

Vote 34

Science and Technology

Adjusted budget summary

2012/13				
R thousand	Main appropriation	Adjusted appropriation	Decrease	Increase
Amount to be appropriated	4 955 930	4 999 610	–	43 680
of which:				
Current payments	393 493	409 315	–	15 822
Transfers and subsidies	4 559 018	4 587 720	–	28 702
Payments for capital assets	3 419	2 575	(844)	–
Payments for financial assets	–	–	–	–
National Revenue Fund	–	–	–	–
Executive authority	Minister of Science and Technology			
Accounting officer	Director-General of Science and Technology			
Website address	www.dst.gov.za			

Aim

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

Mid-year performance status

Indicator As published in the 2012 ENE	Programme Programme linked to the indicator	Annual performance		
		Projected for 2012/13 as published in the 2012 ENE	Achieved in the first six months of 2012/13 (April to September)	Changed estimate for 2012/13
Number of patents, patent applications and trademarks resulting from policy funded research per year	Socio Economic Partnerships, Research, Development and Innovation and Human Capital and Knowledge Systems	37	3	–
Number of companies provided with a technology assistance package per year to facilitate successful participation in the infrastructure public procurement process per year	Socio Economic Partnerships	13	13	–
Total number of postgraduate students supported	Human Capital and Knowledge Systems	6 100	3 953	–
Number of researchers supported per year	Human Capital and Knowledge Systems	2 600	1 665	–
Foreign funds leveraged off per year in support of science, technology and innovation cooperation	International Cooperation and Resources	R240 m	R15 141	–
Number of foreign participants in global knowledge and science and technology innovation network	International Cooperation and Resources	800	92	–
Number of technology based enterprises supported per year	Research, Development and Innovation	5	1	–
Number of small and medium enterprises provided with technology support per year	Socio Economic Partnerships	1 928	482	–

Mid-year progress

In addition to the three patents, patent applications and trademarks resulting from policy funded research achieved within six months of the financial year, there is also one HySA high temperature Membrane Electrode Assemblies (HT-MEA) prototype in the process of development.

Only R15 141 foreign funds have been leveraged off so far, thus the annual estimate is unlikely to be reached. Within the first half of 2012/13, the number of companies provided with a technology assistance

package to facilitate successful participation in the infrastructure public procurement process had already reached the target. The outcome for the year is therefore likely to be higher than originally estimated.

Adjusted Estimates of National Expenditure 2012

Programme		2012/13						
	Main appropriation	Adjustments appropriation					Total adjustments appropriation	Adjusted appropriation
		Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared savings	Other adjustments		
R thousand								
Administration	202 651	–	–	23 042	–	3 736	26 778	229 429
Research, Development and Innovation	1 156 372	–	–	(15 186)	–	1 621	(13 565)	1 142 807
International Cooperation and Resources	141 226	–	–	(1 909)	–	–	(1 909)	139 317
Human Capital and Knowledge Systems	2 035 896	–	30 000	(4 285)	–	3 062	28 777	2 064 673
Socio Economic Partnerships	1 419 785	–	–	(1 662)	–	5 261	3 599	1 423 384
Total	4 955 930	–	30 000	–	–	13 680	43 680	4 999 610
Economic classification								
Current payments	393 493	–	–	12 086	–	3 736	15 822	409 315
Compensation of employees	242 302	–	–	1 550	–	3 736	5 286	247 588
Goods and services	151 191	–	–	10 536	–	–	10 536	161 727
Transfers and subsidies	4 559 018	–	30 000	(11 242)	–	9 944	28 702	4 587 720
Departmental agencies and accounts	2 823 822	–	–	(17 380)	–	4 568	(12 812)	2 811 010
Higher education institutions	33 643	–	–	–	–	–	–	33 643
Public corporations and private enterprises	972 641	–	30 000	7 838	–	5 261	43 099	1 015 740
Non-profit institutions	728 912	–	–	(1 700)	–	115	(1 585)	727 327
Payments for capital assets	3 419	–	–	(844)	–	–	(844)	2 575
Machinery and equipment	3 419	–	–	(844)	–	–	(844)	2 575
Total	4 955 930	–	30 000	–	–	13 680	43 680	4 999 610

Programme 1: Administration

Subprogramme		2012/13						
	Main appropriation	Adjustments appropriation					Total adjustments appropriation	Adjusted appropriation
		Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared savings	Other adjustments		
R thousand								
Ministry	3 669	–	–	–	–	–	–	3 669
Management	82 123	–	–	700	–	3 736	4 436	86 559
Corporate Services	104 252	–	–	22 342	–	–	22 342	126 594
Governance	8 411	–	–	–	–	–	–	8 411
Office Accommodation	4 196	–	–	–	–	–	–	4 196
Total	202 651	–	–	23 042	–	3 736	26 778	229 429
Economic classification								
Current payments	199 581	–	–	23 042	–	3 736	26 778	226 359
Compensation of employees	117 160	–	–	–	–	3 736	3 736	120 896
Goods and services	82 421	–	–	23 042	–	–	23 042	105 463
Transfers and subsidies	1 000	–	–	–	–	–	–	1 000
Non-profit institutions	1 000	–	–	–	–	–	–	1 000
Payments for capital assets	2 070	–	–	–	–	–	–	2 070
Machinery and equipment	2 070	–	–	–	–	–	–	2 070
Total	202 651	–	–	23 042	–	3 736	26 778	229 429

Programme 2: Research, Development and Innovation

Subprogramme		2012/13						
	Main appropriation	Adjustments appropriation						Adjusted Appropriation
		Roll-overs	Unforeseeable/Unavoidable	Virements and shifts	Declared savings	Other adjustments	Total adjustments appropriation	
R thousand								
Space Science	380 146	–	–	(7 045)	–	492	(6 553)	373 593
Hydrogen and Energy	147 887	–	–	(1 875)	–	–	(1 875)	146 012
Biotechnology and Health	131 460	–	–	(2 908)	–	–	(2 908)	128 552
Innovation Planning and Instruments	496 879	–	–	(3 358)	–	1 129	(2 229)	494 650
Total	1 156 372	–	–	(15 186)	–	1 621	(13 565)	1 142 807
Economic classification								
Current payments	53 924	–	–	(3 906)	–	–	(3 906)	50 018
Compensation of employees	31 067	–	–	1 550	–	–	1 550	32 617
Goods and services	22 857	–	–	(5 456)	–	–	(5 456)	17 401
Transfers and subsidies	1 102 217	–	–	(11 280)	–	1 621	(9 659)	1 092 558
Departmental agencies and accounts	705 142	–	–	(11 280)	–	1 621	(9 659)	695 483
Non-profit institutions	397 075	–	–	–	–	–	–	397 075
Payments for capital assets	231	–	–	–	–	–	–	231
Machinery and equipment	231	–	–	–	–	–	–	231
Total	1 156 372	–	–	(15 186)	–	1 621	(13 565)	1 142 807

Programme 3: International Cooperation and Resources

Subprogramme		2012/13						
	Main appropriation	Adjustments appropriation						Adjusted Appropriation
		Roll-overs	Unforeseeable/Unavoidable	Virements and shifts	Declared savings	Other adjustments	Total adjustments appropriation	
R thousand								
Multilateral Cooperation and Africa	58 956	–	–	(1 091)	–	–	(1 091)	57 865
International Resources	50 550	–	–	384	–	–	384	50 934
Overseas Bilateral Cooperation	31 720	–	–	(1 202)	–	–	(1 202)	30 518
Total	141 226	–	–	(1 909)	–	–	(1 909)	139 317
Economic classification								
Current payments	61 285	–	–	(1 370)	–	–	(1 370)	59 915
Compensation of employees	35 467	–	–	–	–	–	–	35 467
Goods and services	25 818	–	–	(1 370)	–	–	(1 370)	24 448
Transfers and subsidies	79 402	–	–	–	–	–	–	79 402
Higher education institutions	33 643	–	–	–	–	–	–	33 643
Non-profit institutions	45 759	–	–	–	–	–	–	45 759
Payments for capital assets	539	–	–	(539)	–	–	(539)	–
Machinery and equipment	539	–	–	(539)	–	–	(539)	–
Total	141 226	–	–	(1 909)	–	–	(1 909)	139 317

Programme 4: Human Capital and Knowledge Systems

Subprogramme		2012/13						
	Main appropriation	Adjustments appropriation						Adjusted Appropriation
		Roll-overs	Unforeseeable/Unavoidable	Virements and shifts	Declared savings	Other adjustments	Total adjustments appropriation	
R thousand								
Human Capital and Science Platforms	1 433 561	–	–	(2 787)	–	3 062	275	1 433 836
Indigenous Knowledge Systems	28 437	–	–	(886)	–	–	(886)	27 551
Emerging Research Areas and Infrastructure	573 898	–	30 000	(612)	–	–	29 388	603 286
Total	2 035 896	–	30 000	(4 285)	–	3 062	28 777	2 064 673

Programme 4: Human Capital and Knowledge Systems (continued)

2012/13								
R thousand	Main appropriation	Adjustments appropriation					Total adjustments appropriation	Adjusted appropriation
		Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared savings	Other adjustments		
Economic classification								
Current payments	31 398	–	–	(1 385)	–	–	(1 385)	30 013
Compensation of employees	24 647	–	–	–	–	–	–	24 647
Goods and services	6 751	–	–	(1 385)	–	–	(1 385)	5 366
Transfers and subsidies	2 004 382	–	30 000	(2 900)	–	3 062	30 162	2 034 544
Departmental agencies and accounts	1 619 358	–	–	(1 200)	–	2 947	1 747	1 621 105
Public corporations and private enterprises	99 946	–	30 000	–	–	–	30 000	129 946
Non-profit institutions	285 078	–	–	(1 700)	–	115	(1 585)	283 493
Payments for capital assets	116	–	–	–	–	–	–	116
Machinery and equipment	116	–	–	–	–	–	–	116
Total	2 035 896	–	30 000	(4 285)	–	3 062	28 777	2 064 673

Programme 5: Socio Economic Partnerships

2012/13								
Subprogramme								
R thousand	Main appropriation	Adjustments appropriation					Total adjustments appropriation	Adjusted appropriation
		Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared savings	Other adjustments		
Science and Technology for Economic Impact	1 022 114	–	–	2 921	–	5 261	8 182	1 030 296
Science and Technology for Social Impact	372 534	–	–	(14 583)	–	–	(14 583)	357 951
Science and Technology Investment	25 137	–	–	10 000	–	–	10 000	35 137
Total	1 419 785	–	–	(1 662)	–	5 261	3 599	1 423 384
Economic classification								
Current payments	47 305	–	–	(4 295)	–	–	(4 295)	43 010
Compensation of employees	33 961	–	–	–	–	–	–	33 961
Goods and services	13 344	–	–	(4 295)	–	–	(4 295)	9 049
Transfers and subsidies	1 372 017	–	–	2 938	–	5 261	8 199	1 380 216
Departmental agencies and accounts	499 322	–	–	(4 900)	–	–	(4 900)	494 422
Public corporations and private enterprises	872 695	–	–	7 838	–	5 261	13 099	885 794
Payments for capital assets	463	–	–	(305)	–	–	(305)	158
Machinery and equipment	463	–	–	(305)	–	–	(305)	158
Total	1 419 785	–	–	(1 662)	–	5 261	3 599	1 423 384

Details of adjustments to Estimates of National Expenditure 2012**Unforeseeable and unavoidable expenditure – R30 million****Programme 4: Human Capital and Knowledge Systems**

An additional amount of R30 million is allocated for the procurement of international broadband connectivity on the West Africa Cable System for the Square Kilometre Array project.

Virements and shifts

Programmes

1. Administration
2. Research, Development and Innovation
3. International Cooperation and Resources
4. Human Capital and Knowledge Systems
5. Socio Economic Partnerships

FROM:			TO:		
Programme by economic classification	Motivation	R thousand	Programme by economic classification	Motivation	R thousand
Programme 2		(16 736)	Programme 2		1 550
Goods and services	Reduction in advisory services	(1 550)	Compensation of employees	For the astronomy management office	1 550
			Programme 1		7 186
	Realignment of activities	(3 906)	Goods and services	For centralised inventory services	3 906
Departmental agencies and accounts	Realignment of activities ¹	(3 280)	Goods and services	For centralised communication services	3 280
			Programme 5		8 000
	Funds incorrectly classified in the 2012 ENE were reclassified	(8 000)	Public corporations and private enterprises	Funds incorrectly classified in the 2012 ENE were reclassified	8 000
Shifts within the programme as percentage of programme budget		0.1%			
Virements to other programmes as percentage of programme budget		1.3%			
Programme 3		(3 445)	Programme 1		3 445
Goods and services	Realignment of activities	(2 906)	Goods and services	For centralised inventory, storage of journals and books, and communication services	2 906
Machinery and equipment	Realignment of activities	(539)	Goods and services	For centralised inventory services	539
Shifts within the programme as percentage of programme budget		0.0%			
Virements to other programmes as percentage of programme budget		2.4%			
Programme 4		(4 285)	Programme 1		4 285
Goods and services	Realignment of activities	(1 385)	Goods and services	For centralised storage of journals and books	1 385
Departmental agencies and accounts	Realignment of activities ¹	(1 200)	Goods and services	For centralised communication services	1 200
Non-profit institutions	Realignment of activities ¹	(1 700)	Goods and services	For centralised communication services	1 700
Shifts within the programme as percentage of programme budget		0.0%			
Virements to other programmes as percentage of programme budget		0.2%			

FROM:			TO:		
Programme by economic classification	Motivation	R thousand	Programme by economic classification	Motivation	R thousand
Programme 5		(10 412)	Programme 1		5 350
Goods and services	Realignment of activities	(5 045)	Goods and services	For centralised storage of journals and books and for audit fees	5 045
Machinery and equipment	Realignment of activities	(197)	Goods and services	For centralised inventory, storage of journals and books, and communication services	197
	Realignment of activities ¹	(108)	Goods and services	For centralised inventory, storage of journals and books, and communication services	108
Departmental agencies and accounts	Reprioritisation of funds ¹	(1 536)	Programme 3		1 536
	Realignment of activities ¹	(2 614)	Goods and services	For international conferences	1 536
	Realignment of activities ¹	(750)	Programme 1		2 614
			Goods and services	For centralised communication services	2 614
			Programme 5		750
			Goods and services	For research and development tax incentives	750
Public corporations and private enterprises	Realignment of activities ¹	(162)	Programme 1		162
			Goods and services	For centralised communication services	162
Shifts within the programme as percentage of programme budget		0.1%			
Virements to other programmes as percentage of programme budget		0.7%			
Total		(34 878)			34 878

1. National Treasury approval has been obtained.

Other adjustments – R13.680 million

Adjustments due to significant and unforeseeable economic and financial events

An additional R13.680 million is allocated for higher personnel remuneration increases than the main budget provided for, as follows:

Programme 1: Administration

R3.736 million

Programme 2: Research, Development and Innovation

R492 000 for the South African National Space Agency

R1.129 million for the Technology Innovation Agency

Programme 4: Human Capital and Knowledge Systems

R2.947 million for the National Research Foundation

R115 000 for the Academy of Science of South Africa

Programme 5: Socio Economic Partnerships

R5.261 million for the Council for Scientific and Industrial Research

Expenditure for 2011/12 and preliminary expenditure for 2012/13

Programme	2011/12					2012/13		
	Expenditure outcome					Preliminary expenditure		
		Apr 11 - Sep 11	% of adjusted appropriation	Apr 11 - Mar 12	% of adjusted appropriation		Apr 12 - Sep 12	% of adjusted appropriation
R thousand	Adjusted appropriation	Apr 11 - Sep 11		Apr 11 - Mar 12		Adjusted appropriation	Apr 12 - Sep 12	
Administration	195 701	87 223	44.6	195 556	99.9	229 429	116 030	50.6
Research, Development and Innovation	854 610	493 027	57.7	854 944	100.0	1 142 807	988 861	86.5
International Cooperation and Resources	137 194	68 059	49.6	132 276	96.4	139 317	65 724	47.2
Human Capital and Knowledge Systems	1 950 427	1 186 034	60.8	1 956 334	100.3	2 064 673	1 347 938	65.3
Socio Economic Partnerships	1 269 071	653 726	51.5	1 264 362	99.6	1 423 384	620 056	43.6
Total	4 407 003	2 488 069	56.5	4 403 472	99.9	4 999 610	3 138 609	62.8
Economic classification								
Current payments	365 303	156 545	42.9	345 917	94.7	409 315	198 458	48.5
Compensation of employees	227 636	98 955	43.5	207 164	91.0	247 588	114 231	46.1
Goods and services	137 667	57 377	41.7	138 283	100.4	161 727	83 973	51.9
Interest and rent on land	–	213	0.0	470	0.0	–	254	0.0
Transfers and subsidies	4 038 442	2 328 451	57.7	4 050 426	100.3	4 587 720	2 936 238	64.0
Departmental agencies and accounts	2 633 548	1 506 665	57.2	2 599 251	98.7	2 811 010	2 252 691	80.1
Higher education institutions	–	64 125	0.0	151 093	0.0	33 643	89 253	265.3
Public corporations and private enterprises	924 764	719 124	77.8	1 245 807	134.7	1 015 740	556 837	54.8
Non-profit institutions	480 130	38 537	8.0	53 645	11.2	727 327	37 457	5.1
Households	–	–	0.0	630	0.0	–	–	0.0
Payments for capital assets	3 258	2 890	88.7	6 946	213.2	2 575	3 909	151.8
Machinery and equipment	3 258	2 890	88.7	6 946	213.2	2 575	3 909	151.8
Payments for financial assets	–	183	–	183	–	–	4	–
Total	4 407 003	2 488 069	56.5	4 403 472	99.9	4 999 610	3 138 609	62.8

Main expenditure trends for the first half of 2012/13

Total expenditure for 2011/12 was 99.9 per cent of the 2011/12 adjusted appropriation. Expenditure in the first six months of 2012/13 was R3.139 billion, or 62.8 per cent of the adjusted appropriation of R5 billion for the year as a whole. In comparison, mid-year expenditure in 2011/12 was R2.488 billion, or 56.5 per cent of the 2011/12 adjusted appropriation. Expenditure in the first six months of 2012/13 increased by R650.540 million or 26.1 per cent, compared to expenditure in the first six months of 2011/12.

The main expenditure increases compared to 2011/12 are due to projects that were fast-tracked, Square Kilometre Array project payments and increased personnel payments.

Departmental receipts

	2011/12					2012/13			
	Audited outcome					Actual receipts			
	Adjusted estimate	Apr 11 - Sep 11	Apr 11 - Sep 11 adjusted estimate	Apr 11 - Mar 12	Apr 11 - Mar 12 adjusted estimate	Budget estimate	Adjusted estimate	Apr 12 - Sep 12	Apr 12 - Sep 12 adjusted estimate
R thousand									
Departmental receipts	350	291	83.1	1 365	390.0	116	1 008	932	92.5
Sales of goods and services produced by department	40	34	85.0	56	140.0	28	83	42	50.6
Interest, dividends and rent on land	10	2	20.0	7	70.0	8	–	–	–
Sales of capital assets	–	–	–	257	–	–	577	577	100.0
Transactions in financial assets and liabilities	300	255	85.0	1 045	348.3	80	348	313	89.9
Total	350	291	83.1	1 365	390.0	116	1 008	932	92.5

Main departmental revenue trends for the first half of 2012/13

Departmental revenue collection in the first six months of 2012/13 was R932 000, or 92.5 per cent of the adjusted revenue estimate of R1.008 million for the year as a whole. In comparison, mid-year revenue collection in 2011/12 was R291 000, or 83.1 per cent of the 2011/12 adjusted estimate. Departmental revenue collection in the first six months of 2012/13 increased by R641 000 or 220.3 per cent, compared to revenue in the first six months of 2011/12.

The main revenue increase compared to 2011/12 is due to the auction of assets in the first half of 2012/13.

Changes to transfers and subsidies, including conditional grants

Summary of changes to transfers and subsidies per programme

2012/13								
	Main appropriation	Adjustments appropriation					Total adjustments appropriation	Adjusted appropriation
		Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared savings	Other adjustments		
R thousand								
Research, Development and Innovation								
Departmental agencies and accounts								
Departmental agencies (non-business entities)								
Current	662 642	–	–	(11 280)	–	1 621	(9 659)	652 983
Energy Grand Challenge	46 720	–	–	(1 280)	–	–	(1 280)	45 440
Innovation Projects	21 187	–	–	(2 000)	–	–	(2 000)	19 187
Space Science	44 000	–	–	(8 000)	–	–	(8 000)	36 000
Technology Innovation Agency	455 196	–	–	–	–	1 129	1 129	456 325
South African National Space Agency	95 539	–	–	–	–	492	492	96 031
Human Capital and Knowledge Systems								
Departmental agencies and accounts								
Departmental agencies (non-business entities)								
Current	1 137 927	–	–	(1 200)	–	2 947	1 747	1 139 674
National Research Foundation	1 070 810	–	–	–	–	2 947	2 947	1 073 757
Science Themes	67 117	–	–	(1 200)	–	–	(1 200)	65 917

Summary of changes to transfers and subsidies per programme (continued)

2012/13								
R thousand	Main appropriation	Adjustments appropriation					Total adjustments appropriation	Adjusted appropriation
		Roll-overs	Unforeseeable/unavoidable	Virements and shifts	Declared savings	Other adjustments		
Public corporations and private enterprises								
Public corporations								
Other transfers								
Capital	99 946	–	30 000	–	–	–	30 000	129 946
South African National Research Network	99 946	–	30 000	–	–	–	30 000	129 946
Non-profit institutions								
Current	96 311	–	–	(1 700)	–	115	(1 585)	94 726
Academy of Science of South Africa	13 469	–	–	–	–	115	115	13 584
Indigenous Knowledge System	19 660	–	–	(500)	–	–	(500)	19 160
Science and Youth	63 182	–	–	(1 200)	–	–	(1 200)	61 982
Socio Economic Partnerships								
Departmental agencies and accounts								
Departmental agencies (non-business entities)								
Current	178 888	–	–	(4 900)	–	–	(4 900)	173 988
Global Change Science and Technology	64 303	–	–	(450)	–	–	(450)	63 853
Local Systems of Innovation	8 576	–	–	(500)	–	–	(500)	8 076
Research Information Management System	4 805	–	–	9 250	–	–	9 250	14 055
South African Research Chairs Initiative	70 385	–	–	(10 000)	–	–	(10 000)	60 385
Technology for Poverty Alleviation	30 819	–	–	(3 200)	–	–	(3 200)	27 619
Public corporations and private enterprises								
Public corporations								
Subsidies on production or products								
Current	737 491	–	–	–	–	5 261	5 261	742 752
Council for Scientific and Industrial Research	737 491	–	–	–	–	5 261	5 261	742 752
Public corporations and private enterprises								
Public corporations								
Other transfers								
Current	82 311	–	–	7 838	–	–	7 838	90 149
Advanced Manufacturing Technology Strategy	43 297	–	–	(162)	–	–	(162)	43 135
Resource Based Industries	39 014	–	–	8 000	–	–	8 000	47 014

