

APPENDIX A: DEFINITIONS FOR S&T POSTING LEVEL ACTIVITIES

1. Salaries and Wages Resident R&D)

This refers to salaries and wages of departmental officials who actually perform R&D within the department *e.g. The DEAT MCM programme which has full time researchers as part of the departmental workforce*. This item is aimed primarily at differentiating government staff that undertakes scientific R&D from administrative staff.

1.1 S&W: Remuneration (Res R&D)

This is payment in money or in kind or both to any scientific researcher within a department in return for that person working for any other person including the State. Remuneration to staff members employed on a contractual basis is also included, provided that these staff members are paid at regular interval and that they are listed on a government payroll.

1.2 S&W: Pensionable (Res R&D)

This refers to money paid to a scientific researcher within a department as a retirement benefit by way of patronage.

1.3 S&W: Basic Salary (Res R&D)

This is the researcher's actual salary before taking the income tax, pensions and any allowable deductions.

1.4 S&W: Non-Resident (R&D)

This refers to a payment for a researcher whose normal place of domicile is outside the monetary area (i.e. outside South Africa).

2. Science and Technology Services (STS)

2.1 Consultants, Contracts & Special Services

2.1.1 Cons & Spec Serv: Scoping and planning STA

These are funds that a department uses to pay a service provider or consultant to assess, scope, provide additional information and cost a project for the scientific and technological potential before it is undertaken *e.g. The DWAF contracts a service provider to assess the spread of the Typhoid outbreak; scope and cost the work for improving infrastructure for basic water supply and sanitation at regional level.*

2.1.2 Cons & Spec Serv: R&D Policies & Plans

These are funds that a department uses to pay a service provider or consultant for the performance of STAs on its behalf *e.g. The DoA contracts a service provider to develop a national Agricultural R&D strategy.*

2.1.3 Cons & Spec Serv: Public S&T Entity

These are fees paid to an entity for the performance of STS for which the results of the activity belong to the department *e.g. The Department of Health contracts MRC to investigate the risk factors associated with avian flu and clarifying the role of the health care system in managing the disease.*

2.1.4 Cons & Spec Serv: Monitoring & Evaluation of S&T Programmes

These are fees paid to a consultant or service provider for the monitoring and evaluation of S&T programmes *e.g. The DoA contracts a consultant to monitor and evaluate the impact of the programme for the safe and sustainable use of genetically modified organisms.* Generally, the monitoring and evaluation function is built into the S&T policies or programmes.

2.1.5 Cons & Spec Serv: Technology Transfer Service

These are fees paid to a consultant or service provider to transfer science and technology solutions and provide technology services to community-

based projects to reduce poverty and create jobs. A department or entity identifies and disseminate poverty reduction technologies designed to improve sustainable livelihoods.

2.2 Support Services of R&D

2.2.1 Testing, standardization, quality control

This refers to regular research work concerned with the analysis, control and testing of materials, product appliances and process by known methods e.g. *a test undertaken by the Department of Defence of newly acquired equipment.*

2.2.2 Scientific and technological collections

This refers to anthropological, archeological, palaeontological, collections, etc, which are used by experts, undertaken by S&T museums, botanical and zoological gardens e.g. *The National Museum spends money to collect unidentified specimens of insects for classification and cataloguing.*

2.2.3 Collection of general scientific data

This refers to data collection undertaken by government agencies to record topographical, geological, hydrological and oceanographic data and is collected for the purpose of scientific research.

2.3 STS for Dissemination of S&T

2.3.1 Dissemination of S&T documentation and factual data

This refers to STS provided by libraries, archives, information and documentation centres, reference services, scientific congress and symposia, S&T data banks.

2.3.2 Scientific advisory services and technical assistance

This refers to day-to-day activities of engineering departments which give advice on the application of scientific and managerial knowledge; extension

services of farmers and industry; bilateral and multilateral technical co-operation.

3. Science and Technology Innovation (STI)

3.1 Contract R&D

These are fees paid to a service provider or consultant for the procurement of R&D with the results of the R&D belonging to the recipient of the output or product of the R&D, who may not necessarily be the funder of the R&D.

4. Scientific, Technical, Educational Training (STET)

4.1 Post graduate R&D Bursaries

This covers bursaries within departments for the training of employees or research workers during the postgraduate stage of higher education (MSc, PhD, etc) which represents the transition from systematic and formal education on the one hand to practical R&D on the other.

5. Transfers and Subsidies: STAs

5.1 S&T Programmes (STET)

This refers to transfers made to independent programmes (e.g. centres of excellence, THRIP, SPII, etc) which do not form part of any institution but are a good vehicle for developing researchers and young science and technology professionals and academics.

5.2 STET (Bursaries for postgraduate stage of Higher Education)

This refers to bursaries for postgraduate students who undertake research leading to the status of research worker; and organised lifelong training for scientists and engineers or the equivalent for those intending to exercise an STS activity.

5.3 S&T Agency

This refers to transfers of the parliamentary grant or capital nature to government agencies which are responsible for promoting and supporting research and development through investments in knowledge, people and infrastructure e.g. NRF, WRC, etc

5.4 STA in Sector Institution (R&D)

This refers to transfers of the parliamentary grant or capital nature to national research institutions which prepare their sectoral R&D budgets for inclusion in the State budget and are responsible for performing research and development e.g. CSIR, MRC, ARC, etc

5.5 S&T Universities & Univ of Technology (R&D training of scientists, engineers and technologists)

This refers to funds paid to HEIs for R&D projects conducted by academic staff and students towards the achievement of postgraduate degrees and R&D training and supervision of scientists, engineers and technologists. Such supervision activities should be included only if they are equivalent to the direction and management of a specific R&D project, containing a sufficient element of novelty or innovation and having as its object to produce new knowledge.

S&T Budget Structure Matrix

	Item	Scientific & Technological Services	Scientific, Technological & Educational Training	Scientific and Technological Innovation
1	Salaries & Wages Resident (R&D)	✓	✓	✓
1.1	S&W Remuneration (Res R&D)	✓	✓	✓
1.2	S&W Pensionable (Res R&D)	✓	✓	✓
1.3	S&W Basic Salary (Res R&D)	✓	✓	✓
1.4	S&W Non-Resident (R&D)	✓	✓	✓
2	Scientific and Technological Services	✓	.	.
2.1	Consultants, Contracts and Special Services	✓		
2.1.1	Cons & Spec Serv: Scoping and planning	✓		
2.1.2	Cons & Spec Serv:R&D Policies and Plans	✓		
2.1.3	Cons & Spec Serv: Public S&T Entity	✓		
2.1.4	Cons & Spec Serv: Monitoring & Evaluation	✓		
2.1.5	Cons & Spec Serv: Techn Transfer Services	✓		
2.2	Support Services for R&D	✓		
2.2.1	Testing standardisation quality control	✓		
2.2.2	Scientific and Technological Collectionsd	✓		
2.2.3	Collection of General scientific data	✓		
2.3	S&TS for dissemination of S&T	✓		
2.3.1	Dissemination of S&T documentation and factual data	✓		
2.3.2	Scientific advisory services and technologica assistance	✓		
3	Scientific and Technological Innovation			✓
3.1	Contract R&D			✓
4	Scientific, Technical and Educational Training		✓	
4.1	Post Graduate R&D Bursaries		✓	
5	Transfers and Subsidies		✓	✓
5.1	S&T Programmes		✓	✓
5.2	Scientific, Technical and Educational Training		✓	
5.3	S&T Agency		✓	✓
5.4	STA in sector institutions		✓	✓
5.4	S&T Universities & Univ of Technology		✓	✓

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List of S&T Institutions: National Investment on Research and Development

S&T for competitiveness	Department
National Research Foundation (NRF)	DST
Council for Mineral Technology (MINTEK)	DME
Council of Geoscience (CGS)	DME
Council for Scientific and Industrial Research (CSIR)	DST/DTI
South African Bureau of Standards (SABS)	DTI
Safety in Mines Research Advisory Committee (SIMRAC) funded thru levies	DME
Nuclear Energy Corporation of South Africa (R&D)	DME
National Energy Research Institute	DME/DST
Education Subsidy formula financing for R&D	DoE
Department of Defence Technology Funds	DoD
Technology and Human Resources for Industry Programmes (THRIP)	DTI
Support Programme for Industrial Innovation (SPII)	DTI
Innovation Fund	DST
Biotechnology Strategy	DST
Human Science Research Council (HSRC)	DST
Agricultural Research Council (ARC)	DoA
South African Medical Research Council (MRC)	Health
State Vaccine Institute/ South African Vaccine Producers**	Health
National Biodiversity Institute	DEAT
National Museum	DAC
National Zoological Gardens of South African	DAC
Natal Museum	DAC
Water Research Commission (no grants, work is funded by a levy on water users (p828, ENE).	DWAF
South African Institute of Medical Research (SAIMR)	Health
National Health Laboratory Services**	Health
National Institution for Communicable Diseases/Virology:	Health
Tsumisano Trust	DST
Godisa Trust	DST
Africa Institute of South Africa (AISA)	DST