Programme 2 (Technology Innovation)

2019/20 Technical Indicator Descriptors (TIDs)

Nkwfln

27/09/2019

PROGRAMME 2: TECHNICAL INDICATOR DESCRIPTIONS (TIDS) 2019/20

Performance Indicator 1:

Medium–term objectives, measure/indicator, outputs, and targets	**Output Name** Instruments to support knowledge utilisation	**Date** 31 March 2020

1. Overview of the objective, output, measure / indicator and target to be reported on			
Programme #		Programme 2	
Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans		Facilitate and resource R&D in strategic STI areas	
Objective Statement		To facilitate and resource investments in space science, energy, bio innovation, nanotechnology, robotics, photonics, IKS, IP management, technology transfer and technology commercialisation.	
Indicator title		**Number of instruments funded in support of knowledge utilisation**	
Purpose of indicator	This indicator seeks to measure and track the number of instruments funded in support of knowledge utilisation especially in the strategic, emerging and converging areas of science and technology.	**Type of indicator**	Process/input indicator
Measure / Indicator Definition	An instrument refers to a formally established (by contract) entity /initiative (also virtual) that is used to support increased localisation, competitiveness, R&D led industry development and service delivery support.	**Measure / Indicator Formula**	Total number of instruments funded to support knowledge utilisation at the end of the financial year = the sum of the instruments funded during each quarter of the financial year.
New Indicator	No	**Desired performance**	While high numbers of instruments funded to support knowledge utilisation are

			desirable, it is also important to understand that the benefits derived from a few well-implemented, focused / targeted programmes may be greater than having many poorly managed programmes.
Measure / Indicator Owner	Chief Director: Innovation Priorities and Instruments Head: National Intellectual Property Management Office. Chief Director: Hydrogen and Energy Chief Director: Bio-economy Chief Director: Space Science	**Worked example**	E.g. If 3 Centres of Competence in H&E are funded by quarter 2; and 7 Health Innovation initiatives are funded by quarter 4; a total of 10 instruments would have been funded at the end of quarter 4.
Target set for current year	**Annual:** 19 instruments funded in support of knowledge utilisation by 31 March 2020 **Quarterly:** **Q1**– no target **Q2** – 8 instruments funded in support of knowledge utilisation **Q3** – 3 instruments funded in support of knowledge utilisation **Q4** – 8 instruments funded in support of knowledge utilisation	**Target achieved**	Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - :
Data limitations	In some cases there may be a delay in obtaining the relevant data given dependencies on other internal or external stakeholders. This also impacts on the quality of data obtained. Moreover a number of programmes/projects other than those clarified above may fall within the definition of instruments funded to support knowledge utilisation and may be included in totals for the financial year. **Caveat:** In some cases, some of the instruments (e.g. Health Innovation initiatives) will not be separately contracted as the implementing agency is the same. There may also be instances where due to prevailing circumstances (financial, performance, strategic etc.), a decision is taken not to fund a specific instrument and the allocated funds are directed to		

	support another instrument. In such cases, the funded initiatives will form part of the targets for the year under review.
Reasons for variances between the target set and actual achieved	There is no variance at this stage

2. Collection of source data to enable effective reporting on the adopted output measure / indicator	
Source data	**For all supported instruments, with the exception of the NIPMO instrument noted below.** • Applicable approved submission (not necessarily signed during the quarter under review); • Applicable contract / agreement; • Payment stub; • Work plan / business plan for the financial year where relevant; • With regards to the Innovation Bridge event, downloads / snapshots of website / portal / database where relevant; • Signed annual progress / closure report / summary report indicating the KPI targets and evidence for the financial year where relevant. **NIPMO-% of eligible claims awarded a rebate from the IP Fund in line with the requirements of the IP Fund Guideline** • Signed letter informing institution of rebate decision
Collection Frequency of Source data	Quarterly (Q2, Q3 and Q4)
Archiving of Source Data	**IPI, Hydrogen and Energy, Space Science and Technology, and Bio-economy** Alfresco **NIPMO** All supporting documentation are stored manually
Type of information to be extracted from the source data	**IPI, Hydrogen and Energy, Space Science and Technology, and Bio-economy**

		Proof of the funding support of instruments that support knowledge utilisation during the period. **NIPMO** Status of the process in rewarding 100% of eligible claims with a rebate from the IP Fund in line with the requirements of the IP Fund Guideline at the end of quarter. Status of the process in supporting OTTs for capacity development	
IT Systems/ Tools used to capture extracted data		**IPI, Hydrogen and Energy, Space Science and Technology, and Bio-economy** No specific IT systems or tools are required to capture data. All evidence will be saved in word or pdf format on Alfresco. **NIPMO** All evidence will be saved in word/Excel or pdf format.	
Source Data Capturing Frequency		Quarterly (Q2,3 and Q4)	
Individual(s) responsible for collecting the source data	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power	**Individual(s) responsible for filing/ archiving the collected source data**	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas

	Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director Earth Observation. Director: Space Systems		Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director Earth Observation. Director: Space Systems
Individual(s) responsible for extracting the required information from the source data	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation	**Individual(s) responsible for verifying the accuracy and completeness of the extracted information**	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation

	Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director Earth Observation. Director: Space Systems		Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director Earth Observation. Director: Space Systems
Individual(s) responsible for capturing the extracted	Director: Agricultural Biotechnology	**Individual(s) responsible for verifying the accuracy and completeness of the captured information**	Director: Agricultural Biotechnology

information onto the IT System	Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director Earth Observation.		Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director Earth Observation. Director: Space Systems

	Director: Space Systems		

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information			
Performance Information Source		Alfresco	
Type of performance information to be extracted/ used		Name and number of instruments funded to support knowledge utilisation during the period.	
Calculations required on extracted information		Sum of all the instruments funded to support knowledge utilisation over each semester of the financial year	
Archiving of Extracted / Recalculated Information		Quarterly (Q2, Q3 and Q4)	
Return Format		Numerical format on a bi-annual and annual basis.	
Reporting Frequency		Quarterly (Q2, Q3 and Q4)	
Individual(s) responsible for extracting, calculating and consolidating the reported performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information**	Director: Office of the DDG Programme2
Individual(s) responsible for archiving the extracted/ recalculated performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for sending the information in the required return format to the ----------**	Director: Office of the DDG Programme2

Performance Indicator 2:

Medium–term objectives, measure/indicator, outputs, and targets		**Output Name** knowledge outputs	**Date** 31 March 2020
1. Overview of the objective, output, measure / indicator and target to be reported on			
Programme #		Programme 2	
Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans		Facilitate and resource R&D in strategic STI areas	
Objective Statement		To facilitate and resource investments in space science, energy, bio innovation, nanotechnology, robotics, photonics, IKS, IP management, technology transfer and technology commercialisation.	
Indicator title		**Number of knowledge outputs generated.**	
Purpose of indicator	This indicator is meant to track the number of knowledge outputs (Intellectual Property Rights (IPRs) applications / filings or granted / registered and publications produced / generated as a result of research, development and innovation initiatives funded by the Programme.	**Type of indicator**	Output indicator
Measure / Indicator Definition	Knowledge outputs include filings / applications or registration / granting of IPRs**** and peer reviewed scientific articles published in scientific publications, inclusive of journals, book chapters and community-reviewed articles and books/book	**Measure / Indicator Formula**	Total number of knowledge outputs generated at the end of the financial year = the sum of the IPRs applications / filings or granted / registered and publications produced during each quarter of the financial year.

	chapters in energy, emerging research areas, and the bioeconomy. ****IPRs are inclusive of the categories of IPR that were included in the 2014/15 APP, namely Patents and Trademarks, has been broadened to include other IPRs, such as Copyright, Designs, Plant Breeders Rights or Geographical Indications.		
New Indicator	Continuing	**Desired performance**	Higher performance is desirable
Measure / Indicator Owner	CD: Bio-economy CD: Hydrogen and Energy CD: Innovation Priorities and Instruments CD: Space Science and Technology	**Worked example**	If there are 2 IPRs applications / filings or IPRs registered/granted during quarter 4 and 1 publication produced during quarter 4, then the total is 3 at the end of quarter 4.
Target set for current year	**Annual:** 120 knowledge outputs generated by 31 March 2020 **Quarterly:** **Q1** – no target **Q2** – no target **Q3** – no target **Q4** – 120 knowledge outputs generated	**Target achieved**	Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - :
Data limitations	In most cases there are delays in obtaining the final data given dependencies on other internal or external stakeholders. This also impacts on the quality of data obtained/reported. Moreover, given that the results of research and development are difficult to predict, variations from the planned outputs can be expected.		

Reasons for variances between the target set and actual achieved	No variance at this point of time

2. Collection of source data to enable effective reporting on the adopted output measure indicator	
Source data	Only peer reviewed scientific articles published in scientific publications during the period 1 April 2019 to 31 March 2020 will be counted. Where there is more than one date of publication the date of the online publication, will be counted. Only IPR applications/filings or registered/granted during the period 1 April 2019 to 31 March 2020 either in South Africa or in other countries will be counted. **Hydrogen and Energy; Innovation Priorities and Instruments; Bio-innovation; Space Science and Technology** ➢ Signed Project funding agreement/Memorandum of Agreements/contracts. ➢ Signed Annual reports/draft annual reports / signed summary reports from implementing agency with number and list of IPRs applications/filings or IPRs registered/granted and publications produced; or ➢ Proof of application/filing or registration/granting of IPRs; ➢ Approved submission and Payment stub where applicable.
Collection Frequency of Source data	Annually
Archiving of Source Data	Alfresco
Type of information to be extracted from the source data	Names, and number of IPRs applications/filings or IPRs registered/granted and publications produced during the financial year. Only peer reviewed scientific articles published in scientif publications during the period 1 April 2019 to 31 March 202 will be counted. Where there is more than one date c publication, the date of online publication, will be counted. Only IPRs applications/filings or registered/granted durin the period 1 April 2019 to 31 March 2020 either in Sout Africa or in other countries will be counted.

IT Systems/ Tools used to capture extracted data		No specific IT systems or tools are required to capture data. All evidence will be saved in word or pdf format on Alfresco	
Source Data Capturing Frequency		Annually	
Individual(s) responsible for collecting the source data	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation	**Individual(s) responsible for filing/ archiving the collected source data**	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation

Individual(s) responsible for extracting the required information from the source data	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation	**Individual(s) responsible for verifying the accuracy and completeness of the extracted information**	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation
Individual(s) responsible for capturing the extracted information onto the IT System	Director: Transport and Renewable Energy Director: Power	**Individual(s) responsible for verifying the accuracy and completeness of the captured information**	Director: Transport and Renewable Energy Director: Power

	Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation		Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information	
Performance Information Source	Alfresco
Type of performance information to be extracted/ used	Number of IPR applications /filings or IPRs registered/granted and publications produced during the financial year
Calculations required on extracted information	Sum of all of the IPR applications /filings or IPRs registered/granted and publications produced over the financial year
Archiving of Extracted / Recalculated Information	Annual Performance Reports of Programme 2 on Alfresco

Return Format		Numerical format on an annual basis	
Reporting Frequency		Annually	
Individual(s) responsible for extracting, calculating and consolidating the reported performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information**	Director: Office of the DDG Programme 2
Individual(s) responsible for archiving the extracted/ recalculated performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for sending the information in the required return format to the ----------**	Director: Office of the DDG Programme 2

Performance Indicator 3:

Medium–term objectives, measure/indicator, outputs, and targets		Output Name Policy directives developed in science and technology	Date 31 March 2020
1. Overview of the objective, output, measure / indicator and target to be reported on			
Programme #		Programme 2	
Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans		Facilitate and resource R&D in strategic STI areas	
Objective Statement		To facilitate and resource investments in space science, energy, bio innovation, nanotechnology, robotics, photonics, IKS, IP management, technology transfer and technology commercialisation	
Indicator title		**Number of strategic policy directives in designated areas in support of economic sectors.**	
Purpose of indicator	These indicators seek to measure and track the number of strategic policy directives developed in designated areas and approved by Exco.	Type of indicator	Process indicator
Measure / Indicator Definition	Strategic policy directives developed and approved by Exco / Head of NIPMO include policy briefs and memoranda, implementation plans, concept documents, position papers, strategies, policy recommendations, cabinet memoranda and chapter contributions towards key policy documents, developed in the designated areas of space science, energy, bio innovation, nanotechnology, robotics, photonics, IKS, IP management, technology transfer and technology commercialisation, and submitted for approval to DST.	Measure / Indicator Formula	Total number of strategic policy directives in designated areas developed and approved by Exco / Head of NIPMO at the end of the financial year=the sum of the policy directives developed and approved by Exco during each quarter of the financial year.

	When a policy directive has been generated by NIPMO, the Head of NIPMO is required to approve it as per the Intellectual Property Rights from Publicly Financed Research and Development Act (IPR Act, No 51 of 2008).		
New Indicator	Continuation	**Desired performance**	Policy directives developed and approved by Exco that are widely accepted and implemented - directives should as appropriate be applicable across directorates / chief directorates / programmes and / or departments. Directives should where appropriate be consultatively developed for optimum uptake and impact.
Measure / Indicator Owner	Chief Director: Innovation Priorities and Instruments Chief Director: Hydrogen and Energy Chief Director: Space Science and Technology Chief Director: Bio-economy Head: NIPMO	**Worked example**	If 1 new chapter on technology innovation is developed for inclusion in Industrial Policy Action Plan during quarter 4 by DST and 1 Cabinet Memo is presented to Cabinet during quarter 4, a total of 2 policy directives would have been developed and approved by Exco / Head of NIPMO, as relevant, at the end of quarter 4.
Target set for current year	**Annual:** 3 strategic policy directives in designated areas in support of economic sectors by 31 March 2020	**Target achieved**	Actual target achieved. Q1 – Q2 – Q3 –

	Q1 – No target **Q2** – No target **Q3** – No target **Q4** – 3 strategic policy directives in designated areas in support of economic sectors by 31 March 2020		Q4 – YTD - :
Data limitations	In some cases there may be a delay in obtaining the relevant data given dependencies on other internal or external stakeholders. This also influences the quality of data obtained. "Approved" will include "noted" as there will be circumstances in which approval is not required. The term Exco includes: Exco, the Minister or a member of the Executive Committee		
Reasons for variances between the target set and actual achieved	No variance at this point of time.		

2. Collection of source data to enable effective reporting on the adopted output measure / indicator			
Source data	• Any of the following, as appropriate: final (where such is within the direct control of the Programme) approved policies, acts, regulations, cabinet and cluster memoranda, strategies, implementation plans, policy briefs, chapter, research and technical reports; or • Proof of approval (signed off document or signed minutes of relevant meeting)		
Collection Frequency of Source data	Annually		
Archiving of Source Data	Alfresco		
Type of information to be extracted from the source data	Number and name of strategic policy directives in designated areas developed and approved by Exco / Head of NIPMO, as relevant.		
IT Systems/ Tools used to capture extracted data	No specific IT systems or tools are required to capture data. All evidence will be saved in word or pdf format on Alfresco		
Source Data Capturing Frequency	Annually		
Individual(s) responsible for collecting the source data	Director: Innovation Instruments	**Individual(s) responsible for filing/ archiving the collected source data**	Director: Innovation Instruments Director: Emerging Research Areas

	Director: Emerging Research Areas Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Space Systems Director: Earth Observations Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management		Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Space Systems Director: Earth Observations Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management
Individual(s) responsible for extracting the required information from the source data	Director: Innovation Instruments Director: Emerging Research Areas Director:	**Individual(s) responsible for verifying the accuracy and completeness of the extracted information**	Director: Innovation Instruments Director: Emerging Research Areas Director: Agricultural Biotechnology

	Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Space Systems Director: Earth Observations Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management		Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Space Systems Director: Earth Observations Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management
Individual(s) responsible for capturing the extracted information onto the IT System	Director: Innovation Instruments Director: Emerging Research Areas Director: Agricultural Biotechnology Director: Industry and Environment	**Individual(s) responsible for verifying the accuracy and completeness of the captured information**	Director: Innovation Instruments Director: Emerging Research Areas Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation

	Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Space Systems Director: Earth Observations Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management		Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Space Systems Director: Earth Observations Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information	
Performance Information Source	Alfresco
Type of performance information to be extracted/ used	Number of strategic policy directives in designated areas developed and approved by Exco / Head of NIPMO during the quarters of the financial year.
Calculations required on extracted informatio	Sum of all the strategic policy directives in designated areas developed and approved by Exco / Head of NIPMO over each quarter of the financial year
Archiving of Extracted / Recalculated Information	Annual Performance Reports of Programme 2. Alfresco

Return Format		Numerical format on a quarterly and annual basis.	
Reporting Frequency		Annually	
Individual(s) responsible for extracting, calculating and consolidating the reported performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information**	Director: Office of the DDG Programme 2
Individual(s) responsible for archiving the extracted/ recalculated performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for sending the information in the required return format to the ----------**	Director: Office of the DDG Programme 2

Performance Indicator 4:

Medium–term objectives, measure/indicator, outputs, and targets		**Output Name** New disclosures reported by publicly-funded institutions in terms of the development and translation of research and development outputs into products, processes and services	**Date** 31 March 2020
1. Overview of the objective, output, measure / indicator and target to be reported on			
Programme #		Programme 2	
Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans		Oversee relevant Departmental agencies and initiatives	
Objective Statement		To oversee, monitor and regulate key policy initiatives, including institutions/agencies and support interventions in the key strategic areas of space science, energy, bio-innovation, nanotechnology, robotics, photonics and IKS	
Indicator title		**Number of new disclosures reported by publicly-funded institutions.**	
Purpose of indicator	This indicator is used to measure the number of new disclosures reported by publicly-funded institutions to the National Intellectual Property Management Office (NIPMO) as required in terms of the Intellectual Property from Publicly Financed Research and Development Act (IPR-PFRD Act). This indicator is important to track as an increase/decrease in the number of disclosures corresponds to an increase/decrease in the development and translation of scientific research and development outputs into commercial products, processes and services, which are crucial to develop a	**Type of indicator**	Process indicator

	knowledge based economy. Note that publicly funded institutions includes all recipients receiving public funds for R&D purposes, which are not an institution, as per the IPR Act.		
Measure / Indicator Definition	New disclosures reported by publicly-funded institutions include only those disclosures reported to the National Intellectual Property Management Office (NIPMO) institutions, ideally on a biannual basis. In particular, disclosures refer to IP status and commercialisation reports (IP7 forms) received from publicly funded institutions. IP7 Form - IP Status and Commercialisation Report	**Measure / Indicator Formula**	The total number of disclosures reported by publicly-funded institutions at the end of the financial year=the sum of the disclosures received by the NIPMO during the year
New Indicator	Continuation	**Desired performance**	A high and continuously increasing performance on this indicator is desired
Measure / Indicator Owner	Head: National Intellectual Property Management Office	**Worked example**	If 97 new disclosures were received from institutions during quarter 1, then the total is 97 for quarter 1
Target set for current year	**Annual:** 210 new disclosures reported by publicly funded institutions by 31 March 2020 **Quarterly:** **Q1** – 100 new disclosures reported by publicly funded institutions	**Target achieved**	Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - :

	Q2 – No target **Q3** – 100 new disclosures reported by publicly funded institutions **Q4** – 10 new disclosures reported by publicly funded institutions		
Data limitations	In some cases, there may be a delay in obtaining the relevant data given dependencies on other internal or external stakeholders. This also impacts on the quality of data obtained. The actual IP7 forms contains confidential information and may not be disclosed (as per the requirements of the Act).		
Reasons for variances between the target set and actual achieved	There is no variance at this stage.		

2. Collection of source data to enable effective reporting on the adopted output measure indicator			
Source data	➢ IP7 forms with details of the disclosure being made to NIPMO from any of higher education institutions, science councils, and other recipients of public funds for R&D purposes as per the IPR-PFRD Act (dependent on whether they have disclosures in the period under review) (The IP7 forms are confidential and will not form part of the evidence) ➢ Database of IP7 forms received, approved b the Head: NIPMO ➢ Signed Acknowledgement letter of IP7 form received		
Collection Frequency of Source data	Quarterly (Quarters 1, 3 and 4)		
Archiving of Source Data	Disclosures database at NIPMO		
Type of information to be extracted from the source data	Number of IP7 forms (disclosing IP status and commercialisation) received from publicly funded institutions		
IT Systems/ Tools used to capture extracted data	Disclosures database at NIPMO.		
Source Data Capturing Frequency	Quarterly (Quarters 1, 3 and 4)		
Individual(s) responsible for collecting the source data	Senior Administrative Officer-NIPMO	**Individual(s) responsible for filing/ archiving the collected source data**	Senior Administrative Officer-NIPMO

Individual(s) responsible for extracting the required information from the source data	Director: Regulatory and Compliance	**Individual(s) responsible for verifying the accuracy and completeness of the extracted information**	Director: Regulatory and Compliance
Individual(s) responsible for capturing the extracted information onto the IT System	Director: Regulatory and Compliance	**Individual(s) responsible for verifying the accuracy and completeness of the captured information**	Director: Regulatory and Compliance

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information			
Performance Information Source		Alfresco	
Type of performance information to be extracted/ used		Number of IP status and commercialisation forms (IP7 forms) received from publicly funded institutions	
Calculations required on extracted informatio		Sum of all the IP status and commercialisation (IP7 forms) received from publicly funded institutions in the financial year.	
Archiving of Extracted / Recalculated Information		Quarterly and Annual Performance Reports of Programme 2. Alfresco	
Return Format		Numerical format on a quarterly and annual basis.	
Reporting Frequency		Quarterly (Reporting Q1, Q3 and Q4)	
Individual(s) responsible for extracting, calculating and consolidating the reported performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information**	Director: Office of the DDG Programme 2
Individual(s) responsible for archiving the extracted/ recalculated performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for sending the information in the required return format to the ----------**	Director: Office of the DDG Programme 2

Performance Indicator 5:

Medium–term objectives, measure/indicator, outputs, and targets		**Output Name** Regulatory recommendations for decision support	**Date** 31 March 2020
1. Overview of the objective, output, measure / indicator and target to be reported on			
Programme #		Programme 2	
Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans		Facilitate and resource R&D in strategic STI areas	
Objective Statement		To facilitate and resource investments in space science, energy, bio innovation, nanotechnology, robotics, photonics, IKS, IP management, technology transfer and technology commercialisation.	
Indicator title		**Percentage of regulatory recommendations made to the GMO Executive Council through DAFF to support decision-making.**	
Purpose of indicator	This indicator seeks to track the percentage of regulatory recommendations made to the Genetically Modified Organism (GMO) Executive Council with the aim of supporting the work of other government departments.	**Type of indicator**	Output indicator
Measure / Indicator Definition	Regulatory recommendations refer to recommendations made to support the work of other government departments as mandated by specific laws, regulations, guidelines and specifications	**Measure / Indicator Formula**	Percentage of regulatory recommendations for decision support by government at the end of the financial year = the average of all the percentages of regulatory recommendations for decision support by government during each quarter of the financial year.

New Indicator	No	**Desired performance**	100% performance is desired
Measure / Indicator Owner	CD: Bio-innovation	**Worked example**	If 8 requests to consider for recommendations were received from the Registrar before the Executive Council (EC) meeting in quarter 1 and 8 regulatory recommendations were made following the evaluation of GMO applications in quarter 1 to the EC, then 100% would have been achieved for quarter 1. If 100% is achieved in all quarters, then an average of 100% would have been achieved at the end of quarter 4.
Target set for current year	**Annual:** 100% of regulatory recommendations made to the GMO Executive Council through DALRRD to support decision making by 31 March 2020 **Quarterly:** **Q1** – 100% of regulatory recommendations made from applications received to support decision making **Q2** – 100% of regulatory recommendations made from applications received to support decision making **Q3** – 100% of regulatory recommendations made from applications received to support decision making **Q4** – 100% of regulatory recommendations made from applications received to support decision making	**Target achieved**	Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - :

Data limitations	The targets are dependent on the number of applications received by Government.
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		**Bio-innovation** • The EC agenda from DALRRD, containing the list of GMO permit applications to be considered by the EC • Letters of recommendation to the Registrar of the GMO Act (1997) on applications evaluated by the Chief Directorate. • Letter from DAFF to appointment a DST representative on the Executive Council	
Collection Frequency of Source data		Quarterly	
Archiving of Source Data		Manual or Alfresco	
Type of information to be extracted from the source data		Letters of recommendations to DALRRD.	
IT Systems/ Tools used to capture extracted data		Word/Excel/PDF documents for Recommendation letters. Only hard copies of GMO applications will be available within the Bio-innovation Chief Directorate.	
Source Data Capturing Frequency		Quarterly	
Individual(s) responsible for collecting the source data	Director: Agricultural Biotechnology	**Individual(s) responsible for filing/ archiving the collected source data**	Director: Agricultural Biotechnology
Individual(s) responsible for extracting the required information from the source data	Director: Agricultural Biotechnology	**Individual(s) responsible for verifying the accuracy and completeness of the extracted information**	Director: Agricultural Biotechnology

Individual(s) responsible for capturing the extracted information onto the IT System	Director: Agricultural Biotechnology	**Individual(s) responsible for verifying the accuracy and completeness of the captured information**	Director: Agricultural Biotechnology

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information			
Performance Information Source		Alfresco	
Type of performance information to be extracted/ used		Name and Number of GMO applications evaluated	
Calculations required on extracted information		The average percentage of all regulatory recommendations made, during each quarter, for decision support by government at the end of the financial year	
Archiving of Extracted / Recalculated Information		Quarterly and Annual Performance Reports of Programme 2. Alfresco	
Return Format		Numerical format on an annual basis.	
Reporting Frequency		Quarterly	
Individual(s) responsible for extracting, calculating and consolidating the reported performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information**	Director: Office of the DDG Programme 2
Individual(s) responsible for archiving the extracted/ recalculated performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for sending the information in the required return format to the ----------**	Director: Office of the DDG Programme 2

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Performance Indicator 6:

Medium–term objectives, measure/indicator, outputs, and targets	**Output Name** Decision support interventions	**Date** 31 March 2020
1. Overview of the objective, output, measure / indicator and target to be reported on		
Programme #	Programme 2	
Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans	Facilitate and resource R&D in strategic STI areas	
Objective Statement	To facilitate and resource investments in space science, energy, bio innovation, nanotechnology, robotics, photonics, IKS, IP management, technology transfer and technology commercialisation.	
Indicator title	**Number of decision support interventions developed or maintained.**	

Purpose of indicator	This indicator seeks to track and measure the number of decision support interventions developed or maintained to improve the delivery of government services or functions.	**Type of indicator**	Output indicator
Measure / Indicator Definition	Decision support interventions help people think about choices they face; they describe where and why choice exists; they provide information about options, including, where reasonable, the option of taking no action. These	**Measure / Indicator Formula**	A=B+C Where A=total number of decision support interventions developed and/ or maintained B= decision support interventions developed and/ or maintained C=decision support interventions and/ or maintained.

	interventions aim to help people to deliberate, independently or in collaboration with others, about options by considering relevant attributes to help them forecast how they might feel about short, intermediate and long-term outcomes which have relevant consequences. They support the process of constructing preferences and eventual decision making, appropriate to their individual situation. A decision support intervention will be considered "developed" once it has been approved by a designated member(s) of the EXCO. In addition, a decision support tool will be considered maintained: once funding has been transferred to a relevant institution/ department, the tool has		For the 2019/20 Financial Year, two decision support tools will be developed and/or maintained.

	been transferred to a relevant institution / department; or support is provided through promotional activities e.g., workshops that would be used as a marketing tool for the Portal.		
New Indicator	Continuing.	**Desired performance**	Higher performance is desired
Measure / Indicator Owner	CD: Space Science CD: Hydrogen and Energy	**Worked example**	2 decision support interventions = 2 decision support interventions developed and/ or maintained. If one Bioenergy atlas is maintained during quarter 4 and the SAEOS Portal is maintained in the same quarter, a total of 2 decision support interventions would have been developed and/ or maintained by the end of quarter 4.
Target set for current year	**Annual:** 2 decision-support interventions developed and/or maintained by 31 March 2020 **Q1 – no target** **Q2 – no target** **Q3 –.no target** **Q4 –** 2 decision-support interventions developed and/or maintained	**Target achieved**	Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - :

Data limitations	In some cases there may be a delay in obtaining the relevant data given dependencies on other internal or external stakeholders. This also impacts on the quality of data obtained. "Approved" will include "noted" as there will be circumstances in which approval is not required Given the needs / requirements of government, a number of interventions other than those specified may fall within the definition of decision support interventions and may be included in totals for the financial year. It should be noted that the baseline will fluctuate from year to year because of the uncertainty associated with the requirements of government and the DST's ability to respond.
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	**Hydrogen and Energy; Bio-innovation; Innovation Priorities and Instruments; and NIPMO** • Signed Contract • Signed annual report/ draft annual report / signed summary reports from implementing agency indicating number and an appendix with the name of decision support intervention supported or maintained; **OR** • Website which shows the developed and/or maintained intervention(s); • Approved submission and Payment stub; **Space Science and Technology** • Website link to an interactive Portal; or • Workshop report or report of stakeholder engagements approved by a designated member of EXCO. • Proof of transfer to relevant department or institutions
Collection Frequency of Source data	Annually
Archiving of Source Data	Manual or Alfresco
Type of information to be extracted from the source data	Name and Number of decision support interventions developed and/or maintained.

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IT Systems/ Tools used to capture extracted data		Word/Excel/PDF documents	
Source Data Capturing Frequency		Annually	
Individual(s) responsible for collecting the source data	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance	**Individual(s) responsible for filing/ archiving the collected source data**	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance

	Director: Fund & Incentives Management		Director: Fund & Incentives Management
Individual(s) responsible for extracting the required information from the source data	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management	**Individual(s) responsible for verifying the accuracy and completeness of the extracted information**	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management

Individual(s) responsible for capturing the extracted information onto the IT System	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management	**Individual(s) responsible for verifying the accuracy and completeness of the captured information**	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observation Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management

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

Performance Information Source		Alfresco	
Type of performance information to be extracted/ used		Number of decision support interventions developed and/or maintained during the financial year.	
Calculations required on extracted information		The sum of all decision support interventions developed and/or maintained	
Archiving of Extracted / Recalculated Information		Annual Performance Reports of Programme 2.	
Return Format		Numerical format on an annual basis.	
Reporting Frequency		Annually	
Individual(s) responsible for extracting, calculating and consolidating the reported performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information**	Director: Office of the DDG Programme 2
Individual(s) responsible for archiving the extracted/ recalculated performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for sending the information in the required return format to the ----------**	Director: Office of the DDG Programme 2

Performance Indicator 7:

Medium–term objectives, measure/indicator, outputs, and targets		**Output Name** Postgraduate research students	**Date** 31 March 2020
1. Overview of the objective, output, measure / indicator and target to be reported on			
Programme #		Programme 2	
Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans		Coordinate and support high-end skills development	
Objective Statement		To coordinate and support high end and skills development in the strategic and emerging S&T areas of space science, energy, bio innovation, nanotechnology, robotics, photonics, synthetic biology, structural biology, systems biology and functional genomics (collectively the South African Bio Design Initiative (SABDI), IP management, technology transfer and technology commercialisation	
Indicator title		**Number of postgraduate students (masters and doctoral) funded in designated areas.**	
Purpose of indicator	This indicator tracks the Postgraduates (masters and doctorates) supported in order to build capacity, capability and specialised skills and knowledge in designated areas	**Type of indicator**	Process indicator
Measure / Indicator Definition	This indicator refers to masters and doctorates supported as a result of the Department funding initiatives in the designated areas. Designated areas include space science, energy, bio-innovation, emerging research areas, IP management, and technology transfer	**Measure / Indicator Formula**	Total number of postgraduates (masters and doctorates) supported at the end of the financial year=the sum of the postgraduates (masters and doctorates) supported during the financial year

	and technology commercialisation.		
New Indicator	Not new	**Desired performance**	Higher performance is desired
Measure / Indicator Owner	CD: Bio-economy CD: Hydrogen and Energy CD: Innovation Priorities and Instruments CD: Space Science	**Worked example**	If 25 postgraduate students were supported during the year, then the total supported at the end of quarter 4 is 25.
Target set for current year	**Annual:** 185 postgraduate students (masters and doctoral) funded in designated areas by 31 March 2020 **Quarterly:** **Q1** – no target **Q2** – no target **Q3** –.no target **Q4** – 185 postgraduate students (masters and doctoral) funded in designated areas by 31 March 2020	**Target achieved**	Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - :
Data limitations	Postgraduate students are produced by the Universities. The Programme provides funding support, infrastructure and resource support through Universities, Science Councils and its agencies, as may be appropriate. Given this scenario there may be delays in obtaining the relevant data given dependencies on other internal or external stakeholders. This also impacts on the quality of data obtained. There may also be variances from the planned target as students may complete their research over a shorter or longer period. Caveat: Depending on the design and implementation of initiatives, consultation with stakeholders, resources limitations / reprioritisation and other factors impacting on this KPI, the development and / or implementation of a programme may be postponed or terminated or replaced or merged with another relevant programme. Evidence is also dependant per project.		
Reasons for variances between the target set and actual achieved	There is no variances at this stage		

2. Collection of source data to enable effective reporting on the adopted output measure / indicator			
Source data		Only masters and doctoral students supported within the 2019 calendar year will be used towards the final calculation. **Bio-Innovation; Hydrogen and Energy; Innovation Priorities and Instruments; Innovation Priorities and Instruments; Space Science and Technology** ➢ Signed contracts; ➢ Approved submission and proof of payment; ➢ Signed reports which indicates total number of post-graduate (masters and doctorates) students supported; Or ➢ Proof of enrolment (proof of registration on an official letterhead; stamped and signed) for post-graduate students from institution.	
Collection Frequency of Source data		Annually	
Archiving of Source Data		Manual or Alfresco	
Type of information to be extracted from the source data		For each initiative (e.g. NIC/ NTeMBI) supported: the total number of students enrolled, their names, qualification enrolled for, year of enrolment and the institution where they are enrolled. Additional details can be obtained as required	
IT Systems/ Tools used to capture extracted data		Word/Excel/PDF documents or Access database	
Source Data Capturing Frequency		Annually	
Individual(s) responsible for collecting the source data	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy	**Individual(s) responsible for filing/ archiving the collected source data**	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy

	Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Space Systems Director: Earth Observations		Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Space Systems Director: Earth Observations
Individual(s) responsible for extracting the required information from the source data	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Space Systems Director: Earth Observations	**Individual(s) responsible for verifying the accuracy and completeness of the extracted information**	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Space Systems Director: Earth Observations

Individual(s) responsible for capturing the extracted information onto the IT System	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Space Systems Director: Earth Observations	**Individual(s) responsible for verifying the accuracy and completeness of the captured information**	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Space Systems Director: Earth Observations

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information	
Performance Information Source	Alfresco
Type of performance information to be extracted/ used	Number of postgraduate students (Masters and Doctorates) supported
Calculations required on extracted information	Sum of all the postgraduate Masters and Doctorates) supported over each quarter of the financial year.
Archiving of Extracted / Recalculated Information	Annual Performance Reports of Programme 2 and/or proof of enrolment (proof of registration on an official letterhead; stamped and signed) for post-graduate students from institution on Alfresco

Return Format		Numerical format on an annual basis.	
Reporting Frequency		Annually	
Individual(s) responsible for extracting, calculating and consolidating the reported performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information**	Director: Office of the DDG Programme 2
Individual(s) responsible for archiving the extracted/ recalculated performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for sending the information in the required return format to the ----------**	Director: Office of the DDG Programme 2

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Performance Indicator 8:

Medium–term objectives, measure/indicator, outputs, and targets		**Output Name** Trainees attending training initiatives in designated areas	**Date** 31 March 2020
1. Overview of the objective, output, measure / indicator and target to be reported on			
Programme #		Programme 2	
Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans		Coordinate and support high-end skills development	
Objective Statement		To coordinate and support high end and skills development in the strategic and emerging S&T areas of space science, energy, bio innovation, nanotechnology, robotics, photonics, synthetic biology, structural biology, systems biology and functional genomics (collectively the South African Bio Design Initiative (SABDI), IP management, technology transfer and technology commercialisation	
Indicator title		**Number of trainees attending training initiatives in designated areas.**	
Purpose of indicator	This indicator tracks the number of people attending training initiatives in designated areas in order to build capacity, capability and specialised skills and knowledge in in designated areas. This excludes the support of post graduate students for Masters and PhD degree purposes	**Type of indicator**	Output indicator
Measure / Indicator Definition	This indicator refers to interns, technicians, mentors, mentees, academics, students, researchers, innovators, entrepreneur's technology transfer practitioners, and IP	**Measure / Indicator Formula**	Total number of trainees attending training initiatives in designated areas=the sum of trainees supported during each quarter of the financial year

	candidates. that attended training in training initiatives, which includes internships, workshops, conferences, seminars, webinars, EXPOs, mentorship and exchange programmes and work integrated programmes. Designated areas include space science, energy, bio-innovation, emerging research areas, IP management, technology transfer and technology commercialisation.		
New Indicator	Not new	**Desired performance**	Higher performance is desired
Measure / Indicator Owner	CD: Bio-economy; and/or CD: Innovation Priorities and Instruments; and/or Head: National Intellectual Property Management Office; and/or CD: Space Science	**Worked example**	If 40 IP candidates were trained in quarter 3 and 140 IP candidates were trained during quarter 4, then the total is 180 at the end of quarter 4.
Target set for current year	**Annual:** 230 trainees attending training initiatives in designated areas by 31 March 2020 **Quarterly:** **Q1** – no target **Q2** – no target **Q3** –. 165 trainees attending training initiatives in designated areas **Q4** –	**Target achieved**	Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - :

	65 trainees attending training initiatives in designated areas		
Data limitations	In some cases there may be a delay in obtaining the relevant data given dependencies on other internal or external stakeholders. This also impacts on the quality of data obtained. Caveat: Depending on design and implementation of initiatives, consultation with stakeholders, resources limitations / reprioritisation and other factors impacting on this KPI, the development and / or implementation of a programme may be postponed or terminated or replaced or merged with another relevant programme, and a number of trainees supported other than those specified may be included in the totals for the financial year.		
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	**Bio-economy; Hydrogen and Energy; Innovation Priorities and Instruments; Space Science; and NIPMO** • Signed Contract where applicable with service provider • Payment stub; • support provided to service provider where applicable; **OR** • Signed attendance registers or equivalent; Signed memo from the relevant Chief Director to explain how the trainees were counted.
Collection Frequency of Source data	Biannual (reporting Q3 and Q4)
Archiving of Source Data	Manual or Alfresco
Type of information to be extracted from the source data	For each initiative: the total number of trainees trained, their names, and the institution/service provider through which they were trained.
IT Systems/ Tools used to capture extracted data	Word/Excel/PDF documents
Source Data Capturing Frequency	Biannual (Q3 and Q4)

Individual(s) responsible for collecting the source data	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Space Systems Director: Earth Observations	**Individual(s) responsible for filing/ archiving the collected source data**	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Space Systems Director: Earth Observations
Individual(s) responsible for extracting the required	Director: Agricultural Biotechnology	**Individual(s) responsible for verifying the accuracy and completeness of**	Director: Agricultural Biotechnology

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information from the source data	Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Space Systems Director: Earth Observations	**the extracted information**	Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Space Systems Director: Earth Observations
Individual(s) responsible for capturing the extracted information onto the IT System	Director: Agricultural Biotechnology Director: Industry and Environment	**Individual(s) responsible for verifying the accuracy and completeness of the captured information**	Director: Agricultural Biotechnology Director: Industry and Environment

	Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Space Systems Director: Earth Observations		Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Space Systems Director: Earth Observations

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information			
Performance Information Source		Alfresco	
Type of performance information to be extracted/ used		Number and names of trainees trained during the quarters of the financial year.	
Calculations required on extracted information		Sum of the Number of trainees trained over each quarter of the financial year	
Archiving of Extracted / Recalculated Information		Annual Performance Reports of Programme 2. Alfresco	
Return Format		Numerical format on an annual basis.	
Reporting Frequency		Biannual (Reporting in Q3 and Q4)	
Individual(s) responsible for extracting, calculating and consolidating the reported performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information**	Director: Office of the DDG Programme 2
Individual(s) responsible for archiving the extracted/ recalculated performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for sending the information in the required return format to the ----------**	Director: Office of the DDG Programme 2

Performance Indicator 9:

Medium–term objectives, measure/indicator, outputs, and targets		Output Name Knowledge application products	Date 31 March 2020
1. Overview of the objective, output, measure / indicator and target to be reported on			
Programme #		Programme 2	
Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans		Support the development and translation of scientific R&D outputs into commercial products, processes and services	
Objective Statement		To support, promote, and advocate for the development and translation of scientific research and development outputs into commercial products, processes and services that will contribute towards economic growth and a better quality of life.	
Indicator title		**Number of knowledge application products funded in designated areas.**	
Purpose of indicator	This indicator tracks the number of knowledge application products funded in designated areas.	Type of indicator	Output indicator
Measure / Indicator Definition	This indicator refers to prototypes, pilots, demonstrators, technology transfer packages, software, and pre-commercial products, processes or services funded in the following designated areas: space science, energy, bio-innovation, emerging research areas, IP management, technology transfer and technology commercialisation.	Measure / Indicator Formula	Total number of knowledge application products funded at the end of the financial year=the sum of the knowledge application products funded during each quarter of the financial year
New Indicator	Continuing	Desired performance	Higher performance is desirable

Measure / Indicator Owner	CD: Bio-innovation; and/or CD: Hydrogen and Energy; and/or CD: Space Science; and/or CD: Innovation Priorities and Instruments	**Worked example**	If 2 prototypes were supported during quarter 3 and 3 prototypes were supported during quarter 4, then the total is 5 at the end of quarter 4.
Target set for current year	**Annual:** 10 knowledge application products developed in designated areas by 31 March 2020 **Quarterly:** **Q1 – no target** **Q2** – no target **Q3 – no target** **Q4 –** 10 knowledge application products developed in designated areas by 31 March 2020	**Target achieved**	Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - :
Data limitations	In some cases, there may be a delay in obtaining the relevant data given dependencies on other internal or external stakeholders. This also impacts on the quality of data obtained. **Caveat:** Depending on the design and implementation of initiatives, consultation with stakeholders, resources limitations / reprioritisation and other factors impacting on this KPI, the development of knowledge application products may be postponed or terminated or replaced or merged with another relevant knowledge application product, and a number of technologies developed other than those specified may be included in the totals for the financial year.		
Reasons for variances between the target set and actual achieved	No variance at this point.		

2. Collection of source data to enable effective reporting on the adopted output measure / indicator			
Source data		**Bio-innovation; Hydrogen and Energy; Space Science and Technology; Innovation Priorities and Instruments** • Signed Contracts; • Signed reports or signed summary report from implementing agency as appropriate with number and names of knowledge application products funded during the period; • Approved submission and Payment stub.	
Collection Frequency of Source data		Annually	
Archiving of Source Data		Alfresco	
Type of information to be extracted from the source data		Name and Number of knowledge application products funded during the period	
IT Systems/ Tools used to capture extracted data		No Specific IT system or tool is required at this point.	
Source Data Capturing Frequency		Annually	
Individual(s) responsible for collecting the source data	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology	**Individual(s) responsible for filing/ archiving the collected source data**	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment

	Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observations		Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observations
Individual(s) responsible for extracting the required information from the source data	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observations	**Individual(s) responsible for verifying the accuracy and completeness of the extracted information**	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observations

	Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Space Systems Director: Earth Observations		
Individual(s) responsible for capturing the extracted information onto the IT System	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment	**Individual(s) responsible for verifying the accuracy and completeness of the captured information**	Director: Transport and Renewable Energy Director: Power Director: Hydrogen and Energy Director: Emerging Research Areas Director: Health Innovation Director: Agricultural Biotechnology Director: Industry and Environment

	Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observations		Director: IK-based Technology Innovation Director: Space Systems Director: Earth Observations

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information			
Performance Information Source		Alfresco	
Type of performance information to be extracted/ used		Name of the knowledge application products funded during the period	
Calculations required on extracted information		Sum of all of the knowledge application products funded during all quarters of the financial year.	
Archiving of Extracted / Recalculated Information		Quarterly/Bi-annual or Annual Performance Reports of Programme 2. Alfresco	
Return Format		Numerical format on an annual basis	
Reporting Frequency		Annually	
Individual(s) responsible for extracting, calculating and consolidating the reported performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information**	Director: Office of the DDG Programme 2
Individual(s) responsible for archiving the extracted/ recalculated performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for sending the information in the required return format to the ----------**	Director: Office of the DDG Programme 2

Performance Indicator 10:

Medium–term objectives, measure/indicator, outputs, and targets		Output Name Commercial outputs in designated areas	Date 31 March 2020
1. Overview of the objective, output, measure / indicator and target to be reported on			
Programme #		Programme 2	
Programme's Strategic Objectives (as per the Strategic Plan and the annual Performance Plans		Support the development and translation of scientific R&D outputs into commercial products, processes and services.	
Strategic Statement		To support, promote, and advocate for the development and translation of scientific research and development outputs into commercial products, processes and services that will contribute towards economic growth and a better quality of life.	
Indicator title		**Number of commercial outputs in designated areas**	
Purpose of indicator	This indicator tracks the number of commercial outputs in the strategic, emerging and converging areas (designated areas[1]).	**Type of indicator**	Output indicator
Measure / Indicator Definition	This indicator seeks to measure and track the number of outputs commercialised as a result of support provided in designated areas; e.g. licenses, assignments, options of varying nature (such as directed research, joint ventures and the like), start-ups, spin outs, new companies, etc. created; distribution, manufacturing, sales agreements and the like for products,	**Measure / Indicator Formula**	Total number of commercial outputs at the end of the financial year=the sum of all the commercialised outputs during each quarter of the financial year.

[1] Designated areas include space science, energy, bio-innovation, emerging research areas, IP management, technology transfer and technology commercialisation

	processes and services. The commercialisation of products, processes and services may involve other departments, entities and market players and therefore may fall outside the Department's control.		
New Indicator	Not new, but the title of the indicator has been re-worded from the previous indicator, "Number of new technology products, processes and/or services commercialised".	**Desired performance**	Higher performance is desirable
Measure / Indicator Owner	**Chief Director:** Innovation Priorities and Instruments; and/or **Head:** National Intellectual Property Management Office.; and/or **Chief Director**: Hydrogen and Energy; and/or **Chief Director:** Bio-innovation; and/or **Chief Director:** Space Science and Technology	**Worked example**	If 2 IKS based products are realised during quarter 3 plus 1 Health Innovation-based product is funded and ready to be commercialised during quarter 4, , then it will equal a total of 3 commercial products at the end of quarter 4.
Target set for current year	**Annual:** 8 commercial outputs in designated areas by 31 March 2020 **Quarterly:** **Q1** – no target **Q2** – no target **Q3** – no target **Q4** – 8 commercial outputs in designated areas.	**Target achieved**	Actual target achieved. Q1 – Q2 – Q3 – Q4 – YTD - :
Data limitations	In some cases there could be delays in obtaining the relevant data given dependencies on other internal or external stakeholders. This also impacts on the quality of data obtained. **Caveat**: Given the uncertainties associated		

	with commercialisation of outputs, a number of outputs other than those specified may fall within the definition of commercial outputs and may be included in performance totals for the financial year. It should be noted that the baseline will fluctuate from year to year because of the uncertainty associated with deals being negotiated.
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		For all reported commercial outputs: • Approved submission where appropriate; • Funding agreement / contracts where appropriate; • Signed reports / signed summary reports from implementing agency, or letters indicating number and names of commercial outputs that arose as a result of support, or other evidence, such as an invoice or quote to show that the product is available on the market; • Photos of the relevant outputs where appropriate.	
Collection Frequency of Source data		Annually	
Archiving of Source Data		Alfresco	
Type of information to be extracted from the source data		Name and Number of commercial products during the period.	
IT Systems/ Tools used to capture extracted data		No Specific IT system or tool is required at this point.	
Source Data Capturing Frequency		Annually	
Individual(s) responsible for collecting the source data	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation	**Individual(s) responsible for filing/ archiving the collected source data**	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation Director: Health Innovation

	Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Earth Observation Director: Space Systems		Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Earth Observation Director: Space Systems
Individual(s) responsible for extracting the required information from the source data	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based	**Individual(s) responsible for verifying the accuracy and completeness of the extracted information**	Director: Agricultural Biotechnology Director: Industry and Environment Director: IK-based Technology Innovation

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	Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Earth Observation Director: Space Systems		Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Earth Observation Director: Space Systems
Individual(s) responsible for capturing the extracted information onto the IT System	Director: Agricultural Biotechnology Director: Industry and Environment	**Individual(s) responsible for verifying the accuracy and completeness of the captured information**	Director: Agricultural Biotechnology Director: Industry and Environment

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	Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Earth Observation Director: Space Systems		Director: IK-based Technology Innovation Director: Health Innovation Director: Transport and Renewable Energy Director: Power Director: Alternative Energy Director: Emerging Research Areas Director: Innovation Priorities and Instruments Director: Advisory and Support Director: Regulatory and Compliance Director: Fund & Incentives Management Director: Earth Observation Director: Space Systems

3. Quarterly and Annual Reporting of Collected/ Extracted Performance Information			
Performance Information Source		Alfresco	
Type of performance information to be extracted/ used		Number of commercial outputs during the period.	
Calculations required on extracted information		Sum of all of the commercial outputs in the financial year	
Archiving of Extracted / Recalculated Information		Annual Performance Reports of Programme 2.	
Return Format		Numerical format on an annual basis	
Reporting Frequency		Annually	
Individual(s) responsible for extracting, calculating and consolidating the reported performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for verifying the accuracy and completeness of the extracted performance information**	Director: Office of the DDG Programme 2
Individual(s) responsible for archiving the extracted/ recalculated performance information	Deputy Director: Office of the DDG Programme 2	**Individual(s) responsible for sending the information in the required return format to the ----------**	Director: Office of the DDG Programme 2