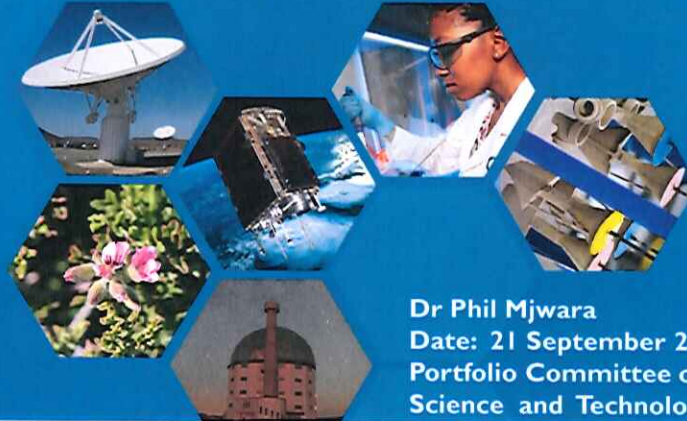


## DST FIRST QUARTER PERFORMANCE AND FINANCIAL REPORT (APRIL TO JUNE 2016)



Dr Phil Mjwara  
Date: 21 September 2016  
Portfolio Committee on  
Science and Technology




science  
& technology  
Department:  
Science and Technology  
REPUBLIC OF SOUTH AFRICA

### Presentation outline

- Purpose
- Background
- Performance Per DST's Strategic Goals
- Performance Per DST's Programmes
- Financial Performance

## Purpose

- ❑ To present the DST's First Quarter Performance Report for the 2016-17 financial year.


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## DST's Policy mandate (I)

The Department of Science and Technology (DST) derives its mandate from the 1996 White Paper on Science and Technology, which introduced the concept of a National System of Innovation.

The NSI remains an ideal for which South Africa continues to strive. It is an enabling framework for science, technology and innovation (STI).

NSI can be understood as a set of functioning institutions, organisations and policies that interact constructively in the pursuit of a common set of social and economic goals and objectives, seeking to promote change through the introduction of innovations.


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## DST's Policy Mandate (2)

The DST, as the custodial coordinator for the development of the NSI, influences this system through key strategies such as the National Research and Development Strategy (NRDS) and the Ten-Year Innovation Plan (TYIP).

The latter, particularly, seeks to contribute to the transformation of the South African economy from a resource-based into a knowledge-based economy, in which the production and dissemination of knowledge will lead to economic benefits and enrich all fields of human endeavor.

In this regard, the measure of success will be the level to which science, technology and innovation (STI) play a driving role in enhancing productivity, economic growth and socio-economic development.




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## DST's Vision

**Vision**

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



6

## DST's Mission Statement (4)







**Mission**

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

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## The DST's contributions to Government Outcomes

The Department contributes to and reports on the following government outcomes:

-  **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.
-  **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.

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## DST's Strategic outcome-oriented goals

-  A responsive, coordinated and efficient NSI.
-  Increased knowledge generation.
-  Human capital development.
-  Using knowledge for economic development.
-  Knowledge utilisation for inclusive development.

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## DST'S CONTRIBUTION TO THE STRATEGIC OUTCOME-ORIENTED GOALS

9/19/2016

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## Overall DST's Performance (1)

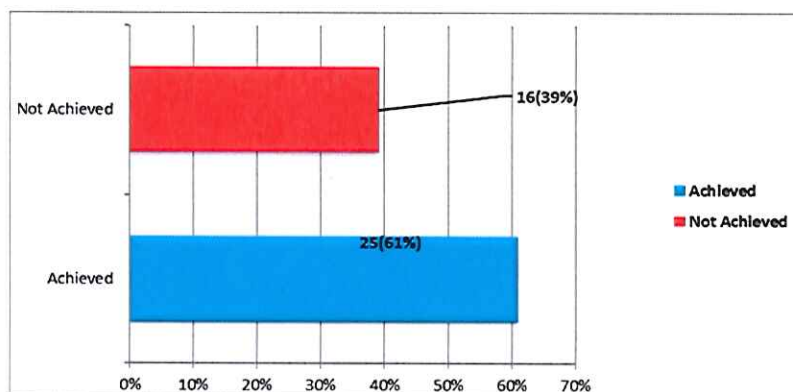
Figure 1 below illustrates the performance of the DST from April to June 2016.


- ❑ During the period under review, the total number of planned output targets was 41 ( $n=41$ ).
- ❑ The Department achieved 61% of the planned output targets and 39% of the planned output targets were not achieved.



## Overall DST's Performance (2)


Figure 1: DST's overall final first quarter performance overview: (Total number of planned output targets,  $n=41$ )






## A Responsive, Coordinated and Efficient NSI (1)


- ❑ **Framework for S&T cooperation with other departments**
  - ✓ Implementation of the newly approved Framework for Science and Technology Cooperation with other government departments has commenced.
  - ✓ The purpose of the framework is to guide the prioritisation of the DST's S&T cooperation with other departments in line with the strategic plan for the years 2015–20.
  - ✓ Champions were nominated from within the DST to lead engagements with specific departments on the selection of joint initiatives.


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## A Responsive, Coordinated and Efficient NSI (2)


- ❑ **Government-Industry Task Team on R&D tax incentive**
  - ✓ The joint government-industry task team on the research and development (R&D) tax incentive (“Task Team”) that the Minister established in 2015 has completed its work. The final Task Team report was presented to the Ministers of Science and Technology and Finance.
  - ✓ Initial consultations were held with the National Treasury to identify and prioritise issues that needed to be processed immediately for consideration in the 2016 round of Tax Laws Amendment Bill (TLAB) process.
  - ✓ Following this, a media statement was issued to accompany publication of the Task Team report; SARS agreed to consider a possibility for allowing exceptions within its tax administration procedures to allow R&D tax incentive claims despite them having passed the three-year prescription period.


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### A Responsive, Coordinated and Efficient NSI (3)


- ❑ **HSRC-DST engagements on clarifying the role of the Centre for Science Technology and Innovation Indicators (CeSTII)**
  - ✓ Following on the Minister's letter to the Chair of the HSRC that provided new Terms of Reference (TORs) for CeSTII, the DST team met with the HSRC-CeSTII team (led by the CEO and the Deputy-CEO: Research) on 07 June 2016 to discuss key issues impacting on the operationalisation of the new TORs.
  - ✓ Among the issues which were tackled were:
    - firstly, reviewing how the 2016/17 CeSTII Business Plan addressed the new CeSTII TORs;
    - progress in recruiting the Head of CeSTII and rebuilding staff capacity at CeSTII; and
    - clarifying mandate with respect to CeSTII raising external funding and research output.
  - ✓ A set of actions were agreed, helping to unlock key blockages that were identified.

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### A Responsive, Coordinated and Efficient NSI (4)

- ❑ **Engagements with NACI on the development of a National STI Information Portal**
  - ✓ The first quarter has also seen the commencement of the work to scope the National STI Information Portal.
  - ✓ A steering Committee has been established and the project will be located at NACI. Several preparatory discussions took place, culminating into a scoping workshop on 20 June 2016.
  - ✓ Programme 5 is part of the project team and contributes content to this process.
  - ✓ Discussions have also commenced with CeSTII on data sharing arrangements with NACI for purposes of the Portal.

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## A Responsive, Coordinated and Efficient NSI (5)

**□ Partnerships and collaborations**

- ✓ The DST targets and milestones are contributed to by entities such as the Technology Innovation Agency (TIA), the South African National Space Agency (SANSa), the Council for Scientific and Industrial Research (CSIR), the National Research Foundation (NRF), the Agricultural Research Council (ARC), the Medical Research Council (MRC), and the South African National Energy Development Institute (SANEDI) amongst others.
- ✓ The DST has partnerships with the following departments: the Departments of Environmental Affairs; Energy (Operation Phakisa for the Oceans economy); Water and Sanitation; Mineral Resources (Shale Gas Monitoring Committee); Agriculture, Fisheries and Forestry; and Rural Development and Land Reform (Agricultural Phakisa and Agri-parks).


9/19/2016  17



## A Responsive, Coordinated and Efficient NSI (6)

**□ Partnerships and collaborations (continued)**

- ✓ Discussions on various innovation support incentives and the Sovereign Innovation Fund involve the Departments of Trade and Industry, National Treasury and Small Business Development. The Department of Health's partnership has also been crucial in ensuring the uptake and adoption of health related innovations.
- ✓ Government's commitment to strengthening the partnership with the private sector is also finding enhanced expression in the work of the DST, especially to facilitate technology uptake and joint investment, in particular in support of pilot, demonstration and manufacturing activities.
- ✓ A number of partnerships have been entered into, some directly by the DST, da Vinci / TT100 and the Black Business Council (BBC), and others through our programmes (HySA CoC, etc.). Some of the partnerships have already yielded returns, while others still in their infancy, are showing great potential.

9/19/2016  18

## Knowledge Generation (1)

**Infrastructure**

***National Integrated Cyberinfrastructure System (NICIS)***

- ✓ With regard to the implementation of the National Integrated Cyberinfrastructure System (NICIS), the DST and the Meraka Institute (CSIR) assisted by external evaluation panels successfully adjudicated proposals for ;
  - (i) the establishment of the first Regional Tier 2 Data Node; and
  - (ii) the development and hosting of a National e-Science Postgraduate Teaching and Training Platform.
- ✓ Following approval by the Minister, successful bidders would be announced in the second quarter.

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## Knowledge Generation (2)

**Infrastructure (continued)**

***The Square Kilometer Array***

- ✓ With just four of the MeerKAT dishes operational, a remarkable image was already produced, revealing never before seen radio galaxies in the distant universe. This has enormous significance as it builds confidence that the project will be successful. This discovery happened just before the MeerKAT Science Conference took place in Stellenbosch on 25-27 May 2016, where more than a hundred researchers and students from South Africa and around the world were meeting to share plans to use the MeerKAT radio telescope.
- ✓ The Minister granted an extension for the public consultation process on the draft regulations for the declared Karoo Central Astronomy Advantage Areas (KCAAA) to address public confusion between the land acquisition and the Strategic Environmental Assessment (SEA) processes. In support of the public consultation process, joint intensive community workshops were held in Carnarvon, Brandvlei, Van Wyksvlei and Williston in May 2016.

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## Knowledge Generation (3)

### ❑ Infrastructure (*continued*)

- ✓ The outcome of modelling the Department of Science and Technology's (DST) Human Capital Development (HCD) and Research Infrastructure needs in relation to the National Development Plan (NDP) was presented to Exco in April 2016.

#### **Strategic Research Equipment Programme (SREP)**

- ✓ In June 2016 the NRF launched the first call for proposals for support from the newly established Strategic Research Equipment Programme (SREP). This programme was introduced to address the limitations of the National Equipment Programme (NEP), in terms of raising the maximum amount of funding from R10million to R35million and hence enhancing the national scope and impact.

9/19/2016



## Knowledge Generation (4)

### ❑ Human Capital Development (HCD)

#### **Research Chairs**

- ✓ In May 2016 the Minister launched three SA-UK bilateral research chairs at the Going Global conference for leaders in international education.
- ✓ Two of the Research Chairs are in the area of food security, and are hosted by UWC/UP and NMMU respectively, and the third one is in Political Theory and is hosted by Wits University. This brings the total number of research chairs awarded to date to 198.

#### **Bursaries**

Using realistic 2016 cost estimates for bursaries and project support costs, the total additional, cumulative allocation required over the period 2017/18 to 2030 by the DST to meet the NDP targets is R102.3 billion, comprising R44.9 billion for bursaries, and R57.4 billion for project costs (in 2016 Rand).

- ✓ Assuming a straight-line increase of 5 % per annum to the DST's current baseline for these two budget items, this amounts to a funding gap of R102.3b over this period.
- ✓ In addition, the estimated DHET funding gap over the period amounts to R63.5 billion.

9/19/2016



## Using Knowledge and Innovation for Economic Development (1)

**□ Hydrogen and Energy**

For the past two years, the Department has been working with Photovoltaic Technology Intellectual Property (PTiP) to commercialise its thin film solar panels. The following progress was reported in Quarter 1.

- ✓ The company submitted an application to participate in the Department of Energy's Northern Cape expression of interest to provide 1.5 GW (Photovoltaic (PV) and Concentrated Solar Power (CSP) as part of the Renewable Energy Independent Power Producer Programme (REIPPP) Legacy Addition;
- ✓ The company was amongst the successful bidders to provide PV panels to the Department of Tourism (for tourist attraction sites such as the Kruger National Park) and
- ✓ The company received formal approval from Gauteng Province for the greening of government buildings through their embedded generation programme (generating energy for self-consumption and export surplus).

In addition, HyPlat, a spin-off company from the University of Cape Town and Mintek made its first sales of platinum based fuel cell components to an international customer in May 2016.


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## Using Knowledge and Innovation for Economic Development (2)

**□ Hydrogen and Energy (continued)**

- ✓ As part of the second phase of the implementation of the HySA strategy, a number of initiatives are underway in order to increase the likelihood that products developed from the HySA CoCs will make it to the market.
- ✓ A milestone is the advertisement for the post of Manager: HySA Programme Office, which will be incubated at Mintek over the next three years.
- ✓ The HySA Programme continues to be represented in print media, as well as within global forums. The following are the opportunities leveraged in the first quarter:
  - The Programme contributed to an article "Hydrogen Fuel Cell Technology is taking off in South Africa" following the launch of the Fuel cell powered forklift by Minister at Impala Platinum Refineries.
  - Building on the successful forklift launch, the Premier of Gauteng has requested his team to work with the Department to identify opportunities to commercialise selected HySA technologies in the Province.
  - HySA Infrastructure came third at an international Hydrogen Student Design Contest for the "Design of a Hydrogen powered Microgrid for Grid Support and Back-up Power".


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## Knowledge Utilisation for Inclusive Development (1)

**Bio-innovation**

- **Agriculture**
  - ✓ Following discussions with the Department of Rural Development and Land Reform, a framework consolidating the potential contribution of the DST to innovation in Agri-parks was developed.
  - ✓ The framework incorporates the original idea of Agri-innovation hubs outlined in the Bio-economy strategy. It also includes the role of Indigenous Knowledge (IK)-based Bio-Innovation;
  - ✓ ICT for Agriculture; Biofuel Production and Innovation for Local Economic Development in re-invigorating rural agriculture.
  - ✓ Parallel to this process, the Agri-innovation hub feasibility study conducted in partnership with the Agricultural Research Council was completed and presented to EXCO.
  - ✓ The feasibility study focussed on the model (with examples) for Agri-innovation hubs to be located within the research and innovation zones of the Agri-hub component of Agri-parks. The report provides guidance on which commodities to focus on per hub, on the basis of impact on food security, nutrition, the current account deficit, and projected future consumption trends.




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## Knowledge Utilisation for Inclusive Development (2)

**Bio-innovation (continued)**

- **Industry and environment biotech**
  - ✓ As part of finalising the Bioeconomy implementation plan, the Biomaterial feasibility report that analyses the structure of the South African biomaterial industry was finalised.
  - ✓ The report identifies system constraints pertaining to the sector and prioritises areas of research that need to be addressed, or given more attention, in order to rapidly achieve significant growth of the bio-material sector.



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## Knowledge Utilisation for Inclusive Development (3)

**Bio-innovation (continued)**

❑ **Levers to expand successes**

- ✓ The DST has identified lack of proper inter-governmental coordination as one of the challenges towards commercialisation of locally developed technologies.
- ✓ The Hydrogen and Energy Chief Directorate is participating in relevant intergovernmental and multi-stakeholder forums to obtain buy-in and facilitate inclusion of fuel cells and other locally developed technologies in the Integrated Resource Plan.
- ✓ There is also a need to establish facilities to support innovative manufacturing (such as the BIDC), especially biorefineries and agro-processing facilities.
- ✓ On biorefineries and agro-processing facilities, the plan is to have centralised facilities as part of the Agri-parks, as these are expected to be widely distributed with access to biomass.
- ✓ These interventions will also be essential in supporting IK-based innovation which is currently constrained by a lack of basic processing facilities.

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## Knowledge Utilisation for Inclusive Development (4)

**Targeted decision support**

❑ **Information Communication and Technology**

- ✓ As of 30 June 2016, mLab is hosting a total of 25 start-ups, which between them have 101 individuals employed/entrepreneurs. Minister also announced in her Budget Vote speech that mLab will be expanded beyond Gauteng and the Western Cape to the Northern Cape, Limpopo and KwaZulu-Natal.
- ✓ The Optical Coherence Tomography (OCT)-based Fingerprint Acquisition Device (FPAD) (an algorithm developed and implemented to take data obtained of a latent print using OCT scanning technology) was ratified as a technology demonstrator within the CSIR.
- ✓ The EU-General Budget Support (GBS) project at CSIR Meraka Institute called "Digital Health Future – Roadmapping South African Strategy" (mHealth), was concluded on 21 June 2016 at a project function, and the two artefacts developed as output included two reports.

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## Knowledge Utilisation for Inclusive Development (5)

**Targeted decision support (continued)**

- ❑ Environmental Services Technologies (EST)
- ✓ The Water Research Development and Innovation PMU Manager commenced duty on 1 June 2016 at the WRC and gave a brief on the first BRICS Waste Management Policy whilst at a waste conference in Brazil.
- ✓ The DST presented the Waste RDI Roadmap at the DEA Waste Khoro in Durban and the Minister of DEA mentioned the Roadmap in her speech at this event, as well as in her department's budget vote speech.
- ✓ The DST was furthermore quoted in the Engineering News for the Youth in Water event convened by the WRC, and lastly, the DST made presentation on Environmental Services Technologies activities at the Green Youth Indaba.

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## Knowledge Utilisation for Inclusive Development (6)

**❑ Sector and Local Innovation (SLI)**

- ✓ The online reporting system developed for the Sector Innovation Fund (SIF) initiative in partnership with the CSIR, through the Technology Localisation Implementation Unit, has now been implemented and the first reports have been submitted at the end of April 2016.
- ✓ Despite a few teething problems, the system has been welcomed by all the associations supported through the initiative.
- ✓ The Biomanufacturing Industry Development Centre (BIDC) at the CSIR was launched on 13 May 2016, and is supported through the DST's Industry Innovation Partnership (IIP) programme at the CSIR.
- ✓ The BIDC aims to strengthen and configure the existing bioprocess and product development competence at CSIR Biosciences and to make this affordable and broadly accessible, and also supports bio-manufacturing opportunities with a lower barrier to market entry, lower development cost and shorter times to market.)
- ✓ The BIDC currently supports 19 SMMEs, of which 16 are owned by black entrepreneurs, including 10 black women-owned enterprises.

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## International Cooperation and Resources (1)

**International Resources**

- ✓ The DST, Department of Fisheries and Forestry (DAFF) and the French Embassy concluded the F'SAGRI Agriculture, Forestry and Fishers protocol, which will facilitate cooperation between the Parties' in higher education and research institutions in the field of agriculture and veterinary sciences toward increased high end skills in South Africa.
- ✓ Similarly, the relationship with the U.S. Agency for International Development (USAID) was formalised through the signing of an MOU that will support the growing partnership between South Africa and the United States in using science, technology and innovation as important tools for advancing development.
- ✓ During April the DST hosted a preparatory meeting to the EU-South Africa upcoming Joint Science and Technology Coordinating Committee, where the SA hosting of the International Conference on Research Infrastructure (ICRI) and the progress on the new Marine Research Partnership with the EU were critical aspects of discussion.

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## International Cooperation and Resources (2)

**Multilateral Cooperation and Africa**

- ✓ The third meeting of the Africa-EU High Level Policy Dialogue, adopted a Roadmap towards an Africa-EU research and innovation partnership on Food and Nutrition Security and Sustainable Agriculture.
- ✓ During May the DST hosted a series of meetings, workshops and conferences to commemorate Africa Day, and included amongst others the annual African Unity for Renaissance Conference, and a Conference with the Science Policy Research Unit (SPRU) of the University of Sussex, which attracted participants from Kenya, Ethiopia, Tanzania and Namibia who offered innovative solutions for developing science, technology and innovation policies for transformative change.
- ✓ The DST is leading on a number of SADC initiatives. In the first quarter, the Technical Working Group meetings for the SADC Cyber-Infrastructure Framework and the SADC STI Climate Change Framework and Implementation Plan was hosted, in preparation for the SADC Joint Meeting of Ministers responsible for Education and Training and Science, Technology and Innovation.

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## International Cooperation and Resources (3)

- ❑ **Overseas Bilateral Cooperation**
  - ✓ Agreement was reached amongst the BRICS Partners on the Multilateral Interdisciplinary Research and Innovation Funding Framework, the BRICS STI Framework for Multilateral R&D Projects and the Technical Work Programme in Geospatial Technology and Application for Development Astronomy.

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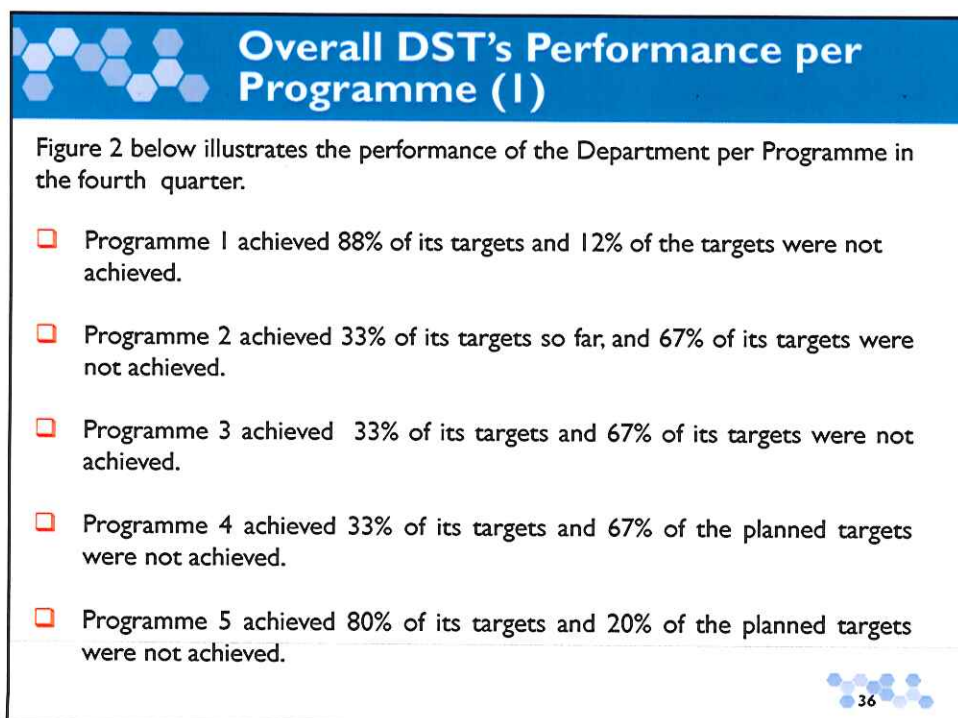


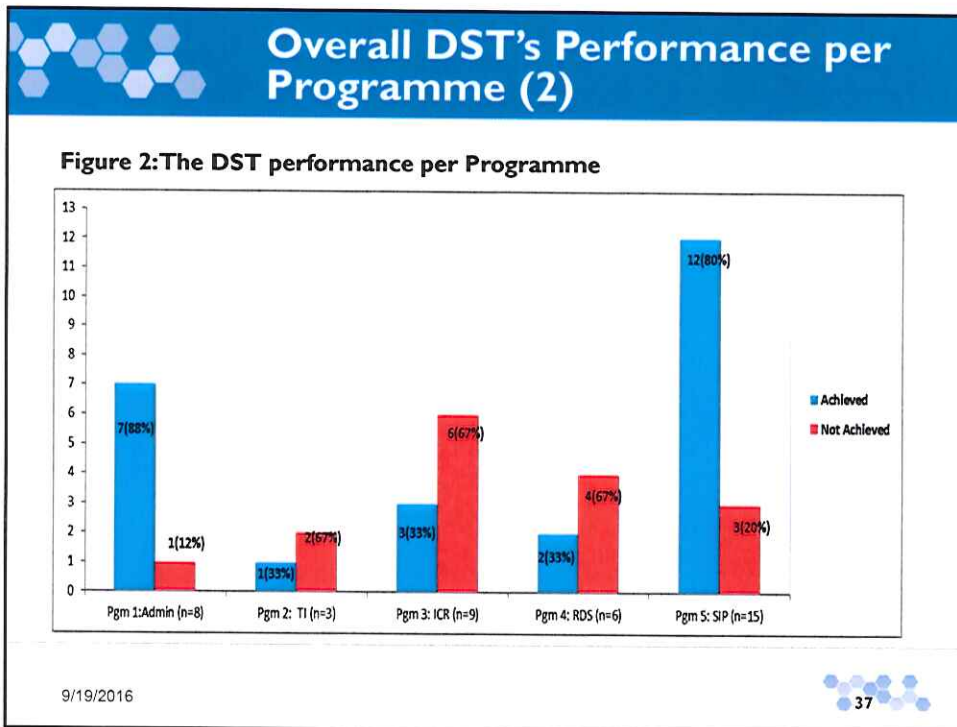
## PERFORMANCE INFORMATION OVERVIEW

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## Programme I

### Purpose of the Programme (I)

- Programme I: Administration**  
To conduct the overall management and administration of the Department.



**national treasury**  
Department:  
National Treasury  
REPUBLIC OF SOUTH AFRICA



**performance monitoring and evaluation**  
Department:  
The Presidency  
REPUBLIC OF SOUTH AFRICA



**AUDITOR - GENERAL  
SOUTH AFRICA**  
*Auditing to build public confidence*

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Sampled Programme I Performance			
Quarter I achievements - Administration			
Annual Target	Quarter I Target	Quarter I Progress	Status
Four DST 2016/17 quarterly performance reports approved by EXCO and signed by the DG 60 days after the end of each quarter	One DST's quarterly performance report (2015/16 quarter 4) approved by Exco and signed by the DG after the end of the quarter	One DST quarterly performance report (2015/16 quarter 4) approved by the Exco and signed by the DG after the end of the quarter.	Achieved
90 days to fill a vacancy after date of advertisement by 31 March 2017	90 days to fill vacancy after date of advertisement by 30 June 2016	88 days to fill vacancy after date of advertisement by 30 June 2016.	Achieved
Suppliers paid within 30 days of receipt of invoice	Suppliers paid within 30 days of receipt of invoice	Suppliers paid within 30 days of receipt of invoice as indicated in the Supply Chain report.	Achieved

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Sampled Programme I Performance			
Quarter I achievements - Administration			
Annual Target	Quarter I Target	Quarter I Progress	Status
Future state enterprise architecture implemented by 31 Mar. 2017	Implementation and migration projects (Phase I of 4 ) developed by 30 June 2016	Implementation and migration projects started: • Audio Visual upgrade • Microsoft upgrade	Achieved
10 public participation programmes held by 31 Mar. 2017	Two public participation programmes held by 30 June 2016	Two public participation programmes were held by 30 June 2016	Achieved
16 media articles written to raise the DST's public profile by 31 Mar. 2017	Four media articles written to raise the DST's public profile by 30 June 2016	Nine media articles were written to raise the DST's public profile by 30 June 2016	Achieved

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## 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.



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## Sampled Programme 2 Performance

### Quarter 1 achievements - Programme 2: Technology Innovation

Annual Target	Quarter 1 Target	Quarter 1 Progress	Status
12 evaluation and assessment reports developed and approved by Exco by 31 March 2017	Two evaluation and assessment reports developed and approved by Exco by 30 June 2016	Two evaluation and assessment reports were developed and approved by Exco.	<b>Achieved</b>

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## Programme 3

### Purpose of the Programme (3)

#### □ Programme 3: International Cooperation and Resources

This Programme aims to strategically develop, promote and manage international relationships, opportunities and S&T agreements that strengthen the NSI and enable an exchange of knowledge, capacity and resources between South Africa and its regional and international partners.



**Grand Cross of Merit of  
the Federal Republic of  
Germany**



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## Sampled Programme 3 Performance

### Quarter 1 achievements - Programme 3: International Cooperation and Resources

Annual Target	Quarter 1 Target	Quarter 1 Progress	Status
10 AU or SADC STI initiatives, including programmes, projects or governance frameworks, endorsed at AU or SADC ministerial level supported (financially or in kind) by DST by 31 Mar 2017	One AU or SADC STI initiatives, including programmes, projects or governance frameworks, endorsed at AU or SADC ministerial level supported (financially or in kind) by the DST by 30 June 2016	Five AU or SADC STI initiatives, including programmes, projects or governance frameworks, endorsed at AU or SADC ministerial level supported.	<b>Achieved</b>
450 international partner organisations (i.e. legal entities) collaborating with South African partners within the formalised framework of collaborative research, innovation or STI human capital development projects as part of cooperation initiatives facilitated by the DST by 31 March 2017	50 international partner organisations (i.e. legal entities) collaborating with South African partners within the formalised framework of collaborative research, innovation or STI human capital development projects as part of cooperation initiatives facilitated by the DST by 30 June 2016	79 international partner organisations (i.e. legal entities) collaborating with South African partners within the formalised framework of collaborative research, innovation or STI HCD projects as part of cooperation initiatives facilitated by the DST.	<b>Achieved</b>



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Sampled Programme 3 Performance			
Quarter 4 achievements - Programme 3: International Cooperation and Resources			
Annual Target	Quarter 1 Target	Quarter 1 Progress	Status
R70m in international funds directly invested in African regional and continental research, innovation, STI HCD or research infrastructure programmes as a result of DST facilitation by 31 March 2017	R5 000 000 in international funds directly invested in African regional and continental research, innovation, STI human capital development or research infrastructure programmes as a result of DST facilitation by 30 June 2016.	R63 000 000 in international funds directly invested in African regional and continental research, innovation, STI HCD or research infrastructure programmes as a result of DST facilitation by 30 June 2016.	Achieved
10 AU or SADC STI initiatives, including programmes, projects or governance frameworks, endorsed at AU or SADC ministerial level supported (financially or in kind) by DST by 31 March 2017	One AU or SADC STI initiatives, including programmes, projects or governance frameworks, endorsed at AU or SADC ministerial level supported (financially or in kind) by DST by 30 June 2016.	Five AU or SADC STI initiatives, including programmes, projects or governance frameworks, endorsed at AU or SADC ministerial level supported.	Achieved

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## Programmes 4

### Purpose of the Programme (4)

- **Programme 4: Research Development and Support**  
 Provide an enabling environment for research and knowledge production that promotes strategic development of basic sciences and priority science areas, through science promotion, human capital development, the provision of research infrastructure and relevant research support in pursuit of South Africa's transition to a knowledge economy.

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## Sampled Programme 4 Performance

**Quarter 4 achievements - Programme 4: Research Development and Support**


Annual Target	Quarter 1 Target	Quarter 1 Progress	Status
840 graduates and students placed in DST-funded work preparation programmes in SETI institutions by 31 March 2017.	700 graduates and students placed in DST-funded work preparation programmes in SETI institutions by 30 June 2016.	733 graduates and students placed in DST-funded work preparation programmes in SETI institutions by 30 June 2016.	<b>Achieved</b>
10 996 pipeline postgraduate students awarded bursaries through NRF and DST managed programmes as reflected in the NRF and DST project reports by 31 March 2017.	5 498 pipeline postgraduate students awarded bursaries through NRF and DST managed programmes as reflected in the NRF and DST project reports by 30 June 2016.	5 744 pipeline postgraduate students awarded bursaries through NRF and DST managed programmes as reflected in the NRF and DST project reports by 30 June 2016.	<b>Achieved</b>

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## Programme 5

### Purpose of the Programme (5)

- **Programme 5: Socio-Economic Innovation Partnerships**  
 This Programme enhances the growth and development priorities of government through targeted S&T-based innovation interventions and the development of strategic partnerships with other government departments, industry, research institutions and communities.

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Sampled Programme 5 Performance			
Quarter 1 achievements - Programme 5: Socio-Economic Innovation Partnership			
Annual Target	Quarter 1 Target	Quarter 1 Progress	Status
Four knowledge products on innovation for inclusive development published by 31 Mar. 2017	Through consultation and review, identify the topics and format of the 4 new knowledge products by 30 June 2016	<p>The following five (5) topics were identified by 30 June 2016:</p> <ul style="list-style-type: none"> <li>• A policy brief on Algae Based Waste Water Treatment Works as an alternative cost effective technology for rural environments.</li> <li>• A case study on the Entrepreneurial Opportunities in Technology Transfer, The case of Young Agricultural Graduates as Knowledge Brokers.</li> <li>• A case study on STI for transformative livelihoods in distressed district municipalities: Limpopo.</li> <li>• A case study on STI for transformative livelihoods in distressed district municipalities: Eastern Cape.</li> <li>• Promoting a policy for inclusive development.</li> </ul>	Achieved




Sampled Programme 5 Performance			
Quarter 1 achievements - Programme 5: Socio-Economic Innovation Partnership			
Annual Target	Quarter 1 Target	Quarter 1 Progress	Status
Seven decision-support interventions maintained and improved by 31 Mar. 2017	Monitor the implementation of work plans for the 7 existing decision support systems by the project teams by 30 June 2016	A contract has been concluded with the Human Sciences Research Council for the hosting of learning seminars in 2016/17 financial years by 30 June 2016. The list of learning interventions was also finalized.	Achieved
Nine learning interventions (seminars) generated by 31 March 2017	Conclusion of contract for coordination of the learning interventions by 30 June 2016.	Contract for coordination of learning interventions concluded by 30 June 2016.	Achieved
200 interns fully funded or co-funded in R&D related to design, manufacturing and product development by 31 March 2017	150 interns fully funded or co-funded in designated niche areas related to design, manufacturing and product development by 30 June 2016.	192 interns were fully funded or co-funded in designated niche areas of design, manufacturing and product development by 30 June 2016.	Achieved



### Sampled Programme 5 Performance

**Quarter 4 achievements - Programme 5: Socio-Economic Innovation Partnership**

Annual Target	Quarter 1 Target	Quarter 1 Progress	Status
35 knowledge and innovation products (patents, prototypes, technology demonstrators or technology transfer packages) added to the IP portfolio by 31 March 2017	Begin negotiations with implementation agencies on proposed knowledge and innovation products to be added to IP portfolio by 30 June 2016	Negotiations with implementing agencies ongoing. Three knowledge and innovation products added to the IP portfolio by 30 June 2016.	<b>Achieved</b>
Two innovation-support interventions implemented in province or priority district municipalities by 31 March 2017	Through consultation identify the support interventions to be implemented by 30 June 2016.	The following two interventions identified and supported by 30 June 2016 1) the Regional Innovation Forum Western Cape and 2) the Regional Innovation Hub with the Nelson Mandela Metropolitan University.	<b>Achieved</b>





## Classification of reasons for variances due to non / under achievement

- ❑ Target formulation deficiencies – refers to targets which were not achieved because of variables which were not foreseen during the target formulation phase.
- ❑ Process delays – refers to factors which are outside the control of the DST and therefore achievement of such targets is mainly dependent on outside circumstances.
- ❑ Administrative delays - refers to delays due to internal process of the DST.
- ❑ Ineffectiveness of implementers - refers to non-achievement due to deficiencies during the implementation phase.

9/19/2016



## DST's Underperformance Overview

### Quarter I targets which were not achieved

Quarter I Target	Quarter I Progress	Reasons for non-achievement	Status	Variance Classification
120 new disclosures reported by publicly funded institutions by 30 June 2016.	106 new disclosures reported by publicly funded institutions.	Some institutions have not yet submitted their biannual reports.	Not Achieved	Process delays
Six regulatory recommendations for decision support	Four regulatory recommendations for decision support by government by 30 June 2016.	The DST received fewer permit applications due to drought (there were no field trial release application).	Not Achieved	Process delays
R60 million in international funds directly invested in research, innovation and STI human capital development programmes as well as research infrastructure investments in South Africa as part of cooperation initiatives implemented by the DST by 30 June 2016.	The supporting evidence to justify the achievement of this outputs is still awaited from the international partners.	Still awaiting evidence from international partners.	Not Achieved	Process delays

DST's Underperformance Overview				
Quarter 1 targets which were not achieved				
Quarter 4 Target	Quarter 4 Progress	Reasons for non-achievement	Status	Variance Classification
R20m invested by international partners in their own organisations and initiatives but targeted at cooperation in research, innovation and STI human capital development with South African partners as part of cooperation initiatives implemented by the DST by 30 June 2016.	The supporting evidence to justify the achievement of this outputs is still awaited from the international partners.	Still awaiting the relevant evidence to validate the achievement of planned targets.	Not Achieved	Process delays
15 South African students participating in international training programmes offering a postgraduate qualification as part of cooperation initiatives facilitated by the DST by 30 June 2016.	Three South African students participating in international training programmes offering a postgraduate qualification as part of cooperation initiatives facilitated by the DST by 30 June 2016.	Outstanding evidence from international partners has not been received as yet.	Not Achieved	Process delays

DST's Underperformance Overview				
Quarter 1 targets which were not achieved				
Quarter 1 Target	Quarter 1 Progress	Reasons for non-achievement	Status	Variance Classification
Two dedicated international technical exchanges to build or reinforce South Africa's capacities in key STI domains specifically referenced in the DST Strategic Plan, undertaken with the support of international partners facilitated by the DST by 30 June 2016.	The supporting evidence to justify the achievement of this outputs is still awaited from the international partners.	Outstanding evidence from international partners has not been received as yet.	Not Achieved	Process delays
Three research, innovation and STI HCD cooperation projects co-funded or supported in kind by DST and at least one other African government by 30 June 2016.	The supporting evidence to justify the achievement of this outputs is still awaited from the international partners.	Outstanding evidence from international partners has not been received as yet.	Not Achieved	Process delays

DST's Underperformance Overview				
Quarter I targets which were not achieved				
Quarter I Target	Quarter I Progress	Reasons for non-achievement	Status	Variance Classification
One formally recorded decision made in intergovernmental STI forums, such as multilateral organisations, with a direct bearing on resource allocation to support priorities of government's programme of action following specific DST intervention by 30 June 2016.	The supporting evidence to justify the achievement of this outputs is still awaited from the international partners.	The Programme is sourcing the relevant evidence from the international partners.	Not Achieved	Process delays

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DST's Underperformance Overview				
Quarter I targets which were not achieved				
Quarter I Target	Quarter I Progress	Reasons for non-achievement	Status	Variance Classification
1 568 PhD students awarded bursaries through NRF and DST-managed programmes as reflected in the NRF and DST project reports by 30 June 2016.	The evidence to substantiate the achievement of this output is still being validated by the Programme and the stakeholders.	Still consolidating the outstanding evidence from NRF.	Not Achieved	Process delays
2 270 researchers awarded research grants through NRF-managed programmes as reflected in the NRF project reports by 30 June 2016.	810 researchers awarded research grants through NRF - managed programmes as reflected by the NRF project reports by 30 June 2016.	Still consolidating the outstanding evidence from NRF.	Not Achieved	Process delays

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DST's Underperformance Overview				
Quarter I targets which were not achieved				
Quarter I Target	Quarter I Progress	Reasons for non-achievement	Status	Variance Classification
32 MeerKAT antennas installed by 30 June 2016.	Three dishes were installed in the first quarter resulting to 23 cumulative antennas by 30 June 2016.	There is a component in the lead screw that is being reworked to reduce maintenance that will be retrofitted to the installed antennas (at the supplier's cost) – rather than duplicating work we have elected to not perform dish lifts before the reworked component is available as we would not have been using the antennas in any case.	Not Achieved	Process delays

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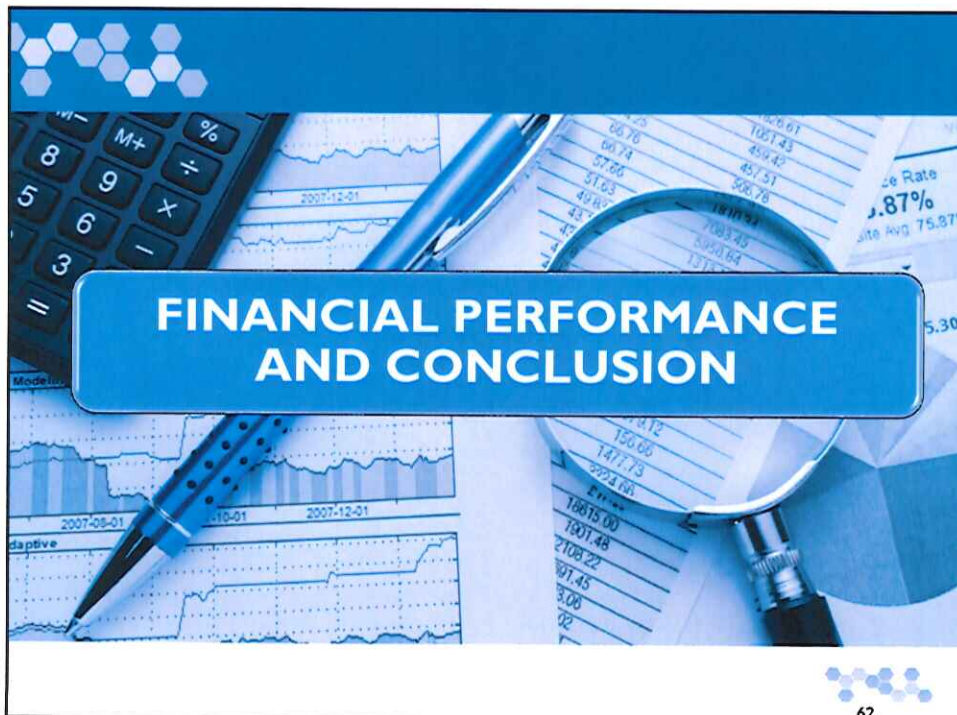
DST's Underperformance Overview				
Quarter I targets which were not achieved				
Quarter I Target	Quarter I Progress	Reasons for non-achievement	Status	Variance Classification
Grant funding awarded to organisations implementing the initiatives by 30 June 2016.	The evidence to substantiate the achievement of this output is still outstanding	Still awaiting evidence from the NRF.	Not Achieved	Process delays
<ul style="list-style-type: none"> <li>▪ 250 master's and doctoral students fully funded or co-funded in designated niche areas by 30 June 2016</li> <li>▪ Confirm student numbers from ongoing R&amp;D programmes and those linked to new projects, in order to confirm the target will be reached by 30 June 2016.</li> </ul>	236 master's and doctoral students fully funded or co-funded by 30 June 2016.	The outstanding evidence to substantiate the outstanding number is currently being consolidated.	Not Achieved	Process delays

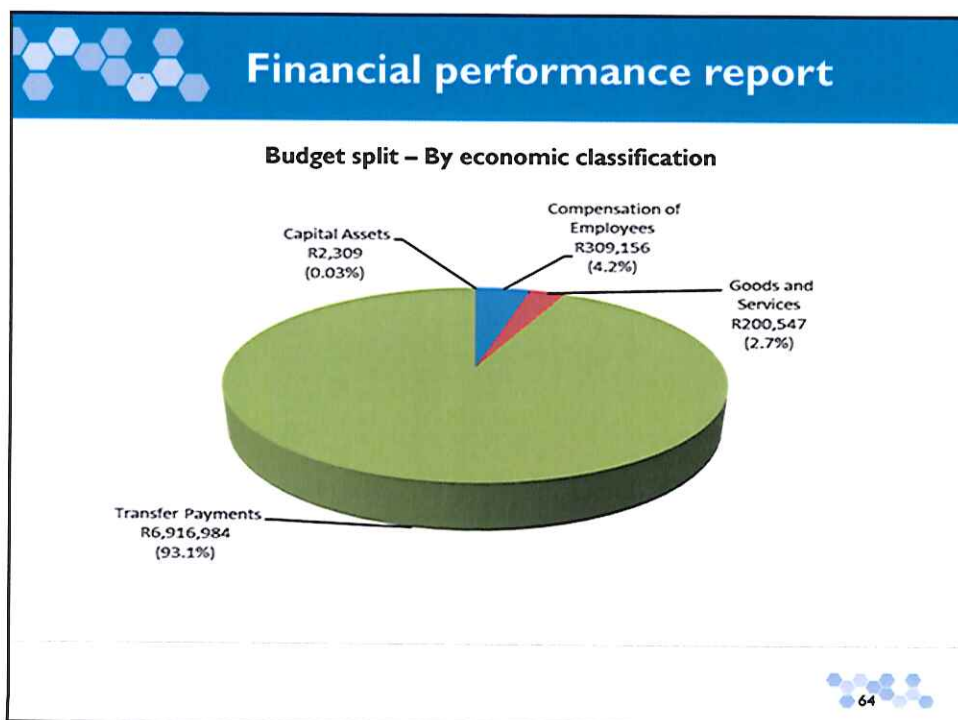
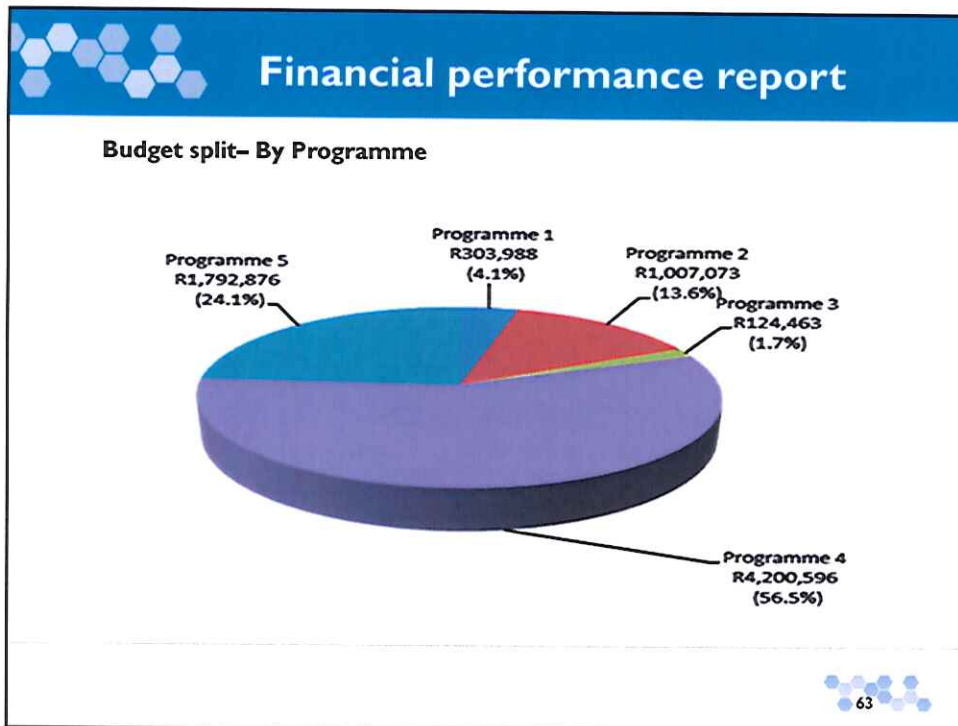
## DST's Underperformance Overview

**Quarter I targets which were not achieved**

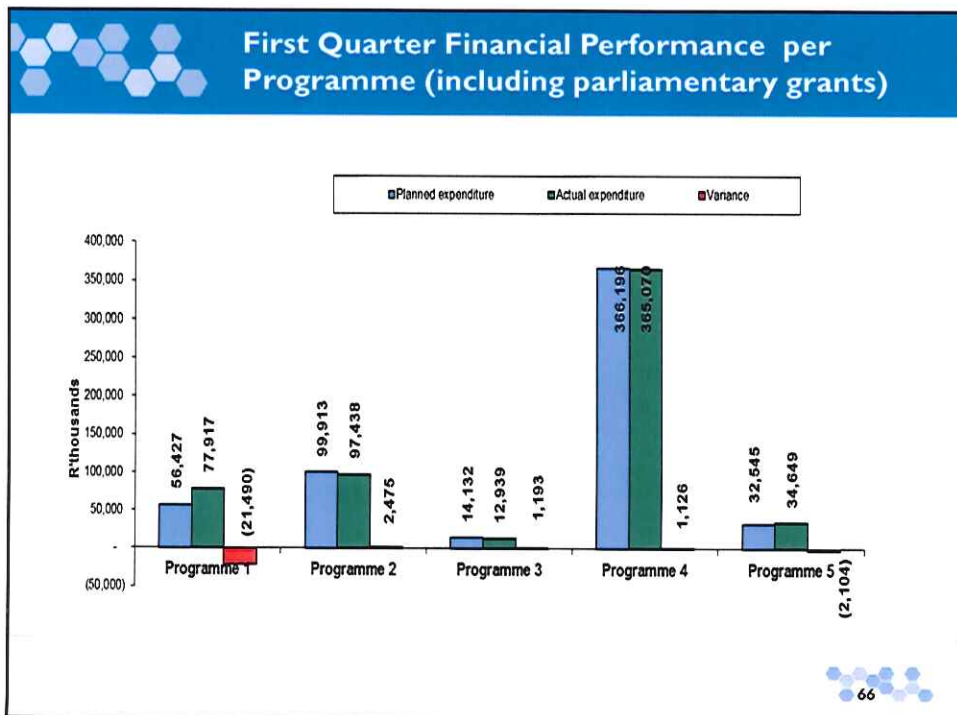
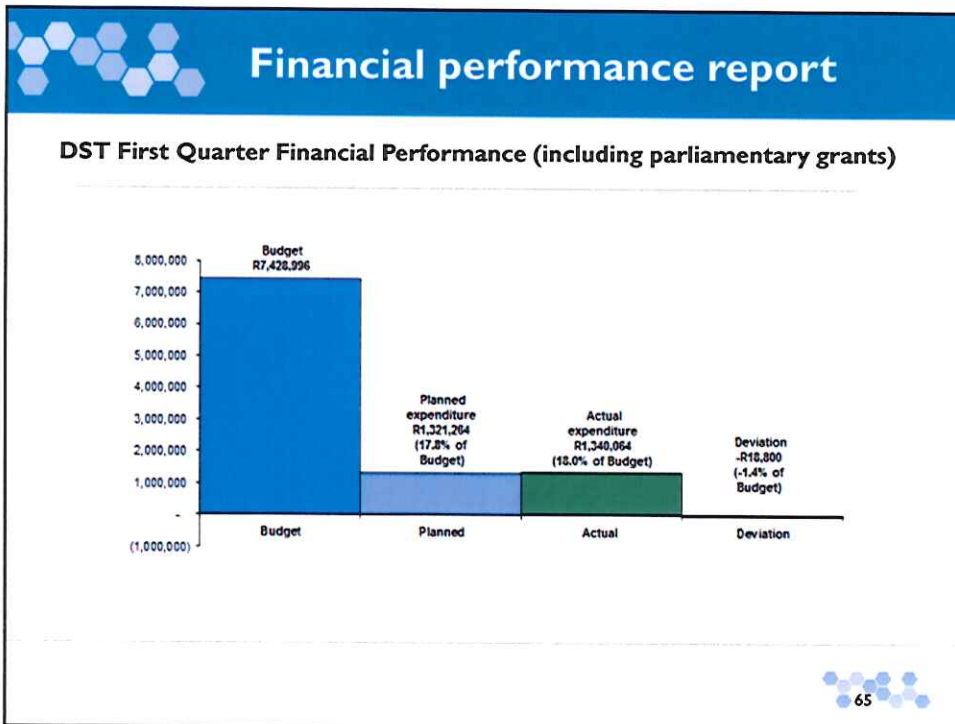
Quarter I Target	Quarter I Progress	Reasons for non-achievement	Status	Variance Classification
Update on progress with MyWare and SulphurTech, managed by WADER (Water Technologies Demonstration Programme) Interactions with various programmes to define the two new innovation products to be added to IP portfolio by 30 June 2016.	The MiWare and Sulfateq projects are related to the ACQUEAU platform. In terms of additional innovation products, WADER has just run a process to identify new technology demonstrators, this is to be finalised in July 2016. The following two IP products have been identified and are envisaged to be finalised in the next financial year, i.e. a MATLAB model of sugar/ethanol/cogeneration biorefinery and a new product Green House Toolkit	Sulfateq has not been able to unlock the co-funding from the EU partners, and cannot proceed until the co-funding is secured.	Not Achieved	Process delays
Update and ongoing monitoring of students from the following initiatives by 30 June 2016: <ul style="list-style-type: none"> <li>▪ Waste RDI Roadmap</li> <li>▪ Water RDI Roadmap</li> <li>▪ Sector Innovation Fund</li> <li>▪ Industrial Innovation Partnership</li> </ul>	The evidence to substantiate the achievement of the output is still being validated on the basis of internal audit findings.	Validation of supporting documents is still being finalised.	Not Achieved	Process delays

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## Conclusion

Given the central role of the DST in bridging the innovation chasm, more effort is being put to strengthening partnerships with the private sector. This is being done through partnerships using roundtable and related forums with entrepreneurs, and company executives.

The DST is also leading engagements with the Black Business Council (BBC), a partnership that could facilitate the uptake of locally developed technologies by BBC members and possibly support the Black Industrialist Programme.



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Dankie  
Enkosi  
Ha khensa  
Re a leboga  
Ro livhuwa  
Siyabonga  
Siyathokoza  
Thank you