

Vote 30

Science and Technology

Adjusted budget summary

R thousand	2017/18			
	Main appropriation	Adjusted appropriation	Decrease	Increase
Amount to be appropriated	7 557 229	7 557 229	(5 040)	5 040
<i>of which:</i>				
Current payments	575 769	570 729	(5 040)	–
Transfers and subsidies	6 960 482	6 964 482	–	4 000
Payments for capital assets	20 978	22 018	–	1 040
Executive authority	Minister of Science and Technology			
Accounting officer	Director-General of Science and Technology			
Website address	www.dst.gov.za			

Vote purpose

Realise the full potential of science and technology in social and economic development by developing human resources, research and innovation.

Mid-year performance status

Indicator	Programme	Outcome	Annual performance		
			Projected for 2017/18 as published in the 2017 ENE	Achieved in the first six months of 2017/18 (April to September)	Changed target for 2017/18
Number of instruments funded in support of knowledge utilisation per year	Technology Innovation	Outcome 4: Decent employment through inclusive growth	19	6	–
Number of commercial outputs in designated areas per year	Technology Innovation		4	2	–
Amount of international funds directly invested in research, science, technology and innovation human capital development programmes, as well as research infrastructure investment in South Africa, accounted for as part of cooperation initiatives implemented by the department, per year	International Cooperation and Resources		R420m	R23.6m	–
Number of PhD students awarded bursaries, as reflected in National Research Foundation and relevant entities project reports per year	Research, Development and Support	Outcome 5: A skilled and capable workforce to support an inclusive growth path	3 100	3 066	–
Number of pipelines postgraduate (BTech, honours and masters) students awarded bursaries through programmes managed by the National Research Foundation and relevant entities per year	Research, Development and Support		10 800	7 958	–
Number of research awarded research grants through programme managed by the National Research Foundation as reflected in the foundation's project reports per year	Research, Development and Support		4 500	3 865	–
Number of knowledge and innovation products added to the intellectual property portfolio through fully funded or co-funded initiatives per year	Socioeconomic Innovation Partnerships	Outcome 4: Decent employment through inclusive growth	15	10	17

Changes to indicators and targets published in the 2017 ENE

The number of knowledge and innovation products added to the intellectual property portfolio through fully funded or co-funded initiatives per year is being revised from the target of 15 published in the 2017 ENE to 17 due to additional funding received through the economic competitiveness and support package.

Mid-year progress

In the first half of 2017/18, only R23.6 million in international funding against a target of R420 million for the year was directly invested in research, science, technology and innovation human capital development programmes, and research infrastructure. This slow performance is due to delays in receiving information from international partner organisations. However, the department expects to receive the outstanding information in the second half of the year, and as a result, expects to meet the target.

Due to the increase in the number of applications received, mid-year targets have been exceeded for the number of bursaries awarded to PhD and postgraduate students, as well as research grants awarded, in programmes managed by the National Research Foundation and relevant entities.

Adjusted Estimates of National Expenditure 2017

Programme	2017/18							Adjusted appropriation
	Main appropriation	Adjustments appropriation					Total adjustments appropriation	
R thousand		Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared unspent funds	Other adjustments		
Administration	383 720	-	-	(7 760)	-	-	(7 760)	375 960
Technology Innovation	1 073 621	-	-	1 495	-	-	1 495	1 075 116
International Cooperation and Resources	128 705	-	-	3 675	-	-	3 675	132 380
Research, Development and Support	4 348 859	-	-	1 277	-	-	1 277	4 350 136
Socioeconomic Innovation Partnerships	1 622 324	-	-	1 313	-	-	1 313	1 623 637
Total	7 557 229	-	-	-	-	-	-	7 557 229
Economic classification								
Current payments	575 769	-	-	(5 040)	-	-	(5 040)	570 729
Compensation of employees	315 527	-	-	11 300	-	-	11 300	326 827
Goods and services	260 242	-	-	(16 340)	-	-	(16 340)	243 902
Transfers and subsidies	6 960 482	-	-	4 000	-	-	4 000	6 964 482
Departmental agencies and accounts	5 204 288	-	-	-	-	-	-	5 204 288
Public corporations and private enterprises	1 420 110	-	-	-	-	-	-	1 420 110
Non-profit institutions	336 084	-	-	4 000	-	-	4 000	340 084
Payments for capital assets	20 978	-	-	1 040	-	-	1 040	22 018
Machinery and equipment	20 978	-	-	1 040	-	-	1 040	22 018
Total	7 557 229	-	-	-	-	-	-	7 557 229

Programme 1: Administration

Subprogramme	2017/18							Adjusted appropriation
	Main appropriation	Adjustments appropriation					Total adjustments appropriation	
R thousand		Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared unspent funds	Other adjustments		
Ministry	4 461	-	-	-	-	-	-	4 461
Management	108 623	-	-	7 250	-	-	7 250	115 873
Corporate Services	256 278	-	-	(13 761)	-	-	(13 761)	242 517
Governance	9 574	-	-	(1 249)	-	-	(1 249)	8 325
Office Accommodation	4 784	-	-	-	-	-	-	4 784
Total	383 720	-	-	(7 760)	-	-	(7 760)	375 960
Economic classification								
Current payments	349 239	-	-	(12 800)	-	-	(12 800)	336 439
Compensation of employees	152 729	-	-	5 672	-	-	5 672	158 401
Goods and services	196 510	-	-	(18 472)	-	-	(18 472)	178 038
Transfers and subsidies	13 503	-	-	4 000	-	-	4 000	17 503
Non-profit institutions	13 503	-	-	4 000	-	-	4 000	17 503
Payments for capital assets	20 978	-	-	1 040	-	-	1 040	22 018
Machinery and equipment	20 978	-	-	1 040	-	-	1 040	22 018
Total	383 720	-	-	(7 760)	-	-	(7 760)	375 960

Programme 2: Technology Innovation

Subprogramme	2017/18							Adjusted appropriation
	Main appropriation	Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared unspent funds	Other adjustments	Total adjustments appropriation	
R thousand								
Space Science	173 402	-	-	1 495	-	-	1 495	174 897
Hydrogen and Energy	156 785	-	-	-	-	-	-	-
Bioeconomy	156 088	-	-	-	-	-	-	-
Innovation Priorities and Instruments	540 522	-	-	-	-	-	-	-
National Intellectual Property Management Office	46 824	-	-	-	-	-	-	-
Total	1 073 621	-	-	1 495	-	-	1 495	1 075 116
Economic classification								
Current payments	65 851	-	-	1 495	-	-	1 495	67 346
Compensation of employees	44 443	-	-	1 495	-	-	1 495	45 938
Goods and services	21 408	-	-	-	-	-	-	21 408
Transfers and subsidies	1 007 770	-	-	-	-	-	-	-
Departmental agencies and accounts	660 988	-	-	-	-	-	-	-
Public corporations and private enterprises	100 848	-	-	-	-	-	-	-
Non-profit institutions	245 934	-	-	-	-	-	-	-
Total	1 073 621	-	-	1 495	-	-	1 495	1 075 116

Programme 3: International Cooperation and Resources

Subprogramme	2017/18							Adjusted appropriation
	Main appropriation	Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared unspent funds	Other adjustments	Total adjustments appropriation	
R thousand								
- Multilateral Cooperation and Africa	29 617	-	-	1 543	-	-	1 543	31 160
International Resource	59 481	-	-	2 132	-	-	2 132	61 613
Overseas Bilateral Cooperation	39 607	-	-	-	-	-	-	39 607
Total	128 705	-	-	3 675	-	-	3 675	132 380
Economic classification								
Current payments	64 928	-	-	3 632	-	-	3 675	68 603
Compensation of employees	47 300	-	-	1 543	-	-	1 543	48 843
Goods and services	17 628	-	-	2 132	-	-	2 132	19 760
Transfers and subsidies	63 777	-	-	-	-	-	-	-
Departmental agencies and accounts	14 130	-	-	-	-	-	-	-
Non-profit institutions	49 647	-	-	-	-	-	-	-
Total	128 705	-	-	3 675	-	-	3 675	132 380

Programme 4: Research, Development and Support

Subprogramme	2017/18							Adjusted appropriation
	Main appropriation	Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared unspent funds	Other adjustments	Total adjustments appropriation	
R thousand								
Human Capital and Science Promotion	2 424 804	-	-	1 277	-	-	1 277	2 426 081
Science Mission	212 967	-	-	-	-	-	-	212 967
Basic Science and Infrastructure	976 604	-	-	-	-	-	-	976 604
Astronomy	734 484	-	-	-	-	-	-	734 484
Total	4 348 859	-	-	1 277	-	-	1 277	4 350 136
Economic classification								
Current payments	47 960	-	-	1 277	-	-	1 277	49 237
Compensation of employees	32 435	-	-	1 277	-	-	1 277	33 712
Goods and services	15 525	-	-	-	-	-	-	15 525
Transfers and subsidies	4 300 899	-	-	-	-	-	-	4 300 899
Departmental agencies and accounts	4 026 486	-	-	-	-	-	-	4 026 486
Public corporations and private enterprises	274 413	-	-	-	-	-	-	274 413
Total	4 348 859	-	-	1 277	-	-	1 277	4 350 136

Programme 5: Socioeconomic Innovation Partnerships

Subprogramme	2017/18	Adjustments appropriation					Total adjustments appropriation	Adjusted appropriation
		Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared unspent funds	Other adjustments		
R thousand	Main appropriation							
Sector Innovation and Green Economy	982 683	-	-	1 313	-	-	1 313	983 996
Innovation for Inclusive Development	356 598	-	-	-	-	-	-	356 598
Science and Technology Investment	25 276	-	-	-	-	-	-	25 276
Technology Localisation, Beneficiation and advanced Manufacturing	257 767	-	-	-	-	-	-	257 767
Total	1 622 324	-	-	1 313	-	-	1 313	1 623 637
Economic classification								
Current payments	47 791	-	-	1 313	-	-	1 313	49 104
Compensation of employees	38 620	-	-	1 313	-	-	1 313	39 933
Goods and services	9 171	-	-	-	-	-	-	9 171
Transfers and subsidies	1 574 533	-	-	-	-	-	-	1 574 533
Departmental agencies and accounts	502 684	-	-	-	-	-	-	502 684
Public corporations and private enterprises	1 044 849	-	-	-	-	-	-	1 044 849
Non-profit institution	27 000	-	-	-	-	-	-	27 000
Total	1 622 324	-	-	1 313	-	-	1 313	1 623 637

Details of adjustments to Estimates of National Expenditure 2017

Virements and shifts within votes

Programmes

1. Administration
2. Technology Innovation
3. International Cooperation and Resources
4. Research, Development and Support
5. Socioeconomic Innovation Partnerships

FROM:			TO:		
Programme by economic classification	Motivation	R thousand	Programme by economic classification	Motivation	R thousand
Programme 1		(18 472)	Programme 1		10 712
Goods and services	Cost containment measures effected on catering	(1 040)	Machinery and equipment	Audiovisual equipment and vehicles	1 040
	Cost containment measures effected on advertising	(5 672)	Compensation of employees	Personnel remuneration ¹	5 672
	Reallocation of funds incorrectly allocated in the 2017 ENE	(4 000)	Non-profit institutions	Mzansi for Science project	4 000
	Cost containment measures effected on advertising	(1 495)	Programme 2		1 495
	Cost containment measures effected on advertising	(1 543)	Compensation of employees	Personnel remuneration ¹	1 495
	Cost containment measures effected on advertising	(2 132)	Programme 3		3 675
	Cost containment measures effected on business and advisory services	(1 277)	Compensation of employees	Personnel remuneration ¹	1 543
	Cost containment measures effected on contractors	(1 313)	Goods and services	Travel and subsistence	2 132
			Programme 4		1 277
			Compensation of employees	Personnel remuneration ¹	1 277
			Programme 5		1 313
			Compensation of employees	Personnel remuneration ¹	1 313
Shifts within the programme as a percentage of the programme budget		3.2%			
Virements to other programmes as a percentage of the programme budget		2.0%			
Total		(18 472)	18 472		

1. National Treasury approval has been obtained.

Expenditure outcome for 2016/17 and actual expenditure for 2017/18

Programme	2016/17					2017/18			
	Audited outcome			Actual expenditure		Actual expenditure			Apr 17 - Sep 17 % of adjusted appropriation
R thousand	Adjusted appropriation	Apr 16 - Sep 16	Apr 16 - Sep 16 % of adjusted appropriation	Apr 16 - Mar 17	Apr 16 - Mar 17 % of adjusted appropriation	Adjusted appropriation	Adjusted appropriation/ Total (%)	Apr 17 - Sep 17	
Administration	345 142	157 840	45.7	332 629	96.4	375 960	5.0	140 634	37.4
Technology Innovation	1 005 418	627 349	62.4	1 015 860	101.0	1 075 116	14.2	486 633	45.3
International Cooperation and Resources	124 463	59 821	48.1	118 466	95.2	132 380	1.8	43 098	32.6
Research, Development and Support	4 170 997	3 386 151	81.2	4 152 630	99.6	4 350 136	57.6	1 696 842	39.0
Socioeconomic Innovation Partnerships	1 782 976	870 695	48.8	1 764 009	98.9	1 623 637	21.5	817 312	50.3
Total	7 428 996	5 101 856	68.7	7 383 594	99.4	7 557 229	100.0	3 184 519	42.1
Economic classification									
Current payments	532 334	254 649	47.8	507 913	95.4	570 729	7.6	237 571	41.6
Compensation of employees	313 793	158 761	50.6	319 037	101.7	326 827	4.3	160 195	49.0
Goods and services	218 541	95 888	43.9	188 876	86.4	243 902	3.2	77 376	31.7
Transfers and subsidies	6 872 197	4 843 392	70.5	6 860 077	99.8	6 964 482	92.2	2 940 305	42.2
Departmental agencies and accounts	5 311 421	3 738 750	70.4	4 696 599	88.4	5 204 288	68.9	1 997 643	38.4
Higher education institutions	115 622	124 008	107.3	210 329	181.9	–	0.0	–	0.0
Public corporations and private enterprises	1 299 370	909 995	70.0	1 793 985	138.1	1 420 110	18.8	807 749	56.9
Non-profit institutions	145 784	70 452	48.3	157 726	108.2	340 084	4.5	134 583	39.6
Households	–	187	0.0	1 438	0.0	–	0.0	330	0.0
Payments for capital assets	24 465	3 723	15.2	15 478	63.3	22 018	0.3	6 555	29.8
Machinery and equipment	24 465	3 723	15.2	15 478	63.3	22 018	0.3	2 702	12.3
Software and other intangible assets	–	–	0.0	–	0.0	–	0.0	3 853	0.0
Payments for financial assets	–	92	–	126	–	–	0.0	88	0.0
Total	7 428 996	5 101 856	68.7	7 383 594	99.4	7 557 229	100.0	3 184 519	42.1

Expenditure trends for the first six months of 2017/18

Total expenditure in 2016/17 was R7.4 billion, or 99.4 per cent of the 2016/17 adjusted appropriation. Expenditure in the first six months of 2017/18 was R3.2 billion, or 42.1 per cent of the adjusted appropriation of R7.6 billion for the year. In comparison, mid-year expenditure in 2016/17 was R5.1 billion, or 68.7 per cent of the 2016/17 adjusted appropriation. Compared to the first six months of 2016/17, expenditure over the same period in 2017/18 decreased by R1.9 billion, or 37.6 per cent. This is mainly due to delays in finalising contracts for some of the department's entities.

Departmental receipts

	2016/17					2017/18				
	Adjusted estimate	Audited outcome			Actual receipts		Budget estimate	Adjusted estimate	Adjusted receipts/ Total (%)	Apr 17 - Sep 17
Apr 16 - Sep 16		Apr 16 - Sep 16 % of adjusted estimate	Apr 16 - Mar 17	Apr 16 - Mar 17 % of adjusted estimate	Apr 17 - Sep 17					
Departmental receipts	7 000	5 725	81.8	8 199	117.1	242	8 189	100.0	4 095	50.0
Sales of goods and services produced by department	29	26	89.7	57	196.6	29	58	0.7	29	50.0
Sales of scrap, waste, arms and other used current goods	–	–	–	–	–	–	3	0.0	2	66.7
Interest, dividends and rent on land	8	5	62.5	9	112.5	8	56	0.7	28	50.0
Sales of capital assets	–	–	–	45	–	121	–	–	–	–
Transactions in financial assets and liabilities	6 963	5 694	81.8	8 088	116.2	84	8 072	98.6	4 036	50.0
Total	7 000	5 725	81.8	8 199	117.1	242	8 189	100.0	4 095	50.0

Revenue trends for the first six months of 2017/18

Revenue in the first six months of 2017/18 was R4.1 million, or 50 per cent of the adjusted revenue estimate of R8.2 million for the year. In comparison, mid-year revenue in 2016/17 was R5.7 million, or 81.8 per cent of the 2016/17 adjusted estimate. Compared to the first six months of 2016/17, revenue over the same period in 2017/18 decreased by R1.6 million, or 28.5 per cent. This is mainly due to a decrease in reimbursements from employees for theft, losses and damage to property.

Changes to transfers and subsidies

Summary of changes to transfers and subsidies per programme

		2017/18						
		Adjustments appropriation					Total adjustments appropriation	Adjusted appropriation
R thousand	Main appropriation	Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared unspent funds	Other adjustments		
Administration								
Non-profit institutions								
Current								
	13 503	-	-	4 000	-	-	4 000	17 503
Various institutions: Institutional and programme support research	13 503	-	-	4 000	-	-	4 000	17 503