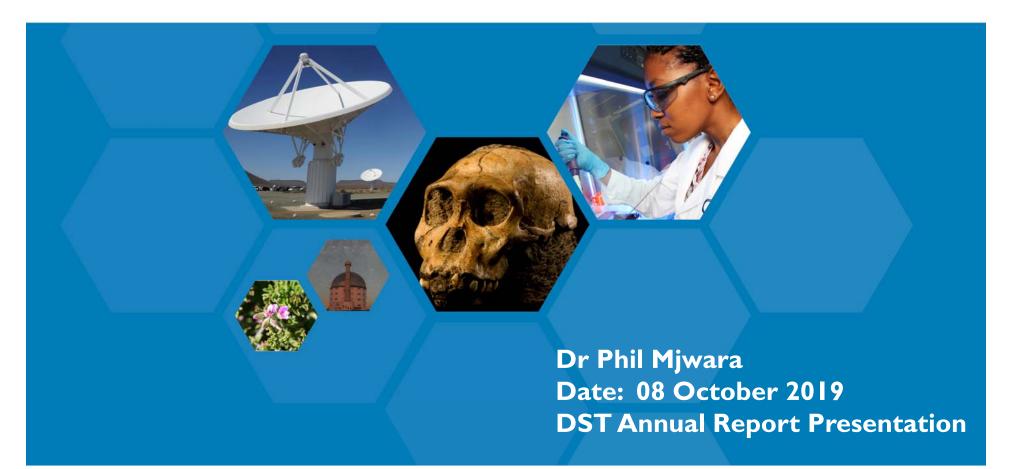
2018/19 Annual Report Presentation





science & technology

Department: Science and Technology REPUBLIC OF SOUTH AFRICA



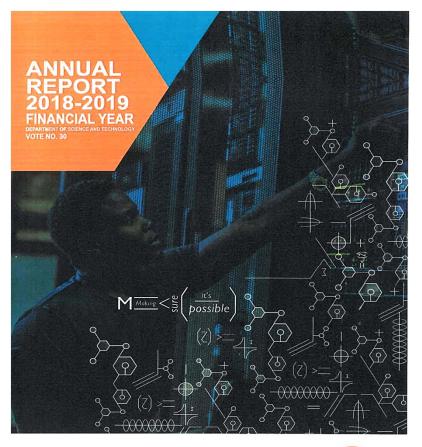
Presentation outline

- Purpose
- DST's Vision and Mission
- Alignment to National Priorities
- **DST's overall performance**
- **Financial Performance**
- **Conclusion**





Purpose



To present the DST's Annual Report for the 2018/19 financial year.











Vision

Increased well-being and prosperity through science, technology and innovation.

Mission

To provide leadership, an enabling environment, and resources for science, technology and innovation in support of South Africa's development.



Alignment of the DST work to national priorities

The Department contributes to the following government outcomes of the MTSF:



Outcome 2: A long and healthy life for all South Africans.



Outcome 4: Decent employment through inclusive economic growth.



Outcome 5: A skilled and capable workforce to support an inclusive growth path.



Alignment of the DST work to national priorities

The Department contributes to the following government outcomes of the MTSF:



Outcome 6: An efficient, competitive and responsive economic infrastructure network.



Outcome 7: Vibrant, equitable and sustainable rural communities and food security for all.



Outcome 10: Environmental assets and natural resources that are well protected and continually enhanced.



DST audit trends for 2017 to 2018 by the Auditor General of South Africa (AGSA).



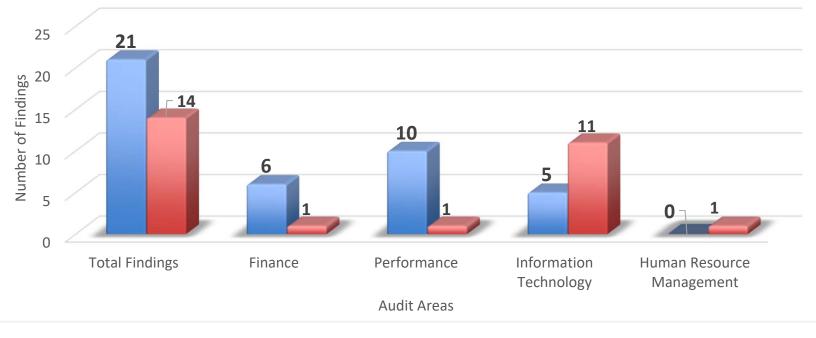
AUDITOR-GENERAL SOUTH AFRICA

Auditing to build public confidence





As per the PFMA and National Treasury prescripts, the DST was involved in the audit process for the 2018-19 financial year in the period under review. Figure 1 below depicts the summary of AGSA findings:



Summary of Audit Findings

≥2017/18 ≥2018/19





2018/19 DST Audit Outcomes

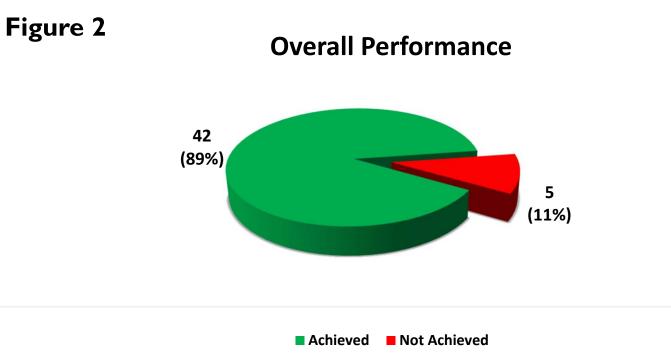
The DST received an unqualified audit opinion in the period under review.

- Overall Figure I shows a drastic reduction of the issues raised by AG in 2018/19 financial year.
- Comparatively, audit findings in the areas of Finance and Performance have significantly been reduced by 80% and 90% respectively.
- It shows that Finance and performance management have improved and this reveals that the department is fully compliant with the prescripts and does things SMARTLY.
- However, the audit finding in the area of IT has increased by 120% and poses a risk to the organization.



2018/19 DST Performance Overview

- Based on the approved 2018/19 Annual Performance Plan (APP) output targets (Total number of output targets n= 47), the department achieved a total of 42 targets (91%) and 5 targets (9%) were not achieved (Figure 1).
- This performance was subjected to the audit by AGSA and the following are the results:





2018/19 DST Performance Overview

The Department of Science and Technology continued to support the National Priorities by implementing its Five (5) Strategic Outcome-Orientated Goals (SOOG's) during the period under review.

These SOOG's are as follows:

- > a responsive, coordinated and efficient national system of innovation (NSI),
- increased knowledge generation,
- > using knowledge for economic development,
- human capital development (HCD),
- > and using knowledge for inclusive development.







A responsive, coordinated and efficient NSI



A responsive, coordinated and efficient NSI

□ The DST recognises that if South Africa's economy is to advance along the trajectory set out in the NDP, a strong, coherent and effective NSI is crucial.

During the reporting period, the following can be commended:

- Cabinet approved the 2019 White Paper on Science, Technology and Innovation in March 2019.
- The White Paper on STI represents a number of shifts in South African STI policy, such as:
 - I. A deliberate focus on inclusion e.g. involving civil society and industry in planning.
 - 2. Elevating STI consultation to the level of the Presidency to support strategic sectors.
 - 3. The utilisation of publicly funded R&D and support for grassroots innovation to transform ownership of SA economy.
 - 4. Institutionalised prioritisation to support strategic research.
 - 5. Institutionalised budget coordination for public STI.
 - 6. Targeted internationalisation efforts to support innovation and commercialisation.



A responsive, coordinated and efficient NSI

- The White Paper aims to:
- Ensure a whole-of-government approach to innovation through an Innovation Compact to drive coherence and coordination.
- Elevate STI planning to the highest levels of government.
- Increase the spatial footprint of innovation to develop provincial and local innovation systems.
- Expand and transform the research system, including knowledge infrastructure.
- Expand and transform human capabilities for STI, including a focus on technical and new skills for the future.
- ✓ Increase the financing of the national system of innovation.
- Institutionalise systemic STI monitoring, evaluation and policy learning.





Increased knowledge generation

The DST acknowledges that without research grants support, knowledge generation is not possible.

Research grants:

During the 2018/19 financial year, the DST awarded 4 633 research grants:
 40% went to black researchers; and
 39% went to women.



Increased knowledge generation

Publications:

- 9 159 peer-reviewed research articles were published by DST funded researchers in the Thomson Reuters (TR) Web of Science Citation Database. While the number of publications shows the quantity of the publications, citations shows impact that the publications have.
- These have significantly contributed to the country's citation impact of 1.31, higher than the global impact of 0.97.
- Research outputs provides a basis for continuous generation of new knowledge and innovation to improve the country socio-economic status and global competitiveness.



Increased knowledge generation

Research infrastructure grants:

- The Department, through the NRF, and internally driven processes awarded 35 research equipment and infrastructure grants, totaling R703,015 million, to universities, science councils, museums, national facilities and other public research performing entities.
- This investment includes the establishment of large research infrastructures as part of the implementation of the South African Research Infrastructure Roadmap (SARIR).

Recent SANReN Network Connectivity Developments

 Total Available Broadband Capacity (TABC) provided by 31 March 2019 exceeded 3500 Gbps (as per the map above).



Strategic Outcome-Oriented Goal 2 During the 2018/19 financial year: Provision of research equipment and infrastructure TENET ANRei Thohoyandou South African National Makhado Tertiary Education and Research Network Research Network of South Africa furfloop Polokwane Existing / Completed Ongoing Projects (2018/2019) Tshwane Middelburg Mbombel Capacity on WACS Cable SANSA X 10Gbps X 10Gbps OGbps GN Rustenburg Mahikeng 🥣 Capacity on SAT3 Cable Malahleni Capacity on Seacom Cable Johannesburg Potchefstroom Capacity on EASSy Vanderbijlpar Welkom Kroonstad Bethlehem Bloemfontein Kimberley 10Gbps GN X 10Gbpt Pietermartizburg Mtunzini eThekweni SKA Queenstown Mthatha Butterworth SALT Whittlesea Potsdam Bisho Alice Yzerfont Grahamstown Beaufort Wes East London Cape Town

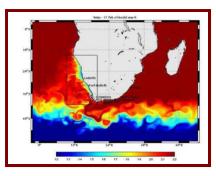
Port Elizabeth

Herman

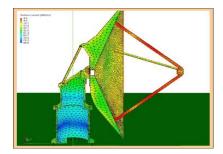
George

SANReN Network - 2019-03-25

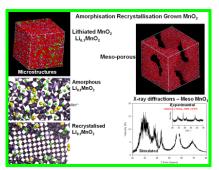




Climate Change (IPCC) Weather Forecasting (SAWS)



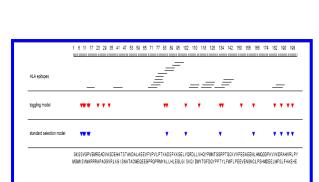
SKA and MeerKAT Tier 2 CERN Site



Battery Manufacturing Mineral Beneficiation Drug discovery



Animation industry – New SMMEs SOEs Large Corporates



HIV Mutation Brain Imaging improved Cardio-Vascular studies Bioinformatics

Engineering





MeerKAT, Northern Cape

Increased knowledge generation

- Provision of research equipment and infrastructure
- The 64-Antenna MeerKAT radio telescope was completed and commissioned for science operations during the reporting period, launched by the Deputy President on 13 July 2018.
- At the launch, a panorama obtained with the new telescope was unveiled, proving the SA MeerKAT to be one of the best scientific instruments in the world.





Increased knowledge generation

- Provision of research equipment and infrastructure
- The Department also launched the MeerLICHT optical telescope.
- The telescope is a collaboration between research institutions in the Netherlands, South Africa and the United Kingdom.
- The MeerLICHT will complement the MeerKAT by conducting simultaneous observations in the optical spectrum.





Increased knowledge generation

- **Provision of research equipment and infrastructure**
- The DST provided funds to North-West University to build a dome for their newly established Mahikeng Astronomical Observatory, which houses a 16-inch Meade LX200GPS optical telescope.
- This telescope is going to be used for research by students as well as for outreach to local schools and the community.
- ✓ Furthermore, as part of spacecraft development efforts, ZACube-2 was launched into space on 27 December 2018.





Human capital development



Human capital development:

- ✓ The DST acknowledges that investment in the development of skills and knowledge that can be used to create economic value for the country is vital.
- Skills acquisition is the greatest equaliser in reducing, inequality, poverty and unemployment.

During the reporting period, the following can be commended:

- Bursaries awarded through NRF and DST programmes
- Through the NRF, the Department funded or co-funded a total of 13 154 students, of which the breakdown are as follows:
- ✓ 4 572 honours, 5 202 masters and 3 380 doctoral students.





- Human capital development:
- Bursaries awarded through NRF and DST programmes
- The demographic targets for black (80%) and women (55%) students supported were exceeded at honours and master's level, but at doctoral level more needs to be done to achieve equity in the distribution of bursaries, scholarships and fellowships.
 - **The upcoming slides 30 32 illustrates the trends.**





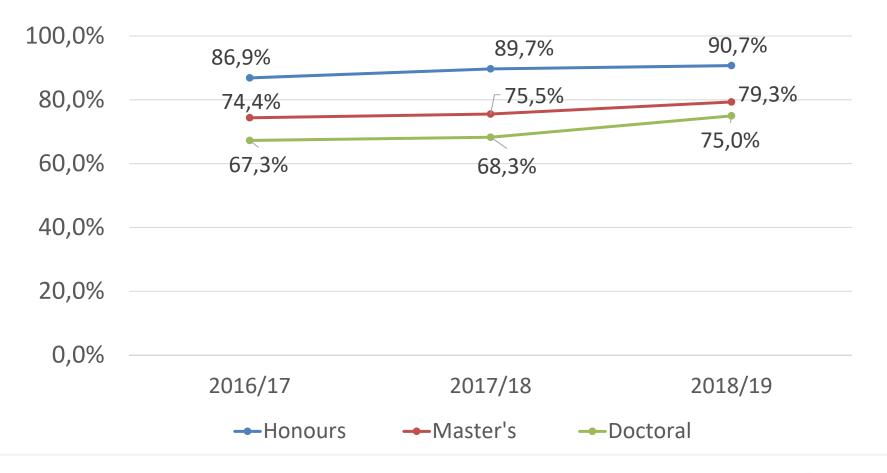
- Human capital development:
- **The following depicts student funded trends**

Study Level	2016/17	2017/18	2018/19
Honours	5 083	4 956	4 572
Masters	5 185	5 645	5 202
Doctoral	3 453	3 621	3 380
Total	13 721	14 222	13 154





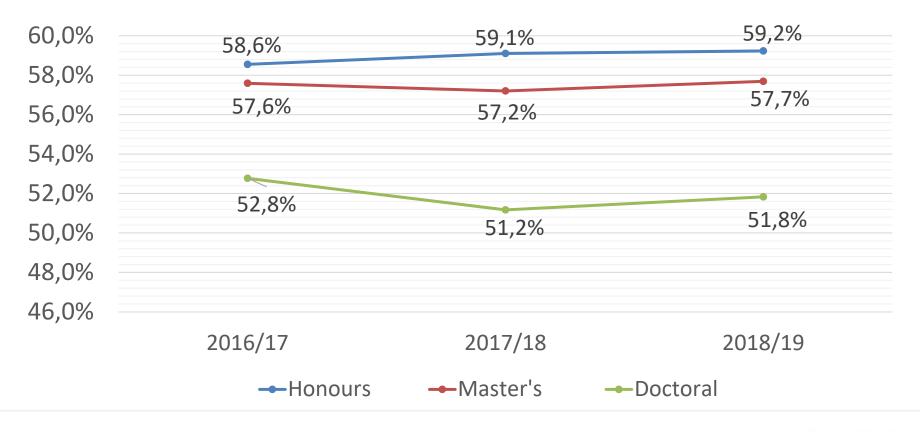
The following depicts student funded trends







The following depicts student funded trends







Other HCD initiatives

Interns supported

 A total of I 052 graduates and students were placed in DST-funded work preparation programmes in SETI institutions.

The programme makes a significant contribution to the absorption of postgraduate students in the job market, while also attracting them to research careers, thereby contributing to the reduction of unemployment and inequality.

Science engagements

A total of 29 418 913 participants were reached through the science awareness and engagement programmes of the DST, entities and science centres.









Support for Technology Stations

- The DST provide funding for technology stations to render technology support to small and medium enterprises to develop their technology capabilities to enable them to leverage procurement opportunities under the infrastructure build programmes of the state-owned enterprises.
- Currently the DST has 18 Technology Stations at universities R100.5 million was distributed.
- ✓ 3182 SMMEs received technology support, of which 2439 (74%) are PDI-owned.
- 33 knowledge and innovation products (24 prototypes, 6 technology demonstrators, and 5 technology transfer packages.



Support for Technology Stations

- 51 small enterprises secured business contracts, which could result in the retention and creation of jobs.
- ✓ 55 people living with disabilities were beneficiaries of technology support
- ✓ I 380 young people received support from technology stations.
- I 24 students were afforded the opportunity to work on industry projects at technology stations in the manufacturing and agro-processing sectors because of leveraged direct income.
- R62.3 million additional income into Technology Stations recognised.



- Support for Technology Localisation
- During the FY 2018/19, the TLIU implemented Firm-level Technology Assistance
 Packages (FTAPs) interventions at 63 companies.
- Gibela Rail provided a co-funding of R5 million to develop a total of I4 companies
- Currently there are more than 6900 companies profiled/registered in the TLIU database, of which more than 800 firms have been benchmarked



- Through SIF, the DST has supported a portfolio of industries, namely horticulture, post-harvest innovation, viticulture, forestry, paper manufacturing, and agroprocessing.
- To address some of the challenges of the agricultural bioeconomy, the DST, in collaboration with the Technology Innovation Agency, supports the Agricultural Bioeconomy Innovation Partnership Programme (ABIPP).
- Below are examples of ABIPP funded existing and new initiatives:
- The Wheat Breeding Platform; the Maize Breeding Programme; the Crop Protection Consortium; the Soybean Food and Nutrition Project; the Bioinnovation Aquaculture Programme and; Agroprocessing for niche commodities.



- Furthermore, the ABIPP supported the Multi-African States Foot-and-Mouth Disease Rapid Response programme.
- This programme focuses on livestock disease management through the development of diagnostics and technologies to support and inform policies that will assist in managing notifiable diseases such as foot-and-mouth disease
- During the reporting period Fifteen (15) community-based initiatives were supported through the construction and equipping of pilot pre-processing facilities and agri-businesses.
- The Innovation Hub (BioPark) incubated 14 SMMEs, supporting business development and entrepreneurship in RDI-based natural products.



- Furthermore, the DST supported the development of protein and enzyme reagent processes and products for commercialisation through the ReagEnz Max initiative.
- The initiative seeks to develop and commercialise market-ready technologies for the recombinant production of protein and enzyme reagents in response to market needs.
- As a result, the CapeBio start-up has been registered as a Level I BBBEE company and has already raised initial start-up funding and incubation support from the Allan Gray Orbis Foundation.



Using knowledge for economic development

- Renewable energy has become an integral part of the country's energy agenda.
- South Africa's plentiful manganese and other mineral resources suitable for energy use in stationary and mobility applications give the country a comparative advantage in energy storage.
- The DST and its partners understand that innovation is needed to revolutionise batteries to strengthen clean energy research capabilities, which can also create employment.
- During the reporting period, a multilateral agreement between Germany and South African partners was put in place to develop a low-cost nickel-iron battery.
- The partnership includes the University of the Western Cape, Eskom and the Fraunhofer Society, as well as one German and two South African SMMEs.



Using knowledge for economic development

In support of technology commercialisation and getting hydrogen fuel cell technology into the global value chain, HyPlat, a spin-off of the HySA Catalysis Centre of Competence, had its membrane electrode assemblies (MEAs) evaluated by a global original equipment manufacturer.

Other achievements include:

- Three electric scooters with a fuel cell range extender and supporting hydrogen refueling infrastructure were completed in collaboration with the South African Post Office (SAPO) as demonstrators. The scooters will be used to promote effective mail delivery by SAPO in the future.
- In April 2018, a 2,5kW fuel cell unit developed through the HySA programme was launched at Poelano Secondary School near Ventersdorp.
- The unit, combined with 17 kW installed capacity of solar panels and 28,8 kWh of battery storage, on-site hydrogen production and storage, is providing renewable electricity for lights and ICT equipment for the benefit of more than 400 learners at the school.





Using knowledge for economic development

The DST-funded solar energy programme, solarTurtle, a spin-out company of the Renewable Energy Hub-and-Spokes Programme deployed at Stellenbosch University, 10 SolarTurtle energy kiosks in Lesotho to support rural women in their business initiatives.





Using knowledge for economic development

Aeroswift industrialisation and commercialisation

- Progress was made with regards to the flagship Aeroswift additive manufacturing project.
- Once industrialised, the Aeroswift has the potential to create a new manufacturing segment in South Africa.
- A number of demonstration components have been completed, and some are already employed in a flying aircraft.
- International interest in using the specific capabilities of this novel, locally developed additive manufacturing machine continues to increase.





Knowledge utilisation for inclusive development



Knowledge utilisation for inclusive development

Improve innovation capacity of municipalities

- In the reporting period the DST upscaled the Municipal Innovation Maturity Index (MIMI) resulted in the increased number of participating municipalities.
- The MIMI is a tool for assessing the capabilities of municipalities to support innovation for improved basic service delivery.
- The tool was developed in response to the general lack of appropriate instruments for understanding and evaluating the innovation capabilities of local and district municipalities in South Africa.



Knowledge utilisation for inclusive development

Other initiatives

- Mapping the Karoo innovation landscape in support regional economic strategy (initiative aligned Karoo Small Town Regeneration and Regional Economic Development).
- Deploying Innovation Champions (thereby providing employment for unemployed graduates) in the Vhembe District Municipality (district and local municipalities participating) to assist municipalities on innovation-driven local economic development.
- Human Settlements: decision-support tools e.g. STI roadmap to transform human settlements delivery; (planning and progress monitoring); tracking human settlements housing beneficiaries to enhance delivery efficiencies in housing allocation).



Knowledge utilisation for inclusive development

- Other initiatives
- DBE:
 - (i) Piloting and integrating the ICT Schools Maturity to assess readiness for the deployment and adoption of ICTs in schools, in line with the ICT in schools Operation Phakisa;
 - (ii) Piloting an alternative school nutrition model;
 - (iii) Demonstration innovative sanitation technologies in schools to enable appropriate deployment.
- DHET:
 - Partnership on using community learning centers (linked to community colleges) as innovation support spaces for unemployed youth.



Knowledge utilisation for inclusive development

Health innovation initiatives

- The DST through the Strategic Health Innovation Partnerships programme in conjunction with South African Medical Research Council (SAMRC), funded a Phase III clinical trial to assess the efficacy of levofloxacin preventive therapy in children that have been exposed to multidrug-resistant tuberculosis (MDR TB).
- The study resulted in the development of a pediatric levofloxacin 100 mg dispersible formulation which has been prequalified by the World Health Organization (WHO) and,
- This is available globally to children living in countries that procure medicines from the Global Drug Facility.



Knowledge utilisation for inclusive development

Health innovation initiatives

- In ensuring a healthy life for all, the TB and malaria drug discovery programmes at the University of Cape Town Drug Discovery and Development Centre have secured approximately R46 million over the next three years (2019 to 2021) from the Bill and Melinda Gates Foundation (BMGF).
- The funding will advance TB and malaria drug discovery efforts at the university with a focus on the further development of the malaria drug candidate and the chemical series for TB that are at various stages of development.



Knowledge utilisation for inclusive development

Health innovation initiatives

- ✓ With funding from the DST, the SAMRC and the CSIR, the University of Pretoria has completed a project in the Mamelodi District of Tshwane on the use of the Umbiflow device to screen and manage an unselected pregnant population.
- It estimated that about 20 000 premature births are recorded in South Africa annually.
- The routine use of the Umbiflow device could result in a significant reduction in the local perinatal mortality rate.
- Efforts to find a suitable commercial partner are currently under way.
- The WHO has also committed an amount of US\$218 000 to expand Umbiflow studies in other developing countries, including India, Kenya, Ghana and Rwanda.



Knowledge utilisation for inclusive development

Support for grassroots innovation

- The Grassroots Innovation Programme is a DST initiative aimed at providing technical and financial support to social entrepreneurs and local innovators in townships and rural areas who are developing solutions to address social challenges.
- During the 2018/19 financial year, 100 qualifying local innovators were enrolled in the programme to develop their concepts, commercialise their ideas, develop prototypes and access funding and technical expertise.
- The initiative has no gender boundaries, one of the former beneficiaries of the Grassroots Innovation Programme secured industrial development funding for a manufacturing facility in her rural town.



International Cooperation and Resources

 Increasing opportunities for the NSI to access international resources and support including sharing the experience and expertise of the DST's global partners, was a significant factor in the achievement of all five of the Department's strategic outcome-oriented goals.

Science Diplomacy

- The convention establishing the new international Square Kilometre Array Observatory, which will govern the global SKA radio telescope project and the Head Quarters Agreement, governing the International Centre for Genetic Engineering in Biotechnology was signed in Rome
- Science diplomacy and the promotion of South Africa as a preferred international partner for STI initiatives remained a major aspect of the DST's work. DST, ASSAf and the Department of International Relations and Cooperation hosted a workshop on diplomacy, leadership and negotiation. This provided a platform for the DST to create a uniquely branded South African STI diplomacy, and champion training at a continental level.
- The fourth Science Forum South Africa attracted more than 3 000 participants from 79 countries.



International Cooperation and Resources

Overseas Bilateral Cooperation

- A diverse portfolio of bilateral and multilateral programmes coordinated by the DST during the financial year afforded South African researchers opportunities to collaborate in joint knowledge-generation activities, with 718 international partner organisations, 20% of which were private organisations.
- ✓ This collaboration saw an investment of more than R 3,3 billion by the DST's international partners in support of collaboration with South Africa. These relationships and investments were invaluable in expanding and enriching South Africa's knowledge-generation outputs.
- Support for South African human capital development through international partnerships remains a cross-cutting strategic priority and saw, among other things, I 470 South African students participating in international postgraduate training programmes. This was part of the implementation of the Global Knowledge Partnerships platform, created to support South African students accessing opportunities abroad.



International Resources

- Many initiatives to bolster the DST's ability to address poverty, unemployment and inequality in South Africa were also fostered, especially with development partners. Focused on the leveraging of global support for the use of knowledge production in South Africa, for both economic and inclusive development, the Department facilitated international investment of R517 million in the NSI during the year under review.
- Through diverse international partnerships, the DST enabled an investment of R91 million by these partners to build and strengthen STI capacity in other African countries.



Multilateral Cooperation

- The African partnership portfolio has 93 research and innovation projects jointly supported by the DST and African partner governments.
- I7 African Union and Southern African Development Community (SADC) STI initiatives, for example the SADC Engineering Needs and Numbers initiative, SADC Women in Science, Engineering and Technology (WISET) Organisation and the Pan African University for Space Science.
- The DST hosted a joint meeting of SADC Ministers for Education and Training and Science, Technology and Innovation as the Chair of SADC in 2018.
- To mark South Africa's Chairmanship of the SADC, the Department coordinated the production of the first SADC Regional Report on Investment in Research and Development. The report will be presented at the 2019 Joint Meeting of SADC Ministers responsible for Education and Training, and Science, Technology and Innovation.



Multilateral Cooperation

- South Africa played a significant role in the establishment of the Group on Earth Observations (GEO) and is a founding member. South Africa became Lead Co-Chair of GEO in November 2018, taking over from the United States of America.
- South Africa is also the current Chair of AfriGEO (formerly AfriGEOSS), an initiative aimed at facilitating and coordinating the participation of Africa in GEO. As Chair, the DST finalised the process for the AfriGEO Secretariat to be hosted at the Regional Centre for Mapping of Resources for Development in Nairobi, Kenya.
- The DST secured five tactical leadership positions for South Africa in global science decision and policy-making structures, and influenced six multilateral outcomes, which had the objective of positioning the DST and its key priorities strategically for international support.



Overview of Performance per Programme

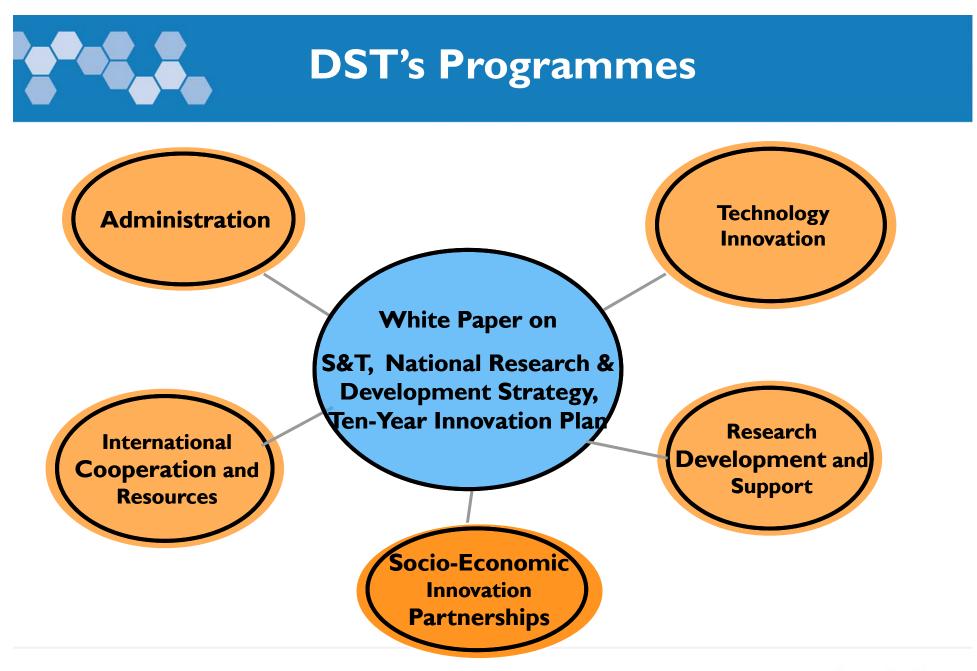


Programme Performance Overview





10/4/2019







Annual DST's Performance per Programme

Figure 3 below illustrates the annual performance of the Department per Programme.

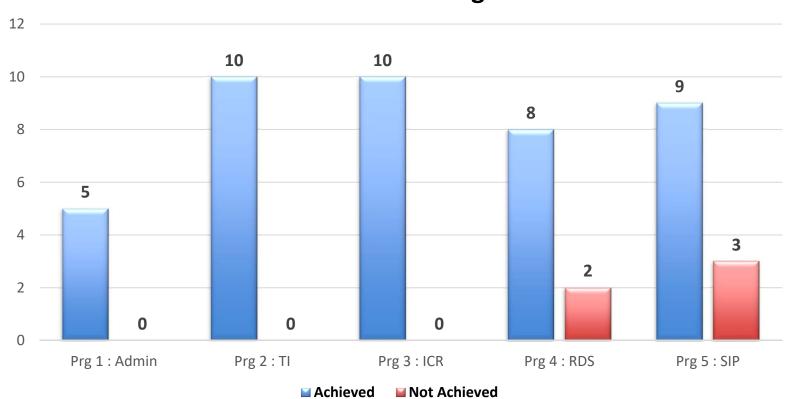
- Programme I achieved 100% of its targets.
- Programme 2 achieved 100% of its targets.
- Programme 3 achieved 100% of its targets.
- Programme 4 achieved 80% of its targets and 20% of its targets were not achieved.
- Programme 5 achieved 75% of its targets and 25% of its targets were not achieved.





Annual DST's Performance per Programme

Figure 3:



Performance Per Programme





DST Programme 1

Purpose of the Programme (1)

Programme I: Administration

To conduct the overall management and administration of the Department.





performance monitoring and evaluation

Department: The Presidency **REPUBLIC OF SOUTH AFRICA**



SOUTH AFRICA

Auditing to build public confidence





Annual Target	Actual Achievement	Status
DST public entities' 2019/20 annual performance plans and annual reports approved by the Minister by 31 March 2019	DST public entities' 2019/20 annual performance plans and annual reports approved by the Minister by 31 March 2019	Achieved
I combined assurance annual report on the status of combined assurance presented to the Risk and Audit Committees by 31 March 2019	I combined assurance annual report on the status of combined assurance was presented to the Risk and Audit Committees by 31 March 2019	Achieved
24 media articles written to raise the DST's public profile by 31 March 2019	108 media articles written to raise the DST's public profile by 31 March 2019	Achieved





Annual Target	Actual Achievement	Status
10 public participation programmes held by 31 March 2019	17 public participation programmes held by 31 March 2019	Achieved
Unqualified audit (clean audit) opinion with no financial matters in the audit report	Unqualified audit (clean audit) opinion with no financial matters in the audit report	Achieved





DST Programme 2

Purpose of the Programme (2)

Programme 2: Technology Innovation

To enable research and development in strategic and emerging focus areas to promote the realisation of commercial products, processes and services from R&D outputs; through the implementation of enabling policy instruments.









Annual Target	Actual Achievement	Status
21 instruments funded in support of knowledge utilisation by 31 March 2019	21 instruments were funded in support of knowledge utilisation by 31 March 2019	Achieved
149 knowledge outputs generated by 31 March 2019	187 knowledge outputs were generated by 31 March 2019	Achieved
5 strategic policy directives in designated areas in support of economic sectors by 31 March 2019	5 strategic policy directives in designated areas in support of economic sectors were developed by 31 March 2019	Achieved





Annual Target	Actual Achievement	Status
2 decision-support interventions maintained by 31 March 2019	2 decision-support interventions maintained by 31 March 2019	Achieved
100% of regulatory recommendations made to the GMO Executive Council through DAFF to support decision making by 31 March 2019	100% of regulatory recommendations were made to the GMO Executive Council through DAFF to support decision making by 31 March 2019	Achieved
220 new disclosures reported by publicly funded institutions by 31 March 2019	311 new disclosures were reported by publicly funded institutions by 31 March 2019	Achieved





Annual Target	Actual Achievement	Status
340 postgraduate students (masters and doctoral) funded in designated areas by 31 March 2019	354 postgraduate students (masters and doctoral) were funded in designated areas by 31 March 2019	Achieved
240 trainees attending training initiatives in designated areas by 31 March 2019	336 trainees attended training initiatives in designated areas by 31 March 2019	Achieved
6 knowledge application products funded in designated areas by 31 March 2019	9 knowledge application products were funded in designated areas by 31 March 2019	Achieved





Annual Target	Actual Achievement	Status
3 commercial outputs in designated areas by 31 March 2019	7 commercial outputs in designated areas by 31 March 2019	Achieved

