



Cornerstone

ECONOMIC RESEARCH

**Project to cost the establishment and running of the
*National School of Government***

Description of the Costing Model

Final

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1 Introduction

National Treasury commissioned Cornerstone Economic Research to provide technical assistance to the Advisory Task Team (ATT) responsible for the design and setting-up of the proposed National School of Government (NSG). The purpose of the technical assistance was to build a model to cost the establishment and running of the NSG. The assumptions under-pining the costing model are either based on information provided by the ATT or developed in close consultation with the ATT.

The costing model is designed to allow for a high degree of flexibility in the specification of the different variables. This is to allow the users of the model to explore different options with regards to these variables, and so test the cost implications of different modes of training delivery, the implications of increasing or decreasing the number of public servants to be trained or the amount of training to be provided. The model also includes assumptions regarding the proposed sources of income for the NSG. This allows for the calculation of funding streams and a funding gap.

This document describes the key features of the costing model. The model itself is contained in a separate Microsoft Excel workbook with the title: **2013.09.23 NSG Costing Model - Final**

This document describes the structure of the costing model and highlights the main cost drivers, i.e. those variables that have the most significant impact on the overall cost estimates produced by the model.

Note that the descriptions, assumptions and cost estimates presented in this document are based on a version of the costing model prepared by the costing team on 23 September 2013. These assumptions and costs reflect what Cornerstone handed over to National Treasury at the conclusion of the project. As such, they are based on the consultations and analysis that under-pin the project, but in this context they are purely illustrative of the outcomes of the NSG costing and do not reflect a decision by the ATT, National Treasury or any other government authority.

2 Methodology

The ATT provided Cornerstone with an initial set of assumptions and a basic costing of the NSG. These assumptions were significantly expanded and refined through a series of discussions with the ATT, which included input from PALAMA, DPSA and National Treasury.

The costing model uses the following approaches to cost different components of the NSG:

1. Certain costs are based on the existing budget / expenditure information from PALAMA, the PSETA and the transfers to the G-SETAs.
2. Certain costs are calculated using direct assumptions regarding the core personnel required to perform certain functions within the NSG. These can be regarded as core establishment costs and do not vary according to the number of learners trained by the NSG.
3. Certain costs are driven directly by the number of programmes, courses and learners. These are generally the costs of the different training programmes offered by the NSG.
4. Administration is costed as a ratio of the cost of the non-administration and training programmes, and is broken down between four main administrative programmes, namely: Office of the head of NSG, Internal Audit, Corporate and Financial Services, and the Registrar in a specified ratio.
5. In all areas of the model, where there are in-house personnel costs then operational costs and expenditure on capital assets are added in a ratio of 55:40:5. This ratio is based on an analysis of PALAMA's budget and the annual financial statements of UCT and UNISA.

The cost of personnel is based on the DPSA salary scales, unless otherwise specified. The most important exceptions being the cost of facilitators and the cost of e-tutors.

The training programmes describe a particular modality of training delivery. These can be modified (within limits) by changing the relevant assumptions. For instance, the number of training contact days can be changed, whether the course is presented using a centralised or decentralised model can be specified and the balance between contact courses and e-learning courses can be specified.

Changing assumptions

As a general rule: if a number is in a blue cell 5% then it is a variable that can be changed by the user. If a number is in a clear cell or a yellow cell 13 then it is a calculated amount based on the assumptions in the blue cells. The clear or yellow cells must not be 'over-typed' as they contain formulae.

PLEASE NOTE: none of the pages or cells in the costing model have been locked. This is to allow future users of the model access to the formulae so that they can be changed if necessary. However, it does mean that users have a responsibility to work carefully and always save their work as a new file when they start working so as to preserve an original copy of the costing model.

3 Data sources used in the costing model

The following data is used:

- A summary of public sector employment and compensation of employee information for 2012/13 through to 2015/16 provided by DPSA and received from the ATT.
- Estimates of National Expenditure spreadsheets provided by National Treasury. The compensation of employees budgets for national departments was taken from this spread sheet.
- The Compensation of Employees per province as included in the original model provided by the ATT.
- Public service salary scales from DPSA.
- Budget information on DPME, PALAMA and PSETA from National Treasury's Estimates of National Expenditure,
- 2011/12 annual reports of UCT and UNISA.

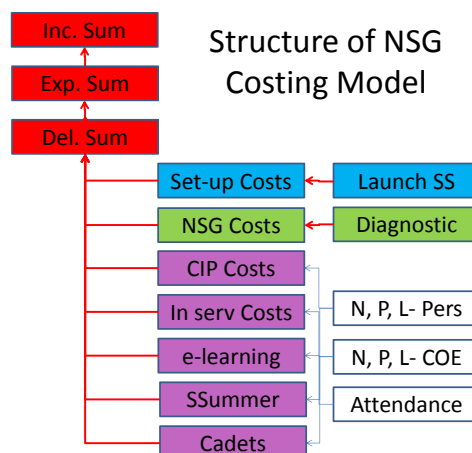
In addition, information from working documents related to the establishment of the NSG and the operation of PALAMA was provided by the ATT.

4 Structure of costing model

The accompanying figure shows the structure of the model and how the different spread sheets relate to each other. The colours in the figure correspond with the colours of the spread sheet tabs in the costing model.

The table below describes the contents of the spread sheets. The coloured sheets are the “working sheets”. These sheets contain the assumptions and the calculations that drive the overall cost estimates. The white sheets contain general assumptions or data on public service numbers and the cost of employment by department that is used in the “working sheets”

The spread sheets that make up the costing model are described below:



Sheet Name	Description
Assumptions	Contains general assumptions that feed through to many of the calculations in the working sheets: <ul style="list-style-type: none"> inflation and salary increase assumptions for the MTEF period salary levels of personnel assumptions about the number of work days in a year
Inc. Sum	A summary of the proposed sources of income. The per cent of compensation of employee budgets to be transferred to the NSG per department in national and provincial government can be set in this sheet. Income is compared to expenditure, and the funding gap is shown.
Exp. Sum	A summary of the all the NSG expenditure calculated in the model. A summary of the compensation of employees by component of the NSG The average direct cost of the different programmes to be run by the NSG
Del. Sum	Personnel number estimates Number of programme co-ordinators and facilitators Sourcing of facilitators (based on FTEs) Workload analysis of using SMS and MMS as facilitators for CIP and In-service ETD Coverage of the different training programmes Average direct cost of the different training programmes
Set-up Costs	The costs of winding down PALAMA, along with assumptions The costs of setting up the NSG, along with assumptions
Launch SS	The costs of the proposed launch summer school to be held in December 2013, long with assumptions
NSG Costs	The costs of running the administration of the NSG, along with assumptions The cost of the core capacity of each of the Branches of the NSG, along with the assumptions
Diagnostic	The costs associated with performing diagnostic reviews of training needs in national and provincial departments.
CIP Costs	The assumptions and costs for the Compulsory Induction Programme (CIP).
Inserve Costs	The assumptions and costs for the In-service ETD Programme
e-learning	The assumptions and costs of running In-service e-learning programmes
Sschool	The assumptions and costs of running an annual summer school programme
Cadets	The assumptions and costs of running a cadet programme
N-Pers	Personnel numbers per national department copied from the DPSA Public Service Statistics. The training demand assumptions in most of the working sheets are linked to this sheet.
P -Pers	Personnel numbers per provincial department copied from the DPSA Public Service Statistics. The training demand assumptions in most of the working sheets are linked to this sheet.
LG - Pers	Total local government personnel numbers per province copied from the DPSA Public Service Statistics. This sheet is a place holder. None of the training demand assumptions are linked to this

	sheet, because the NSG will focus on the national and provincial spheres of government initially.
N - COE	Total compensation of employees for each national department. The numbers for 2012/13 to 2015/16 are taken from Estimates of National Expenditure data provided by National Treasury. The 2016/17 figure is estimated using the salary increase assumptions in the Assumptions sheet.
P - COE	Total compensation of employees by province. ATT provided the 2013/14 figures. The figures for the rest of the years are estimated using the salary increase assumptions in the Assumptions sheet.
LG - COE	This is a space holder for compensation of employees at Local Government, should the mandate of the NSG be extended to the local sphere of government.
Attendance	The attendance at various training programmes is calculated on this sheet. The purple working sheets are linked to this sheet.

5 Description of the scenarios shown in the costing model

The costing model has been developed to allow the user to specify three different cost scenarios from the establishment and running of the NSG. Each scenario covers the period 2013/14 to 2016/17. While users may define their own scenarios, the costing model is set up to reflect the following three scenarios:

1. **Implementation scenario:** as the name suggests this scenario seeks to show the cost of building up the NSG and rolling-out the different training programmes. The ATT provided guidance as to when certain costs are likely to be incurred and the planned roll-out of the training programmes.
2. **Scenario 1:** this scenario presents the costs of running the NSG if it were to successfully cover half the public servants targeted by the different training courses. Note that the set-up costs and the costs associated with the core branches of the NSG remain fixed. Only the costs of the training programmes and administration are lower relative to scenario 2.
3. **Scenario 2:** this scenario presents the costs of running the NSG if it were to successfully cover all the public servants targeted by the different training courses. In essence this scenario sets out the 'end point' of any proposed roll-out plan for the NSG – whether that plan is scheduled for three, five or ten years.

The primary difference between the scenarios is in the training demand assumptions set out in the sheets that cost the main NSG training programmes (the sheets with purple tabs).

6 Guide to the 'working sheets' of the costing model

This section describes the key features of the "working sheets" in the costing model. Note that the descriptions start with the Set-up Costs sheet. The Del. Sum, Exp. Sum and Inc. Sum sheets are described last in section 7.

Note that the row references to the costing model may not be exact because there may have been changes to the model since this guide document was written or because users may decide to add or delete rows which would cause the references to be inaccurate. However, if you look in the general area of a row reference in the costing it should be clear what is being referenced (so long as you are on the right spread sheet).

As already highlighted in the introduction, the descriptions, assumptions and cost estimates presented in this section are based on a version of the costing model prepared by the costing team on 23 September 2013. The assumptions and costs reflect what Cornerstone handed over to National Treasury at the conclusion of the project.

Due to limited space, the presentation of the costing outputs is slightly different in this document compared to the costing model. In the costing model, each scenario is shown covering the period 2013/14 to 2016/17. In this document, only the 2016/17 year of Scenario 1 and Scenario 2 are shown.

6.1 Spread sheet: Set up Costs

This sheet sets out the assumptions and estimated costs of winding down PALAMA and setting up the NSG.

Table 1: Costing output – Set up Costs

Rands	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
PALAMA wind-down costs						
Legal and administrative costs for management of transfer of PALAMA to NSG	R 1 027 750	R 1 027 750				
PALAMA (budget) - continuation of programmes and honouring commitments	R 65 961 000	R 138 508 000	R 143 654 000	R 151 411 316	R 151 411 316	R 151 411 316
PALAMA (trading account) - continuation of programmes and honouring commitments	R 41 224 143	R 81 462 273	R 94 039 745	R 98 467 657	R 98 467 657	R 98 467 657
Contingency	R 10 821 289	R 22 099 802	R 23 769 375	R 24 987 897	R 24 987 897	R 24 987 897
	R 119 034 183	R 243 097 825	R 261 463 120	R 274 866 870	R 274 866 870	R 274 866 870
NSG establishment costs						
Advisory council (advisory task team)	R 6 879 600					
Launch - October	R 1 500 000					
Launch summer school (December)	R 6 824 950					
NSG branding, signage and website	R 15 350 000					
Technology enablement	R 33 575 040					
Production capability (capital)	R 25 500 000					
Contingency	R 8 962 959	R 0	R 0	R 0	R 0	R 0
	R 98 592 549	R 0	R 0	R 0	R 0	R 0

Discussion of assumptions

The costing assumptions are shown from row 24. The assumptions list various costs associated with closing down PALAMA and establishing the NSG.

Key points on the costing assumptions:

- i. The continuation of PALAMA activities is based on information from the ATT and the figures were supplied by PALAMA.
- ii. The cost of the Advisory council and the Launch – October was provided by the ATT
- iii. The Launch Summer School costs are calculated in the spread sheet Launch SS (which is discussed below)
- iv. The Costs for technology enablement are based on information from the ATT
- v. The contingency reserve for the costs reflected on this spread sheet is set at 10%, whereas in the rest of the costing model the contingency reserve is set at 5%. The difference is because these costs need to be incurred very soon, and so there is less time to check their accuracy.

6.2 Spread sheet: **Launch SS**

This sheet sets out the assumptions and estimated costs of running the launch summer school planned for December 2013.

Table 2: Costing output – Launch SS

Rands	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
Launch Summer School						
Opening gala dinner	R 2 325 965					
Summer school facilitators	R 355 000					
Programme design and materials	R 797 600					
Logistical arrangements	R 3 346 385					
Contingency	R 0					
	R 6 824 950	R 0	R 0	R 0	R 0	R 0

Discussion of assumptions

The costing assumptions are shown from row 50. Note that because the launch summer school is a 'special event' the costs associated with it are only included in 2013/14.

The NSG does envisage running 'government leadership programmes' in subsequent years that will take on the form of summer schools. These are costed separately as a training programme on the spread sheet SSchool.

Key points on the costing assumptions:

- i. The opening gala dinner is the single most expensive cost. The cost of the dinner is driven primarily by (a) the proposed number of guests and the (b) the estimated per capita cost of the event, as follows:

<i>Opening and Gala dinner</i>	719	R 3 235 per person
<i>Corporate gift</i>		R 670
<i>Dinner</i>		R 2 565

The ATT specified the number of guests.

- ii. The main cost drivers for the rest of the summer school are the number of people that will be attending the summer school. These are reflected as follows:

VIPs	350	(for day one and Gala dinner)
Max. no. to be trained per summer school	330	DGs +HODs
NSG leadership	30	
No. of facilitators per day at summer school	2	

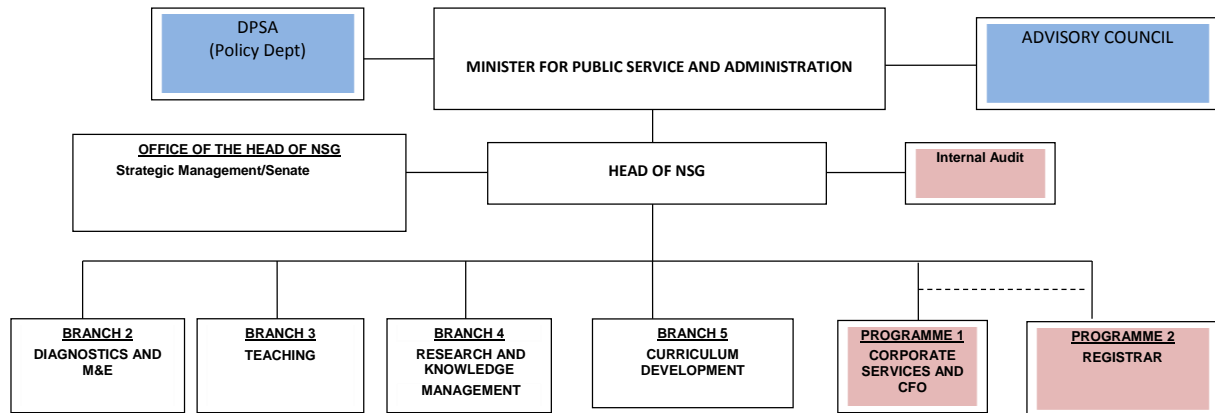
The number outlined in red is based on two officials from each national and provincial department.

- iii. Transport to the gala dinner for VIP guests and to the summer school for attendees is not included as a cost for the NSG. It is envisaged that the institutions from which people come will cover transport costs. The transport costs shown only cover the organisers and facilitators.
- iv. Accommodation does not cover the VIP guests. Should they want to stay over following the gala dinner that would be for their own account.

6.3 Spread sheet: NSG Costs

This sheet sets out the assumptions and estimated costs of the administration and core capacity of the NSG.

The structure of the information is based on the following macro-structure for the NSG provided by the ATT:



In addition, *Programme 3: SETA related expenditures* was added to the above macro-structure on the advice of the ATT. This is essentially a place holder to accommodate the incorporation of PSETA in the funding arrangements set out in the NSG costing model and to reflect the expenditure on transfers to the various G-SETAs by government (which the NSG envisages managing centrally in future).

The NSG Cost outcomes are shown on the following page.

Table 3: Costing output – NSG Costs

Rands	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
Branch 1: Office of the head of NSG						
Head of NSG (Vice Chancellor)	R 625 000	R 2 665 000	R 2 835 560	R 2 988 680	R 2 988 680	R 2 988 680
Advisory council	R 1 080 000	R 4 605 120	R 4 899 848	R 5 164 439	R 5 164 439	R 5 164 439
Head of Strategic management	R 425 000	R 1 812 200	R 1 928 181	R 2 032 303	R 2 032 303	R 2 032 303
Compensation of employees	R 6 614	R 867 677	R 5 446 462	R 11 457 155	R 10 700 637	R 21 136 235
Operational costs	R 4 810	R 631 038	R 3 961 063	R 8 332 476	R 7 782 281	R 15 371 808
Expenditure on capital assets	R 601	R 78 880	R 495 133	R 1 041 560	R 972 785	R 1 921 476
	R 2 142 025	R 10 659 914	R 19 566 247	R 31 016 613	R 29 641 126	R 48 614 941
Internal Audit	R 144 303	R 1 577 594	R 9 902 658	R 20 831 190	R 19 455 704	R 38 429 519
Programme 1: Corporate and Financial Services						
Head of Corporate Services	R 301 671	R 1 286 325	R 1 368 650	R 1 442 557	R 1 442 557	R 1 442 557
Compensation of employees	R 291 012	R 38 177 775	R 239 644 331	R 504 114 807	R 470 828 029	R 929 994 357
Operational costs	R 211 645	R 27 765 655	R 174 286 786	R 366 628 951	R 342 420 385	R 676 359 532
Expenditure on capital assets	R 26 456	R 3 470 707	R 21 785 848	R 45 828 619	R 42 802 548	R 84 544 942
Materials production programme						
Compensation of employees	R 497 765	R 2 122 470	R 2 258 308	R 2 380 257	R 2 380 257	R 2 380 257
Operational costs	R 199 106	R 848 988	R 903 323	R 952 103	R 952 103	R 952 103
Payments of capital assets	R 24 888	R 106 123	R 112 915	R 119 013	R 119 013	R 119 013
	R 1 552 542	R 73 778 044	R 440 360 163	R 921 466 306	R 860 944 891	R 1 695 792 759
Programme 2: Registrar						
Registrar	R 301 671	R 1 286 325	R 1 368 650	R 1 442 557	R 1 442 557	R 1 442 557
Student management and IT						
Compensation of employees	R 357 151	R 46 854 542	R 294 108 952	R 618 686 354	R 577 834 399	R 1 141 356 710
Operational costs	R 259 746	R 34 076 031	R 213 897 420	R 449 953 712	R 420 243 200	R 830 077 608
Expenditure on capital assets	R 32 468	R 4 259 504	R 26 737 177	R 56 244 214	R 52 530 400	R 103 759 701
Quality Management Systems (QMS)						
Compensation of employees	R 683 149	R 2 912 947	R 3 099 376	R 3 266 742	R 3 266 742	R 3 266 742
Operational costs	R 273 260	R 1 165 179	R 1 239 750	R 1 306 697	R 1 306 697	R 1 306 697
Expenditure on capital assets	R 34 157	R 145 647	R 154 969	R 163 337	R 163 337	R 163 337
	R 1 941 602	R 90 700 176	R 540 606 295	R 1 131 063 614	R 1 056 787 332	R 2 081 373 352
Programme 3: SETA related expenditures						
PSETA (budget)	R 24 659 000	R 26 119 000	R 27 320 000	R 28 795 280	R 28 795 280	R 28 795 280
PSETA (transfers from departments)	R 0	R 0	R 0	R 0	R 0	R 0
GSETAs (transfers from departments)	R 0	R 380 319 912	R 401 618 316	R 423 305 705	R 423 305 705	R 423 305 705
	R 24 659 000	R 406 438 912	R 428 938 316	R 452 100 985	R 452 100 985	R 452 100 985
Branch 2: Diagnostic and M&E						
Head of Diagnostic and M&E	R 425 000	R 1 812 200	R 1 928 181	R 2 032 303	R 2 032 303	R 2 032 303
Diagnostic capability	R 3 343 309	R 39 037 264	R 41 535 649	R 43 778 574	R 43 778 574	R 43 778 574
Rest of the programme is part of CIP, ETD and Sschool						
	R 3 768 309	R 40 849 464	R 43 463 830	R 45 810 877	R 45 810 877	R 45 810 877
Branch 3: Teaching						
Head of Diagnostic and M&E	R 425 000	R 1 812 200	R 1 928 181	R 2 032 303	R 2 032 303	R 2 032 303
Learnerships, internships and bursaries						
e-learning programme						
Rest of the programme is part of CIP, ETD and Sschool						
	R 425 000	R 1 812 200	R 1 928 181	R 2 032 303	R 2 032 303	R 2 032 303
Branch 4: Research and Knowledge management						
Head Research and Knowledge Management	R 425 000	R 1 812 200	R 1 928 181	R 2 032 303	R 2 032 303	R 2 032 303
Compensation of employees	R 1 133 863	R 4 834 792	R 5 144 219	R 5 422 006	R 5 422 006	R 5 422 006
Operational costs	R 623 545	R 2 658 797	R 2 828 960	R 2 981 724	R 2 981 724	R 2 981 724
Payments of capital assets	R 77 943	R 332 350	R 353 620	R 372 715	R 372 715	R 372 715
	R 2 260 351	R 9 638 138	R 10 254 979	R 10 808 748	R 10 808 748	R 10 808 748
Branch 5: Curriculum development						
Head of Curriculum development	R 425 000	R 1 812 200	R 1 928 181	R 2 032 303	R 2 032 303	R 2 032 303
Compensation of employees	R 1 546 308	R 6 593 455	R 7 015 436	R 7 394 270	R 7 394 270	R 7 394 270
Operational costs	R 788 523	R 3 362 262	R 3 577 447	R 3 770 629	R 3 770 629	R 3 770 629
Payments of capital assets	R 98 565	R 420 283	R 447 181	R 471 329	R 471 329	R 471 329
CIP programme development	R 1 000 000					
Development of In-service ETD learning programmes	R 5 000 000					
Development of cadet programme	R 1 000 000					
Summer School programmes	R 3 000 000					
	R 12 858 396	R 12 188 200	R 12 968 245	R 13 668 530	R 13 668 530	R 13 668 530
Contingency reserve	R 1 491 551	R 21 982 403	R 133 043 921	R 278 812 139	R 260 472 317	R 513 456 519

Discussion of assumptions

The costing assumptions are shown from about row 98.

- i. Three different approaches are used to cost the components of the NSG:
 - a. The cost of the 'core administrative components' of the NSG (which are the Office of the head of NSG, Internal Audit, Corporate and Financial Services, and the Registrar) are linked directly to the overall size and budget of the other programmes, as calculated on Exp. Sum row 30. These 'other programmes' exclude:
 - Programme 3: SETA related expenditures, because the PSETA already has its own administration costs included in its budget, and the transfers to the G-SETAs do not require administration
 - Learnerships, internships and bursaries, because these are transfers to the departments that are responsible for running these programmes and so the administration costs lie with the departments concerned.

The relationship between administration and 'other programmes' is set using the following assumptions on row 99:

	39% Actual ratio	
Ratio of administration to other programme costs	60%	PALAMA administration as a ratio to other programme costs is 59%
Of which: Office of the head	1%	of total administration
Corporate and financial services	44%	of total administration
Registrar	54%	of total administration
Internal audit	1%	of total administration

The 'Ratio of administration to other programme costs' is a tool to manipulate the ratio (so as to prevent a circular reference in MS Excel). The 'Actual ratio' is shown above in red and uses 2016/17 in the Implementation Scenario as a benchmark.

The administration costs are then broken down between the different administrative components of the NSG in the ratios shown. Where there are 'once-off' expenditures on capital or units that are new to the NSG (relative PALAMA) these are costed separately.

- b. The second approach involves estimating the personnel complement required to perform different functions within the NSG. For instance:

Branch 4: Research and Knowledge management		
Head Research and Knowledge Management	1	R 1 700 000
Chief Director: research and knowledge management	1	R 1 007 130
Directors : research and knowledge management	10	R 830 925
Deputy directors: research and knowledge management	6	R 533 910
Administrative staff	4	R 271 629
Operational costs	40%	of compensation of employees
Expenditure on capital assets	5%	of compensation of employees

In these instances, the personnel complement can be regarded as a fixed cost element for the NSG that is not affected by the number of public servants trained.

The costs reflected under 'Diagnostic capability' also fall within this category of costs even though they are calculated on a separate spread sheet.

- c. The third approach used to cost components of the NSG is to calculate the costs separately as part of the training programmes. This impacts Branch 2: Diagnostic and M&E and Branch 3: Teaching. This is why the costs of these programmes, particularly the latter, appear so low.
- ii. For Programme 2: Registrar, the function Student and IT management will make extensive use of IT systems to manage learner information. The set-up costs of these IT-systems are reflected under NSG establishment costs.
- iii. For Programme 3: SETA related expenditures: it is assumed that transferring the PSETA to the NSG will entail transferring its entire expenditure budget to the NSG. This is reflected below.

Programme 3: SETA related expenditures		2013/14	2014/15	2015/16	2016/17	
PSETA		R 24 659 000	R 26 119 000	R 27 320 000	R 28 795 280	PSETA expenditure
Department's SETA transfers to PSETA as % of COE	0.00%	R 0	R 0	R 0	R 0	
Department's transfers to GSETAs as % of COE	0.10%	R 360 014 611	R 380 319 912	R 401 618 316	R 423 305 705	

The department's transfers to the PSETA and G-SETAs are based on information received from the DPSA. The total amounts for national and provincial government in 2013/14 are shown. These are divided by total cost of employment in national and provincial government to get a ratio, which is then used to project the transfers for future years.

- iv. Under Branch 3: Teachers there is a place holder for learnerships, internships and bursaries. The costs of these programmes are currently carried by departments and are supposed to be funded from 20% of the 1% of COE. If the entire 1% of COE is transferred to the NSG, then this 20% will need to be transferred back to departments that run learnerships / internships and provide bursaries to staff. Hence, it is reflected as an expense for the NSG on Exp. Sum at row 22. (An alternative method of dealing with this expenditure is to leave these funds with the departments and only transfer 0.8% of COE to the NSG – however, this assumes that all departments are using the 20% of 1% of COE effectively for for learnerships, internships and bursaries).
- v. The contingency reserve for all NSG components is set at row 191. Currently it is set at 5%. Note that the contingency reserve for the set up costs is set separately on the Set up Costs spread sheet.

6.4 Spread sheet: Diagnostic

This sheet sets out the assumptions and estimated costs of establishing a diagnostic capability within Branch 2: Diagnostic and M&E. The costs of this Diagnostic capability are reflected on the NSG Costs spread sheet at row 48, under Branch 2: Diagnostic and M&E.

Table 4: Costing output – Diagnostic

Rands	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
Diagnostic capability						
Programme management (DDGs)	R 301 671	R 1 286 325	R 1 368 650	R 1 442 557	R 1 442 557	R 1 442 557
Chief Directors: Diagnostic leaders	R 900 169	R 11 514 959	R 12 251 916	R 12 913 519	R 12 913 519	R 12 913 519
Directors: Diagnostic Specialists	R 900 169	R 11 514 959	R 12 251 916	R 12 913 519	R 12 913 519	R 12 913 519
Administrative staff	R 203 722	R 2 606 009	R 2 772 793	R 2 922 524	R 2 922 524	R 2 922 524
Operational costs	R 922 292	R 10 768 900	R 11 458 110	R 12 076 848	R 12 076 848	R 12 076 848
Expenditure on capital assets	R 115 287	R 1 346 113	R 1 432 264	R 1 509 606	R 1 509 606	R 1 509 606
Contingency						
	R 3 343 309	R 39 037 264	R 41 535 649	R 43 778 574	R 43 778 574	R 43 778 574

Discussion of assumptions

The costing assumptions are shown from about row 34.

- i. There are two main cost drivers:
 - a. The number of institutions whose training needs need to be diagnosed. This is set in row 51 and below with reference to the number of national and provincial departments
 - b. The average number of working days required to perform each diagnostic review. This is set in row 48:

Days required for Diagnostic Assessment and Customisation	20	per department
Departments per annum per diagnostic specialist	10	

This is used to calculate the number of diagnostic reviews one diagnostic specialist can perform in a year, and hence the number of diagnostic specialists required to cover all departments, which is calculated in row 39.

- ii. The management structure, operational costs and expenditure of capital assets are then calculated as ratios.

6.5 Spread sheet: CIP Costs

This sheet sets out the assumptions and estimated costs of setting up and running a Compulsory Induction Programme (CIP) for all new recruits/appointments to the public service.

The basic assumption is that all newly appointed public servants are required to go through the CIP within the first three months of employment, and therefore CIP programmes will be run every quarter.

Data on the number of newly appointed public servants in national and provincial departments was provided by DPSA and is shown on spread sheets N-Pers and P-Pers.

Table 5: Costing output – CIP Costs

Rands	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
CIP programme						
Programme management (directors and above)	R 771 977	R 9 875 130	R 19 871 965	R 40 447 546	R 20 945 051	R 40 447 546
Programme co-ordinators	R 1 290 283	R 16 505 294	R 35 123 265	R 74 039 843	R 37 019 921	R 74 039 843
Administrative staff	R 226 358	R 2 895 565	R 5 853 674	R 12 339 546	R 6 169 773	R 12 339 546
Course facilitators		R 42 049 862	R 89 380 481	R 188 199 825	R 94 207 027	R 188 199 825
Train the trainers	R 560 000	R 119 392	R 635 165	R 1 338 929	R 133 893	R 267 786
Materials		R 4 574 655	R 9 632 421	R 20 282 057	R 10 152 572	R 20 282 057
Logistics for centralised courses		R 25 265 328	R 53 244 146	R 112 238 661	R 56 119 330	R 112 238 661
Operational costs	R 915 447	R 11 710 395	R 24 339 562	R 50 730 774	R 25 653 898	R 50 730 774
Expenditure on capital assets	R 114 431	R 1 463 799	R 3 042 445	R 6 341 347	R 3 206 737	R 6 341 347
Contingency	R 0	R 0	R 0	R 0	R 0	R 0
	R 3 878 495	R 114 459 421	R 241 123 126	R 505 958 526	R 253 608 203	R 504 887 383
Indirect costs carried by departments		<i>R 84 380 076</i>	<i>R 177 671 186</i>	<i>R 374 105 016</i>	<i>R 187 265 430</i>	<i>R 374 105 016</i>
Coverage and average cost of programme						
No. of new employees on CIP training - decentralised		33 356	66 708	133 411	66 708	133 411
No. of new employees on CIP training - centralised		1 756	3 511	7 022	3 511	7 022
Avg cost of CIP per new employee - decentralised		R 2 540	R 2 676	R 2 804	R 2 812	R 2 796
Avg cost of CIP per new employee - centralised		R 16 932	R 17 841	R 18 788	R 18 797	R 18 781
Required number of programme co-ordinators and facilitators						
Programme co-ordinators required	37	37	73	146	73	146
Facilitators (FTE) required	74	74	147	293	147	293
<i>From the SMS corp</i>	22	22	44	88	44	88
<i>From the MMS corp</i>	22	22	44	88	44	88
<i>Contracted-in facilitators</i>	30	30	59	117	59	117

Discussion of scenarios

All the modalities of the CIP programme are the same for all the scenarios. The only difference between the scenarios relates to the number of public servants to be trained in the CIP:

- i. In the Implementation scenario it is assumed that the personnel required to train 25% of all newly appointed public servants will be employed in March 2014, and CIP training courses will be run for 25% of new employees in 2014/15.

Capacity will be increased to cover 50% of all new appointments in 2015/16, with full capacity of 100% of all new appointments being covered by the CIP in 2016/17.

- ii. Scenario 1 shows the cost in 2016/17 of providing CIP training to 50% of newly appointed public servants.
- iii. Scenario 2 shows the cost in 2016/17 of providing CIP training to 100% of newly appointed public servants. This is the 'target' of the CIP programme.

Discussion of assumptions

The costing assumptions are shown from about row 71.

The following variables are major cost drivers:

- i. The number of newly appointed public servants to attend the CIP programme is set by provincial and national department at row 207 and following. Note the percentages are set between 0% and 100%. The total numbers by national and provincial sphere of government is shown in row 188 and following, with the total on row 204.
- ii. The number of learners per course and the number are courses per CIP programme are key cost drivers that are set at line 86:

	Per Course	Per programme
No of learners per course/programme	40	40
Number of courses in a programme		2

Together with the number of public servants to be trained these variables drive the overall number of CIP courses and the number of training days required, which underpin most of the other CIP costs. If the number of learners per course is doubled (e.g. from 40 to 80) it means that half the number of courses are required. This effectively halves the overall cost of the CIP. On the other hand if the number of courses per programme is double (e.g. from 2 to 4) it will double the overall cost of the CIP.

- iii. The complement of staff required to manage the CIP is based on the number of people to be trained and the programme management input per course of the course co-ordinators. The programme management input per course is set at row 90 as follows:

Programme co-ordinators	Per course	Per programme	Unit
Assessment and customisation		2	per cohort
Briefing and planning with course facilitators	1	2	
Post course assessment	0.5	1	
3-month assessment	1	2	
6-month assessment	1	2	
Total days per programme		9	
Programmes per annum per co-ordinator		22	

The number of required CIP courses is calculated in row 185. This information and the above assumption on the 'programmes per annum per co-ordinator' is used to calculate the required number of course co-ordinators in line 76. These are then divided between Directors and Chief Directors according to the staff ratios set at row 80.

- iv. The number of training days drives the cost of the course facilitators. This is set at row 111 and is based on contact preparation time, course delivery and assessment time.

				Contribution of SMS and MMS
Course facilitator	Per course	Cost	Percent training days	
Percent of training provided by SMS			30%	60%
Percent of training provided by MMS			30%	
Cost of facilitator	R 56 000	R 7 000		
Briefing and planning with programme co-ordinator	1			
Course delivery	4.5			
Post course assessment	0.5			
3-month assessment	1			
6-month assessment	1			
Total days per course	8			
Courses per annum per facilitator	24			

The per cent of training days provided by SMS or MMS (rows 99 to 102) directly influences the cost associated with paying course facilitators. Requiring the SMS and MMS staff to contribute a higher proportion of the total number of training days reduces the number of days for which facilitators need to be contracted-in. Note that course facilitators are not full-time staff and so are paid on a daily basis.

- v. Generally, the CIP is premised on a decentralised delivery model. In other words, public servants will be trained where they are employed. This has two implications:
 - a. The departments carry the cost of the venues, catering and transport for participants (where they are not trained at their place of work). The variables associated with these *indirect costs* are shown at row 153.

Indirect costs	Per course	Per programme	Unit	Costs
Venues	R 10 000	R 20 000	5	R 2 000.00
Catering	R 15 375	R 30 750	41	R 75
Transport for participants	R 20 000	R 40 000	40	R 100
Total indirect costs	R 45 375	R 90 750		

The total indirect costs of the CIP for departments are significant and are shown at row 17.

- b. If the NSG decides to train a proportion of the newly appointed public servants centrally, then it will incur transport, accommodation, catering and venue costs. This will drive up the cost of CIP delivery significantly. The relevant variables can be set at row 128:

Logistics for centralised courses						
Description of courses	5 days					
Number of courses	2					
Percentage of new employees required to attend centr.	5%	5%	5%	5%	5%	5%
Maximum no. per course	40					
No. of employees attending centralised courses	1 756	3 511	5 267	7 022	3 511	7 022
Administrative staff attending course	4					
Facilitators	1					

This is the reason for the difference in the average cost of CIP per new employee shown in table 5 above.

The implication is that providing CIP on a wholly centralised basis would not be sustainable.

6.6 Spread sheet: **Inserv Costs**

This sheet sets out the assumptions and estimated costs of running in-service education, training and development (in-service ETD) programmes for all existing public servants in the national and provincial spheres of government.

The basic assumption is that all public servants will be required to complete one training programme consisting of six courses every three years. Three of these courses will involve direct contact in-service ETD, which means each public servant will be required to attend 15 days contact training in a three-year cycle. This basic assumption can be changed to either increase or decrease the length of the cycle over which public service must complete a programme at row 74.

No. of years to complete programme	3	years
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The public servant will be required to complete the other three courses via e-learning, which is costed separately.

Data on the number of public servants in national and provincial departments was provided by DPSA and is shown on spread sheets N-Pers and P-Pers.

Table 6: Costing output – Inserv Costs

Rand	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
In-service ETD programme						
Programme management (DDGs)	R 0	R 964 744	R 12 317 850	R 25 966 027	R 21 638 356	R 43 276 712
Programme co-ordinators (Directors and Chief Directors)	R 0	R 33 781 728	R 431 325 102	R 907 246 619	R 755 898 417	R 1 511 796 834
Administrative staff	R 0	R 5 356 796	R 68 395 565	R 143 853 126	R 119 823 484	R 239 646 969
Course facilitators			R 251 252 393	R 529 499 457	R 441 257 358	R 882 444 422
Train the trainers	R 0	R 731 276	R 2 778 849	R 3 749 000	R 4 920 563	R 9 723 970
Materials			R 62 393 810	R 131 491 240	R 109 577 973	R 219 138 490
Logistics for centralised courses			114 222 418	240 764 874	200 629 403	401 258 807
Operational costs	R 0	R 16 041 307	R 204 815 406	R 430 826 309	R 358 944 103	R 717 888 206
Expenditure on capital assets	R 0.00	R 2 005 163	R 25 601 926	R 53 853 289	R 44 868 013	R 89 736 026
Contingency						
	R 0	R 58 881 014	R 1 173 103 319	R 2 467 249 941	R 2 057 557 670	R 4 114 910 434
Indirect costs carried by departments	<i>R 0</i>	<i>R 0</i>	<i>R 444 996 178</i>	<i>R 937 802 946</i>	<i>R 781 516 288</i>	<i>R 1 562 908 078</i>
Coverage and average cost of programme						
No. of employees on In-service ETD training - centralised			143 090	286 178	238 483	476 962
No. of employees on In-service ETD training - decentralised			7 532	15 063	12 552	25 104
Avg cost of In-service ETD programme per employee - decentralised			R 7 030	R 8 190	R 8 196	R 8 196
Avg cost of In-service ETD programme per employee - centralised			R 22 197	R 24 175	R 24 180	R 24 180
Required number of programme co-ordinators and facilitators						
Programme co-ordinators required	-	438	438	876	730	1 460
Facilitators (FTE) required	-	410	410	819	683	1 363
From the SMS corp	-	123	123	246	205	409
From the MMS corp	-	123	123	246	205	409
Contracted-in facilitators	-	164	164	327	273	545

Discussion of scenarios

All the modalities of the In-service ETD programme are the same for all the scenarios. The only difference between the scenarios relates to the planned roll-out of the programme and the number of public servants to be trained:

- i. In the Implementation scenario it is assumed that the personnel required to train 30% of all public servants will be employed in March 2015, and an initial set of In-service ETD programmes will be introduced in 2015/16 aimed at covering 30% of all public servants.

Then in 2016/17 capacity will be increased to cover 60% of all public servants.

- ii. Scenario 1 shows the cost in 2016/17 of providing In-service ETD to 50% of all public servants.

- iii. Scenario 2 shows the cost in 2016/17 of providing In-service ETD to 100% of all public servants. This is the 'target' of the In-service ETD programme.

Discussion of assumptions

The costing assumptions are shown from about row 58.

The following variables are major cost drivers:

- i. The number of public servants to attend the In-service ETD is set by provincial and national department at row 195 and following. Note the percentages are set between 0% and 100%, but are then divided by the number of years over which officials may complete a programme, which is set in row 76. The total numbers by national and provincial sphere of government are shown in row 176 and following, with the total on row 192.
- ii. The number of learners per course and the number are courses per In-service ETD programme are key cost drivers that are set at line 73:

	Per Course	Per programme	
No of learners per course/programme	40	40	
Number of courses in a programme		3	courses
No. of years to complete programme		3	years

Together with the number of public servants to be trained and the period over which public servants must complete a programme, these variables drive the overall number of In-service ETD courses and the number of training days required, which underpin most of the other In-service ETD costs. If the number of learners per course is doubled (e.g. from 40 to 80) it means that half the number of courses are required. This effectively halves the overall cost of In-service ETD. On the other hand if the number of courses per programme is double (e.g. from 3 to 6) it will double the overall cost of the In-service ETD.

- iii. The complement of staff required to manage the In-service ETD is based on the number of people to be trained and the programme management input per course of the course co-ordinators. The programme co-ordinator input per course is set at row 78 as follows:

Programme co-ordinator	Per course	Per programme	
Assessment and customisation		0	per cohort
Briefing and planning with course facilitators	-	0	
Post course assessment	0.5	1.5	
3-month assessment	1	3	
6-month assessment	1	3	
Total days per programme		7.5	
Programmes per annum per co-ordinator		26	

The required number of In-service ETD courses is calculated in row 164. This information and the above assumption on the 'programmes per annum per co-ordinator' is used to calculate the required number of course co-ordinators in row 63. These are then divided between Directors and Chief Directors according to the staff ratios set at row 67.

- iv. The number of training days drives the cost of the course facilitators. This is set at row 99 and is based on contact preparation time, course delivery and assessment time.

Course facilitator	Per course	Cost	Percent training d	Contribution of SMS and MMS
Number of days per year training provided by SMS officials			30.0%	60%
Number of days per year training provided by MMS officials			30.0%	
Cost of facilitator	R 49 000	R 7 000		
Briefing and planning with programme co-ordinator	-			
Course delivery	4.5			
Post course assessment	0.5			
3	1			
6-month assessment	1			
Total days per course	7			
Courses per annum per facilitator	28			

The per cent of training days provided by SMS or MMS (rows 87 to 90) directly influences the cost associated with paying course facilitators. Requiring the SMS and MMS staff to contribute a higher proportion of the total number of training days reduces the number of days for which facilitators need to be employed. Note that course facilitators are not full-time staff and so are paid on a daily basis.

- v. Generally, the In-service ETD is premised on a decentralised delivery model. In other words, public servants will be trained where they are employed. This has two implications:
 - a. The departments carry the cost of the venues, catering and transport for participants (where they are not trained at their place of work). The variables associated with these *indirect costs* are shown at row 142.

Indirect costs	Per course	Per programme	Unit	Costs
Venues	R 10 000	R 20 000	5	R 2 000.00
Catering	R 15 375	R 30 750	41	R 75
Transport for participants	R 20 000	R 40 000	40	R 100
Total indirect costs	R 45 375	R 90 750		

The total indirect costs of the In-service ETD for departments are significant and are shown at row 17.

- b. If the NSG decides to train a proportion of public servants centrally, then it will incur transport, accommodation, catering and venue costs. This will drive up the cost of In-service ETD delivery significantly. The relevant variables can be set at row 117:

Logistics for centralised courses					
Description of courses	5 days				
Number of courses	2				
Percentage of new employees required to attend central courses	0%	5%	5%	5%	5%
Maximum no. per course	40				
No. of employees attending centralised courses	-	7 532	7 532	15 063	25 104
Administrative staff attending course	4				
Facilitators	1				

This is the reason for the difference in the average cost of In-service ETD per new employee shown in table 6 above. The implication is that providing In-service ETD on a wholly centralised basis would not be sustainable.

6.7 Spread sheet: e-learning

This sheet sets out the assumptions and estimated costs of running an e-learning programme to deliver in-service ETD to all public servants in the national and provincial spheres of government.

As note, the basic assumption is that all public servants will be required to complete one training programme consisting of six courses every three years. Three of these courses will be e-learning courses, which means each public servant will be required to complete 120 hours' worth of e-learning activities in a three-year cycle. This basic assumption can be changed to either increase or decrease the length of the cycle over which public service must complete a programme at row 75.

No. of years to complete programme	3 years
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The public servant will be required to complete the other three courses as contact In-service ETD courses, which are costed separately.

Data on the number of public servants in national and provincial departments was provided by DPSA and is shown on spread sheets N-Pers and P-Pers.

Table 7: Costing output – e-learning

Rands	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
e-learning programme						
Programme management (DDGs)	R 0	R 0	R 0	R 0	R 0	R 1 442 557
Programme co-ordinators (Directors and Chief Directors)	R 0	R 2 529 774	R 10 766 718	R 21 702 893	R 17 518 855	R 35 037 709
Administrative and call centre staff	R 0	R 265 427	R 3 388 969	R 7 143 948	R 5 845 048	R 11 365 371
Assessments			R 36 149 280	R 72 297 840	R 60 248 400	R 120 495 840
Moderating Discussions			R 753 110	R 1 506 205	R 1 255 175	R 2 510 330
Hosting	R 360 000	R 542 239	R 542 239	R 1 084 468	R 903 726	R 1 807 438
Software customisation	R 500 000	R 528 000	R 527 000	R 527 000	R 527 000	R 527 000
Operational costs	R 0	R 1 118 080	R 5 662 275	R 11 538 736	R 9 345 561	R 19 138 255
Expenditure on capital assets	R 0	R 139 760	R 707 784	R 1 442 342	R 1 168 195	R 2 392 282
Contingency						
	R 860 000	R 5 123 280	R 58 497 376	R 117 243 432	R 96 811 960	R 194 716 782
Coverage and average cost of programme						
No. of employees on e-learning courses			150 622	301 241	251 035	502 066
Average cost of e-learning course per employee			R 388	R 389	R 386	R 388
Required number of programme co-ordinators and facilitors						
Programme co-ordinators required	-	9	9	17	14	28
e-tutors (FTE) contracted-in	-	114	114	228	190	379
Help desk administrators	-	8	8	16	13	26

Discussion of scenarios

All the modalities of the e-learning programme are the same for all the scenarios. The only difference between the scenarios relates to the planned roll-out of the programme and the number of public servants to be trained:

- i. In the Implementation scenario it is assumed that the personnel required to train 30% of all public servants on e-learning will be employed in Q4 of 2014/15, and the e-learning courses will be introduced in 2015/16 aimed at covering 30% of all public servants.

Then in 2016/17 capacity will be increased to cover 60% of all public servants.

- ii. Scenario 1 shows the cost in 2016/17 of providing e-learning to 50% of all public servants.
- iii. Scenario 2 shows the cost in 2016/17 of providing e-learning to 100% of all public servants. This is the 'target' of the e-learning programme.

Discussion of assumptions

The costing assumptions are shown from about row 26. The following variables are major cost drivers:

- i. The number of public servants to participate in e-learning is set by national and provincial department at row 115 and following. Note the percentages are set between 0% and 100%, but are then divided by the number of years over which officials may complete a programme, which is set in row 75. The total number of learners by national and provincial sphere of government are shown in row 96 and following, with the total on row 112.
- ii. The complement of staff required to manage the e-learning programme is based on the number of learners on the e-learning programme as a whole and the amount of time taken to do assessments and moderate discussions. The following variables at row 43 are used:

	learners	cost				
Number of help desk staff (administrators) per	20 000	R 271 629	administrator			
e-learning delivery						
Assessment						
Per cent of courses requiring e-tutor assessment	50%					
No. of assessments per course	8					
Cost per assessment	R 60					
Time required for assessments	15 minutes per assessment					
Number of assessments	0	602 488	602 488	1 204 964	1 004 140	2 008 264
Time required to conduct assessments	-	21 517	21 517	43 034	35 862	71 724
Number of e-tutors required	-	111	111	222	185	371
Moderated discussions						
Per cent of courses requiring e-tutor moderated discussions	50%					
No. of moderated discussions per course	2					
Number of learners per moderated discussion	50					
Cost of moderated discussion	R 250 per 50 students					
time required per moderated discussion	1 hour					
Number of students participating in moderated discussions	-	150 622	150 622	301 241	251 035	502 066
Number of moderated discussions	-	3 012	3 012	6 025	5 021	10 041
Number of e-tutors required	-	3	3	5	4	9

The number of e-learners doing courses in a year is calculated in row 77. This information is used to calculate the required number of e-tutors for assessments and the moderation of discussion as shown above, which are then added together in row 32. Then together with help desk staff in row 33, these are used to estimate the number of Directors and Chief Directors according to the staff ratios set at row 37.

- iii. Other costs associated with hosting e-learning websites is set out in row 68:

	Per month	Per number of learners
Hosting	R 30 000	100 000

6.8 Spread sheet: Sschool

This sheet sets out the assumptions and estimated costs of running a summer school each year as part of the government leadership programme.

Table 8: Costing output – Sschool

Rands	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
Summer School programme						
Programme management (chief directors and above)	R 0	R 0	R 0	R 0	R 0	R 0
Programme co-ordinators	R 0	R 0	R 0	R 0	R 0	R 0
Administrative staff	R 0	R 0	R 0	R 0	R 0	R 0
Summer school facilitators	R 0	R 255 840	R 272 214	R 286 913	R 286 913	R 286 913
Programme design and materials	R 0	R 475 200	R 500 861	R 527 907	R 527 907	R 527 907
Logistical arrangements	R 0	R 2 596 002	R 2 736 186	R 2 883 940	R 2 883 940	R 2 883 940
Operational costs	R 0	R 0	R 0	R 0	R 0	R 0
Expenditure on capital assets	R 0	R 0	R 0	R 0	R 0	R 0
Contingency						
	R 0	R 3 327 042	R 3 509 260	R 3 698 760	R 3 698 760	R 3 698 760
Coverage and average cost of programme						
No. of summer school participants		360	360	360	360	360
Average cost of summer school per attendee		R 9 242	R 9 748	R 10 274	R 10 274	R 10 274

Discussion of scenarios

It is envisaged that only one summer school will be held each year. So there is no change between the scenarios.

Discussion of assumptions

The costing assumptions are shown from row 44. This management summer school will be run each year from 2014/15. It is distinct from the Launch Summer School which is a 'special event' for 2013/14.

Key points on the costing assumptions:

- i. The main cost drivers for the summer school are the number of people that will be attending and the length of the summer school. These are set at shown at row 58

No. of days per summer school	3	
Max. no. to be trained per summer school	360	gov dept plus NSG
No. of facilitators per day at summer school	2	

- ii. Transport to the summer school is not costed. It is envisaged that the departments from which people come will cover their transport costs. The transport costs shown only cover the organisers and facilitators.
- iii. Summer Schools are a once off event each year. Therefore the cost of management is assumed to be integrated into the personnel costs of Branch 3: Teaching.

In relative terms the budget for summer schools is small. The majority of the budget is spread between Summer school facilitators and Logistical arrangements.

6.9 Spread sheet: Cadets

This sheet sets out the assumptions and estimated costs of running a 10 month cadet programme for new employees for the public service.

Table 9: Costing output – Cadets

Rands	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
Cadet programme						
Programme management (chief directors and	R 0	R 268 400	R 1 142 311	R 1 203 996	R 2 407 992	R 3 611 987
Programme co-ordinators	R 0	R 142 287	R 605 574	R 1 914 824	R 5 106 196	R 9 574 118
Administrative staff	R 0	R 144 778	R 616 176	R 1 298 900	R 3 247 249	R 5 845 048
Course facilitators	R 0	R 711 435	R 3 027 868	R 9 574 118	R 22 977 882	R 45 317 490
Cadet stipends		R 7 906 284	R 47 437 706	R 134 581 821	R 335 786 416	R 670 809 247
Cadet Accommodation and subsistence		R 6 822 816	R 43 147 488	R 129 020 540	R 321 910 823	R 643 089 614
Materials		R 87 472	R 553 173	R 1 654 109	R 2 476 237	R 8 244 739
Logistics for secondments			6 638 075	19 849 314	49 524 742	98 936 864
Operational costs	R 0	R 506 760	R 2 156 771	R 5 596 735	R 13 495 728	R 25 739 457
Expenditure on capital assets	R 0	R 63 345	R 269 596	R 699 592	R 1 686 966	R 3 217 432
Contingency						
	R 0	R 16 653 578	R 105 594 738	R 305 393 947	R 758 620 230	R 1 514 385 995
Coverage and average cost of programme						
No. of cadets on programme			497	1 410	3 518	7 028
Average cost of cadet programme per cadet			R 212 464	R 216 591	R 215 640	R 215 479

Discussion of scenarios

All the modalities of the Cadet programme are the same for all the scenarios. The only difference between the scenarios relates to the planned roll-out of the programme and the number of cadets:

- In the Implementation scenario it is assumed that the school will start with some 500 cadets in February 2015. So the required staff are appointed in Q4 of 2014/15.

Then in 2016/17 capacity will be increased to 1400 cadets.

- Scenario 1 shows the cost in 2016/17 of rolling out the Cadet programme to cover 2.5% of new appointments by national and provincial departments, which means expanding the programme to some 3500 cadets.
- Scenario 2 shows the cost in 2016/17 of covering 5% of the new appointments by national and provincial departments, which means coverage of about 7000 cadets.

Discussion of assumptions

The costing assumptions are shown from row 28. Key points on the costing assumptions:

- The main cost drivers for the cadet programme are the number of cadets, and the fact that they will be paid a stipend and be provided with accommodation for the duration of the programme. These variables are set out at row 45

Cadet stipends	Months	Amount	
Graduate stipend	11	R 138 345	
School leaver stipend	11	R 81 312	
Cadet Accommodation and subsistence	No.	Cost	
No. of days in residence	260	R 300	per day

- ii. It is proposed that the cadets should be seconded to institutions in national, provincial and local government. The costs associated with these secondments are shown from row 57:

Logistics for secondments				
No. of days on secondments		30 days		
Number of secondments		3		
Total number of days on secondments		-	44 730	44 730 126 900
Accommodation on secondments	2013/14	2014/15	2015/16	2016/17
<i>Participants</i>	R 450	475	501	528
Transport to secondments	R 4 000	4224	4452	4693

7 Summary of the NSG costing model outputs

7.1 Spread sheet – Del. Sum

This spread sheet summarises the key non-financial information outputs of the costing model.

Table 10: Summary of key non-financial information related to running the NSG

	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
Personnel number estimates						
Branch 1: Office of the head of NSG	15	17	29	43	41	67
Internal Audit	1	3	15	29	27	53
Programme 1: Corporate and Financial Services	20	125	643	1263	1181	2314
Programme 2: Registrar	14	142	777	1539	1438	2829
Programme 3: SETA related expenditures	41	40	40	40	40	40
Branch 2: Diagnostic and M&E	28	28	28	28	28	28
Branch 3: Teaching	1	1	1	1	1	1
Branch 4: Research and Knowledge management	22	22	22	22	22	22
Branch 5: Curriculum development	32	32	32	32	32	32
CIP programme	48	48	94	187	94	187
In-service ETD programme	0	670	670	1337	1114	2228
e-learning programme	0	22	22	43	35	70
Summer School programme	0	0	0	0	0	0
Learnerships, internships and bursaries	0	0	0	0	0	0
Cadet programme	0	9	9	23	56	108
Contingency reserve	0	0	0	0	0	0
Total personnel	222	1159	2382	4587	4109	7979
Key: personnel numbers specified directly by ATT or calculated based on training programme						
Key: some personnel numbers specified and the rest calculated by dividing estimated COE by assistant director's salary						
No. of programme co-ordinators (CDs and Ds)	37	488	524	1047	830	1658
CIP programme	37	37	73	146	73	146
In-service ETD programme	0	438	438	876	730	1460
e-learning programme	0	11	11	21	17	34
Cadet programme	0	2	2	4	10	18
No. of facilitators (based on FTEs)	74	603	676	1355	1056	2106
CIP programme	74	74	147	293	147	293
In-service ETD programme	0	410	410	819	683	1363
e-learning programme	0	114	114	228	190	379
Cadet programme	0	5	5	15	36	71
Sourcing of facilitators (based on FTEs)						
Appointed	0	5	5	15	36	71
Contracted-in	30	308	337	672	522	1041
Utilising SMS and MMS corp to facilitate courses	44	290	334	668	498	994
From the SMS corp	22	145	167	334	249	497
From the MMS corp	22	145	167	334	249	497
Workload analysis of using SMS and MMS as facilitators for CIP and In-service ETD						
No. of days facilitation provided by SMS	4226	27961	32177	64323	47990	95955
No. of days per SMS employee per year	0.32	2.12	2.44	4.88	3.64	7.27
No. of days facilitation provided by MMS	4226	27961	32177	64323	47990	95955
No. of days per MMS employee per year	0.02	0.12	0.14	0.28	0.21	0.42
Opportunity cost of using SMS and MMS for facilitation vs cost of contracting in facilitators						
Opportunity cost of using SMS and MMS for facilitation (Rands)	R 25 738 944	R 180 839 481	R 221 606 935	R 467 147 420	R 348 262 597	R 695 126 550
Cost of replacing SMS and MMS facilitators with contracted-in facilitators	R 59 598 000	R 392 805 000	R 452 403 000	R 904 806 000	R 674 541 000	R 1 346 373 000
Coverage of the different training programmes						
No. of new employees on CIP training - decentralised	0	33 356	66 708	133 411	66 708	133 411
No. of new employees on CIP training - centralised	0	1 756	3 511	7 022	3 511	7 022
No. of employees on In-service ETD training - centralised	0	0	143 090	286 178	238 483	476 962
No. of employees on In-service ETD training - decentralised	0	0	7 532	15 063	12 552	25 104
No. of employees on e-learning courses	0	0	150 622	301 241	251 035	502 066
No. of summer school participants	0	360	360	360	360	360
No. of cadets on programme	0	0	497	1 410	3 518	7 028
Average direct cost of the different training programmes						
Avg cost of CIP per new employee - decentralised	R 0	R 2 540	R 2 676	R 2 804	R 2 812	R 2 796
Avg cost of CIP per new employee - centralised	R 0	R 16 932	R 17 841	R 18 788	R 18 797	R 18 781
Avg cost of In-service ETD programme per employee - decentralised	R 0	R 0	R 7 030	R 8 190	R 8 196	R 8 196
Avg cost of In-service ETD programme per employee - centralised	R 0	R 0	R 22 197	R 24 175	R 24 180	R 24 180
Average cost of e-learning course per employee	R 0	R 0	R 388	R 389	R 386	R 388
Average cost of summer school per attendee	R 0	R 9 242	R 9 748	R 10 274	R 10 274	R 10 274
Average cost of cadet programme per cadet	R 0	R 0	R 212 464	R 216 591	R 215 640	R 215 479

Notes to table 10:

- i. The **Personnel number estimates** show the estimated number of full-time employees required to staff the different branches of the NSG and deliver the envisaged training programmes. These numbers do not include the facilitators that are contracted-in.

The numbers in blue are based on personnel numbers specified directly by ATT or calculated based on training programme. The numbers in yellow are based on some of the personnel numbers being specified and the rest calculated by dividing estimated COE by an assistant director's salary. An assistant director's salary is assumed to approximate the future average salary of staff within NSG. Comparing an assistant director's salary to the average salaries of staff in UNISA and UCT suggests that this methodology probably slightly over-estimates the number of staff required.

- ii. The **No. of programme co-ordinators (CDs and Ds)** shows the required number of co-ordinators for the main training programmes to be run by the NSG. It is envisaged that these officials will be the NSG's 'core capacity' to organise the envisaged training programmes. Timing the employment of these staff will be critical to building up the capacity of the NSG.
- iii. The **No. of facilitators (based on FTEs)** shows the estimated number of facilitators based on full-time equivalents that are required to present the different training courses or facilitate the e-learning programme. (Note, these numbers do not include the facilitators that present the summer schools.)
- iv. The **Sourcing of facilitators (based on FTEs)** shows that it is envisaged that about most of the facilitators will be sourced from the SMS and MMS, while the remainder will be contracted-in. The ratio between facilitators sourced from within the public service and those that are contracted-in is set on the CIP Costs (row 99) and the Inserv Costs (row 87). The ATT recommended a ratio of 60:40.
- v. The **Workload analysis of using SMS and MMS as facilitators for CIP and In-service ETD** explores whether the idea of using SMS and MMS officials to present the CIP and In-Service ETD programmes is a feasible idea from the perspective of 'taking key officials away from their core responsibilities'. What the analysis indicates is that requiring SMS and MMS to facilitate NSG training courses will at most require just over 7 days of each SMS member per year, and 'less than a day' of MMS time per year. This obviously depends on the responsibility being carried evenly, and not some officials being saddled with all the work.
- vi. The **Opportunity cost of using SMS and MMS for facilitation vs cost of contracting in facilitators** explores the opportunity cost of using SMS and MMS officials to facilitate CIP and In-service ETD and compares this to the cost of contracting-in facilitators to replace them. SMS opportunity costs are based on a mid-level director's salary and MMS opportunity cost based on a mid-level assistance director's salary. The cost of contracting-in facilitators is based on the daily rate specified on CIP Costs (row 105) and Inserve Costs (row 93). The ATT recommended R7000 per day for facilitators. This analysis indicates that the idea of using SMS and MMS officials as facilitators is a cost-effective approach to running training in the public service.
- vii. The **Coverage of the different training programmes and Average direct cost of the different training programmes** provides useful insights that need to be taken into consideration when assessing the sustainability and effectiveness of different training modalities. The challenge is going to be to strike a balance between effectiveness and cost in the delivery of training programmes. It is evident that running programmes on a centralised basis is a very costly exercise.

7.2 Spread sheet – Exp. Sum

The spread sheet summarises all the costs calculated in the other 'working sheets' of the NSG costing model, and information on COE by programme.

Table 11: Summary of NSG set-up and running costs

Rand thousand	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
PALAMA wind-down costs	R 119 034	R 243 098	R 261 463	R 274 867	R 274 867	R 274 867
NSG establishment costs	R 98 593	R 0	R 0	R 0	R 0	R 0
Branch 1: Office of the head of NSG	R 2 142	R 10 660	R 19 566	R 31 017	R 29 641	R 48 615
Internal Audit	R 144	R 1 578	R 9 903	R 20 831	R 19 456	R 38 430
Programme 1: Corporate and Financial Services	R 1 553	R 73 778	R 440 360	R 921 466	R 860 945	R 1 695 793
Programme 2: Registrar	R 1 942	R 90 700	R 540 606	R 1 131 064	R 1 056 787	R 2 081 373
Programme 3: SETA related expenditures	R 24 659	R 406 439	R 428 938	R 452 101	R 452 101	R 452 101
Branch 2: Diagnostic and M&E	R 3 768	R 40 849	R 43 464	R 45 811	R 45 811	R 45 811
Branch 3: Teaching	R 425	R 1 812	R 1 928	R 2 032	R 2 032	R 2 032
Branch 4: Research and Knowledge management	R 2 260	R 9 638	R 10 255	R 10 809	R 10 809	R 10 809
Branch 5: Curriculum development	R 12 858	R 12 188	R 12 968	R 13 669	R 13 669	R 13 669
Training programmes						
CIP programme	R 3 878	R 114 459	R 241 123	R 505 959	R 253 608	R 504 887
In-service ETD programme	R 0	R 58 881	R 1 173 103	R 2 467 250	R 2 057 558	R 4 114 910
e-learning programme	R 860	R 5 123	R 58 497	R 117 243	R 96 812	R 194 717
Summer School programme	R 0	R 3 327	R 3 509	R 3 699	R 3 699	R 3 699
Learnerships, internships and bursaries	R 0	R 760 640	R 803 237	R 846 611	R 846 611	R 846 611
Cadet programme	R 0	R 16 654	R 105 595	R 305 394	R 758 620	R 1 514 386
Contingency reserve	R 1 492	R 21 982	R 133 044	R 278 812	R 260 472	R 513 457
Total expenditure	R 273 608	R 1 871 807	R 4 287 560	R 7 428 634	R 7 043 498	R 12 356 166
Total expenditure (excluding learnerships, internships and bursaries, and G-SETA payments)	R 273 608	R 730 847	R 3 082 705	R 6 158 717	R 5 773 581	R 11 086 249
<i>Plus indirect costs departments carry</i>	R 79 905	R 506 578	R 622 667	R 1 311 908	R 968 782	R 1 937 013
Administration	R 223 407	R 419 814	R 1 271 898	R 2 379 245	R 2 241 696	R 4 139 077
Programmes	R 24 051	R 262 932	R 1 650 443	R 3 471 865	R 3 242 617	R 6 404 920
Contingency	R 1 492	R 21 982	R 133 044	R 278 812	R 260 472	R 513 457
Learnerships, internships and bursaries and Programme 3	R 24 659	R 1 167 079	R 1 232 175	R 1 298 712	R 1 298 712	R 1 298 712
Administration	82%	57%	41%	39%	39%	37%
Programmes	9%	36%	54%	56%	56%	58%
Contingency	1%	3%	4%	5%	5%	5%
Compensation of employees						
Branch 1: Office of the head of NSG	R 2 137	R 9 950	R 15 110	R 21 643	R 20 886	R 31 322
Internal Audit	R 79	R 868	R 5 446	R 11 457	R 10 701	R 21 136
Programme 1: Corporate and Financial Services	R 1 090	R 41 587	R 243 271	R 507 938	R 474 651	R 933 817
Programme 2: Registrar	R 659	R 48 141	R 295 478	R 620 129	R 579 277	R 1 142 799
Programme 3: SETA related expenditures	R 13 562	R 223 541	R 235 916	R 248 656	R 248 656	R 248 656
Branch 2: Diagnostic and M&E	R 2 731	R 28 734	R 30 573	R 32 224	R 32 224	R 32 224
Branch 3: Teaching	R 425	R 1 812	R 1 928	R 2 032	R 2 032	R 2 032
Branch 4: Research and Knowledge management	R 1 559	R 6 647	R 7 072	R 7 454	R 7 454	R 7 454
Branch 5: Curriculum development	R 1 971	R 8 406	R 8 944	R 9 427	R 9 427	R 9 427
CIP programme	R 2 289	R 29 276	R 60 849	R 126 827	R 64 135	R 126 827
In-service ETD programme	R 0	R 40 103	R 512 039	R 1 077 066	R 897 360	R 1 794 721
e-learning programme	R 0	R 2 795	R 14 156	R 28 847	R 23 364	R 47 846
Summer School programme	R 0	R 0	R 0	R 0	R 0	R 0
Learnerships, internships and bursaries						
Cadet programme	R 0	R 1 267	R 5 392	R 13 992	R 33 739	R 64 349
Contingency reserve						
	R 26 502	R 443 127	R 1 436 174	R 2 707 691	R 2 403 906	R 4 462 609
<i>Compensation of employees as a percentage of total</i>	10%	24%	33%	36%	34%	36%

Notes to table 11:

- Total expenditure (excluding learnerships, internships and bursaries, and G-SETA payments) at row 27 shows the direct expenditure to be incurred by the NSG. However, when comparing this amount to NSG income it is important to be mindful of the fact that the amounts excluded are currently paid for from the 1% of COE, which is the NSG's primary

source of income. It is calculated that the amounts being excluded constitute about 30% of the 1% of COE, which suggests that only 70% of the 1% of COE should be transferred to the NSG. There are, however, questions related to the amounts being transferred to PSETA and G-SETAs that need to be resolved.

- ii. The indirect costs to departments of running the different training programmes on a decentralised basis are substantial, and need to be interrogated in greater detail. It is not certain whether departments currently attribute these costs to the 1% of COE in their books. If departments do use part of the 1% of COE to cover these costs currently, then if the full 1% of COE were to be transferred to the NSG, departments would have reason to object to still having to cover these indirect costs associated with training programmes. However, if these costs are simply reflected as goods and services and not 'paid for' from the 1% of COE, then there is no reason why departments should not continue to carry these costs.
- iii. In the initial years of setting up the NSG, the ratio of administration to total expenditure will be high. This is not unreasonable for a new institution – as it builds up its administrative capacity and its other programmes get off the ground. The model suggests that the ratio should settle at administration being about 40% of total expenditure.
- iv. Compensation of employees as a percentage of total programme costs comes in at just less than 40%. Note that this ratio excludes the cost of personnel who are contracted-in. Including them would push this ratio up. However, given that training is a personnel intensive activity this is not necessarily an undesirable outcome.

7.3 Spread sheet – Inc. Sum

The spread sheet summarises the anticipated income streams for the NSG. It also presents a high level GAP analysis.

Table 12: Summary of NSG income and GAP analysis

Rand thousands	Implementation Scenario				Scenario 1	Scenario 2
	2013/14	2014/15	2015/16	2016/17	2016/17	2016/17
Transfer from Training Budget (XX % of COE)	R 0	R 3 803 199	R 4 016 183	R 4 233 057	R 4 233 057	R 12 356 166
PALAMA (budget transfers) - continuation of programmes	R 65 961	R 138 508	R 143 654	R 151 411	R 151 411	R 151 411
Palama trading account (non-tax revenue)	R 62 030	R 130 822	R 136 841	R 144 230	R 136 841	R 136 841
PSETA (budget transfers)	R 12 327	R 26 113	R 27 314	R 28 789	R 27 314	R 27 314
NSF transfers to PSETA						
Interest on accumulated surplus	R 3 760	R 7 535	R 7 550	R 7 550	R 7 550	R 7 550
Interest from proposed Endowment Fund						
Other sources						
Total Income	R 144 077	R 4 106 177	R 4 331 542	R 4 565 038	R 4 556 173	R 12 679 282
GAP: total income vs total expenditure						
Total Expenditure	R 273 608	R 1 871 807	R 4 287 560	R 7 428 634	R 7 043 498	R 12 356 166
GAP Analysis (Surplus /Shortfall)	R -129 531	R 2 234 370	R 43 982	R -2 863 597	R -2 487 325	R 323 116
GAP: total income vs total expenditure (excluding learnerships, interships and bursaries, and G-SETA payments)						
Total expenditure (excl. transfers back to depts and SETAS related expenditures)	R 273 608	R 730 847	R 3 082 705	R 6 158 717	R 5 773 581	R 11 086 249
GAP Analysis (Surplus /Shortfall)	R -129 531	R 3 375 330	R 1 248 837	R -1 593 680	R -1 217 408	R 1 593 033
NSG total expenditure as a percentage of total COE	0.1%	0.5%	1.2%	2.1%	1.7%	2.92%

Notes to table 12

- i. It is expected that the NSG's primary source of income will come from the 1% of COE that national and provincial departments are currently required to set aside to fund staff training related expenses. However, as noted above, it still needs to be established whether this full 1% of COE is available or whether it is already allocated and being spent on other activities such as learnerships, internships and bursaries, and transfers to G-SETAs.
- ii. NSG does not expect to receive any of the 1% of COE in 2013/14. Therefore even though total expenditure in 2013/14 is relatively low at R274 million, there is likely to be a shortfall of some R129 million.
- iii. Other sources of income are relatively small, and to a large extent are balanced by expenditure obligations that come with the continuation of PALAMA activities and PSETA activities.
- iv. The GAP analysis highlights the impact that the transfers to SETAs and the 20% of the 1% of COE for learnerships, internships and bursaries have on the sustainability of the NSG. If these costs have to be taken out of the 1% of COE, then it is going to be challenging to get the scale of programmes envisaged for the NSG off the ground. Even if they are excluded, the NSG will find it hard to roll-out the envisaged training programmes to entire public service within this resource envelope. This is highlighted by scenario 1. In this scenario, the coverage of the largest training programmes is set at 50% of the target level and still there is a significant shortfall even when the transfers to the SETAs and learnerships are excluded.
- v. Scenario 2 suggests that to reach 100% coverage on all programmes, and maintain the transfers to the SETAs and the learnerships will require 2.92% of COE or R12.4 billion. Given the current constraints on the fiscus, the NSG is probably going to have to focus on doing more within a smaller pool of funds.