

PROGRAMME 4: TECHNICAL INDICATOR DESCRIPTIONS 2017/18_{v2}

Performance Indicator 1:

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| Medium-term objectives, measure/indicator, outputs, and targets To build world-class STI infrastructure to extend the frontiers of knowledge, train the next generation of researchers and enable technology development and transfer as well as knowledge interchange | | Output Name: Research infrastructure grants | Date: 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans) | | Provision of research and innovation infrastructure | |
| Objective Statement and definition (also supported by Indicator Definitions) | | To ensure availability of and access to internationally comparable research and innovation infrastructure in order to generate new knowledge and train new researchers. | |
| Indicator title | | Number of research infrastructure grants awarded as per award letters annually 31 March 2018. | |
| Purpose of indicator | To ensure the availability of appropriate infrastructure for enhancement of RDI competitiveness | Type of indicator | Input indicator |
| Measure / Indicator Definition | Number of research infrastructure grants awarded as per award letters across all the 5 research infrastructure categories and to the research community across the entire NSI. Research infrastructure refers to the equipment and physical infrastructure (such as pilot plants and technology demonstrations) that will be used to train the researchers | Measure / Indicator Formula | Number of research infrastructure grants awarded as per award letters per annum We use the ratio 1:5, one equipment will provide access to 5 researchers and 1:10 for researcher to students training opportunities That is, if 70 research grants are awarded then 350 researchers will have access to it and 3 500 students having training access |
| New Indicator | Target continues from the previous year | Desired performance | High performance is desired |
| Measure / Indicator Owner | Charles Mokonoto, Director: Infrastructure | Worked example | To award 30 research infrastructure across the system |
| Target set for current year | Annual target: 30-research infrastructure grants awarded per award letters annually by 31 March 2018. Q1- No target Q2- Contracting with SARIR hosting entities finalised by 30 September 2017 Q3- No target Q4- 30 research infrastructure grants awarded as per award letters. | Target achieved | Q1 - Q2 - Q3 - |

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| Data limitations | The collection of data is partially (for the awards made through the National Equipment Programme of the NRF) done by the implementing agency and the process is not in the control of the DST. The data for the awarding of high-end infrastructure is collated by the department internally. |
| Reasons for variances between the target set and actual achieved | There is no variance at this stage |

| Collection of source data to enable effective reporting on the adopted output measure / indicator | | | |
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| Source data | | Contracts with implementing agency (NRF) and other DST entities such as the CSIR Quarterly and annual report from implementing agency (NRF) and other DST entities such as the CSIR BAS payment form to transfer funds to implementing agencies Award letters | |
| Collection Frequency of Source data | | Data is collected quarterly and annually | |
| Archiving of Source Data | | Data is stored on Alfresco | |
| Type of information to be extracted from the source data | | Data on the human capital developed and a result of the equipment placement and bibliometric data such as publications, citations and patents (Human capital development is an important indicator as one of the key outputs over and above publications and citations– how many students have been trained using the equipment, and how many have graduated as a result of the new equipment). | |
| IT Systems/ Tools used to capture extracted data | | The data is presented to the DST in the form of report which are then stored and saved on Alfresco | |
| Source Data Capturing Frequency | | Biannually | |
| Individual(s) responsible for collecting the source data | D: Infrastructure | Individual(s) responsible for filing/ archiving the collected source data | DD: Infrastructure |
| Individual(s) responsible for extracting the required information from the source data | DD: Infrastructure | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | D: Infrastructure CD: BSI |
| Individual(s) responsible for capturing the extracted information onto the IT System | DD: Infrastructure | Individual(s) responsible for verifying the accuracy and completeness of the captured information | D: Infrastructure CD: BSI |

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information

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| Performance Information Source | | | | Alfresco | | | |
| Type of performance information to be extracted/ used | | | | Type of an equipment, amount or grant awarded for the equipment, institution where the equipment has been placed, principal researcher, number of students. | | | |
| Calculations required on extracted information | | | | Number of grants awarded | | | |
| Archiving of Extracted / Recalculated Information | | | | Reports filed and saved on Alfresco | | | |
| Return Format | | | | Word documents | | | |
| Reporting Frequency | | | | Biannually | | | |
| Individual(s) responsible for extracting, calculating and consolidating the reported performance information | | Director: Infrastructure | | Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information | | Director: Infrastructure CD: BSI | |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | | Director: Infrastructure | | Individual(s) responsible for sending the information in the required return format to the ----- | | Director: Infrastructure | |

Performance Indicator 2:

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| Medium-term objectives, measure/indicator, outputs, and targets To build world-class STI infrastructure to extend the frontiers of knowledge, train the next generation of researchers and enable technology development and transfer as well as knowledge interchange | | Output Name: A gigabit per second total available broadband capacity network providing transmission of data to all research and academic institutions | Date: 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans) | | Provision of research and innovation infrastructure | |
| Objective Statement and definition (also supported by Indicator Definitions) | | To ensure availability of and access to internationally-comparable research and innovation infrastructure in order to generate new knowledge and train new researchers | |
| Indicator title | | Total available broadband capacity provided by SANReN per annum by 31 March 2018 | |
| Purpose of indicator | To ensure sufficient broadband capacity is available for transmission of data to and from research and academic institutions connected to SANReN | Type of indicator | This is an input indicator, which also assesses performance such as efficiency. |
| Measure / Indicator Definition | Total available broadband capacity through SANReN at 31 March 2018 Increased availability of broadband connectivity for Research and Development, Education and Innovation Initiatives (e.g. SKA) | Measure / Indicator Formula | Total available broadband capacity = Available link bandwidths summed across all the active links of SANReN Assumptions: <ul style="list-style-type: none"> • Links consist of the combination of transmission equipment and the connecting circuit; • Active links considered in the calculation include those where SANReN has invested in the transmission equipment and/or the connecting circuit. |
| New Indicator | Target continues from the previous year | Desired performance | Higher performance, as it measures also the available capacity provided to transport data to and from research and academic sites connected to SANReN. |
| Measure / Indicator Owner | Charles Mokonoto, Director: Infrastructure | Worked example | Say there are 3 links active in SANReN with individual available capacities as follows: Link1 bandwidth = 100Gbps, Link2 bandwidth = 10Gbps, Link3/ Link3 bandwidth = 1 Gbps |

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| | | | Total available capacity = 100Gbps + 10Gbps + 1 Gbps = 111Gbps. |
| Target set for current year | <p>Annual target: 3200 Gbps total available broadband capacity provided by SANReN by 31 March 2018</p> <p>Q1 – No target Q2 - New links and upgrade plan finalised by 30 Sept. 2017 Q3 – No target Q4 – 3 200 Gbps broadband capacity provided by SANReN by 31 Mar. 2018</p> | Target achieved | Q1 - Q2 – Q3 -. |
| Data limitations | The collection of data is done by the CSIR and the process not in the control of the DST. However, the DST has the opportunity to interrogate the data presented to them in the form of presentations, as well as through visual inspection of the implemented circuits and transmission equipment feeding these circuits. | | |
| Reasons for variances between the target set and actual achieved | No recorded at this stage | | |

2. Collection of source data to enable effective reporting on the adopted output measure / indicator

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| Source data | Audited reports from the CSIR (NICIS annual report) Acceptance of Link Delivery certificates, signed by IT Departments of connected sites, will be produced from 31 March 2017 for new links The CSIR's supply contracts with the suppliers of SANReN links, as well as transmission equipment. CSIR should send a signed letter with bandwidth calculation | | |
| Collection Frequency of Source data | Data is collected Quarterly and Annually | | |
| Archiving of Source Data | The CSIR audited reports are stored in Alfresco | | |
| Type of information to be extracted from the source data | Total available capacity provided by SANReN at the end of the reporting period is extracted from the NICIS audited report. | | |
| IT Systems/ Tools used to capture extracted data | Reports are prepared in MS Word and stored on Alfresco | | |
| Source Data Capturing Frequency | bi-annual | | |
| Individual(s) responsible for collecting the source data | D: Infrastructure | Individual(s) responsible for filing/ archiving the collected source data | DD: Cyber Infrastructure |
| Individual(s) responsible for extracting the required information from the source data | D: Infrastructure | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | D: Infrastructure CD: BSI |
| Individual(s) responsible for capturing the extracted | D: Infrastructure | Individual(s) responsible for verifying the accuracy and | DD: Infrastructure CD: BSI |

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| information onto the IT System | | completeness of the captured information | |
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| 3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information | | | |
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| Performance Information Source | | Alfresco | |
| Type of performance information to be extracted/ used | | Total available broadband capacity provided by SANReN at 31 March 2018 | |
| Calculations required on extracted information | | Total available broadband capacity provided by SANReN at 31 March 2018 | |
| Archiving of Extracted / Recalculated Information | | Reports filed and saved on Alfresco | |
| Return Format | | Word documents | |
| Reporting Frequency | | bi-annually | |
| Individual(s) responsible for extracting, calculating and consolidating the reported performance information | Director: Infrastructure | Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information | Director: Infrastructure CD: BSI |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | Director: Infrastructure | Individual(s) responsible for sending the information in the required return format to the ----- | Director: Infrastructure |

Performance Indicator 3:

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| Medium-term objectives, measure/indicator, outputs, and targets To enhance South Africa's knowledge-generation capacity in order to produce world-class research outputs and turn some advanced findings into innovation products and processes. | | Output Name Internationally accredited research articles from researchers awarded research grants through NRF-managed programmes. | Date 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans) | | Production of new knowledge | |
| Objective Statement and definition (also supported by Indicator Definitions) | | To support and promote research that develops basic sciences through production of new knowledge and relevant training opportunities | |
| Indicator title | | Number of research articles published by NRF-funded researchers and cited in the Thomson Reuters Web of Science Citation Database as reflected in the NRF project reports by 31 March 2018. | |
| Purpose of indicator | To measure the research outputs in the form of research articles published in internationally recognised, peer-reviewed (cited in the Thomson Reuters Web of Science Citation Database) | Type of indicator | Output |
| Measure / Indicator Definition | Number of accredited research articles published by NRF-funded researchers and cited in the Thomson Reuters Web of Science Citation Database as reflected in the NRF project reports. The articles reported on are those published within the financial year (1 April to 31 March) and each article reported on is distinct. | Measure / Indicator Formula | Approximately 1.6 research output units per NRF funded researcher. |
| New Indicator | Continues from the previous financial year | Desired performance | High – research articles published by NRF – funded researchers and cited in the Thomson Reuters Web of Science Citation Database |
| Measure / Indicator Owner | Director: Research Support (RS) | Worked example | 4.500 NRF funded researchers producing 7 200 research articles and cited in the Thomson Reuters Web of Science Citation Database |

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| Target set for current year | Annual: No fewer than 7 000 research articles published by NRF-funded researchers and cited in the Thomson Reuters Web of Science Citation Database as reflected in the NRF project reports by 31 March 2018 Quarterly: Q1 - No target Q2 - No target Q3 - No target Q4 - No fewer than 7 000 research articles published by NRF-funded researchers and cited in the Thomson Reuters Web of Science Citation Database as reflected in the NRF project reports by 31 March 2018 | Target achieved | This is an annual target. There are no quarterly targets. |
| Data limitations | The collection of data is done by the implementing agency and the comprehensive information is only available after the close of the financial year (4 th quarter). The articles reported on are those published within the financial year (1 April to 31 March) and each article reported on is distinct. | | |
| Reasons for variances between the target set and actual achieved | To be recorded during reporting, if applicable | | |

| 2. Collection of source data to enable effective reporting on the adopted output measure / indicator | | | |
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| Source data | Consolidated HCD contracts entered into with the NRF on funding of researchers. BAS Forms on Funds Transferred relating to the funds in the consolidated contract. NRF project reports on accredited research papers Database or list of peer-reviewed accredited research papers published The articles reported on are those published within the financial year (1 April to 31 March) and each article reported on is distinct. | | |
| Collection Frequency of Source data | Annually | | |
| Archiving of Source Data | Alfresco. | | |
| Type of information to be extracted from the source data | Number of accredited research articles published by NRF-funded researchers. | | |
| IT Systems/ Tools used to capture extracted data | Alfresco | | |
| Source Data Capturing Frequency | Annually | | |
| Individual(s) responsible for | Deputy Directors in the RS unit | Individual(s) responsible for filing/ | Deputy Director: High End Skills |

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| collecting the source data | | archiving the collected source data | |
| Individual(s) responsible for extracting the required information from the source data | Deputy Director: High End Skills | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | Director: RS unit CD: HCSP |
| Individual(s) responsible for capturing the extracted information onto the IT System | Deputy Director: High End Skills | Individual(s) responsible for verifying the accuracy and completeness of the captured information | Director: RS unit CD: BSI |

| 3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information | | | |
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| Performance Information Source | Alfresco/Funded researchers - research articles in the Thomson Reuters Web of Science Database | | |
| Type of performance information to be extracted/ used | Published research articles | | |
| Calculations required on extracted information | Sum of research articles in the Thomson Reuters Web of Science Database published by NRF-funded researchers | | |
| Archiving of Extracted / Recalculated Information | Alfresco. | | |
| Return Format | Spreadsheet. | | |
| Reporting Frequency | Annually | | |
| Individual(s) responsible for extracting, calculating and consolidating the reported performance information | Deputy Director: High End Skills | Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information | Director: RS CD: HCSP |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | Deputy Director: High End Skills | Individual(s) responsible for sending the information in the required return format to the ----- | Director: RS |

Performance Indicator 4

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| Medium-term objectives, measure/indicator, outputs, and targets To enhance South Africa's knowledge-generation capacity in order to produce world-class research outputs and turn some advanced findings into innovation products and processes. | | Output Name Graduates and students placed in DST-funded work preparation programmes in science, engineering and technology institutions (SETI) | Date 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans | | Contribute to human capital development | |
| Objective Statement and definition (also supported by Indicator Definitions) | | To contribute to the development of representative, high-level human capital able to pursue locally relevant, globally competitive research and innovation activities. | |
| Indicator title | | Total number of graduates and students placed in DST-funded work preparation programmes in SETI institutions by 31 March 2018. | |
| Purpose of indicator | To measure the number of graduates and students placed in DST-funded work preparation programmes in order to gain the necessary work experience | Type of indicator | Input indicator |
| Measure / Indicator Definition | Total number of graduates and students placed in DST-funded work preparation programmes (through internship programme , PDP, National Youth Service and experiential learning) in science, engineering, technology and innovation (SETI) institutions | Measure / Indicator Formula | Total number of graduates and students placed through DST/NRF Internship Programme and National Youth Service |
| New Indicator | Continuing indicator but also made smarter and inclusive of a number of workplace preparation programmes | Desired performance | High – a number of graduates and students placed in DST-funded work preparation programmes |
| Measure / Indicator Owner | Director: Research Support and Director: Science Promotion | Worked example | Total number of graduate/students placed = No. of internships supported students (140) + No. of PDP fellows supported (80) + No. of National Youth Service Students (40) + No. of Experiential learning programme students (0) = 180 total number of graduates/students |
| Target set for current year | Annual: 800 ¹ graduates and students placed in DST- | Target achieved | Actual target achieved. Q1 – 708 (622+86) Q2 – 747 (622+125) |

¹ Owing to cuts made to the DST-NRF Internship Programme (following Economic Competitiveness Support Package cuts announced on 18 January 2016) the MTEF targets had to be lowered.

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| | <p>funded work preparation programmes in SETI institutions by 31 March 2018</p> <p>Quarterly:</p> <p>Q1 - 533 graduates and students placed in DST-funded work preparation programmes in SETI institutions by 30 June 2017</p> <p>Q2 –600 graduates and students placed in DST-funded work preparation programmes in SETI institutions by 30 September 2017</p> <p>Q3 – 720 graduates and students placed in DST-funded work preparation programmes in SETI institutions by 31 December 2017</p> <p>Q4 – 800 graduates and students placed in DST-funded work preparation programmes in SETI institutions by 31 March 2018</p> | | <p>Q3 –</p> <p>Q4 –</p> <p>YTD - :</p> |
| Data limitations | Data focuses on students and graduates that have been placed in the programme in a given year. The success rate of employment can be determined after the internship year. The database for the total number of graduates and interns to be available at the end of the financial year | | |
| Reasons for variances between the target set and actual achieved | No variance foreseen | | |

| 2. Collection of source data to enable effective reporting on the adopted output measure / indicator | |
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| Source data | <ul style="list-style-type: none"> • Consolidated HCD contract entered into with the NRF on funding of interns. • BAS Forms on Funds Transferred relating to the workplace preparation programmes. • NRF progress reports on workplace preparation programmes • DST-NRF internship database interns; and • DST-National Youth Service database of students from Q3 and in all quarters going forward. • List of the participating SETI |
| Collection Frequency of Source data | Quarterly |
| Archiving of Source Data | Alfresco |
| Type of information to be extracted from the source data | Number of graduates and students placed in DST-funded work preparation programmes in science, engineering, technology and innovation (SETI) institutions. |
| IT Systems/ Tools used to capture extracted data | Alfresco |

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| Source Data Capturing Frequency | | Quarterly. | |
| Individual(s) responsible for collecting the source data | Deputy Director: Work Preparation Programmes and Deputy Director: Science Promotion | Individual(s) responsible for filing/ archiving the collected source data | Deputy Director: Work Preparation Programmes and Deputy Director: Science Promotion |
| Individual(s) responsible for extracting the required information from the source data | Deputy Director: Work Preparation Programmes | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | Director: RS and Director: Science Promotion Chief Director: HCSP |
| Individual(s) responsible for capturing the extracted information onto the IT System | Deputy Director: Work Preparation Programmes and Deputy Director: Science Promotion | Individual(s) responsible for verifying the accuracy and completeness of the captured information | Director RS and Director Science Promotion Chief Director: HCSP |

| 3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information | | | |
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| Performance Information Source | | Alfresco/ funded students and graduates in work preparation programmes statistics. | |
| Type of performance information to be extracted/ used | | Number of graduates and students placed in DST-funded work preparation programmes Number of graduates and students funded at each level (bachelors, honours and masters) | |
| Calculations required on extracted information | | Number of graduates and students placed by levels (bachelors, honors and masters). | |
| Archiving of Extracted / Recalculated Information | | Alfresco | |
| Return Format | | Spreadsheet | |
| Reporting Frequency | | Quarterly | |
| Individual(s) responsible for extracting, calculating and consolidating the reported performance information | Deputy Director: Work Preparation Programmes and Deputy Director: Science Promotion | Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information | Director: RS and Director: Science Promotion. Chief Director: HCSP |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | Deputy Director: Work Preparation Programmes and Deputy Director: Science Promotion | Individual(s) responsible for sending the information in the required return format to the ----- | Director: RS and Director: Science Promotion. Chief Director: HCSP |

Performance Indicator 5

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| Medium-term objectives, measure/indicator, outputs, and targets To enhance South Africa's knowledge-generation capacity in order to produce world-class research outputs and turn some advanced findings into innovation products and processes | | Output Name PhD students awarded bursaries annually through NRF and relevant entities. | Date 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans | | Contribute to human capital development | |
| Objective Statement and definition (also supported by Indicator Definitions) | | To contribute to the development of representative, high level human capital able to pursue locally relevant, globally competitive research and innovation activities. | |
| Indicator title | | Total number of PhD students awarded bursaries annually as reflected in the reports from the NRF and relevant entities by 31 March 2018 | |
| Purpose of indicator | To measure the total number of PhD students awarded bursaries. | Type of indicator | Input indicator |
| Measure / Indicator Definition | Total number of PhD students awarded bursaries annually as reflected in the reports from NRF and relevant entities PhD students receiving bursary support from the NRF, CSIR, SANSA and ARC | Measure / Indicator Formula | Total number of PhD students awarded bursaries annually through NRF, ARC, SANSA and ARC funded programmes. |
| New Indicator | Continues with some changes to the indicator to meet SMART principle | Desired performance | High – a number of students awarded bursaries |
| Measure / Indicator Owner | Director: High End Skills | Worked example | Number of students awarded bursaries, e.g. (100 PhD) |
| Target set for current year | Annual: No fewer than 3 100 PhD students awarded bursaries through Programme 4 funds as reflected in the reports from the NRF and relevant entities by 31 March 2018 Quarterly: Q1 – No fewer than 1 568 PhD students awarded bursaries through Programme 4 funds Q2 – No fewer than 2 352 PhD students awarded bursaries through Programme 4 funds | Target achieved | Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - : |

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| | <p>Q3 – No fewer than 2 880 PhD students awarded bursaries through Programme 4 funds</p> <p>Q4 - No fewer than 3 100 PhD students awarded bursaries through Programme 4 funds</p> | | |
| Data limitations | <ul style="list-style-type: none"> The NRF quarterly reports that do not contain the final quarterly data on students due to the late finalisation and auditing of data from their side, thus resulting in the DST first reporting on preliminary data contained in an e-mail from the NRF. The preliminary data is then updated when the agency sends a formal performance information letter to the DST. The database (spreadsheet) is only available at the end of the 4th quarter. | | |
| Reasons for variances between the target set and actual achieved | To be completed as milestone reached | | |

| 2. Collection of source data to enable effective reporting on the adopted output measure / indicator | | | |
|---|---|---|---|
| Source data | Contracts entered into with the NRF and relevant entities (CSIR, SANSA, ARC) BAS Forms on Funds Transferred relating to the bursaries. Progress reports on individual programmes and letter confirming the reported quarterly outputs Database of PhD students with ID numbers, student numbers, course details etc from Q3 and in all quarters going forward. | | |
| Collection Frequency of Source data | Quarterly | | |
| Archiving of Source Data | Quarterly | | |
| Type of information to be extracted from the source data | Number of PhD students funded through NRF and relevant entities | | |
| IT Systems/ Tools used to capture extracted data | Alfresco | | |
| Source Data Capturing Frequency | Quarterly | | |
| Individual(s) responsible for collecting the source data | Deputy Director: New Generation Researchers' Programmes | Individual(s) responsible for filing/ archiving the collected source data | Deputy Director: New Generation Researchers' Programmes |
| Individual(s) responsible for extracting the required information from the source data | Deputy Director: New Generation Researchers' | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | Director: Research Development and Chief Director: HCSP |
| Individual(s) responsible for capturing the extracted information onto the IT System | Deputy Director: New Generation Researchers' | Individual(s) responsible for verifying the accuracy and completeness of the captured information | Director: Research Development and Chief Director: HCSP |

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information

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|---|--|---|---|---------------------------|
| Performance Information Source | | | | Alfresco |
| Type of performance information to be extracted/ used | | | | Number of PhD students |
| Calculations required on extracted information | | | | Number of PhD students |
| Archiving of Extracted / Recalculated Information | | | | Alfresco |
| Return Format | | | | Word document in Alfresco |
| Reporting Frequency | | | | Quarterly. |
| Individual(s) responsible for extracting, calculating and consolidating the reported performance information | Deputy Director: New Generation Researchers' | Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information | Director: Research Development and Chief Director: HCSP | |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | Deputy Director: New Generation Researchers' | Individual(s) responsible for sending the information in the required return format to the ----- | Director: Research Development and Chief Director: HCSP | |

Performance Indicator 6

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|---|--|---|---|
| Medium-term objectives, measure/indicator, outputs, and targets To enhance South Africa's knowledge-generation capacity in order to produce world-class research outputs and turn some advanced findings into innovation products and processes | | Output Name Pipeline postgraduate students awarded bursaries and fellowships through NRF and DST | Date 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans | | Contribute to human capital development | |
| Objective Statement and definition (also supported by Indicator Definitions) | | To contribute to the development of representative, high-level human capital able to pursue locally relevant globally competitive research and innovation activities. | |
| Indicator title | | Total number of pipeline postgraduate students awarded bursaries annually as reflected in the reports from the NRF and relevant entities by 31 March 2018. | |
| Purpose of indicator | To measure the total number of pipeline ² postgraduate students awarded bursaries by level of study (B. Tech, Master's). | Type of indicator | Input indicator |
| Measure / Indicator Definition | Total number of pipeline postgraduate students (BTech and honours and Master's) students awarded bursaries annually as reflected in the reports from the NRF and relevant entities. Postgraduates research students receiving bursary support from the NRF and relevant entities | Measure / Indicator Formula | Number of students awarded bursaries through NRF and relevant entities'-funded programmes (B. Tech and Honours+ Master's) |
| New Indicator | Continues with some changes to the indicator to meet SMART principle | Desired performance | High – a number of students awarded bursaries |
| Measure / Indicator Owner | Director: Research Development | Worked example | Number of students awarded bursaries, e.g. (100 B. Tech and Honours+ 150 Master's) |
| Target set for current year | Annual: No fewer than 10 800 pipeline Postgraduate students Awarded bursaries annually as reflected in the reports of the NRF and relevant entities by 31 March 2018 | Target achieved | Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - : |

² Pipeline includes final year undergraduates, honours and masters leading to a PhD.

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| | <p>Quarterly:</p> <p>Q1 – No fewer than 5 400 pipeline postgraduate students (BTech and honours, and master's students) awarded bursaries from Programme 4 funds</p> <p>Q2 – No fewer than 8 100 pipeline postgraduate students (BTech and honours, and master's students) awarded bursaries from Programme 4 funds</p> <p>Q3 – No fewer than 9 720 pipeline postgraduate students (BTech and honours, and master's students) awarded bursaries from Programme 4 funds</p> <p>Q4 - No fewer than 10 800 pipeline postgraduate students (BTech and honours, and master's students) awarded bursaries from Programme 4 funds</p> | | |
| Data limitations | <ul style="list-style-type: none"> • The NRF quarterly reports that do not contain final quarterly data on students due to the late finalisation and auditing of data from their side, thus resulting in the DST first reporting on preliminary data contained in an e-mail from the NRF. The preliminary data is then updated when the agency sends a formal performance information letter to the DST. • The database (spreadsheet) could only be available at the end of the 4th quarter. | | |
| Reasons for variances between the target set and actual achieved | To be completed as milestone reached | | |

| 2. Collection of source data to enable effective reporting on the adopted output measure / indicator | |
|---|---|
| Source data | Contracts entered into with the NRF. BAS Forms on Funds Transferred relating to the bursaries. Progress reports on individual programmes from NRF, SANSa, CSIR and ARC(per quarter) - Letter confirming the reported quarterly outputs Consolidated Database of postgraduate students with ID numbers, student numbers, course details etc. from Q3 and in all quarters going forward. |
| Collection Frequency of Source data | Quarterly |
| Archiving of Source Data | Quarterly |

| | | | |
|---|---|--|---|
| Type of information to be extracted from the source data | | Number of postgraduate students awarded bursaries through NRF and relevant entities by level of study (B. Tech, Master's). | |
| IT Systems/ Tools used to capture extracted data | | Alfresco | |
| Source Data Capturing Frequency | | Quarterly | |
| Individual(s) responsible for collecting the source data | Deputy Director: New Generation Researchers' Programmes | Individual(s) responsible for filing/ archiving the collected source data | Deputy Director: New Generation Researchers' Programmes |
| Individual(s) responsible for extracting the required information from the source data | Deputy Director: New Generation Researchers' | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | Director : Research Development (RD) and Chief Director: HCSP |
| Individual(s) responsible for capturing the extracted information onto the IT System | Deputy Director: New Generation Researchers' | Individual(s) responsible for verifying the accuracy and completeness of the captured information | Director: RD and Chief Director: HCSP |

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information

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|---|--|---|--------------------------------------|
| Performance Information Source | | Alfresco | |
| Type of performance information to be extracted/ used | | Number of pipeline postgraduate students (honours and Master's) awarded bursaries. | |
| Calculations required on extracted information | | Number of pipeline post graduate students <u>funded at each level</u> (honours, Masters, PhD, and Postdoc) | |
| Archiving of Extracted / Recalculated Information | | Alfresco | |
| Return Format | | Word document in Alfresco | |
| Reporting Frequency | | Quarterly. | |
| Individual(s) responsible for extracting, calculating and consolidating the reported performance information | Deputy Director: New Generation Researchers' | Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information | Director: RD Chief Director: HCSP |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | Deputy Director: New Generation Researchers' | Individual(s) responsible for sending the information in the required return format to the ----- | Director: RD |

Performance Indicator 7

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|--|---|---|---|
| Medium-term objectives, measure/indicator, outputs, and targets To build world-class STI infrastructure to extend the frontiers of knowledge, train the next generation of researchers and enable technology development and transfer as well as knowledge interchange | | Output Name Researchers awarded research grants through NRF-managed programmes | Date 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans | | Production of new knowledge | |
| Objective Statement and definition (also supported by Indicator Definitions) | | To support and promote research that develops basic sciences through production of new knowledge and relevant training opportunities | |
| Indicator title | | Total number of researchers awarded research grants through NRF-managed programmes as reflected in the NRF project reports by 31 march 2018. | |
| Purpose of indicator | To measure the total number of researchers who get research grants from NRF-managed research grant programmes | Type of indicator | Input indicator |
| Measure / Indicator Definition | Total number of researchers awarded research grants through NRF-managed programmes as reflected in the NRF project reports Researchers awarded research grants to conduct research and supervise postgraduate students (e.g. including Research Chairs, rated researchers, Centre of Excellence Researchers) | Measure / Indicator Formula | Summation of researchers that are awarded research grants |
| New Indicator | Continues from previous financial year | Desired performance | High – research grants awarded to researchers |
| Measure / Indicator Owner | Director: Research Support | Worked example | This indicator is the total number of researchers who receive research grant support from the NRF through its various programmes. This is the total number of research grantholders be they from emerging researchers programmes (i.e. Thuthuka) and established researchers programmes (e.g. |

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| | | | SARChIs, CoEs, rated researchers etc). Therefore the indicator is the sum of all researchers receiving NRF grants. |
| Target set for current year | <p>Annual: No fewer than 4 500 researchers awarded research grants annually Through NRF-managed Programmes as reflected by the NRF project reports by 31 March 2018</p> <p>Quarterly: Q1 – No fewer than 2 270 researchers awarded research grants through NRF-managed programmes</p> <p>Q2 – No fewer than 3 404 researchers awarded research grants through NRF-managed programmes</p> <p>Q3 – No fewer than 4 085 researchers awarded research grants through NRF-managed programmes</p> <p>Q4 – No fewer than 4 500 researchers awarded research grants through NRF-managed programmes</p> | Target achieved | Actual target achieved. Q1 – 2473 Q2 – 3863 Q3 – Q4 – YTD - : |
| Data limitations | The NRF quarterly reports that do not contain final quarterly data on researchers due to the late finalisation and auditing of data from their side, thus resulting in the DST first reporting on preliminary data contained in an e-mail from the NRF. The preliminary data is then updated when the agency sends a formal performance information letter to the DST. | | |
| Reasons for variances between the target set and actual achieved | Variance can be caused by the size (per capita values) of individual grants, which is dependent on the kind and type of research to be conducted. | | |

| 2. Collection of source data to enable effective reporting on the adopted output measure / indicator | |
|--|---|
| Source data | <p>Contracts entered into with the NRF in respect of programmes aimed at the funding of researchers. BAS Forms on Funds Transferred relating to funding of researchers.</p> <p>NRF progress report on researchers awarded research grants (with a list of participating programmes)</p> <p>Database of researchers (with names, ID, registration numbers etc.) from Q3 and in all quarters going forward.</p> |

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|---|-------------------------------------|---|--|
| Collection Frequency of Source data | | Quarterly | |
| Archiving of Source Data | | Alfresco | |
| Type of information to be extracted from the source data | | Number of researchers awarded research grants through NRF-managed programmes | |
| IT Systems/ Tools used to capture extracted data | | Alfresco | |
| Source Data Capturing Frequency | | Quarterly | |
| Individual(s) responsible for collecting the source data | Deputy Director: High End Skills | Individual(s) responsible for filing/ archiving the collected source data | Deputy Director: High End Skills |
| Individual(s) responsible for extracting the required information from the source data | Deputy Director: High End Skills | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | Director: Research Support and Chief Director: HCSP |
| Individual(s) responsible for capturing the extracted information onto the IT System | Deputy Director: High End Skills | Individual(s) responsible for verifying the accuracy and completeness of the captured information | Director: Research Support and Chief Director: HCSP |

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information

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|---|-------------------------------------|---|--|
| Performance Information Source | | Alfresco/funded researchers statistics. | |
| Type of performance information to be extracted/ used | | Number of researchers awarded research grants through NRF-managed | |
| Calculations required on extracted information | | Number of researchers awarded research grants | |
| Archiving of Extracted / Recalculated Information | | Word document in Alfresco | |
| Return Format | | Word document | |
| Reporting Frequency | | Quarterly | |
| Individual(s) responsible for extracting, calculating and consolidating the reported performance information | Deputy Director: High End Skills | Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information | Director: Research Support and Chief Director: HCSP |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | Deputy Director: High End Skills | Individual(s) responsible for sending the information in the required return format to the ----- | Director: Research Support and Chief Director: HCSP |

Performance Indicator 8

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|---|---|---|---|
| Medium-term objectives, measure/indicator, outputs, and targets To develop appropriate STI human capital to meet the needs of society | | Output Name Participants in science awareness and engagement programmes managed by the NRF and other service providers. | Date 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans) | | Promote science engagement | |
| Objective Statement and definition (also supported by Indicator Definitions) | | To promote public engagement on science, technology and innovation. | |
| Indicator title | | Approximate number of participants (learners and members of the public) in science awareness and engagement programmes as reflected in the NRF project reports and those of other service providers. | |
| Purpose of indicator | Quantifies participants in science awareness and engagement programmes | Type of indicator | Output indicator |
| Measure / Indicator Definition | Number of participants in science awareness and engagement programmes (STEMI Olympiads and competitions, science festivals, National Science Week and science centres) as reflected in the NRF project reports and those of other service providers. Participants include members of the public who took part in awareness and engagement activities, including those reached through media. | Measure / Indicator Formula | Number of participants = Estimates of various members of the public who took part in science awareness and engagement activities (through the National Science Week, science festivals, science centres, conferences and STEMI Olympiads, as well as social and mainstream media) |
| New Indicator | Continues from the previous financial year | Desired performance | Yearly increase |
| Measure / Indicator Owner | Director: Science Promotion | Worked example | Due to a range of different activities involved, a variety of approaches are used to measure publics' participation in science |

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| | | | <p>awareness and engagement. Approaches used are explained in the annual covering report and they include, but not limited to headcount.</p> <p>Headcount example: 10 000 learners participated in Eskom Expo for Young Scientists in 2016/17. The total number of participants comprises 4 000 male learners and 6 000 female learners who presented projects at regional finals of the Expo.</p> |
| Target set for current year | <p>Annual: Approx. 2 million participants (learners and members of the public) in science awareness and engagement programmes annually as reflected in the project reports of the NRF and other service providers by 31 March 2018</p> <p>Quarterly: Q1 – Grant funding awarded to organisations implementing the initiatives by 30 June 2017 Q2 – National Science Week held by 30 September 2017 Q3 – 3 science festivals and 6 STEMI Olympiads and competitions held by 31 December 2017 Q4 – 4 science festivals conducted and approximately 2 000 000 participants in science awareness and engagement programmes annually as reflected in project reports of the NRF and other service providers. by 31 March 2018</p> | Target achieved | <p>Actual target achieved.</p> <p>Q1 – Q2 – Q3 – Q4 – YTD - :</p> |
| Data limitations | Complete data on participation is only available after receipt of annual or final project reports from the NRF and other relevant service providers. The acceptable margin of error on reported data is up to 7%. | | |
| Reasons for variances between the target set and actual achieved | No variance at this stage | | |

2. Collection of source data to enable effective reporting on the adopted output measure / indicator

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| Source data | | Contracts entered into with the NRF and other service providers Quarterly projects reports submitted by the NRF and other relevant service providers. Annual or final project reports submitted by the NRF and other service providers Internally produced Annual Science Engagement Summation Report | |
| Collection Frequency of Source data | | Quarterly | |
| Archiving of Source Data | | Alfresco | |
| Type of information to be extracted from the source data | | Number of participants in science awareness and engagement programmes Demographic information of participants Analysis of stakeholders and role players | |
| IT Systems/ Tools used to capture extracted data | | Alfresco/spreadsheet | |
| Source Data Capturing Frequency | | Quarterly | |
| Individual(s) responsible for collecting the source data | <ul style="list-style-type: none"> • Livhuwani Masevhe (Deputy Director: Science Promotion) • Bersan Lesch (Deputy Director: Science Promotion) | Individual(s) responsible for filing/ archiving the collected source data | <ul style="list-style-type: none"> • Livhuwani Masevhe (Deputy Director: Science Promotion) • Bersan Lesch (Deputy Director: Science Promotion) |
| Individual(s) responsible for extracting the required information from the source data | <ul style="list-style-type: none"> • Livhuwani Masevhe (Deputy Director: Science Promotion) • Bersan Lesch (Deputy Director: Science Promotion) | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | Director: Science Promotion Chief Director: HCSP |
| Individual(s) responsible for capturing the extracted information onto the IT System | Deputy Director: Science and Youth (Out-of-School programme) | Individual(s) responsible for verifying the accuracy and completeness of the captured information | Director: Science Promotion Chief Director: HCSP |

| 3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information | |
|--|--|
| Performance Information Source | Quarterly and annual project reports from the NRF and relevant service providers |
| Type of performance information to be extracted/ used | Number of participants in science awareness and engagement programmes Participation according to demographics Stakeholders' and related organisations' participation |
| Calculations required on extracted information | Number of participants in science awareness and engagement programmes |
| Archiving of Extracted / Recalculated Information | Alfresco |
| Return Format | Microsoft word and/or spreadsheet |

| Reporting Frequency | | Quarterly | |
|--|---|--|---|
| Individual(s) responsible for extracting, calculating and consolidating the reported performance information | <ul style="list-style-type: none"> • Livhuwani Masevhe (Deputy Director: Science Promotion) • Bersan Lesch (Deputy Director: Science Promotion) | Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information | Director: Science Promotion Chief Director: HCSP |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | Deputy Director: Science and Youth (Out-of-School programme) | Individual(s) responsible for sending the information in the required return format to the ----- | Director: Science Promotion |

Performance Indicator 9

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|---|---|--|---|
| Medium-term objectives, measure/indicator, outputs, and targets To enhance South Africa's knowledge-generation capacity in order to produce world-class research outputs and turn some advanced findings into innovation products and processes | | Output Name Single polarization array | Date 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans) | | Development of priority science areas | |
| Objective Statement | | To strategically develop priority science areas in which South Africa enjoys a competitive advantage, by promoting internationally competitive research and training activities and outputs. | |
| Indicator title | | Number of antennas commissioned for a single polarisation array by 31 March 2018 | |
| Purpose of indicator | To measure the progress of the MeerKAT Radio Telescope Project | Type of indicator | Output |
| Measure / Indicator Definition | Functional Array – number of antennas ready for doing science observations | Measure / Indicator Formula | Number of antennas integrated into a single single polarization array |
| New Indicator | Yes | Desired performance | Working Radio Telescope Array |
| Measure / Indicator Owner | DDG | Worked example | Official MeerKAT Array Releases |
| Target set for current year | <p>Annual: 64 antennas commissioned for a single polarisation array by 31 March 2018</p> <p>Quarterly: Q1 - SKA SA Project Director approved baseline plan finalised by 30 June 2017 Q2 – SKA SA Project approved progress report with reference to baseline plan provided by 30 September 2017 Q3 – SKA SA Project approved progress report with reference to baseline plan provided by 31 December 2017 Q4 – 64-antenna commissioned for a single polarisation array by 31 March 2018</p> | Target achieved | Actual target achieved. Q1 – N/A Q2 – \Q3 – Q4 – YTD - : |
| Data limitations | No Data Limitations | | |

Reasons for variances between the target set and actual achieved

2. Collection of source data to enable effective reporting on the adopted output measure / indicator

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|---|--|--|---|
| Source data | | Official SKA Report Letter from SKA SA Project Director (available 2 nd , 3 rd and 4 th quarter) | |
| Collection Frequency of Source data | | Quarterly | |
| Archiving of Source Data | | Alfresco | |
| Type of information to be extracted from the source data | | Measure of Array Functionality for the Q4 goal. | |
| IT Systems/ Tools used to capture extracted data | | Alfresco | |
| Source Data Capturing Frequency | | Quarterly | |
| Individual(s) responsible for collecting the source data | Deputy Director: Radio Astronomy Projects: | Individual(s) responsible for filing/ archiving the collected source data | Deputy Director: Radio Astronomy Projects: |
| Individual(s) responsible for extracting the required information from the source data | Deputy Director: Radio Astronomy Projects | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | Director: Radio Astronomy Projects ACT CD: Astronomy |
| Individual(s) responsible for capturing the extracted information onto the IT System | Deputy Director: Radio Astronomy Projects: | Individual(s) responsible for verifying the accuracy and completeness of the captured information | Director: Radio Astronomy Projects |

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information

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|--|-----------------|--|---|
| Performance Information Source | | Alfresco | |
| Type of performance information to be extracted/ used | | Progress towards achieving the Q4 (Annual) Goal with reference to baselined schedule provided. | |
| Calculations required on extracted information | | Verify whether identified milestones in baselined plan has been achieved | |
| Archiving of Extracted / Recalculated Information | | Alfresco | |
| Return Format | | Word document | |
| Reporting Frequency | | Quarterly | |
| Individual(s) responsible for | Deputy Director | Individual(s) responsible for | Director: Radio Astronomy Projects Act Chief Director: Astronomy |

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| extracting, calculating and consolidating the reported performance information | | verifying the accuracy and completeness of the extracted performance information | |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | Deputy Director | Individual(s) responsible for sending the information in the required return format to the ----- -- | Director: Radio Astronomy Projects |

Performance Indicator 10

| | | | |
|---|---|--|--|
| Medium-term objectives, measure/indicator, outputs, and targets To enhance South Africa's knowledge-generation capacity in order to produce world-class research outputs and turn some advanced findings into innovation products and processes | | Output Name Reports on the state of climate change science and technology in South Africa | Date 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans) | | Development of priority science areas | |
| Objective Statement and definition (also supported by Indicator Definitions) | | To strategically develop priority science areas in which South Africa enjoys a competitive advantage, by promoting internationally competitive research and training activities and outputs. | |
| Indicator title | | Number of biennial reports on the state of climate change S&T in South Africa submitted to Cabinet by 31 March 2018. | |
| Purpose of indicator | To report biennially to Cabinet on the state of climate change science and technology in South Africa | Type of indicator | Output indicator |
| Measure / Indicator Definition | The number of biennial reports on the state of climate change science and technology in South Africa | Measure / Indicator Formula | Biennial reports to Cabinet |
| New Indicator | Continues from the previous financial year | Desired performance | Producing two biennial reports on the state of climate change science and technology in South Africa by 2019 |
| Measure / Indicator Owner | Director: Earth Systems Sciences | Worked example | Number of biennial reports produced |
| Target set for current year | Annual: 1 plan for compiling second biennial report on the state of climate change S&T in South Africa approved by DST EXCO by 31 March 2018 Quarterly: Q1 – No target Q2 – No target Q3 – No target Q4 – 1 plan for compiling second biennial report on the state of climate change S&T in South Africa approved by DST EXCO by 31 March 2018 | Target achieved | Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - : |
| Data limitations | <ul style="list-style-type: none"> Access to information on climate change research and technological innovations by entities that are not publicly funded may be difficult since such information or data may be viewed as of competitive advantage. It may be difficult to lift out climate change research from general environmental related research or technological innovations thereby risking excluding some important work in these biennial reports. | | |

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| | <ul style="list-style-type: none"> • Compiling comprehensive reports on such wide terrain may require more time than provided for. |
| Reasons for variances between the target set and actual achieved | No variance at this stage |

| 2. Collection of source data to enable effective reporting on the adopted output measure / indicator | | | |
|---|---|---|--|
| Source data | <ul style="list-style-type: none"> • Minutes of Workshops and meetings with stakeholders • EXCO Approved Plan | | |
| Collection Frequency of Source data | Data to be collected annually and reporting to Cabinet biennially | | |
| Archiving of Source Data | <ul style="list-style-type: none"> • Various reports and publications generated by relevant role players • Dedicated DST directories and information management systems (Alfresco) | | |
| Type of information to be extracted from the source data | <ul style="list-style-type: none"> • Quantitative data (statistics; nature of research being undertaken; technological innovations developed/created; entities and organisations involved in this kind of research and technology development) • Research findings and outputs • Appropriate technologies and innovations being developed - relevant to climate change response (for both mitigation and adaptation) | | |
| IT Systems/ Tools used to capture extracted data | Alfresco | | |
| Source Data Capturing Frequency | Annually | | |
| Individual(s) responsible for collecting the source data | Director: Earth Systems Sciences | Individual(s) responsible for filing/ archiving the collected source data | Director: Earth Systems Sciences |
| Individual(s) responsible for extracting the required information from the source data | <p>1.Mr Leluma Matoane, Director: Earth Systems Science, DST</p> <p>2.Dr Henry Roman, Director: Environmental Services and Technologies, DST</p> <p>The two will be supported by the Academy of Science of South Africa (ASSAf) which will be tasked with preparing reports on behalf of DST.</p> | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | <p>Director: Earth Systems Sciences</p> <p>Chief Director: Science Missions, DST</p> <p>Chief Director: Sector Innovation & Global Change, DST</p> |
| Individual(s) responsible for capturing the extracted information onto the IT System | <p>1.Ms Kogilam Iyer, Deputy Director: Earth Systems Science, DST</p> <p>2.Ms Magamase Mange, Deputy Director:</p> | Individual(s) responsible for verifying the accuracy and completeness of the captured information | Chief Director: Science Missions |

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| | Environmental Technologies, DST | | |
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| 3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information | | | |
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| Performance Information Source | | Alfresco - (DST IT systems); Outcome 10 Performance Information spreadsheet | |
| Type of performance information to be extracted/ used | | Both quantitative and qualitative | |
| Calculations required on extracted information | | N/A | |
| Archiving of Extracted / Recalculated Information | | Alfresco, PIMS and dedicated Outcome 10 MTSF directory | |
| Return Format | | Reporting template provided, accompanied by official DST letter | |
| Reporting Frequency | | annually | |
| Individual(s) responsible for extracting, calculating and consolidating the reported performance information | Director: Earth Systems Sciences | Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information | Director: Earth Systems Sciences Chief Director: Science Missions |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | Director: Earth Systems Sciences | Individual(s) responsible for sending the information in the required return format to the ----- | Chief Director: Science Missions |

Performance Indicator 11

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|---|---|--|--|
| Medium-term objectives, measure/indicator, outputs, and targets To enhance South Africa's knowledge-generation capacity in order to produce world-class research outputs and turn some advanced findings into innovation products and processes | | Output Name Climate change research network | Date 31 March 2018 |
| 1. Overview of the objective, output, measure / indicator and target to be reported on | | | |
| Programme # | | Programme 4 | |
| Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans | | Development of priority science areas | |
| Objective Statement and definition (also supported by Indicator Definitions) | | To strategically develop priority science areas in which South Africa enjoys a competitive advantage, by promoting internationally competitive research and training activities and outputs. | |
| Indicator title | | A climate change research network in place | |
| Purpose of indicator | To ensure adequate and appropriate research capacity to support climate change response in South Africa | Type of indicator | Impact indicator |
| Measure / Indicator Definition | A climate change research network formalised through MoUs | Measure / Indicator Formula | Number of formal research networks, partnerships and collaborations or formal agreements to collaborate or work together in climate change related research. |
| New Indicator | Continues from the previous financial year | Desired performance | A climate change network would be a DST-approved network of organizations undertaking climate change research and bound by a memorandum defining a joint effort. |
| Measure / Indicator Owner | Director: Earth Systems Sciences. | Worked example | A network of organizations that is in place for undertaking climate change research |

| | | | |
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| Target set for current year | <p>Annual: A climate Change research Network formalised in South Africa through a Memorandum of understanding by 31 Mar. 2018</p> <p>Quarterly: Q1 – Generic draft MoU approved by DDG by 30 June 2017</p> <p>Q2 – Parties to MoU identified by 30 September 2017</p> <p>Q3 – No target</p> <p>Q4 – A climate change research network formalized in South Africa through a memorandum of understanding by 31 March 2018</p> | Target achieved | <p>Actual target achieved.</p> <p>Q1 –</p> <p>Q2 –</p> <p>Q3 –</p> <p>Q4 –</p> <p>YTD - :</p> |
| Data limitations | <ul style="list-style-type: none"> Information on research networks, partnerships and collaborations or formal agreements may not be easily accessible or be regarded as confidential especially where such information or data is of competitive advantage to the generators of such data. Formal agreements between research collaborators or partners may not be made available. It may be difficult to assess the capacity of institutions to undertake climate change research. | | |
| Reasons for variances between the target set and actual achieved | To be recorded during reporting, if applicable | | |

| 2. Collection of source data to enable effective reporting on the adopted output measure / indicator | | | |
|---|--|--|----------------------------------|
| Source data | Approved list of network participants Signed Minutes MOUs Submission to the DDG of a report that will indicate, at the time of reporting, the state of climate change research network(s) established through MOUs) | | |
| Collection Frequency of Source data | Quarterly | | |
| Archiving of Source Data | Alfresco | | |
| Type of information to be extracted from the source data | Quantitative data (statistics; number of research networks, partnerships and collaborations; collaborative agreements etc.) | | |
| IT Systems/ Tools used to capture extracted data | Alfresco - Spreadsheets; reports; publications. | | |
| Source Data Capturing Frequency | Quarterly | | |
| Individual(s) responsible for collecting the source data | Director: Earth Systems Sciences | Individual(s) responsible for filing/ archiving the collected source data | Director: Earth Systems Sciences |

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| Individual(s) responsible for extracting the required information from the source data | Director: Earth Systems Sciences | Individual(s) responsible for verifying the accuracy and completeness of the extracted information | Director: Earth Systems Sciences Chief Director: Science Missions |
| Individual(s) responsible for capturing the extracted information onto the IT System | Director: Earth Systems Sciences | Individual(s) responsible for verifying the accuracy and completeness of the captured information | Director: Earth Systems Sciences Chief Director: Science Missions |

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information

| | | | |
|---|---|---|--|
| Performance Information Source | Alfresco | | |
| Type of performance information to be extracted/ used | Quantitative information on the extent of climate change research networks or institutional capacity to undertake climate change research | | |
| Calculations required on extracted information | N/A | | |
| Archiving of Extracted / Recalculated Information | Alfresco and dedicated Outcome 10 MTSF directory | | |
| Return Format | Reporting template provided, accompanied by official DST letter | | |
| Reporting Frequency | Quarterly | | |
| Individual(s) responsible for extracting, calculating and consolidating the reported performance information | Director: Earth Systems Sciences | Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information | Director: Earth Systems Sciences Chief Director: Science Missions |
| Individual(s) responsible for archiving the extracted/ recalculated performance information | Director: Earth Systems Sciences | Individual(s) responsible for sending the information in the required return format to the --- ----- | Director: Earth Systems Sciences |



DR DANIEL ADAMS

ACTING DEPUTY DIRECTOR GENERAL: RESEARCH DEVELOPMENT AND SUPPORT

DATE: 15 February 2018