	32,960	152	3,531	337,654
Bank balances	33,820	2,281	17,576	489	-	54,166
Trade and other payables	(243,532)	(67)	(3,157)	(43)	(44)	(246,843)
Gross statement of financial position exposure	83,220	10,293	47,379	598	3,487	144,977
Net exposure	**83,220**	**10,293**	**47,379**	**598**	**3,487**	**144,977**

27. Financial instruments and risk management (continued)

31 March 2025	ZAR R '000	EURO R '000	USD R '000	GBP R '000	Other R '000	Total R '000
Trade receivables - net of loss allowance	334,609	3,806	318	1,233	-	339,966
Bank balances	41,400	9,233	9,572	3,868	-	64,073
Trade and other payables	(299,229)	(526)	(158)	(295)	-	(300,208)
Gross statement of financial position exposure	76,780	12,513	9,732	4,806	-	103,831
Net exposure	**76,780**	**12,513**	**9,732**	**4,806**	**-**	**103,831**

The following closing exchange rates were applied at reporting date:

	GROUP		CSIR	
	2026 R	2025 R	2026 R	2025 R
Rand per unit of foreign currency:				
USD	17.244	18.481	17.244	18.481
Euro	19.771	20.018	19.771	20.018
GBP	22.739	23.931	22.739	23.931

Sensitivity analysis

A 10% strengthening of the rand against the following currencies at 31 March would have decreased profit or loss and equity by the amounts shown below. This analysis assumes that all other variables remain constant. The analysis is performed on the same basis for 2025.

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Euro	(1,029)	(1,251)	(1,029)	(1,251)
USD	(4,738)	(973)	(4,738)	(973)
GBP	(60)	(481)	(60)	(481)
Other	(349)	-	(349)	-

A 10% weakening of the rand against the above currencies at 31 March would have had the equal but opposite effect on the above currencies to the amounts shown above, on the basis that all other variables remain constant.

27. Financial instruments and risk management (continued)

Interest rate risk

Interest rate exposure and investment strategies are evaluated by management on a regular basis. Interest-bearing investments are held with several reputable banks and financial institutions in order to minimise exposure.

At the reporting date the interest rate profile of the Group's interest-bearing financial instruments was as follows:

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Fixed rate instruments: Carrying amount				
Financial assets: Fixed deposits	7,204	6,731	-	-
Variable rate instruments: Carrying amount				
Financial assets: Call and notice deposits	316,316	474,777	313,926	472,537
Financial assets: Bank balances	54,166	64,073	53,998	63,477
Financial assets: Investments in debt instruments at fair value through other comprehensive income	707,960	656,649	707,960	656,649
	1,078,442	**1,195,499**	**1,075,884**	**1,192,663**

Sensitivity analysis

An increase of 100 basis points in interest rates at the reporting date would have increased profit or loss and equity by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency rates, remain constant. The analysis is performed on the same basis for 2025.

Variable rate instruments	11,537	12,182	11,514	12,160

A decrease of 100 basis points would have had the equal but opposite effect to the amounts shown above.

The Group does not account for any fixed rate financial assets and liabilities at fair value through profit or loss, therefore a change in interest rates at the reporting date would not affect profit or loss.

27.2 Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations. It arises principally from the Group's trade and other receivables, loans to joint ventures, associates and subsidiaries and bank balances and deposits.

Trade and other receivables and loans to joint ventures, associates and subsidiaries

Trade and other receivables and loans to joint ventures, associates and subsidiaries are presented net of impairment losses. Credit risk with respect to trade receivables is limited due to the large number of customers comprising the Group's customer base and their dispersion across different industries and geographical areas.

27. Financial instruments and risk management (continued)

Bank balances and deposits

The Group's bank balances and deposits are placed with high credit, quality financial institutions with no significant exposure to any one financial institution.

Guarantees

Refer to note 33 for details on bank guarantees issued with respect to facilities.

Exposure to credit risk

The carrying amount of financial assets represents the maximum credit exposure.

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
The maximum exposure to credit risk at the reporting date was:				
Fixed deposits	7,204	6,731	-	-
Call and notice deposits	316,316	474,777	313,926	472,537
Bank balances	54,166	64,073	53,998	63,477
Trade and other receivables	347,935	346,620	347,907	346,618
Other receivables from contracts with customers	230,295	200,112	230,295	200,112
	955,916	**1,092,313**	**946,126**	**1,082,744**

The maximum exposure to credit risk for trade receivables at the reporting date by type of customer was:

Local public sector	229,981	251,954	229,981	251,952
Local private sector	51,534	84,339	51,534	84,339
International sector	56,139	3,673	56,139	3,673
	337,654	**339,966**	**337,654**	**339,964**

The Group's most significant customers are various local public sector customers.

27. Financial instruments and risk management (continued)

	2026		2025	
	Gross R '000	Impairment R '000	Gross R '000	Impairment R '000
The ageing of the Group's trade receivables at the reporting date was:				
Not past due	280,066	1,070	313,673	6
Past due 0 – 30 days	24,140	303	17,404	152
Past due 31 – 60 days	7,183	158	639	144
Past due 61 – 90 days	4,102	11	4,667	3,298
Past due 91 – 120 days	14,697	1,104	3,385	420
Past due more than 120 days	37,100	26,988	34,129	29,911
	367,288	**29,634**	**373,897**	**33,931**

The movement in the allowance for impairment in respect of trade receivables during the year was as follows:

	GROUP	
	2026 R '000	2025 R '000
Balance at 1 April	33,931	33,699
Movement for the year		
Reversals due to payments received	(7,775)	(12,187)
Other reversals and write-offs	(4,595)	(2,081)
New impairment allowances	8,073	14,500
Balance at 31 March	**29,634**	**33,931**

The allowance account in respect of trade receivables is used to record impairment losses unless the Group is satisfied that no recovery of the amount owing is possible; at that point the amount considered irrecoverable is written off against the financial asset directly.

The fully performing trade receivables are considered to be of high credit quality.

27.3 Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as these fall due. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group's reputation.

The Group monitors its cash flow on a daily basis. Typically, the Group ensures that it has sufficient cash on demand to meet expected operational expenses for a period of 60 days, including the servicing of financial obligations; this excludes the potential impact of extreme circumstances that cannot be predicted reasonably, such as natural disasters.

27. Financial instruments and risk management (continued)

The following are the contractual maturities of financial liabilities, including interest payments but excluding the impact of netting agreements for the Group:

	2026 Contractual cash flows				2025 Contractual cash flows			
	Carrying amount R '000	6 months or less R '000	6 - 12 months R '000	More than 12 months R '000	Carrying amount R '000	6 months or less R '000	6 - 12 months R '000	More than 12 months R '000
Non-derivative financial liabilities								
Trade and other payables	(246,843)	(246,843)	-	-	(300,208)	(300,208)	-	-
Long-term payable	(173,205)	(63,009)	-	(110,196)	(221,288)	(63,009)	-	(158,279)
Lease liabilities *	(3,914)	(1,547)	(1,116)	(1,251)	(7,157)	(955)	(1,995)	(4,207)
	(423,962)	**(311,399)**	**(1,116)**	**(111,447)**	**(528,653)**	**(364,172)**	**(1,995)**	**(162,486)**

* The carrying amount of lease liabilities excluding interest payments, is R3,6 million.

27.4 Fair values comparison with carrying amounts

The estimated net fair values, as at the reporting date, have been determined using available market information and appropriate valuation methodologies as outlined below. This value is not necessarily indicative of the amounts that the Group could realise in the normal course of business. The fair values of the financial assets and financial liabilities are sensitive to exchange rate movements. Among others, a sensitivity analysis of a 10% increase/decrease in exchange rate fluctuation on the balances held in foreign currency as at 31 March 2026 is performed.

As at 31 March 2026 the carrying amount of bank balances and cash, deposits, trade and other receivables, contracts in progress and trade and other payables approximated their fair values due to the short-term maturities of these assets and liabilities.

The Group assesses the carrying amount of the long-term payable to approximate its fair value, based on the market-aligned rates applied in measuring it at amortised cost.

Basis for determining fair values

Trade and other receivables, trade and other payables and long-term payable

The fair value of trade and other receivables and trade and other payables is calculated based on the present value of future cash flows, discounted at the average return on investment rate at the reporting date.

The fair value of the long-term payable is calculated based on a rate which represents the market rate for similar or indicative financing arrangements for this organisation.

28. CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

Lease liabilities

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Opening balance	7,157	8,264	7,157	8,264
New leases	-	640	-	640
Other non-cash movements	(455)	819	(455)	819
Total non-cash movements	(455)	1,459	(455)	1,459
Cash flows	(3,128)	(2,566)	(3,128)	(2,566)
Closing balance	**3,574**	**7,157**	**3,574**	**7,157**

29. FAIR VALUE INFORMATION

Fair value hierarchy

The table below analyses assets and liabilities carried at fair value. The different levels are defined as follows:

Level 1: Quoted unadjusted prices in active markets for identical assets or liabilities that the Group can access at measurement date.

Level 2: Inputs other than quoted prices included in level 1 that are observable for the asset or liability either directly or indirectly.

Level 3: Unobservable inputs for the asset or liability.

Levels of fair value measurements	Notes				
Level 2: Recurring fair value measurements					
Assets					
Financial instruments					
Investments in debt instruments at fair value through other comprehensive income	17	707,960	656,649	707,960	656,649
Total		**707,960**	**656,649**	**707,960**	**656,649**
Level 3: Recurring fair value measurements					
Assets					
Financial instruments					
Investments in equity instruments at fair value through other comprehensive income	17	10,000	-	10,000	-
Non-financial assets					
Land	8	187,333	187,333	187,333	187,333
Total		**197,333**	**187,333**	**197,333**	**187,333**

29. *Fair value information (continued)*

Reconciliation of assets measured at level 3

	Notes	Opening balance	Additions	Closing balance
		R '000	R '000	R '000
Group and CSIR - 2026				
Assets				
Land	8	187,333	-	187,333
Investments in equity instruments at fair value through other comprehensive income	17	-	10,000	10,000
		187,333	**10,000**	**197,333**
Group and CSIR - 2025				
Assets				
Land	8	138,400	48,933	187,333

Investments in debt instruments at fair value through other comprehensive income

The investment represents the Group's interest in a flexible income fund, which is structured to provide exposure to income-generating investments across varying interest-rate environments. The fund primarily invests in domestic markets, with the option to allocate capital internationally, and is benchmarked against the Alexander Forbes Short-Term Fixed Interest (STeFI) Composite Index.

Investments in equity instruments at fair value through other comprehensive income

The unlisted equity investment in MycoSure (Pty) Ltd is classified at Level 3 of the fair value hierarchy. Fair value at the reporting date has been assessed as equal to the original subscription price of R10 million, on the basis that:

- the subscription was concluded during the current financial year at arm's-length terms with the founder shareholders and other investors, providing observable evidence of fair value at the date of acquisition;
- no observable indicators have arisen between the subscription date and the reporting date that would suggest a change in the entity's risk profile, commercialisation prospects, or the value of its underlying business, including no subsequent transactions in the entity's equity at a different price;
- no material adverse events in respect of the technical or commercial milestones referred to in note 26, and no indicators of impairment; and
- the Group has assessed that no alternative valuation technique (including discounted cash flow analysis or market multiple analysis based on comparable entities) would produce a more reliable estimate of fair value, given the early-stage nature of the investee and the absence of comparable observable transactions.

The Group will reassess the fair value of the investment at each reporting date, with reference to any subsequent transactions in the entity's equity, the achievement of technical and commercial milestones, the entity's audited financial performance, and any other observable indicators that arise.

Sensitivity

The carrying amount of the investment is sensitive to changes in the unobservable inputs used to determine fair value. A 10% increase or decrease in the assessed fair value of the investment, holding all other variables constant, would result in a corresponding R1 million increase or decrease in the carrying amount of the investment and in the reserve for valuation of investments within equity. There would be no effect on profit or loss, given the election to designate this investment at fair value through other comprehensive income.

Land

The fair value of land was determined by external, independent property valuers, having appropriate recognised professional qualifications and experience in the location and category of the property being valued.

29. Fair value information (continued)

The fair value measurement for land has been categorised as a Level 3 fair value based on the inputs to the valuation technique used. The valuations were performed using the comparable sales approach.

The valuations were performed using the comparable sales approach. The key inputs under this approach are:

- Identify comparable properties in terms of location, size, age condition and features.
- Adjust the differences in terms of size, location, condition and features.
- Analyse adjusted sales prices of the comparable sales.
- Estimate the value of the subject property based on the sales prices of the comparable properties and make the necessary adjustments.

Sensitivity of the fair value measurement of land to changes in unobservable inputs

The fair value measurement of land is most sensitive to changes in the adjusted price per square metre derived from the comparable sales approach.

A reasonably possible change in the adjusted price per square metre of plus or minus 10% would result in a corresponding change in the fair value of land of approximately R18.7 million, recognised in the revaluation reserve through other comprehensive income with no effect on profit or loss.

Management has assessed at each reporting date whether the carrying amount of land differs materially from its fair value. Management considers that the carrying amount of land at 31 March 2026 continues to approximate fair value. The next scheduled revaluation will be performed during the year ending 31 March 2030.

30. RELATED PARTIES

Relationships

Minister	Dr Blade Nzimande
Holding entity	Department of Science, Technology and Innovation
Subsidiaries	CSIR C^3 SOC Ltd (100%). Refer to note 10.
Joint ventures	Sera (Pty) Ltd (50%). Deregistered. Refer to note 11.
Associates	Persomics AB (35.03%). Refer to note 11.
Entities in Ministerial Portfolio	Department of Science, Technology and Innovation and other related entities under the holding entity.
National and Provincial Government	All national and provincial government departments and their related entities.
Directors and key management	Directors and key management. Refer to note 25.

The CSIR is a schedule 3B National Government Business Enterprise in terms of the Public Finance Management Act,1999 (Act 1 of 1999) as amended by Act 29 of 1999, and therefore falls within the national sphere of government. As a consequence, the CSIR has a significant number of related parties, being all national and provincial government departments, as well as their related entities. Amounts due from/to these entities are subject to the same terms and conditions as normal trade receivables and trade payables.

In addition, the CSIR has a related party relationship with its subsidiaries and joint ventures and associates (see notes 10 and 11). Unless specifically disclosed, these transactions are concluded at arm's length and the Group is able to transact with any entity.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

for the year ended 31 March 2026

30. Related parties (continued)

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Related parties' transactions and balances				
Constitutional institutions				
Services rendered	2,237	3,979	2,237	3,979
Services received	-	113	-	113
Amount due from	2,607	4,130	2,607	4,130
Major public entities				
Services rendered	479,466	453,435	479,466	453,435
Services received	29,260	42,513	29,260	42,513
Amount due from	61,705	58,762	61,705	58,762
National public entities				
Services rendered	183,729	143,274	183,729	143,274
Services received	6,201	43,536	6,201	43,536
Amount due from	33,289	10,105	33,289	10,105
National government business enterprises				
Services rendered	6,358	9,016	6,358	9,016
Services received	3,695	697	3,695	697
Amount due from	5,408	6,554	5,408	6,554
Provincial Public Entities				
Services rendered	953	61	953	61
Services received	24	379	24	379
Amount due from	440	71	440	71
Provincial Government Business Enterprises				
Services rendered	1,679	43	1,679	43
Services received	18	29	18	29
Amount due to	(8)	-	(8)	-
Government departments				
Services rendered *	2,016,089	2,275,240	2,016,089	2,275,240
Services received	6,444	7,801	6,444	7,801
Amount due from	287,677	391,289	287,677	391,289
Subsidiaries				
Amount due to	-	-	-	(13)

The above is a summary of transactions with related parties during the year and balances at year-end.

* Included in the amount for services rendered to government departments is R5,3 million (2025: R2,8 million) from the Department of Science, Technology and Innovation that was utilised for the operational support of CSIR C^3.

Transactions with key management

Total remuneration of key management is included in employees' remuneration (refer to note 25 for Executive Management's remuneration).

31. IRREGULAR AND FRUITLESS AND WASTEFUL EXPENDITURE

	GROUP		CSIR	
	2026	2025 RESTATED	2026	2025 RESTATED
	R '000	R '000	R '000	R '000
Irregular expenditure	8,152 [3]	7,585 [1]	8,152 [3]	7,585 [1]
Fruitless and wasteful expenditure	39	89 [2]	39	89 [2]
Total (inclusive of VAT)	**8,191**	**7,674**	**8,191**	**7,674**

The 2025 numbers have been restated in compliance with the 2022 PFMA Compliance and Reporting Framework (Annexure A – National Treasury Instruction Note No. 04 of 2022-23) which requires that irregular and fruitless and wasteful expenditure for the previous financial year include amounts that were under assessment in that financial year and confirmed in the current financial year, as well as expenditure relating to the prior financial year that was identified and confirmed in the current financial year.

(1) The 2025 disclosed amount has been restated from R5,661 million to R7,585 million, being the amount which was under assessment in the prior financial year and confirmed in the current financial year (R325,000), as well as expenditure relating to the prior financial year which was identified and confirmed in the current financial year (R1,599 million).

(2) The 2025 disclosed amount has been restated from Rnil to R89,000, being the amount which was under assessment in the prior financial year and confirmed in the current financial year (R40,000), as well as expenditure relating to the prior financial year which was identified and confirmed in the current financial year (R49,000).

(3) The 2026 disclosed amount includes R6,370 million identified during the audit performed by the Auditor-General of South Africa. Management is yet to make an assessment and determination on this amount in line with the 2022 PFMA Compliance and Reporting Framework.

32. CAPITAL COMMITMENTS

	GROUP		CSIR	
	2026 R '000	2025 R '000	2026 R '000	2025 R '000
Property, plant and equipment	60,527	101,306	60,527	101,306

33. FINANCIAL GUARANTEES

Local and foreign payment and performance guarantees issued as at 31 March	8,482	8,979	8,482	8,979

34. EVENTS AFTER THE REPORTING PERIOD

Subscription for equity instruments in Stratafy (Pty) Ltd

Subsequent to the reporting date, the CSIR concluded a subscription for 200 Series Seed Preference Shares in Stratafy (Pty) Ltd at an aggregate subscription price of R10 million, payable in two equal tranches of R5 million each.

The investment was approved by the CSIR Executive Committee on 5 March 2026. The Subscription Agreement was signed by all parties on 9 April 2026, and the effective date of the transaction was 10 April 2026, being the date on which all suspensive conditions of the Subscription Agreement were fulfilled. The first tranche of R5 million was paid by the CSIR to Stratafy on 24 April 2026.

34. Events after the reporting period (continued)

Management has assessed the transaction in accordance with IAS 10 Events after the Reporting Period and concluded that it constitutes a non-adjusting event, as the conditions for recognition of the investment were not met at the reporting date. The carrying amount of the investment and the related cash balance at 31 March 2026 have therefore not been adjusted to reflect the transaction.

Had the transaction met the conditions for recognition at the reporting date, the financial effect on the Group's consolidated financial statements would have been:

- an increase in non-current investments at fair value through other comprehensive income of R5 million (representing tranche 1, paid on 24 April 2026); and
- a corresponding decrease in cash and cash equivalents of R5 million.

Going forward, on initial recognition in the 2026/27 financial year, the Group intends to make the irrevocable election under IFRS 9.5.7.5 to designate the investment at fair value through other comprehensive income, consistent with the Group's accounting policy for strategic equity investments (refer to accounting policy 1.7).

Fair value is expected to be classified as Level 3 in the fair value hierarchy as the investee is an unlisted entity. The remaining tranche of R5 million is payable in accordance with the terms of the Subscription Agreement.

35. RECLASSIFICATIONS

35.1 Statements of Cash Flows - Reclassification of movements in customer contract balances and acquisition of grant-funded PPE

During the current financial year, the CSIR has refined the presentation of movements in customer contract balances, as well as the acquisition of grant-funded PPE in the Statements of Cash Flows. The movement in advances from customers and the related movement in other receivables from contracts with customers, previously included in the line item "Cash paid to suppliers and employees", are now presented within the line item "Cash receipts from external customers". The acquisition of grant-funded PPE, previously included in the line item "Cash paid to suppliers and employees" in the operating activities section, is now presented within the line item "Acquisition of grant-funded PPE" in the investing activities section of the Statements of Cash Flows.

The revised presentation provides enhanced information about the composition of gross operating and investing cash flows. In accordance with IAS 1 paragraph 41, the comparative amounts for the year ended 31 March 2025 have been reclassified to conform to the current year presentation. The effect is confined to the operating and investing activities sections in the Statements of Cash Flows, and the note to the Cash Flow Statement " Reconciliation of profit for the year to cash utilised in operating activities" (note 24).

The reclassifications decreased "Cash receipts from external customers" by R148,211k, decreased "Cash paid to suppliers and employees" by R303,628k, and increased the "Acquisition of grant-funded PPE" by R155,417k for both the CSIR and Group for the comparative year. This reclassification has no effect on the net decrease in cash and cash equivalents, or on any amount in any other primary financial statement or note (other than note 24 as indicated above).

35. Reclassifications (continued)

The following table summarises the impact on the affected line items for the prior period:

	Group			CSIR		
	2025			2025		
	Previously reported	Reclassification	Reclassified	Previously reported	Reclassification	Reclassified
	R'000	R'000	R'000	R'000	R'000	R'000
Statements of Cash Flows						
Cash flows from operating activities						
Cash receipts from external customers	2,537,226	(148,211)	2,389,015	2,537,226	(148,211)	2,389,015
Cash paid to suppliers and employees	(3,359,722)	303,628	(3,056,094)	(3,359,525)	303,628	(3,055,897)
Cash (utilised in)/generated from operating activities	(142,775)	155,417	12,642	(142,578)	155,417	12,839
Net cash (outflow)/inflow from operating activities	(112,214)	155,417	43,203	(112,633)	155,417	42,784
Cash flows from investing activities						
Acquisition of grant-funded PPE	-	(155,417)	(155,417)	-	(155,417)	(155,417)
Net cash outflow from investing activities	(146,487)	(155,417)	(301,904)	(146,487)	(155,417)	(301,904)

35.2 Revenue disaggregation - Reclassification from "Contract income" to "Other government grants"

During the current financial year, the CSIR reassessed the classification of certain funding streams from Government previously recognised as revenue from contracts with customers under IFRS 15. The reassessment considered whether the funder obtains control of the goods or services that are transferred, or whether the arrangement is in substance a transfer of resources in return for compliance with conditions relating to the CSIR's research and development activities. Where the funding does not give rise to an enforceable contract with a customer and the outputs are directed at public benefit rather than delivered to the funder, the arrangement falls within the scope of IAS 20 Accounting for Government Grants and Disclosure of Government Assistance. The affected amounts, previously presented within the line item "Contract income", are now presented within the line item "Other government grants" in the disaggregation of revenue. The revised presentation provides enhanced information about the composition of contract revenue and government grant income.

In accordance with IAS 1 paragraph 41, the comparative amounts for the year ended 31 March 2025 have been reclassified to conform to the current year presentation. The effect is confined to note 2 of the Annual Financial Statements.

The reclassifications decreased "Contract income" and increased "Other government grants" by R611,869k for both the CSIR and Group for the comparative year. This reclassification has no effect on the total revenue amount or on any amount in any other primary financial statement or note.

35. Reclassifications (continued)

The following table summarises the impact on the affected line items for the prior period:

	Group			CSIR		
	2025			2025		
	Previously reported	Reclassification	Reclassified	Previously reported	Reclassification	Reclassified
	R'000	R'000	R'000	R'000	R'000	R'000
Revenue (note 2)						
Revenue						
Other government grants	644,890	611,869	1,256,759	644,890	611,869	1,256,759
Contract income	2,195,599	(611,869)	1,583,730	2,195,599	(611,869)	1,583,730
Contract income - disaggregation by sector						
Local public sector	1,594,808	(611,869)	982,939	1,594,808	(611,869)	982,939
Contract income - disaggregation by revenue stream						
Revenue from contracts with customers	2,000,289	(611,869)	1,388,420	2,000,289	(611,869)	1,388,420
Other government grants	644,890	611,869	1,256,759	644,890	611,869	1,256,759
Local public sector	45.05%	(17.28%)	27.77%	45.05%	(17.28%)	27.77%
Other government grants	18.22%	17.28%	35.50%	18.22%	17.28%	35.50%

36. NEW STANDARDS AND INTERPRETATIONS

36.1 Standards and interpretations effective and adopted in the current year

In the current year, the Group has adopted the following standards and interpretations that are effective for the current financial year and that are relevant to its operations:

Standard/Interpretation:	Effective date: Financial years beginning on or after
Lack of exchangeability - Amendments to IAS 21 The amendments require an entity to apply a consistent approach to assessing whether a currency is exchangeable into another currency and, when it is not, to determining the exchange rate to use and the disclosures to provide. These amendments have not affected the Group's results.	1 January 2025

36.2 Standards and interpretations not yet effective

The Group has chosen not to early adopt the following standards and interpretations, which have been published and are mandatory for the Group's accounting periods beginning on or after 1 April 2026 or later periods:

Standard/Interpretation:	Effective date: Financial years beginning on or after
Classification and measurement of financial instruments: Amendments to IFRS 9 and IFRS 7 The amendments to IFRS 7 introduce additional disclosure requirements to enhance transparency for investors regarding investments in equity instruments designated at fair value through other comprehensive income and financial instruments with contingent features, for example features tied to environmental, social and government (ESG) linked targets. Narrow scope amendments to address diversity in accounting practice by making the classification and measurement requirements of IFRS 9 more understandable and consistent, by: • Clarifying the classification of financial assets with environmental, social and corporate governance (ESG) and similar features; • Clarifying and adding further guidance for assessing whether a financial asset meets the solely payments of principal and interest (SPPI) criterion; and • Clarifying the date on which a financial asset or financial liability is derecognised when a liability is settled through electronic payment systems. These amendments also introduce an accounting policy option to allow a company to derecognise a financial liability before it delivers cash on the settlement date if specified criteria are met. These amendments are not expected to affect the Group's results, however additional disclosures may be required.	1 January 2026

36. New standards and interpretations (continued)

Standard/Interpretation:	Effective date: Financial years beginning on or after
Annual improvements to IFRS Accounting Standards – Volume 11 Annual improvements are limited to changes that either clarify the wording in an accounting standard or correct relatively minor unintended consequences, oversights or conflicts between the requirements in the accounting standards. The 2024 amendments are to the following standards: **IFRS 1 First-time adoption of International Financial Reporting Standards** Hedge accounting by a first-time adopter: Narrow scope amendment to improve consistency with and understanding of the requirements in IFRS 9 Financial Instruments in relation to hedge accounting requirements for a first-time adopter. **IFRS 7 Financial Instruments: Disclosures** Gain or loss on derecognition: Narrow scope amendment to delete an obsolete reference that remained in IFRS 7 following the publication of IFRS 13 Fair Value Measurement and to make the wording of the requirements of IFRS 7 relating to disclosure of a gain or loss on derecognition consistent with the wording and concepts in IFRS 13. **IFRS 9 Financial instruments** Two narrow scope amendments were made to IFRS 9: • Derecognition of lease liabilities. The amendment clarifies that, when a lessee has determined that a lease liability has been extinguished in accordance with IFRS 9, the lessee is required to recognise any resulting gain or loss arising from the difference between the carrying amount of the lease liability extinguished or transferred and any consideration paid in profit or loss. • Transaction price. Removal of an inconsistency between the requirements of IFRS 9 and the requirements in IFRS 15 Revenue from Contracts from Customers in relation to the initial measurement of trade receivables at their transaction price. The amendment clarifies that trade receivables must be measured at the amount determined by applying IFRS 15. **IFRS 10 Consolidated Financial Statements** Determination of a 'de facto agent': Narrow scope amendment to clarify whether a party acts as a de facto agent in assessing control of an investee. **IAS 7 Statement of cash flows** Cost method: Narrow scope amendment to replace the term 'cost method' with 'at cost' following the earlier removal of the definition of cost method' from IFRS Accounting Standards. These amendments are not expected to affect the Group's results, however additional disclosures may be required.	1 January 2026

36. New standards and interpretations (continued)

Standard/ Interpretation:	Effective date: Financial years beginning on or after
Contracts referencing nature-dependent electricity: Amendments to IFRS 9 and IFRS 7 Narrow scope amendment adding new disclosure requirements to enable investors to understand the effect of contracts referencing nature-dependent electricity on an entity's financial performance and cash flows. Narrow scope amendment to allow entities to better reflect contracts referencing nature-dependent electricity (for example, renewable power purchase agreements or PPAs) by: • clarifying the application of the 'own-use' requirements of IFRS 9; and • permitting hedge accounting if these contracts are used as hedging instruments by parties to the contracts. This amendment is not expected to affect the Group's results.	1 January 2026
Presentation and disclosure in Financial Statements: IFRS 18 IFRS 18 is the culmination of the International Accounting Standards Board's ("IASB®") Primary Financial Statements project. IFRS 18 introduces three sets of new requirements to improve companies' reporting of financial performance and give investors a better basis for analysing and comparing companies: • Improved comparability in the statement of profit or loss (income statement) through the introduction of three defined categories for income and expenses (operating, investing and financing) to improve the structure of the income statement, and a requirement for all companies to provide new defined subtotals, including operating profit. • Enhanced transparency of management-defined performance measures with a requirement for companies to disclose explanations of those company-specific measures that are related to the income statement. • More useful grouping of information in the financial statements through enhanced guidance on how to organise information and whether to provide it in the primary financial statements or in the notes, as well as a requirement for companies to provide more transparency about operating expenses. This Standard replaces IAS 1 Presentation of Financial Statements. It carries forward many requirements from IAS 1 unchanged. This standard will result in changes to the presentation and disclosure of the Group's results.	1 January 2027
Subsidiaries without public accountability: Disclosures: IFRS 19 IFRS 19 permits eligible subsidiaries to use IFRS Accounting Standards with reduced disclosures. Applying IFRS 19 will reduce the costs of preparing subsidiaries' financial statements while maintaining the usefulness of the information for users of their financial statements. Subsidiaries are eligible to apply IFRS 19 if they do not have public accountability and their parent company applies IFRS Accounting Standards in their consolidated financial statements. A subsidiary does not have public accountability if it does not have equities or debt listed on a stock exchange and does not hold assets in a fiduciary capacity for a broad group of outsiders. Subsidiaries in the Group are expected to apply reduced disclosures.	1 January 2027
Translation to a hyperinflationary presentation currency: Amendments to IAS 21 The amendments specify the translation procedures for an entity whose presentation currency is that of a hyperinflationary economy if: • its functional currency is that of a non-hyperinflationary economy and it is translating its results and financial position into the currency of a hyperinflationary economy; or • it is translating into the currency of a hyperinflationary economy the results and financial position of a foreign operation whose functional currency is that of a non-hyperinflationary economy. These amendments are not expected to affect the Group's results.	1 January 2027



PART H
CSIR PUBLICATIONS

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JOURNAL ARTICLES (284)

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