

# CHAPTER TEN

## Costing Implementation

### INTRODUCTION

This chapter summarizes, from a financial perspective, the key recommendations made in this chapter. We undertake this systematically, mirroring the structure of the argument presented in the report itself. Thus, we begin our costing by looking at the costs of educational radio and television, and then integrate this into a consolidated budget for a Multimedia Education Unit.

Following this we explore the costs of rolling out and maintaining an Educational Technology Network. We do this first by exploring the costs of technological infrastructure, and then follow this up with a detailed costing of the Educational Network Agency.

All statements of income and expenditure in this chapter are presented in summary form. Nevertheless, each is based on a wide range of assumptions, choices, and calculations. The detail behind these – which, in the case of television broadcasting and the Network itself includes various options that we considered is contained in appendices seventeen to twenty-two.

All five-year cost projections are based on an assumed inflation rate of seven percent.

## A NESTED EDUCATIONAL TELEVISION SERVICE

On the following page, we present a detailed summary budget for a ‘nested’ educational television service, providing a mix of programming on SABC 1, 2, and 3. The detailed assumptions underpinning this are presented in appendix seventeen, as is a financial comparison with the option of establishing a dedicated educational channel.

The following notes should inform a reading of the figures provided on the following page:

- This option is based on assumptions of an increase in current educational broadcasting at the SABC. This has been done to provide a sense of the costs of an expanded educational broadcasting service on the public broadcaster. We have, however, in most cases, relied on actual plans of SABC Television Education, to ensure that this option reflects reasonably accurately growth as currently envisaged. For this reason, though, the costs have increased relative to current expenditure on educational television broadcasting.
- From an income perspective, we have assumed that the SABC will make a percentage contribution from licence fees. In addition, we have assumed that advertising revenue generated by educational programming will be channelled back into educational programming, not used to cross-subsidize other channel costs.
- The capital costs of broadcasting these services (apart from those factored into programming production costs) are not included as separate costs in this example. We have treated these as sunk costs from the perspective of the SABC, as they would be incurred regardless of the nature of programming. Likewise, we have not included monthly signal distribution costs.
- Our five-year projection is based on an assumption that the programming schedule on which these costs is based represents the optimum exposure for educational television broadcasting as a nested service.

**FIVE-YEAR TELEVISION BROADCASTING BUDGET**

	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>	<i>Composite Total</i>
<i>Income</i>	<i>R135,320,290</i>	<i>R144,792,711</i>	<i>R154,928,200</i>	<i>R165,773,174</i>	<i>R177,377,297</i>	<i>R778,191,673</i>
Advertising	R85,580,290	R91,570,911	R97,980,874	R104,839,536	R112,178,303	R492,149,914
Sponsorships	R6,300,000	R6,741,000	R7,212,870	R7,717,771	R8,258,015	R36,229,656
Licence fee share	R37,440,000	R40,060,800	R42,865,056	R45,865,610	R49,076,203	R215,307,669
Private broadcasting contributions	R6,000,000	R6,420,000	R6,869,400	R7,350,258	R7,864,776	R34,504,434
<i>Expenses</i>	<i>R268,341,713</i>	<i>R287,125,633</i>	<i>R307,224,427</i>	<i>R328,730,137</i>	<i>R351,741,247</i>	<i>R1,543,163,157</i>
Licensing	N/A	N/A	N/A	N/A	N/A	N/A
Programming	R258,158,236	R276,229,313	R295,565,365	R316,254,940	R338,392,786	R1,484,600,640
Signal distribution	N/A	N/A	N/A	N/A	N/A	N/A
Broadcasting	R306,000	R327,420	R350,339	R374,863	R401,104	R1,759,726
Marketing and Sales	R4,988,126	R5,337,295	R5,710,905	R6,110,669	R6,538,415	R28,685,410
Support	R4,889,351	R5,231,606	R5,597,818	R5,989,665	R6,408,942	R28,117,382
<i>Net profit/(loss)</i>	<i>(R133,021,423)</i>	<i>(R142,332,922)</i>	<i>(R152,296,227)</i>	<i>(R162,956,963)</i>	<i>(R174,363,950)</i>	<i>(R764,971,485)</i>
<i>Government funding required</i>	<i>R133,021,423</i>	<i>R142,332,922</i>	<i>R152,296,227</i>	<i>R162,956,963</i>	<i>R174,363,950</i>	<i>R764,971,485</i>

## NESTED EDUCATIONAL RADIO SERVICES

On the following page, we present a detailed summary budget for nested educational radio services. In this regard, the following assumptions underlying the figures are worth noting:

- This costing scenario assumes the same total number of hours of educational broadcasting as is currently carried on the various regional radio stations.
- The scenario is based on an assumption that additional expenditure on producing radio programmes is necessary to improve the quality of educational radio programming. For this reason, the budgets presented here are larger than current educational radio budgets for the SABC.
- The scenario assumes the continued importance of a central coordinating function to liaise with regional station managers, to coordinate marketing, to build relationships with key players, to contribute educational expertise to educational programmes, and to provide other central services described throughout the main report. The assumption is that this central coordinating function will be located within a general Multimedia Educational Unit located at the SABC.
- Capital Items and Related Items (Replacement Provision, Insurance, Equipment Maintenance, Equipment Usage) exclude costs of production equipment, as these are incorporated in the costs of programming production.

**FIVE-YEAR RADIO BROADCASTING BUDGET**

	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>	<i>Composite Total</i>
<i>Income</i>	<i>R14,364,000</i>	<i>R15,369,480</i>	<i>R16,445,344</i>	<i>R17,596,518</i>	<i>R18,828,274</i>	<i>R82,603,615</i>
Advertising	N/A	N/A	N/A	N/A	N/A	N/A
Sponsorships	R10,368,000	R11,093,760	R11,870,323	R12,701,246	R13,590,333	R59,623,662
Licence fee share	R2,496,000	R2,670,720	R2,857,670	R3,057,707	R3,271,747	R14,353,845
Private broadcasting contributions	R1,500,000	R1,605,000	R1,717,350	R1,837,565	R1,966,194	R8,626,109
<i>Expenses</i>	<i>R60,773,553</i>	<i>R65,022,546</i>	<i>R69,574,905</i>	<i>R74,445,984</i>	<i>R79,658,097</i>	<i>R349,475,085</i>
Programme Production	R49,212,800	R52,657,696	R56,343,735	R60,287,796	R64,507,942	R283,009,969
Programme Marketing	R2,460,640	R2,632,885	R2,817,187	R3,014,390	R3,225,397	R14,150,498
Programme Research	R2,460,640	R2,632,885	R2,817,187	R3,014,390	R3,225,397	R14,150,498
Personnel	R825,000	R882,750	R944,543	R1,010,660	R1,081,407	R4,744,360
Capital Items	R13,000	R8,560	R9,159	R9,800	R10,486	R51,006
Insurance	R904	R988	R1,080	R1,181	R1,289	R5,443
Equipment Maintenance	R6,915	R7,827	R8,833	R9,941	R11,161	R44,678
Equipment Usage	R15,628	R16,722	R17,892	R19,145	R20,485	R89,873
Professional Development	R48,958	R52,599	R56,509	R60,710	R65,222	R283,997
Travel	R168,200	R179,974	R192,572	R206,052	R220,476	R967,274
Connectivity	R36,000	R38,520	R41,216	R44,102	R47,189	R207,027
10% Overhead Cost	R5,524,868	R5,911,141	R6,324,991	R6,767,817	R7,241,645	R31,770,462
<i>Net profit/(loss)</i>	<i>(R46,409,553)</i>	<i>(R49,653,066)</i>	<i>(R53,129,562)</i>	<i>(R56,849,466)</i>	<i>(R60,829,823)</i>	<i>(R266,871,470)</i>
Depreciation	R45,200	R51,217	R57,856	R65,172	R73,230	R292,675
<i>Government funding required</i>	<i>R46,364,353</i>	<i>R49,601,849</i>	<i>R53,071,706</i>	<i>R56,784,294</i>	<i>R60,756,593</i>	<i>R266,578,795</i>

## MULTIMEDIA EDUCATION UNIT

This appendix contains a detailed set of assumptions and calculations for the costs of establishing a Multimedia Education Unit. These reflect only costs additional to those provided for radio and television education services (as reflected in the previous two appendices). They factor in expenditure on a clearing-house web site, as well as large-scale print support projects.

The following points need to be made with regard to this costing schedule:

- The costs of the Multimedia Education Unit director are included here. It is assumed that this is the person who will assume overall responsibility for the Unit, coordinating all of its key aspects.
- The high number of units of a specialist programmer in year one reflect investment in the design of a database to drive the clearing house web site.
- We have assumed that 50% of the income of this unit could be raised through funding agencies, particularly given the high profile of educational technologies on the agendas of most funding agencies.

**FIVE-YEAR MULTIMEDIA EDUCATION UNIT BUDGET**

	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>	<i>Composite Total</i>
<i>Income</i>	<i>R3,559,453</i>	<i>R3,550,259</i>	<i>R4,082,783</i>	<i>R4,596,343</i>	<i>R5,244,369</i>	<i>R21,033,207</i>
Funding Agencies	3,559,452.94	3,550,259.40	4,082,782.54	4,596,343.37	5,244,369.16	21,033,207.42
<i>Expenses</i>	<i>R7,118,906</i>	<i>R7,100,519</i>	<i>R8,165,565</i>	<i>R9,192,687</i>	<i>R10,488,738</i>	<i>R42,066,415</i>
Personnel	R2,020,000	R1,666,525	R1,940,606	R2,146,888	R2,477,404	R10,251,423
Capital Items	R221,150	R8,560	R22,898	R9,800	R26,216	R288,624
Insurance	R2,631	R2,837	R3,402	R3,665	R4,341	R16,875
Equipment Maintenance	R10,888	R12,078	R14,068	R15,543	R17,942	R70,517
Equipment Usage	R4,520	R4,836	R5,175	R5,537	R5,925	R25,993
Professional Development	R73,444	R78,799	R94,619	R101,487	R120,388	R468,737
Travel	R38,500	R41,195	R44,079	R47,164	R50,466	R221,403
Connectivity	R50,600	R56,453	R63,249	R71,176	R80,464	R321,942
Graphic Design	R15,000	R18,458	R22,712	R27,947	R34,389	R118,505
Print Support Projects	R4,440,000	R5,023,650	R5,735,949	R6,523,354	R7,392,889	R29,115,842
10% Overhead Cost	R242,173	R187,128	R218,809	R240,126	R278,315	R1,166,552
<i>Net profit/(loss)</i>	<i>(R3,559,453)</i>	<i>(R3,550,259)</i>	<i>(R4,082,783)</i>	<i>(R4,596,343)</i>	<i>(R5,244,369)</i>	<i>(R21,033,207)</i>
Depreciation	(R68,433)	(R76,077)	(R89,035)	(R98,534)	(R114,170)	(R446,250)
<i>Government funding required</i>	<i>R3,627,886</i>	<i>R3,626,336</i>	<i>R4,171,818</i>	<i>R4,694,878</i>	<i>R5,358,539</i>	<i>R21,479,457</i>

## THE EDUCATIONAL TECHNOLOGY NETWORK

This schedule reflects medium-level investment in the Educational Technology Network. It anticipates roll-out to 30,000 sites of a Network that will be accessible to administrators, educators, and – much more slowly – learners.

It is necessary to stress that the income projections are highly speculative. They are presented only to give some indication of the kinds of income streams that might be anticipated from the Network, and a very rough estimate of the scale of these income streams. It is also important to note that there are some unquantified long-term financial benefits. These include:

1. Expansion in IT knowledge/skills base leading to improved productivity
2. Remove the opportunity costs of large numbers of children not in schools and not learning
3. Ensure the success of large scale operational systems like SAQA
4. Reduce corruption by ensuring greater accountability at local level in expenditure
5. Use technologies to deliver educational resources

**FIVE-YEAR RADIO EDUCATIONAL TECHNOLOGY NETWORK BUDGET**

	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>	<i>Composite Total</i>
<i>Income</i>	<i>R43,277,208</i>	<i>R237,767,100</i>	<i>R489,213,023</i>	<i>R814,545,002</i>	<i>R1,042,055,713</i>	<i>R2,626,858,047</i>
e-Rate	R12,414,675	R73,138,261	R154,911,908	R254,882,581	R310,220,494	R805,567,919
e-Commerce	R900,000	R2,118,600	R3,948,188	R6,114,496	R7,196,762	R20,278,045
e-Commerce rights	2,949,026.19	12,720,581.60	26,744,161.85	45,594,222.90	62,743,207.28	R150,751,200
Telecentre use	R7,200,000	R23,112,000	R58,733,370	R124,035,604	R199,077,144	R412,158,118
Print circular savings	R3,456,000	R7,395,840	R12,529,786	R17,640,619	R18,875,463	R59,897,707
Quantitative research savings	N/A	R21,400,000	R22,898,000	R24,500,860	R26,215,920	R95,014,780
Recurrent costs drawn from current expenditure	R16,357,507	R97,881,818	R209,447,610	R341,776,619	R417,726,723	R1,083,190,277
	N/A	N/A	N/A	N/A	N/A	N/A
<i>Expenses</i>	<i>R213,416,584</i>	<i>R851,710,644</i>	<i>R1,439,179,812</i>	<i>R2,123,856,011</i>	<i>R2,289,066,180</i>	<i>R6,917,229,231</i>
Capital Items	R148,424,119	R501,930,406	R699,390,122	R901,766,403	R748,888,892	R3,000,399,942
Insurance	R292,322	R1,281,554	R2,715,154	R4,574,952	R6,224,582	R15,088,563
Management/maintenance	R19,909,085	R86,096,434	R180,864,450	R312,250,542	R434,196,799	R1,033,317,311
Usage	R9,921,900	R63,112,845	R134,299,449	R210,580,986	R246,910,562	R664,825,742
Professional Development	R3,832,471	R16,443,753	R34,630,867	R57,476,675	R77,294,109	R189,677,875
Connectivity	R31,036,688	R182,845,653	R387,279,770	R637,206,453	R775,551,235	R2,013,919,799
0% Overhead Cost	N/A	N/A	N/A	N/A	N/A	N/A
<i>Net profit/(loss)</i>	<i>(R170,139,377)</i>	<i>(R613,943,543)</i>	<i>(R949,966,789)</i>	<i>(R1,309,311,008)</i>	<i>(R1,247,010,467)</i>	<i>(R4,290,371,184)</i>
Depreciation	(R31,949,560)	(R31,949,560)	(R31,949,560)	(R31,949,560)	(R31,949,560)	(R159,747,800)
<i>Government funding required</i>	<i>R202,088,937</i>	<i>R645,893,103</i>	<i>R981,916,349</i>	<i>R1,341,260,568</i>	<i>R1,278,960,027</i>	<i>R4,450,118,984</i>
<i>Productivity Gains (illustrative only)</i>	<i>R209,286,000</i>	<i>R447,872,040</i>	<i>R758,769,881</i>	<i>R1,068,268,122</i>	<i>R1,136,325,998</i>	<i>R3,620,522,042</i>
Electronic timetable	R148,896,000	R318,637,440	R539,824,930	R760,016,677	R813,217,845	R2,580,592,891
Reliable communication	R11,880,000	R25,423,200	R43,071,138	R60,639,629	R64,884,402	R205,898,369
Accounting system	R29,700,000	R63,558,000	R107,677,845	R151,599,071	R162,211,006	R514,745,922
Gathering statistics	R18,810,000	R40,253,400	R68,195,969	R96,012,745	R96,012,745	R319,284,859
<i>Net balance after productivity gains</i>	<i>(R7,197,063)</i>	<i>R198,021,063</i>	<i>R223,146,468</i>	<i>R272,992,446</i>	<i>R142,634,028</i>	<i>R829,596,942</i>

## THE EDUCATIONAL NETWORK AGENCY

The final schedule contains a detailed set of assumptions and calculations for the costs of establishing an Educational Network Agency (EdNet). Chapter nine provides a detailed map of the nature and structure of EdNet. The following points are worth noting:

- The costs added here make no assumptions about the Centre for Educational Technology being restructured to create EdNet. If this were to happen, staff contingents would have to be increased, while it may be possible to make more assumptions about the availability of certain capital equipment for the new organization. It also makes no assumptions about the incorporation of Schoolnet into EdNet, which would presumably add further capital resources to the Agency.
- From the perspective of income, we have added only a speculative assumption that at least 30% of the total budget of EdNet could be raised from donor funding, particularly given the high profile of educational technology on the agendas of most funding agencies.

**FIVE-YEAR EDUCATIONAL NETWORK AGENCY BUDGET**

	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>	<i>Composite Total</i>
<i>Income</i>	<i>R1,651,020</i>	<i>R1,642,513</i>	<i>R1,826,861</i>	<i>R2,067,318</i>	<i>R2,291,636</i>	<i>R9,479,348</i>
Funding Agencies	1,651,019.92	1,642,512.77	1,826,861.02	2,067,317.84	2,291,636.17	R9,479,348
<i>Expenses</i>	<i>R5,503,400</i>	<i>R5,475,043</i>	<i>R6,089,537</i>	<i>R6,891,059</i>	<i>R7,638,787</i>	<i>R31,597,826</i>
Personnel	R3,440,000	R3,838,625	R4,264,753	R4,854,233	R5,374,264	R21,771,874
Capital Items	R475,450	R8,560	R22,898	R9,800	R26,216	R542,924
Insurance	R3,241	R3,489	R4,100	R4,411	R5,140	R20,381
Equipment Maintenance	R22,113	R24,088	R26,919	R29,294	R32,655	R135,069
Equipment Usage	R18,660	R19,966	R21,364	R22,859	R24,459	R107,309
Professional Development	R215,056	R239,419	R266,483	R306,207	R339,439	R1,366,604
Travel	R176,000	R188,320	R201,502	R215,608	R230,700	R1,012,130
Connectivity	R45,800	R50,033	R54,745	R60,000	R65,875	R276,452
Graphic Design	R8,000	R9,416	R11,083	R13,044	R15,353	R56,896
Marketing	R219,816	R218,625	R243,138	R275,121	R304,937	R1,261,637
20% Overhead Cost	R879,264	R874,500	R972,553	R1,100,482	R1,219,749	R5,046,549
<i>Net profit/(loss)</i>	<i>(R3,852,380)</i>	<i>(R3,832,530)</i>	<i>(R4,262,676)</i>	<i>(R4,823,742)</i>	<i>(R5,347,151)</i>	<i>(R22,118,478)</i>
Depreciation	(R121,400)	(R132,751)	(R149,677)	(R163,421)	(R183,599)	(R750,847)
<i>Government funding required</i>	<i>R3,973,780</i>	<i>R3,965,281</i>	<i>R4,412,352</i>	<i>R4,987,162</i>	<i>R5,530,750</i>	<i>R22,869,326</i>