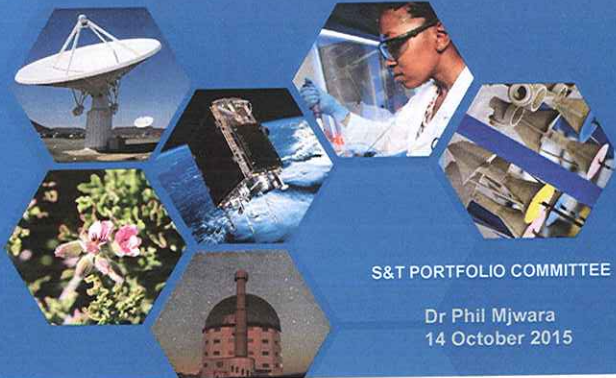


DST ANNUAL REPORT PRESENTATION FOR THE 2014/15 FINANCIAL YEAR



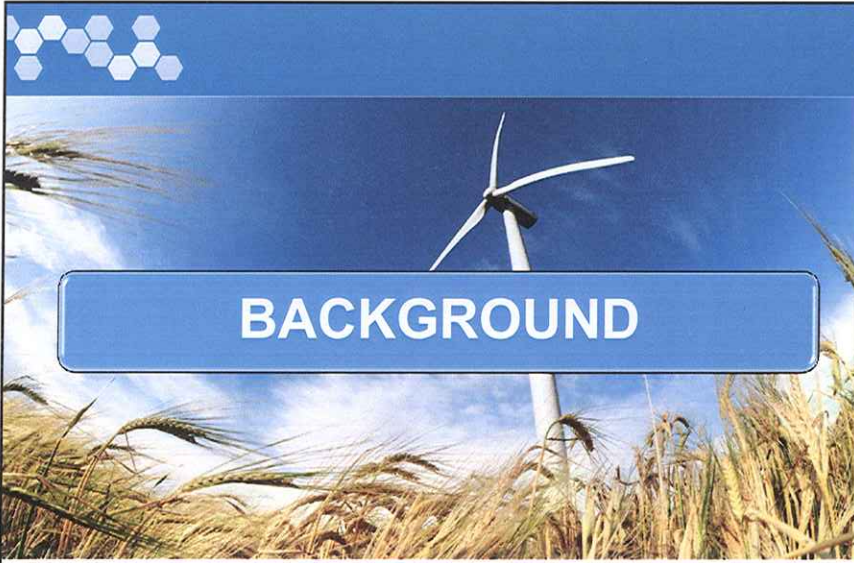
S&T PORTFOLIO COMMITTEE

Dr Phil Mjwara
14 October 2015

OUTLINE OF PRESENTATION

- Background
- Programmes
- Performance Overview
- Performance per Programme
- Targets not achieved
- Key Achievements per Programme
- Financial Performance
- Conclusion





BACKGROUND

10/13/2015

3

DST POLICY MANDATE

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 (NSI).

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

The 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.

10/13/2015


4

DST POLICY MANDATE

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.

10/13/2015  5

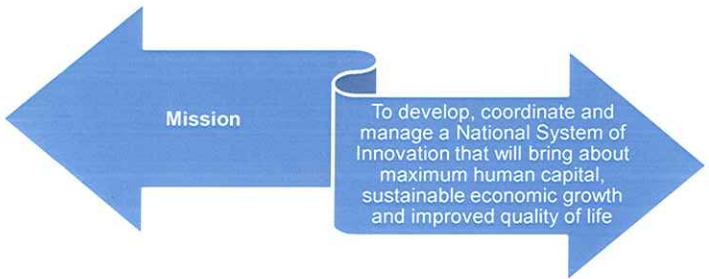
VISION

Vision

To create a prosperous society that derives enduring and equitable benefits from science and technology

10/13/2015  6

DST MISSION STATEMENT



Mission

To develop, coordinate and manage a National System of Innovation that will bring about maximum human capital, sustainable economic growth and improved quality of life

10/13/2015

7







KEY GOALS OF THE DEPARTMENT

-  To develop the innovation capacity of the NSI.
-  To enhance South Africa's knowledge capacity.
-  To develop appropriate STI human capital to meet the needs of society.
-  To build world-class STI infrastructure.
-  To position South Africa as a strategic international RDI partner.

10/13/2015

8

DST CONTRIBUTION TO OUTCOMES

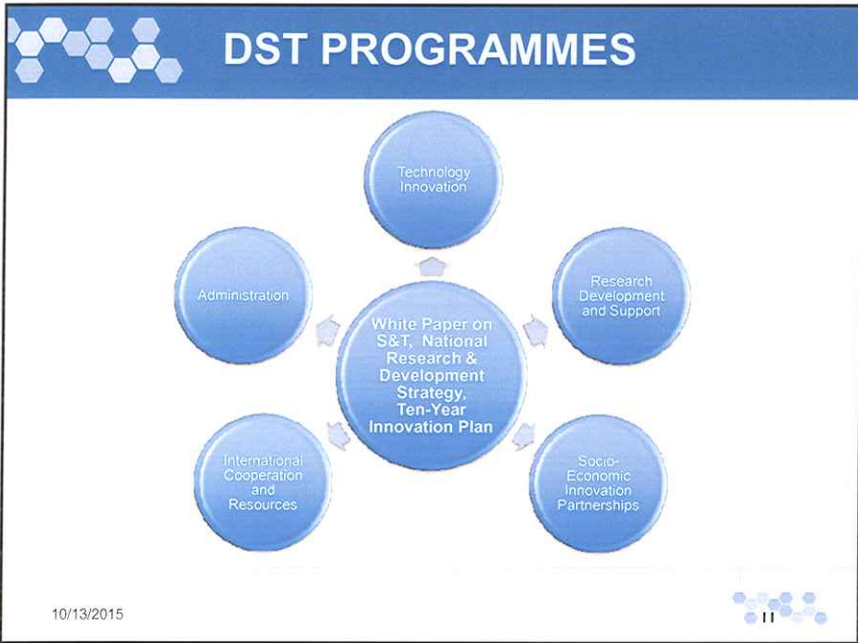
-  **Outcome 2:** A long and healthy life for all South Africans.
-  **Outcome 4:** Decent employment through inclusive economic growth.
-  **Outcome 5:** A skilled and capable workforce to support an inclusive growth path.
-  **Outcome 6:** An efficient, competitive and responsive economic infrastructure 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.

9

PROGRAMMES

10/13/2015

10



PROGRAMME 1: Administration

PURPOSE

- To conduct the overall management and administration of the Department.

national treasury
Department of National Treasury
REPUBLIC OF SOUTH AFRICA

performance monitoring and evaluation
Department of National Treasury
REPUBLIC OF SOUTH AFRICA

AUDITOR-GENERAL
SOUTH AFRICA
Auditing to build public confidence

10/13/2015

12

PROGRAMME 2: Technology Innovation

PURPOSE

- 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.



10/13/2015

13

PROGRAMME 3: International Cooperation and Resources

PURPOSE

- 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.



10/13/2015

14

PROGRAMME 4: Research Development and Support

PURPOSE

- To 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.



10/13/2015 15

PROGRAMME 5: Socio-Economic Innovation Partnerships

PURPOSE

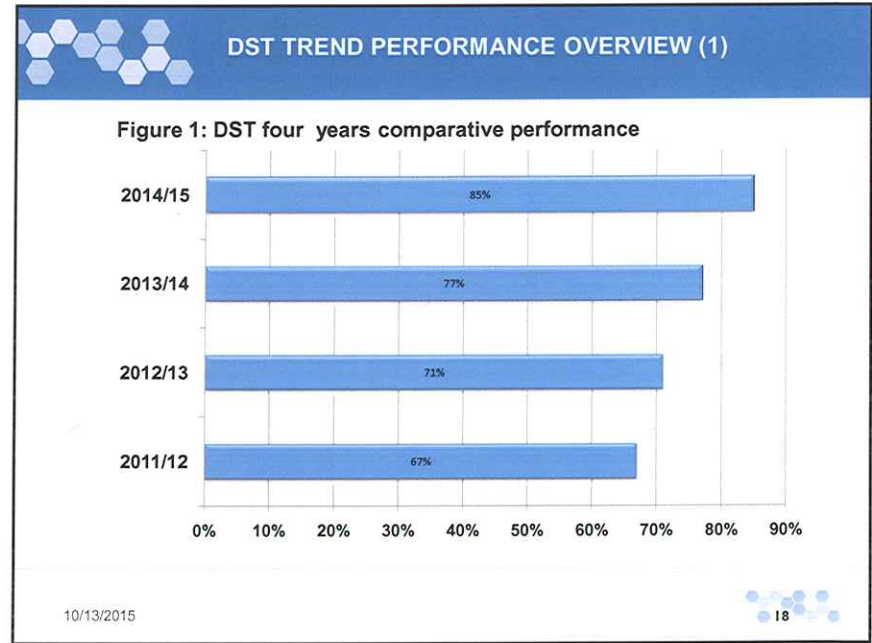
- This Programme enhances the growth and development priorities of government through targeted S&T-based innovation interventions and the development of strategic partnerships with other government departments, industry, research institutions and communities.



10/13/2015 16



A slide titled "PERFORMANCE OVERVIEW" with a background image of laboratory glassware. The text "PERFORMANCE OVERVIEW" is centered in a blue box. The slide includes a date "10/13/2015" in the bottom left and a page number "17" in the bottom right.



DST TREND PERFORMANCE OVERVIEW (2)

DST FOUR YEARS PERFORMANCE TRENDS: 2011- 2014

- Figure 1 shows DST performance trends in the last four years:
 - ✓ Performance has increased from 67% in the 2011/12 financial year, to 85% in the 2014/15 financial year.
- This can be attributed to the Department's performance information management strategic interventions such as:
 - ✓ The implementation of the Performance Information Management Systems (PIMS), which resulted in the improvement of performance compliance standards (validity, relevance, integrity and usefulness of performance information).


10/13/2015 19

DST 2014/15 FINANCIAL YEAR PERFORMANCE OVERVIEW

Figure 2: DST overall performance: (total number of output targets, n=65)

Performance Status	Count	Percentage
Achieved	55	85%
Partially Achieved	6	9%
Not Achieved	4	6%


10/13/2015 20



DST 2014/15 FINANCIAL YEAR PERFORMANCE OVERVIEW

Of the 65 targets set for the 2014/15 financial year, the Department achieved a total of 55 (85%), with 9% partially achieved and only 6% not achieved (Figure 2).

10/13/2015



21

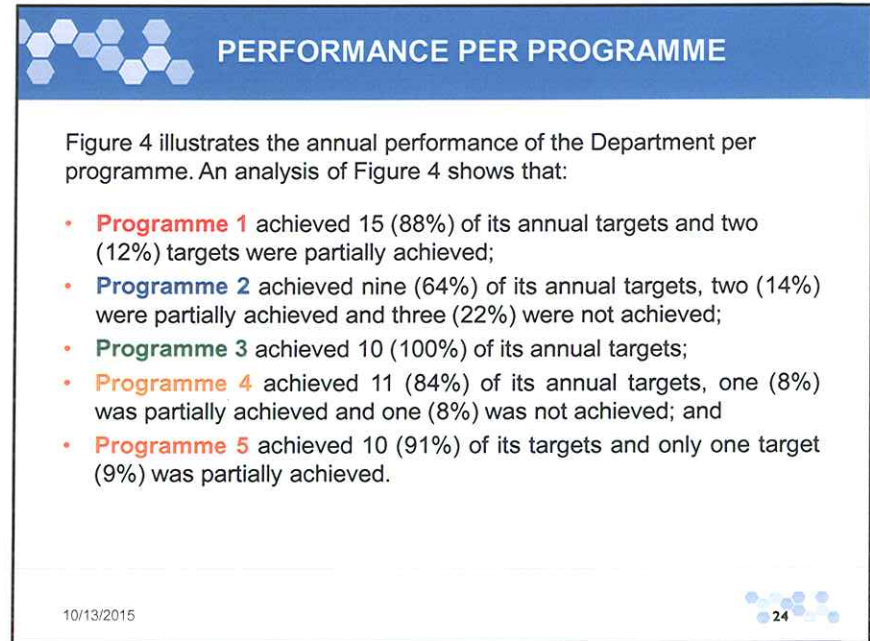
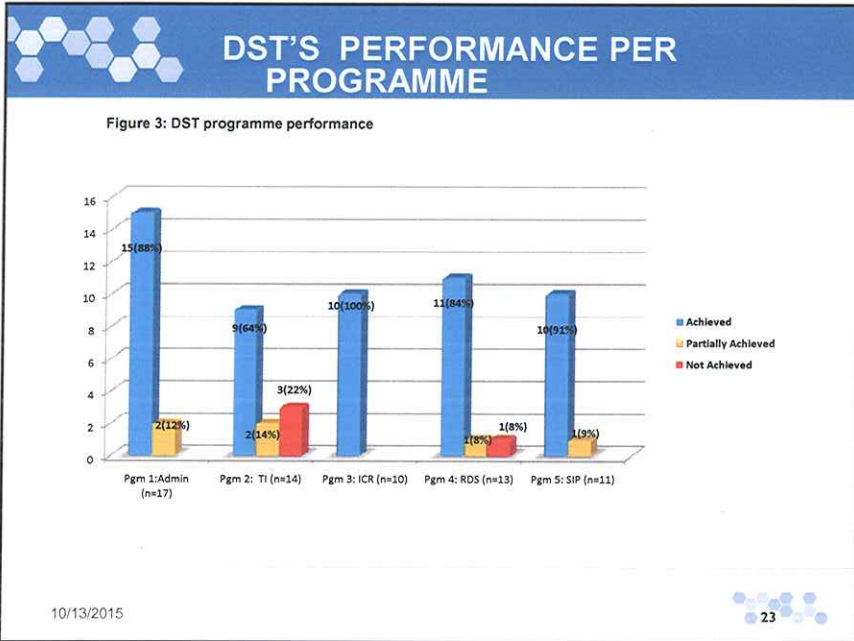


PERFORMANCE PER PROGRAMME

10/13/2015



22



**TARGETS UNDERACHIEVED
AND NOT ACHIEVED**

10/13/2015

25

ANNUAL TARGETS WHICH WERE NOT ACHIEVED OR UNDER ACHIEVED IN THE 2014/15 FINANCIAL YEAR

Annual Target	Actual Achievements	Reasons for non/under-achievement	Status
90% alignment between the 2015 DST ENE and the 2015/16 APP by 31 March 2015.	71.4% alignment between APP and ENE.	The ENE and APP has a lower percentage alignment because the ENE was finalised prior to the finalisation and approval of the Strategic Plan and APP.	Partially Achieved
10 public participation programmes conducted by 31 March 2015.	Seven public participation programmes conducted by 31 March 2015.	This indicator was partially achieved due to the changes in the political leadership of the DST.	Partially Achieved
16 policy instruments developed/implemented by 31 March 2015.	A total of nine policy instruments developed by 31 March 2015.	The three Bio-economy implementation plans, the National Space Programme, the Space Human Capital Development Plan and the Upgrade of the Houwteq Plan and Plans for the two Centres of Competence in Space Science were submitted for EXCO approval. However, EXCO has recommended that changes be made to the documents before resubmitting for approval.	Partially Achieved

10/13/2015

26

ANNUAL TARGETS WHICH WERE NOT ACHIEVED OR UNDERACHIEVED IN THE 2014/15 FINANCIAL YEAR			
Annual Target	Actual Achievements	Reasons for non/under achievement	Status
18 oversight instruments developed/reviewed to strengthen S&T innovation by 31 March 2015.	13 oversight instruments developed/reviewed.	There were delays in reviewing certain documents, which resulted in the non-achievement.	Partially Achieved
11 440 postgraduate students (3 414 BTech and honours, 4 671 master's and 2 665 PhD students) and 690 postdoctoral fellows awarded bursaries through NRF-managed programmes by 31 March 2015.	11 335 postgraduate students and postdoctoral fellows (3 448 honours, 4 263 master's, 2 845 PhD and 779 postdoctoral fellows) awarded bursaries as reflected in the NRF reports.	The target was under-achieved by 1%. It is difficult to project the target exactly, given that postgraduate students at different study levels (honours, master's, PhD and postdoctoral) are awarded different amounts.	Partially Achieved
Four new MeerKAT antennae installed as per SKA specifications by 31 March 2015.	Three MeerKAT antennae installed as per SKA specification.	The original plan has always been to install four antennae by 2014/15. This was therefore a cumulative indicator that includes the one installed by the end of the 2013/14 financial year.	Partially Achieved

10/13/2015 27

ANNUAL TARGETS WHICH WERE NOT ACHIEVED OR UNDERACHIEVED IN THE 2014/15 FINANCIAL YEAR			
Annual Target	Actual Achievements	Reasons for non/under achievement	Status
285 innovation support interventions developed or supported in key strategic areas by 31 March 2015.	A total of 38 innovation support interventions developed or supported as planned.	The IP Creator intervention was phased in with a certificate of recognition this year due to the lack of funds to incentivise the IP creators as per the recommendation of the NIPMO Advisory Board. It is expected that if funds are made available for this incentive scheme, the incentives could be paid from next year onwards in a phased manner.	Not Achieved
One trademark, design, copyright, plant breeder rights in the key strategic areas by 31 March 2015.	No trademark, design, copyright, plant breeder right in the key strategic areas.	Given the nature of research and development, it is difficult to accurately predict the granting of trademarks.	Not Achieved

10/13/2015 28


ANNUAL TARGETS WHICH WERE NOT ACHIEVED OR UNDERACHIEVED IN THE 2014/15 FINANCIAL YEAR

Annual Target	Actual Achievements	Reasons for non/under achievement	Status
One new technology commercialised in strategic areas by 31 March 2015.	No new technology commercialised as planned.	There were project delays in ensuring the finalisation of the ZA African Resource Management Constellation (ZA-ARMC) satellite design. Remedial measures are being taken.	Not Achieved
A Bill for the Protection, Promotion, Development and Management of IKS tabled before Parliament by 31 March 2015.	The Bill was not tabled with the Cabinet as planned.	While the Bill was not tabled before Parliament, it was tabled with the Cabinet (and approved for publication in the Gazette), as the necessary first step in tabling it before Parliament. The delay in submitting it arose out of delayed inputs from cognate departments and the introduction of new administrative steps in the submission of draft Bills.	Not Achieved

10/13/2015 29

DST'S CONTRIBUTION TO THE NSI


10/13/2015 30



KNOWLEDGE GENERATION

- ❑ **Publications**
 - ✓ 5700 research articles published
- ❑ **Centres of Excellence (COE)**
 - ✓ In the reporting period five new Centres of Excellence (COE) were established.
 - ✓ The number of Centres of Excellence increased from eight in 2010/11 to fourteen in 2014/15.
- ❑ **Research Chairs**
 - ✓ On the SARChI programme, to date 153 Research Chairs have been awarded with 150 of them filled to date.
 - ✓ Of the filled SARChI programme positions:
 - 23% are women; and
 - 30% are blacks.
 - ✓ During the reporting period, the Minister approved the awarding of twenty more Research Chairs, reserved for the appointment of female South African citizens and permanent residents


10/13/2015 31



KNOWLEDGE GENERATION

- ❑ **Human Capital Development (HCD)**
 - ✓ 11 335 students received financial support for studying bachelor, honours, master's, doctoral degrees and postdoctoral fellows to during the year under review.
 - ✓ 3 876 researchers were awarded grants through NRF.
 - ✓ 1 190 interns placed in work opportunities.

10/13/2015 32




KNOWLEDGE GENERATION

Infrastructure

In the 2014/15 financial year, the DST's ring-fenced infrastructure allocation of R551.9m supported DST's initiatives such as :

- the Centre for High Performance Computing (CHPC);
- the South African National Research Network (SANReN);
- the Data Intensive Research Initiative of South Africa (DIRISA); and
- the acquisition of international broadband connectivity on the West Africa Cable System (WACS).

10/13/2015  33




KNOWLEDGE EXPLOTATION

Economic and social development


- ✓ The DST contributed to government's initiatives to fight unemployment, inequality and poverty by providing technology-led opportunities for sustainable rural livelihoods development such as:
- The Nkowankowa Demonstration Centre project which has increased production by 300%, thus tripling the economic benefit accruing to farmers, households and employees in the Greater Tzaneen local economy.
- The DST's Rose Geranium Essential Oils portfolio has been successfully transferred to the South African Essential Oils Business Incubator for management, to effectively contribute to Local Economic Development.


10/13/2015  34



KNOWLEDGE EXPLOTATION


- ✓ Eight instruments funded in support of increased localisation (competitiveness) and R&D led industry development by 31 March 2015.
- ✓ 29 knowledge and innovation products in the form of:
 - patents, technology demonstrators technology transfer packages and prototypes) added to the IP portfolio by 31 March 2015.

10/13/2015  35



KNOWLEDGE EXPLOTATION

- **Science for policy decision making**
 - ✓ Four decision support instruments developed and maintained:
 - Two new ones were in sanitation and education.
 - Two maintained ones were in planning (Stepsa), and Disaster Management (Risk and Vulnerability Atlas).

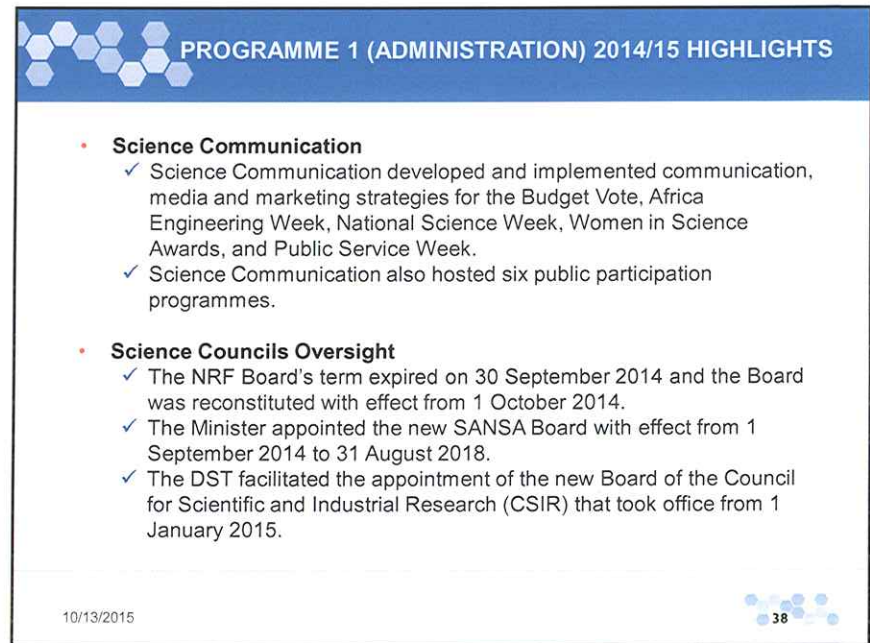
10/13/2015  36



The slide features a background image of solar panels in a field under a blue sky with clouds. A blue banner at the top left contains a hexagonal pattern. A central blue box with rounded corners contains the text 'KEY ACHIEVEMENTS PER PROGRAMME'. The date '10/13/2015' is in the bottom left, and a hexagonal pattern with the number '37' is in the bottom right.

10/13/2015

37



The slide features a background image of solar panels in a field under a blue sky with clouds. A blue banner at the top left contains a hexagonal pattern and the text 'PROGRAMME 1 (ADMINISTRATION) 2014/15 HIGHLIGHTS'. The main content is a bulleted list of achievements. The date '10/13/2015' is in the bottom left, and a hexagonal pattern with the number '38' is in the bottom right.

PROGRAMME 1 (ADMINISTRATION) 2014/15 HIGHLIGHTS

- **Science Communication**
 - ✓ Science Communication developed and implemented communication, media and marketing strategies for the Budget Vote, Africa Engineering Week, National Science Week, Women in Science Awards, and Public Service Week.
 - ✓ Science Communication also hosted six public participation programmes.
- **Science Councils Oversight**
 - ✓ The NRF Board's term expired on 30 September 2014 and the Board was reconstituted with effect from 1 October 2014.
 - ✓ The Minister appointed the new SANSA Board with effect from 1 September 2014 to 31 August 2018.
 - ✓ The DST facilitated the appointment of the new Board of the Council for Scientific and Industrial Research (CSIR) that took office from 1 January 2015.

10/13/2015

38

PROGRAMME 1 (ADMINISTRATION) 2014/15 ACHIEVEMENTS			
Annual Target	Actual Achievements	Reasons for Deviation	Status
Approved 2015/16 DST public entities' Strategic and Annual Performance Plans and signed shareholders' compacts by 31 March 2015.	Strategic Plans and Annual Performance Plans for DST public entities (HSRC, SANSa, TIA, ASSAf, NRF, CSIR and NACI) were approved by the Minister by 5 March 2015 and shareholders' compacts were signed thereafter.	No deviations.	Achieved
Four DST 2014/15 quarterly performance reports approved by Exco and signed by the DG within 60 days after each quarter.	Four DST 2014/15 quarterly performance reports approved by Exco and signed by the DG within 60 days after each quarter.	No deviations.	Achieved
One DST 2013/14 annual report approved by Exco and signed by the DG by 31 May 2014.	One DST 2013/14 annual report approved by Exco and signed by the DG by 31 May 2014.	No deviations.	Achieved

10/13/2015 39

PROGRAMME 1 (ADMINISTRATION) KEY ACHIEVEMENTS			
Annual Target	Actual Achievements	Reasons for Deviation	Status
Nine DST public entities' 2013/14 annual reports submitted to Parliament by 30 September 2014 -- Africa Institute of South Africa (AISA), Academy of Science of South Africa (ASSAf), Council for Scientific and Industrial Research (CSIR), Human Sciences Research Council (HSRC), National Advisory Council on Innovation (NACI), National Research Foundation (NRF), South African Council for Natural Scientific Professions (SACNASP), South African National Space Agency (SANSa) and the Technology Innovation Agency (TIA)].	Nine DST public entities' 2013/14 annual reports submitted to Parliament by 30 September 2014.	No deviations.	Achieved
90 days to fill vacancy after date of advertisement by 31 March 2015.	73 days to fill a vacancy after date of advertisement by 31 March 2015.	Target achieved before 90 days due to faster than expected recruitment processes.	Achieved
Minimum 90% of DST personnel submitting performance contracts and reviews on time by 31 March 2015.	98% of DST personnel's performance contracts and reviews by 31 March 2015.	Reasonable level of compliance by the DST officials.	Achieved


10/13/2015 40

PROGRAMME 1 (ADMINISTRATION) KEY ACHIEVEMENTS


Annual Target	Actual Achievements	Reasons for Deviation	Status
Two Enterprise Architecture Development lifecycle steps developed and implemented by 31 March 2015.	Two Enterprise Architecture Development lifecycle steps were developed and implemented by 31 March 2015.	No deviations.	Achieved
Suppliers paid within 30 days after date of invoice and tender process completed within a 90-day period.	Suppliers paid within 30 days after date of invoice. Tender process completed within 90-day period.	No deviations.	Achieved
Unqualified audit report of financial matters issued by the Auditor-General by 30 September 2014.	Unqualified audit report of financial matters issued by the Auditor-General.	No deviations.	Achieved


10/13/2015 41

- PROGRAMME 2 (TECHNOLOGY INNOVATION) HIGHLIGHTS**
- **Strengthening bio-economy-related R&D in the country**
 - ✓ The DST continued to provide support in the bio-economy arena. This has contributed to South Africa being ranked number 36 among 54 countries in the World Review of Biotechnology (2014).
 - The bio-economy RDI initiatives led by the DST have also resulted in the generation of four publications in journals and one copyright (Copyright on Moringa Vitamin Water). In addition, a total of 154 postgraduate students were supported in the bio-economy-related RDI initiatives.
 - ✓ Other achievements include the following seed-funded project initiatives:
 - A pre-breeding platform for wheat; and
 - A new tripartite bio-entrepreneur programme aligned with the industrial bio-economy plan.
- 10/13/2015 42

 PROGRAMME 2 (TECHNOLOGY INNOVATION) HIGHLIGHTS

- ✓ Other key bio-innovation flagship projects include:
 - The Indigenous Knowledge Systems (IKS) Bioprospecting and Product Development Platform's cosmeceuticals project, which resulted in the signing of an access and benefit-sharing agreement for a skin-tone candidate product between a cosmeceuticals consortium and the community of Kundabakazi in the Eastern Cape in September 2014.
 - The DST investment led to the signing of a Memorandum of Understanding (MoU) between Pfizer Inc. and the North West University (NWU) in June 2014 towards the potential use of Pfizer's genetically modified animal models, for evaluations in oncology, inflammation, immunology, the central nervous system and cardiovascular system disorders.

10/13/2015  43

 PROGRAMME 2 (TECHNOLOGY INNOVATION) HIGHLIGHTS

- **Strengthening innovation and commercialisation**
 - ✓ The 2014/15 financial year was a watershed year for NIPMO in terms of promoting, protecting and commercialising intellectual property emanating from publicly financed research and development in higher education institutions and science councils.
 - ✓ NIPMO hosted the World Intellectual Property Organisation (WIPO) Summer School on Intellectual Property (IP) and Technology Transfer, and implemented the Technology and Innovation Support Centres (TISC) through the Offices of Technology Transfer (OTTs) at institutions.
 - ✓ The first NIPMO Incentive Scheme Guideline for Intellectual Property Creators (IP Creators) was completed during the period under review. This resulted in more than 360 IP Creators being awarded a Certificate of Recognition for their role in the creation of an invention for which a South African patent was granted.

10/13/2015  44

PROGRAMME 2 (TECHNOLOGY INNOVATION) ACHIEVEMENTS

Annual Target	Actual Achievements	Reasons for Deviation	Status
352 postgraduate students (MSc, PhD) financially supported in key strategic areas by 31 March 2015.	A total of 406 postgraduate students (MSc, PhD) financially supported in key strategic areas by 31 March 2015.	The targets are based on the previous year's estimates and may vary on a yearly basis, especially as some students may complete their courses faster or slower than their stipulated period of completion.	Achieved
Six postgraduate students (MSc, PhD) produced in key strategic areas by 31 March 2015.	A total of 10 postgraduate students produced.	The targets are based on the previous year's estimates and may vary on a yearly basis, especially as some students may complete their courses faster or slower than their stipulated period of completion.	Achieved
340 trainees supported in key strategic areas by 31 March 2015.	364 trainees supported in key strategic areas.	There was a greater interest and participation from individuals in attending workshops conducted and hosted by the Department.	Achieved
Six new technology innovation products developed/supported in key strategic areas projects by 31 March 2015.	Six new technology innovation products developed/supported in key strategic areas projects.	None	Achieved

10/13/2015 45

PROGRAMME 2 (TECHNOLOGY INNOVATION) ACHIEVEMENTS

Annual Target	Actual Achievements	Reasons for Deviation	Status
Three new patents in key strategic areas registered/granted by 31 March 2015.	A total of three new patents in key strategic areas registered and granted.	None	Achieved
250 disclosures reported by publicly funded institutions by 31 March 2015.	251 disclosures reported by publicly funded institutions by 31 March 2015.	The targets are based on previous years' estimates and may vary on a yearly basis.	Achieved

10/13/2015 46



**PROGRAMME 3 (INTERNATIONAL COOPERATION RESOURCES)
HIGHLIGHTS**

- **Implementation of Overseas Bilateral Cooperation initiatives**
 - ✓ The subprogramme successfully managed a diverse portfolio of bilateral relations with countries in the Americas, Asia, Australasia and Europe, to develop and implement cooperation initiatives aimed at benefiting South African access to STI international experience and expertise.
 - ✓ The major highlight was Minister Pandor's attendance of a Science and Technology Ministerial Meeting of the Brazil, Russian Federation, India, China and South Africa (BRICS) group which resulted in the signing of the first BRICS MoU on cooperation in STI initiatives.
 - ✓ Individual relations with BRICS partners were also strengthened, for example through the signing of a new cooperation agreement with the Russian Federation, during Minister Pandor's visit to that country in October 2014.
 - ✓ In the Americas new initiatives, for example in the marine sciences, were launched with Argentina, while in the Caribbean a biotechnology cooperation with Jamaica was initiated.

10/13/2015  47



**PROGRAMME 3 (INTERNATIONAL COOPERATION RESOURCES)
HIGHLIGHTS**

- **Strengthening STI partnerships with other African countries**
 - ✓ Heads of State of the African Union adopted, in July 2014, the comprehensive new "Strategy for Science, Technology and Innovation in Africa" or STISA, a ten-year framework for enhancing continental cooperation and integration.
 - ✓ The Department is at the forefront of the preparation of implementation plans for STISA, an engagement agreed during the visit to South Africa by the African Union Commissioner for Human Resources, Science and Technology, Prof. Paul Ikounga.
 - ✓ As part of South Africa's Presidency of the Science and Technology Centre of the Non-Aligned Movement (NAM), a course on minerals processing and beneficiation was presented in South Africa, which resulted in the enrolment of not only South African students, but also students from several other developing nations.

10/13/2015  48

PROGRAMME 3 (INTERNATIONAL COOPERATION RESOURCES) HIGHLIGHTS

- Strengthening STI International Resources**
 - ✓ The DST's strategic partnerships with the EU and philanthropic organisations such as the Bill and Melinda Gates Foundation attracted foreign investment in the country related to new joint funding programmes in the areas of water and sanitation technology, and health of women and children.
 - ✓ Other initiatives include the multi-billion rand European Developing Countries Clinical Trials Partnership (EDCTP) launched in December 2014 in Cape Town. The programme strives to accelerate the development of new drugs, vaccines and other interventions for the fight against infectious, especially neglected, diseases.

10/13/2015 49

PROGRAMME 3 (INTERNATIONAL RESOURCES AND COOPERATION) ACHIEVEMENTS


Annual Target	Actual Achievement	Reasons for Deviation	Status
R354 600 000 foreign STI funds secured from international partners through agreed instruments for knowledge production, technology transfer, enhanced innovation, and STI human capital development by 31 March 2015.	R634 436 204 foreign STI funds leveraged by 31 March 2015.	The overachievement was due to an increase in funding from international partners because of the successes of NSI partners in competitive STI initiatives.	Achieved
R84 300 000 national STI funds secured for knowledge production, technology transfer, enhanced innovation, and STI human capital development by 31 March 2015.	R119 552 773 national STI funds secured for knowledge production, technology transfer, enhanced innovation, and STI human capital development by 31 March 2015.	The overachievement was due to increased participation by African partners, increased multilateral organisational participation and improvements in the quality of reporting.	Achieved
32 specialist or joint technical workshops, policy dialogues, symposia or conferences accessed, hosted, facilitated, or contributed to for participation by South African researchers and students by 31 March 2015.	A total of 56 specialist or joint technical workshops, policy dialogues, symposia or conferences accessed, hosted, facilitated, or contributed to for participation by South African researchers and students by 31 March 2015.	The overachievement was as a result of increased activities with the EU partners, as well as strengthening partner relationships on the African continent.	Achieved

10/13/2015 50

PROGRAMME 3 (INTERNATIONAL RESOURCES AND COOPERATION) ACHIEVEMENTS			
Annual Target	Actual Achievement	Reasons for Deviation	Status
19 regional continental and/or global initiatives led by South Africa by 31 March 2015.	A total of 26 regional continental and/or global initiatives led by South Africa by 31 March 2015.	An additional three multilateral engagements that were not anticipated were supported	Achieved
Six regional, continental and/or multilateral governance systems supported by means of capacity building by 31 March 2015.	Seven regional, continental and/or multilateral governance systems supported by means of capacity building by 31 March 2015.	Multilateral Cooperation and Africa participated in the Africa Higher Education Summit which was a request received from Rwanda, which was not included during the planning process.	Achieved
44 international human capital development opportunities accessed for participation by South African researchers and students by 31 March 2015.	67 international human capital development opportunities accessed for participation by South African researchers and students by 31 March 2015.	The overachievement is due to increased participation in EU-Africa initiatives, as well as an increase in joint committees with Africa partner countries.	Achieved
1 456 South African researcher and student participants in international human capital development opportunities by 31 March 2015.	2 143 South African researcher and student participants in international human capital development opportunities by 31 March 2015.	There were more joint projects approved with international partners, e.g. Japan, India, Argentina and Korea, than was anticipated during the planning phase.	Achieved


10/13/2015 51


PROGRAMME 4 HIGHLIGHTS: RESEARCH DEVELOPMENT AND SUPPORT	
<ul style="list-style-type: none"> Implementation of Science Missions: Exploitation of South Africa's geographical advantage <ul style="list-style-type: none"> ✓ A review by an international panel of the Applied Centre for Climate and Earth Systems Science (ACCESS), under the leadership of the National Research Foundation, was successfully completed by October 2014. It recommended the repositioning of ACCESS as a Centre of Excellence (CoE). ✓ Indigenous Knowledge Systems (IKS): An evaluation of the implementation of the IKS policy was selected for inclusion in the National Evaluation Plan. This is a joint evaluation between the DST and the Department of Planning, Monitoring and Evaluation. The outcome of the evaluation will assist in charting the future course for IKS. 	<p>10/13/2015 52</p>



PROGRAMME 4 HIGHLIGHTS: RESEARCH DEVELOPMENT AND SUPPORT


- **Strengthening Human Capital Development and Science Promotion**
 - ✓ On the human capital development front the following results can be reported:
 - 500 students have been supported at undergraduate levels, of which 443 have graduated.
 - 700 students and postdoctoral fellows have been supported through the SKA SA Bursary and Scholarship Programme and the National Astrophysics and Space Physics Programme.
 - The SKA Bursary Programme can be commended for its high graduation rate (89%), which is considerably higher than the national averages for the same levels of study, which are below 50%.

10/13/2015  53



PROGRAMME 4 HIGHLIGHTS: RESEARCH DEVELOPMENT AND SUPPORT

- **Strengthening Human Capital Development and Science Promotion**
 - ✓ The number of students funded through the NRF increased to 11 335 in the 2014/15 financial year.
 - ✓ This represents an increase of 1 564 from the previous financial year.
 - ✓ The percentages of funded black and women students were 62% and 53%, respectively.
 - ✓ Plans to disburse a new injection of R300m per annum towards increasing bursary values and the number of students awarded bursaries were completed during the reporting period.

10/13/2015  54

PROGRAMME 4 HIGHLIGHTS: RESEARCH DEVELOPMENT AND SUPPORT

- Stimulation of the development of astronomical sciences**
 - ✓ The first four MeerKAT dishes with the sub-reflectors were installed at the Karoo site.
 - ✓ The Minister hosted a successful 2nd SKA African Partner Countries Ministerial Meeting in Pretoria on 25 March 2015, which resulted in the SKA/AVN Readiness Strategy approved for implementation of the Big Data Africa Programme, with a focus on astronomy.
 - ✓ The National Multi-Wavelength Astronomy Strategy, a culmination of the Astronomy Desk and the DST's work, was approved by the DST Exco during the period under review.
 - ✓ In terms of strategic partnerships, astronomy-specific bilateral relations have been forged with the Netherlands, India, China, the United Kingdom and the United States of America.

10/13/2015 55

PROGRAMME 4 (RESEARCH DEVELOPMENT AND SUPPORT) ACHIEVEMENTS

Annual Target	Actual Achievement	Reasons for Deviation	Status
1 000 graduates and students placed in DST-funded work preparation programmes in science, engineering and technology institutions.	1 021 graduates and students placed in DST-funded work preparation programmes in science, engineering and technology institutions.	The value of the individual internships depends on the qualification levels of the individual interns, and the number of awards made at the different levels is thus dependent on the distribution of the qualification levels across the pool of interns.	Achieved
60 research infrastructure grants awarded as per award letters by 31 March 2015.	69 grants have been awarded in the four categories of research infrastructure: <ul style="list-style-type: none"> ▪ Specialised facilities; ▪ Global infrastructure; ▪ Scientific equipment; and ▪ High-end and Cyber infrastructure. 	Because the individual grants awarded were smaller than anticipated, the overall allocation could be spread across a larger number of proposals, hence leading to the positive deviation.	Achieved
2 800 Mbps average bandwidth capacity availability per South African National Research Network (SANReN) site by 31 March 2015.	2 820 average bandwidth capacity availability per South African National Research Network (SANReN) site.	Broadband capacity upgrades at various existing SANReN sites increased the network's average capacity bandwidth availability per site.	Achieved

10/13/2015 56

PROGRAMME 4 (RESEARCH DEVELOPMENT AND SUPPORT) ACHIEVEMENTS			
Annual Target	Actual Achievement	Reasons for Deviation	Status
3 876 researchers awarded research grants through NRF-managed programmes as reflected in the NRF project reports by 31 March 2015.	4 064 researchers awarded research grants through NRF-managed programmes as reflected in the NRF reports.	Target was exceeded by 5%. It is difficult to project this target accurately given the differing research grant sizes for the researchers, thus leading to some uncertainty (i.e. variability) in the number of grants awarded.	Achieved
5 700 ISI-accredited research articles published by NRF-funded researchers by 31 March 2015.	6 470 ISI research articles published by NRF-funded researchers as reflected in the NRF project reports.	This target is also dependent on some factors that cannot be determined by the NRF and DST.	Achieved
One implementation plan for the science, technology, engineering, mathematics and innovation promotion and engagement strategy for the NSI approved by Exco by 31 March 2015.	One implementation plan for the science, technology, engineering, mathematics and innovation promotion and engagement strategy for the NSI approved by Exco by 31 March 2015.	No deviation.	Achieved
One Marine and Antarctic Research Strategy approved by Exco by 31 March 2015.	One Marine and Antarctic Research Strategy approved.	No deviation.	Achieved

10/13/2015 57

PROGRAMME 5 HIGHLIGHTS: SOCIO-ECONOMIC INNOVATION PARTNERSHIP	
<ul style="list-style-type: none"> • Implementation of Sector Innovation and Green Economy <ul style="list-style-type: none"> ✓ During the period under review, the DST Exco approved the National Water Research, Development and Innovation (RDI) Roadmap. The roadmap has two broad focus areas: <ul style="list-style-type: none"> Water supply: <ul style="list-style-type: none"> • Increase ability to make use of more sources of water, including alternatives; • Improve governance, planning and management of supply and delivery; • Improve adequacy and performance of supply infrastructure; and • Run water as a financially sustainable "business" by improving operational performance. Water demand: <ul style="list-style-type: none"> • Improve governance, planning, and management of demand and use; • Reduce losses and increase efficiency of productive use; and • Improve performance of pricing, monitoring, billing, metering and collection. ✓ In February 2015, the DST, in partnership with ASSAf, launched the "State of Green Technologies in South Africa" report which aims to document green technologies currently utilised in South Africa. 	<p>10/13/2015 58</p>

PROGRAMME 5 HIGHLIGHTS: SOCIO-ECONOMIC INNOVATION PARTNERSHIP

- Promotion of Innovation for Inclusive Development**
 - ✓ The Nkowankowa Demonstration Centre project has now registered as a Pty Ltd under the name Wolkberg Fruit Processors (WFP).**
 - ✓ This project is now advancing towards becoming a financially sustainable entity and it has increased production by 300%, thus tripling the economic benefit accruing to farmers, households and employees in the Greater Tzaneen local economy.**
 - ✓ The Rose Geranium Essential Oil portfolio has been successfully transferred to the South African Essential Oil Business Incubator for management.**
 - ✓ The process resulted in the strengthening and consolidation of government's efforts to build an inclusive essential oils industry and increased the project's contribution to local economic development.**

10/13/2015 59

PROGRAMME 5 ACHIEVEMENTS PER PROGRAMMES

Annual Target	Actual Achievement	Reasons for Deviation	Status
One knowledge product for government planning and service delivery improvement through innovation in water published by 31 March 2015.	One knowledge product (the Policy Brief on the Point of Use Water Treatment Technologies) published on the DST website by 31 March 2015.	No deviation.	Achieved
10 master's and doctoral students fully funded or co-funded in designated niche areas (sustainable development, and the greening of society and the economy) by 31 March 2015.	11 master's and doctoral students fully funded or co-funded in designated niche areas (sustainable development, and the greening of society and the economy) by 31 March 2015.	No deviation.	Achieved
255 master's and doctoral students fully funded or co-funded in designated niche areas (advanced manufacturing, aerospace, chemicals, mining, advanced metals and ICTs) by 31 March 2015.	353 master's and doctoral students fully funded or co-funded in designated niche areas (advanced manufacturing, aerospace, chemicals, mining, advanced metals and ICTs) by 31 March 2015.	The demand for bursaries is high and the DST's allocation is therefore distributed in such a way that most of the recipients are co-funded from other sources.	Achieved

10/13/2015 60

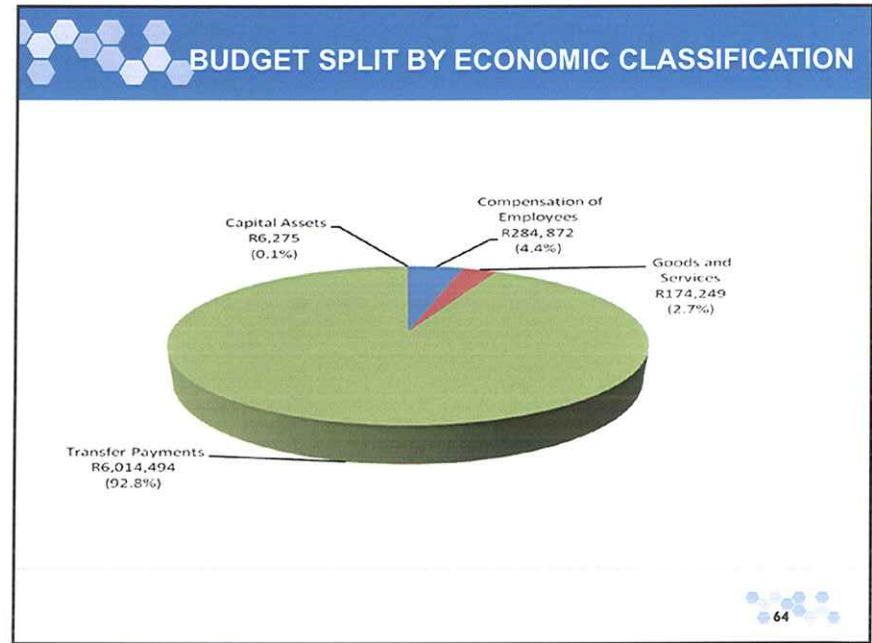
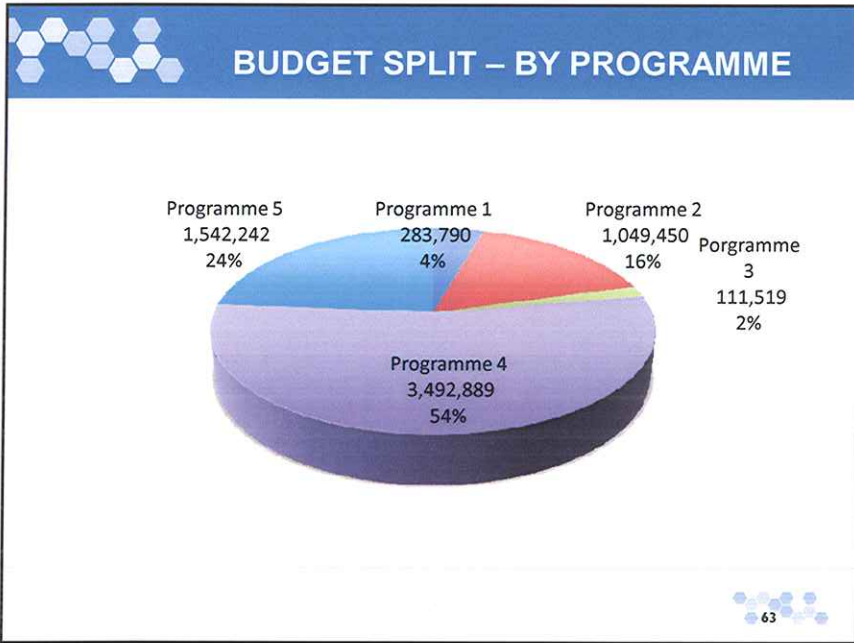
PROGRAMME 5 ACHIEVEMENTS PER PROGRAMMES

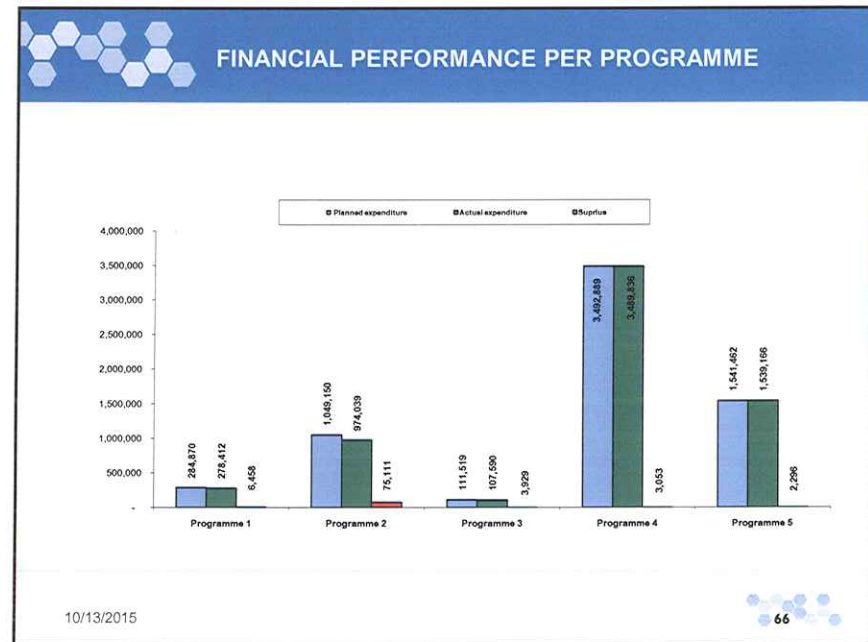
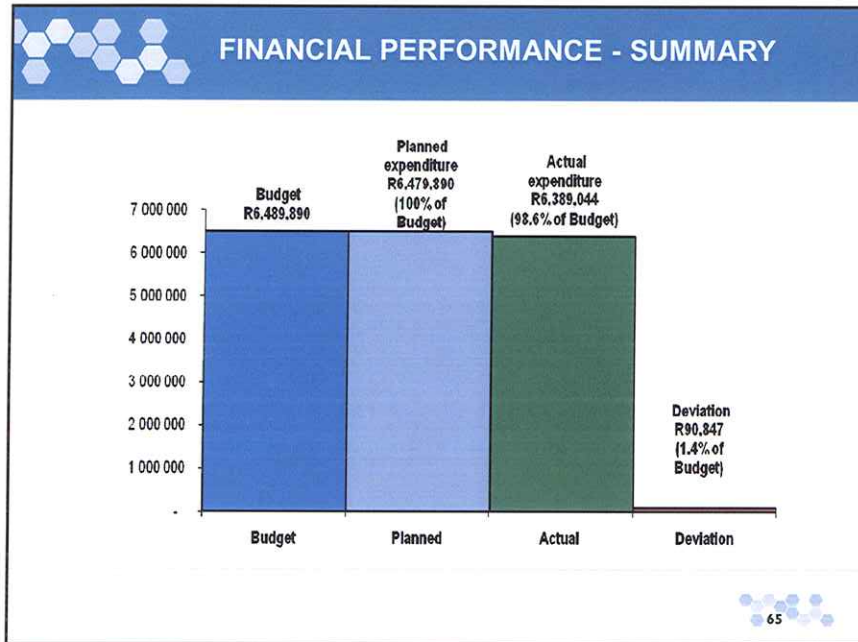
Annual Target	Actual Achievement	Reasons for Deviation	Status
20 knowledge and innovation products added to the IP portfolio by 31 March 2015.	29 knowledge and innovation products added to the IP portfolio by 31 March 2015.	IP portfolio additions are difficult to anticipate due to the complexity of the work being done and it is also based on market demand.	Achieved
Eight instruments funded in support of increased localisation, competitiveness and R&D-led industry development by 31 March 2015.	Eight instruments funded in support of increased localisation, competitiveness and R&D-led industry development by 31 March 2015.	No deviation.	Achieved

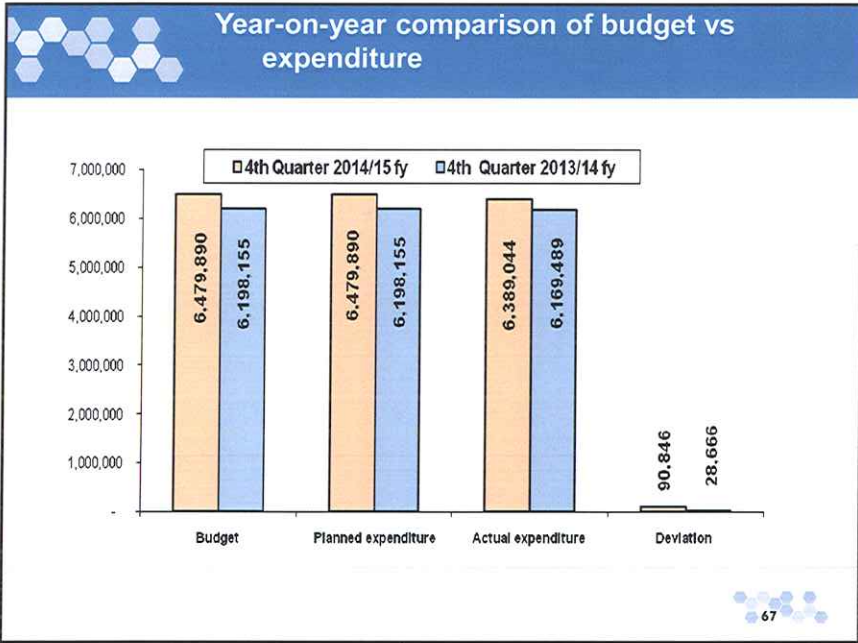
10/13/2015 61

FINANCIAL PERFORMANCE AND CONCLUSION

10/13/2015 62







CONCLUSION

The NDP acknowledges the role that STI can play in addressing poverty, unemployment and inequality in the country.

In contribution to government efforts to address the above social ills, the DST has made substantial progress in enhancing knowledge production, growth and transformation of the pool of knowledge workers, and knowledge exploitation for a better life for all.

The DST will continue to work towards another clean audit in the next financial year by promoting operational efficiency in all levels of its operations.

