

The Auditor-General
Audit Report No.27 2004-05
Performance Audit

Management of the Conversion to Digital Broadcasting

**Australian Broadcasting Corporation
Special Broadcasting Service Corporation**

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of Australia 2004

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Canberra ACT
15 February 2005

Dear Mr President
Dear Mr Speaker

The Australian National Audit Office has undertaken a performance audit in the Australian Broadcasting Corporation and the Special Broadcasting Service Corporation in accordance with the authority contained in the *Auditor-General Act 1997*. I present the report of this audit and the accompanying brochure to the Parliament. The report is titled *Management of the Conversion to Digital Broadcasting*.

Following its tabling in Parliament, the report will be placed on the Australian National Audit Office's Homepage—<http://www.anao.gov.au>.

Yours sincerely

A handwritten signature in black ink, appearing to read 'P. J. Barrett'.

P. J. Barrett
Auditor-General

The Honourable the President of the Senate
The Honourable the Speaker of the House of Representatives
Parliament House
Canberra ACT

AUDITING FOR AUSTRALIA

The Auditor-General is head of the Australian National Audit Office. The ANAO assists the Auditor-General to carry out his duties under the *Auditor-General Act 1997* to undertake performance audits and financial statement audits of Commonwealth public sector bodies and to provide independent reports and advice for the Parliament, the Government and the community. The aim is to improve Commonwealth public sector administration and accountability.

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Abbreviations and Glossary

1999 audit	Audit Report No.11 1999–2000 <i>Financial Aspects of the Conversion to Digital Broadcasting</i>
2003 audit	Chapter 7 of Audit Report No.61 <i>Control Structures as part of the Audit of Financial Statements of Major Commonwealth Entities for the Year Ending 30 June 2003</i>
ABA	Australian Broadcasting Authority
ABC	Australian Broadcasting Corporation
ANAO	Australian National Audit Office
Board	Board of Directors
datacasting	A broad genre covering content services delivered in forms such as text, data, audio, visual, or combinations thereof. It can include information programs, interactive home shopping, banking and bill paying, education programs, interactive games, Internet access and email.
distribution (of programs)	Satellite and terrestrial services and/or infrastructure that carry broadcasts from studios to transmitters (and/or studios to studio exchanges).
DCITA	Department of Communications, Information Technology and the Arts
DRB	Digital Radio Broadcasting
DTTB	Digital Terrestrial Television Broadcasting
Finance	Department of Finance and Administration
FMIS	financial management information systems
FMR	financial management report
free-to-air	Australian television broadcasting services that are provided at no cost to the consumer.
HDTV	high definition television
IT	information technology
Mansfield Report	independent, broad-ranging strategic review of the ABC completed in 1996.

Minister	Minister for Communications, Information Technology and the Arts
Ministers	Ministers for Communications, Information Technology and the Arts, and Finance and Administration
multi-channelling	the broadcasting of multiple programs simultaneously from a single digital transmission signal
national broadcasters	the ABC and SBS
OB	outside broadcast
PBS	Portfolio Budget Statement
PMBOK®	Project Management Body of Knowledge
SAP	a brand of business management software the ABC uses.
SBS	Special Broadcasting Service Corporation
SDTV	standard definition television
simulcast	the simultaneous broadcasting of analogue and digital signals containing the same content.
Strategies	the documents submitted by the national broadcasters to Government that formed the basis of the Government's decision to assist the national broadcasters' conversion to digital broadcasting. Each broadcaster submitted two Strategies (one for each designated phase in conversion).
transmission (of programs)	terrestrial or satellite services that transmit broadcast signals direct to consumers.
T&D	Technology and Distribution Division (a division within the ABC)
television playout and encoding equipment	equipment of the broadcasters that is used to convert broadcasting material to digital data streams (and vice versa) that can then be distributed and transmitted to consumers. It also includes equipment to 'up-convert' SDTV to HDTV signals, to 'down-convert' HDTV to SDTV signals, and to digitally broadcast analogue material.
VTR	video tape recorder

Summary and Recommendations

Summary

Background

1. The conversion of broadcasting from analogue to digital transmission marks a significant shift in Australia's communications technology. The advantages of digital television broadcasting include improved sound and picture quality and more efficient use of the spectrum, which allows multiple channels to be broadcast simultaneously (multi-channelling).

2. In 1997 and again in 1999, the Government decided to provide financial assistance to the national broadcasters—the Australian Broadcasting Corporation (ABC) and Special Broadcasting Service Corporation (SBS)—to assist in their conversion to digital broadcasting. The Phase 1 and 2 Strategies separately developed by each broadcaster provided the basis for the government's funding for capital equipment and transmission and distribution services.

3. The conversion to digital broadcasting projects began in late 1997 and have been, arguably, the largest and most complex capital equipment projects ever undertaken by the national broadcasters. It required them to replace analogue equipment with digital equipment and procure digital transmission and distribution services to meet fixed legislative digital broadcasting timeframes. This had to occur at a time when digital broadcasting technology was embryonic but evolving rapidly. The project involved many key staff of the broadcasters undertaking digital conversion on top of their normal duties.

4. The overall objective of the Australian National Audit Office (ANAO) audit was to determine the efficiency and effectiveness of the conversion to digital broadcasting by the national broadcasters. This encompasses, among other things, addressing the request from the former Minister for Communications, Information Technology and the Arts (the Minister) for an audit of the actual cost of digital conversion, the sources of funds applied and the efficiency of funds utilisation. It also involved an examination of the broadcasters' management processes to deliver their Strategies and to 'minimise the call on the Budget'.

Overall audit conclusion

5. The ANAO concludes that the national broadcasters' staff did a commendable job to determine related needs; procure, install and commission the equipment; and successfully negotiate the transmission and distribution contracts. The ANAO notes that the national broadcasters met the legislative deadlines for starting digital broadcasting, without on-air interruptions to analogue broadcasting. Both national broadcasters consider that the new

technology has notably increased the quality and timeliness of their broadcast material. It has also led to some work practice changes that have increased the efficiency of content production.

6. In addressing the request for an audit from the former Minister, the ANAO found that digital conversion expenditure to June 2004 and the sources of funding applied are as outlined in Table 1. In addition, both national broadcasters are undertaking digital conversion efficiently in implementing the Strategies, primarily due to the value for money obtained on individual pieces of equipment and the thorough processes followed to procure digital transmission and distribution services.

7. Although, the national broadcasters are achieving the objectives of their digital conversion Strategies, the ANAO noted improvements that could be made to their project management approaches and the maintenance of appropriate documentation, particularly for SBS. More often than not, a sound project management process is likely to lead to good results. A well-documented process demonstrates adequate consideration and management of project risks and improves the transparency of decision-making. In addition, it enhances management's accountability to internal stakeholders (the Board) and external stakeholders (including the Minister and the Parliament). The process also provides a sound basis for evaluating the project's success or otherwise, and for learning lessons for future projects.

8. The ANAO found that both national broadcaster's digital conversion projects at times were affected by:

- a lack of the applied formal project management methodologies; and
- shortcomings in, or the lack of adequate documentation evidencing, budgetary management and the monitoring of the achievement of the objectives of the various Strategies.

The ANAO acknowledges the steps taken by the ABC and SBS to implement better practice project management methodologies in the latter stages of their projects. The areas for improvement and other related issues are discussed in the Key Findings below.

9. Digital conversion, as outlined in the Phase 1 and 2 Strategies, was not intended to convert all of the national broadcasters' old analogue equipment to their digital counterparts—only a significant proportion. Both the ABC and SBS have indicated that long-term strategic capital planning is currently underway. The ANAO endorses this action, noting that the national broadcasters have recently reassessed their digital equipment needs to fully implement the Strategies. Strategic capital planning will assist them to determine their capacity to fund and manage their total equipment needs for the future.

Table 1**Digital conversion expenditure and sources of funding as at June 2004**

	ABC	SBS
Capital Equipment expenditure		
Spent or committed as at 30 June 2004	\$172.9 million ^a	\$45.1 million
Estimated costs yet to be incurred to fulfil the funding Strategies agreed with government	\$38.9 million ^b	\$27.2 million
Percentage change on the broadcaster's original budget estimate	15.1 per cent increase	12.1 per cent increase
Transmission and Distribution expenditure		
Spent or committed as at 30 June 2004	\$392.4 million to June 2008	\$224.3 million to June 2008
Estimated costs yet to be incurred to fulfil the funding Strategies agreed with government	Nil	\$25.8 million to June 2008
Percentage change on the original budget estimate	11.7 per cent decrease	36.8 per cent decrease ^c
Sources of funding		
National broadcasters (self funding)	\$134.6 million (comprising \$95 million capital contributions; \$36 million from ABC property sales, and \$3.6 million contributions to cover interest incurred from July 2003 due to property disposal delays)	\$12.6 million
Government: Capital equipment	\$90.2 million equity injections (including \$32.6 million to acquit ABC's Phase 1 debt)	\$59.7 million equity injections
Government: Transmission and Distribution	Actual digital transmission and distribution costs	Actual digital transmission and distribution costs

Source: ANAO analysis 2004.

- a Does not include \$11.9 million in interest expense incurred to June 2004 from the agreement with Government to fund the ABC's Phase 1 debt.
- b Does not include \$1.1 million in interest expense estimated to be incurred from July 2004 until property rationalisations are completed. Includes scope increases of approximately \$8 million.
- c The ANAO considers that the majority of the saving reflects the scaling back of the number of digital services SBS planned to roll-out.

Key Findings

Procurement of digital equipment (Chapter 2)

Project management

10. The progress of the national broadcasters' digital conversion has meant that both the ABC and SBS have successfully met legislated timeframes for digital broadcasting. However, the ANAO found little documentary evidence to suggest that the national broadcasters applied any formal, comprehensive 'whole-of-project' management to digital conversion in the early stages of their projects.

11. Until the ABC's formal project management began to improve from mid-2002, the ABC's departure from project management better practice had the potential to adversely impact the smooth implementation of its project. The departures included the areas of high-level needs assessment, budget management, risk management and monitoring the achievement of the Strategies. However, the ANAO considers that the competency of the many ABC sub-project managers involved in the digital equipment solutions mitigated many of the impacts of the ABC's departure from project management better practice (see *Procurement*).

12. At SBS, the ANAO noted a general lack of project management documentation that would normally be expected for a project of the size and complexity of digital conversion. This is most notably in the same areas listed in the preceding paragraph that apply to the ABC, with the additional area of SBS changing/refining the original scope of the digital conversion project without the Minister's or DCITA's knowledge (see *Needs Assessment*). SBS considers that its project management has been thorough, but concedes that it was not documented as well as it could have been. The ANAO considers that the competency of the key members of SBS's small project management team mitigated, for the most part, the risk of misunderstandings within the project team arising from little or no documentation.

13. The ANAO observes that the ABC began implementing formal project management methodologies that are consistent with better practice from April 2002, and SBS from early-mid 2004. This should allow the national broadcasters to better manage future projects of the size and complexity of digital conversion and to better address any external accountability requirements.

Risk management

14. The national broadcasters have adequately managed most of the risks evident at the component/sub-project level because of their normal, thorough, procurement guidelines; staff expertise; and general financial controls.

15. However, the national broadcasters did not undertake or integrate formal whole-of-project risk assessments with their digital conversion projects from the outset. This would have greatly assisted in the early identification of project management risks that subsequently emerged. SBS contends that formal risk management was not as well developed in 1999 as it is today, and that its small project team informally managed the project's risks for capital procurement without documenting them. SBS also considers that there were no adverse consequences for the project arising out of its approach to risk management.

16. In the absence of whole-of-project risk assessments, the ANAO considered the relevance of the national broadcasters' corporate-wide risk management planning to their digital conversion projects. The ANAO found that digital conversion and project management were not identified as stand-alone corporate risks for the ABC.

17. In SBS, its corporate Risk Management Plan rated the 'concentration of specialised knowledge' risk as being among SBS's greatest corporate risks. This 'key man' risk is also a significant risk for the digital conversion project, particularly given the largely undocumented knowledge base held within its small project management team. SBS has assessed the existing controls for this risk as 'poor'. From 2003–04 SBS has taken, and intends to take, further action to address the risk. However, the lack of documentation supporting SBS's earlier management of risks means that it was not obvious to the ANAO how SBS mitigated this perceived risk before 2003–04. SBS indicated that its digital conversion project had at least one, and in some cases, two back-up staff with enough detailed knowledge to step in and undertake the role without disrupting the project. Nevertheless, the ANAO notes the findings of a consultant engaged by SBS in mid-late 2003 who found that there was a 'huge knowledge void' between one particular manager and his subordinate. This manager was a key member of SBS's digital conversion project management team.

Financial management

18. Both national broadcasters' general financial management information system (FMIS) controls are considered to be adequate.

19. However, the ANAO found that between early-2000 and mid-2002, there were deficiencies in the ABC project's budgetary management, which flowed through to expenditure forecasts in reports to the ABC Board. This led to the Board not being informed, in a timely manner, of a budgetary shortfall of \$27.8 million (represented approximately by \$8 million in scope changes and \$20 million in cost increases) to complete its digital conversion project. Although acknowledging shortcomings with its project budgetary management, the ABC considers that its general FMIS controls ensured that

the project never expended or committed more than that approved by the Board. In addition, the ABC considers that the Board's options for progressing the digital conversion project in light of the budgetary shortfall were not impeded by the late notice of the shortfall. However, the ANAO considers that the ABC's budget management deficiencies for the project exposed the ABC to an unnecessary risk that may have limited the Board's alternatives in responding to the options available to it.

20. The ANAO notes that the ABC has, since mid-2002, made improvements to its digital conversion budgetary management that address the related shortcomings identified earlier in the project.

21. For SBS, the ANAO considers that there were gaps in the financial monitoring and reporting documentation that would be expected for such a large and complex project as digital conversion. The ANAO noted, in particular, a lack of documentation underpinning routine, strategic multi-year budgetary management. SBS's own internal strategic reviews of the project, undertaken in mid-2000 and early 2004, provide the only documented evidence of SBS comprehensively considering the project's ongoing financial status. The ANAO considers that more regular reporting of final forecast cost-to-complete for the project would have provided greater assurance of robust project monitoring to the SBS Board and external stakeholders. SBS indicated that it adequately monitored key risks such as budget over-commitment and overruns, although it agrees the documentation could have been improved. SBS also indicated that there was no necessity to prepare formal multi-year or cost-to-complete analyses because of the year-by-year underspending on the project and the confidence SBS had in its tight, annual fiscal management. Nevertheless, the ANAO has recommended that SBS improve its internal financial reporting of significant SBS projects.

Needs assessment

22. At a whole-of-project level, the ANAO noted that the national broadcasters have adequately integrated digital conversion with their other business planning. However, project implementation planning documentation appears to have been insufficient at the whole-of-project level to demonstrate the national broadcasters' interpretation of the broad strategic outcomes sought into measurable, adequately scoped functions. The ANAO acknowledges that, given the evolution of technology occurring rapidly at the time, the plan would have had to be continually refined as conversion progressed. However, the lack of scope definition has implications for measuring whether, and when, the original Strategies have ultimately been achieved.

23. For the ABC, internal audit reports forewarned on three occasions between October 1999 and early 2002 of the need to properly plan, or

otherwise make recommended improvements to digital conversion project planning. However, suggestions/improvements appear to have gone largely unaddressed until budgetary problems were identified in mid-2002. The ANAO acknowledges the ABC's efforts to address matters brought to its attention during the audit by documenting the link between the Strategies' objectives and its procurement actions. However, it would have been better to have maintained a consolidated and contemporaneous record of key scoping decisions. This would have provided greater assurance to external stakeholders of the rationale for the boundaries for the ABC's digital conversion at minimum cost. Project implementation plans would have assisted in this regard.

24. At the individual component/sub-project level, the ABC adequately assessed and documented its needs. ABC managers (i) considered the context in which their sub-projects resided; (ii) developed comprehensive technical and operational specifications for the required equipment; and (iii) undertook some formal and informal quantitative studies to determine quantities of equipment required at each ABC location.

25. In respect of the whole-of-project level, SBS has indicated that, having a small project management team, meant operational changes could be agreed within the team without the need for formal documentation. In this regard, the ANAO considers that SBS made significant scope changes/refinements early in the project's life that the Minister and DCITA were unaware of until the changes/refinements were brought to DCITA's attention by the ANAO. Specifically, the ANAO noted two instances that resulted in SBS benefiting by \$14.8 million through reallocations of digital conversion funding within the project. They were:

- SBS reallocating \$4.8 million in transmission and distribution funding to its costs of operating the digital equipment. Although the latter is related to the digital conversion project, the ANAO considers the reallocation to be contrary to the specific purpose for which this funding was approved. On the other hand, SBS considers that the reallocation funded actual costs of digital conversion that were part of the original plan, and that digital services would not have been provided unless these costs were met; and
- SBS effectively reallocating \$10 million of funding planned for distribution capital costs to the ongoing distribution service annual charges, separately funded by Government, without reducing SBS's capital budget for digital conversion by a similar amount. This meant that the \$10 million formerly allocated to distribution capital costs could fund other capital components on the project. SBS has indicated that this represents an operational change rather than a change in scope

and that SBS was not required to report to DCITA on capital outlays. (For DCITA's response to both SBS scope changes/refinements, see *Oversight by DCITA*).

26. At the individual component/sub-project level, SBS also considered the context in which their sub-projects resided; and developed comprehensive technical and operational specifications for its radio equipment purchases. However, SBS purchased a large proportion of its television playout and encoding equipment without comprehensively documenting the technical and operational specifications of the required equipment in advance of procurement. This was because SBS relied on the results of tenders for similar digital equipment purchased for SBS's analogue and/or digital networks. There is also little documentation to support how SBS determined its equipment needs for the peripheral television equipment such as camcorders, video tape recorders and picture monitors. SBS indicated the peripheral television equipment needs were determined by discussion. SBS further indicated that although documentation of the discussions would have been ideal, it is questionable as to whether this would have led to different, or better, outcomes for these relatively low-value purchases.

Procurement

27. Digital conversion equipment has been procured according to the established procurement processes of each national broadcaster.

28. The ANAO considers that the ABC's procurement met better practice through the extensive and appropriate use of competitive tendering. The ABC obtained value for money during the purchasing of individual pieces of digital equipment.

29. SBS used differing methods to purchase digital equipment, although all accorded with its Procurement Guidelines. SBS obtained value for money by using comprehensive competitive tendering processes to procure its radio equipment. However, a large proportion of the television playout and encoding equipment purchases were based on the results of previous tenders of similar digital equipment purchased for SBS's analogue and/or digital networks. SBS advised the ANAO that, for compatibility reasons, it chose not to seek alternative solutions after these initial selections were made. SBS considers that it received value for money as their key staff were aware of price movements in the digital equipment marketplace. As well, SBS attracted significant discounts on the list price for the equipment.

30. The ANAO found that SBS purchased most of its peripheral television equipment on an 'as-needed' basis using predetermined brands selected by competitive tender in prior years. The ANAO notes that the SBS's video tape recorder brand of choice, which comprises the bulk of the value of peripheral television equipment, was chosen by tender nearly seven years ago. The

ANAO considers that it would be prudent for SBS to retest the market at regular intervals to obtain assurance that it is still receiving value for money. SBS indicated that expanded use of tendering would have introduced considerable delay into an already tight timeframe to get on-air by the legislative deadline. The ANAO notes, however, that the ABC was able to conduct thorough competitive tendering exercises for all of its digital equipment even though its requirements were more complex than those of SBS.

31. Users and managers are, essentially, pleased with the new digital equipment. The equipment is delivering on the functionality that they expected. There were some 'teething' problems at the start, but these have generally been addressed in a timely manner. In many respects, digital equipment has reduced the time taken by staff to perform the equivalent functions using analogue equipment. Generally, the national broadcasters report that they have used this time saving to increase the quality and quantity of output, which was envisaged under the Strategies.

Achievement of the Strategies

32. For the first few years of the digital conversion projects, the ANAO saw little recorded evidence that the national broadcasters formally monitored the extent to which the planned and completed equipment components/sub-projects fulfilled the desired functionalities in the original Strategies. The ANAO therefore considers that there may have been gaps between Strategy achievement and the national broadcasters' original expectations for digital conversion.

33. The ANAO observed shortcomings in ABC's monitoring of the link between the Strategies and the equipment sub-projects that purport to implement the Strategies. However, the ABC's recent efforts to document the link between the Strategies' objectives and its procurement actions provide assurance that significant gaps in Strategy achievement are unlikely to exist.

34. For SBS, documentation of the annual and quarterly reviews of the digital conversion project does not evidence a thorough and consolidated consideration of the project's overall status. SBS indicated that the project's status was considered during these reviews, but was not documented. SBS considers that its Phase 1 Strategy has been substantially implemented. However, a review of the Phase 1 Strategy dated August 2000 was the only documentation the ANAO sighted that evidences SBS monitoring the relationship between this Strategy and its procurement actions. In respect of SBS's Phase 2 strategy, the only relevant documentation sighted by the ANAO was project progress reviews dated August 2000 and early-mid 2004. In the latter review, SBS reassessed the meaning of its 16 sub-strategies in light of a maturing digital technology market and decided to self-fund the increase in

project costs arising from the new project scope changes/refinements identified in the review.

35. The national broadcasters contend that, after completing certain outstanding components, their Phase 1 and 2 digital conversion Strategies will have been achieved. The ANAO acknowledges that the levels of digital conversion being achieved accord with the general intent of both broadcasters' Strategies. The ANAO further acknowledges that the digital conversions are being achieved efficiently. The national broadcasters have undertaken digital conversion efficiently, primarily due to the value for money obtained from individual pieces of equipment procured. In addition, the national broadcasters' decisions to self-fund the increases in their project budgets boosted value for money on the projects. In the ABC, the agreement to use any windfall gains on property rationalisations to partly offset the Government's financial contributions to the project also contributed to the value for money of the project. SBS considers that value for money has been bolstered by the use of its full digital spectrum through multi-channelling—the only free-to-air broadcaster to do so—with self-funded content.

36. Digital conversion, as defined by the Strategies, forms only a part of a broader acquisition of digital technology to provide adequate new platforms for the ABC's and SBS's broadcasting services. The digital technology acquisitions, which will be an ongoing cost over the coming years, are integral to the core business of the broadcasters. The broadcasters have thus far obtained value for money from purchasing equipment that is relevant to their digital technology acquisitions. Therefore, it is suggested that the broadcasters' focus should be on continuing to obtain value for money from purchasing appropriate equipment throughout their digital technology acquisitions. Strategic capital planning can assist in this regard.

ABC property rationalisations (Chapter 3)

37. The ABC is complying with its agreement with the Government to source \$36 million in digital conversion funding from the disposal of some of its properties (Gore Hill-Sydney and Adelaide Terrace-Perth). However, at the beginning of the project, it would have been better for the ABC and DCITA to have itemised which costs, and the related timeframes, that would be used to offset against the gross proceeds of sale to arrive at the net proceeds that the ABC agreed to contribute towards digital conversion. This potentially has significant implications for the ABC as the sale costs that it wishes to offset from the gross proceeds may run to millions of dollars and be ongoing for quite some time. The ABC has advised that it will discuss with DCITA the costs that should form part of the offset, once the ABC has itemised these sale costs.

38. Both property disposals have been significantly delayed. The Gore Hill tender process exhibited better practice. However, the ABC terminated the tender when tender bids were all significantly below price expectations. In the end, an unsolicited bid received after the ABC terminated the tender is expected to lead to a satisfactory result. The 1999 'tied' construction and sale agreement, involving construction at East Perth and sale of the Adelaide Terrace property, has now been terminated. The ABC is now considering its options for separately disposing of its Adelaide Terrace property, which is adding to the costs for the ABC and the delay in completing this aspect of the digital conversion project.

Procurement and management of transmission and distribution services (Chapter 4)

Procurement

39. As well as funding the conversion to digital equipment, the Government agreed to fund the actual costs of the national broadcasters' digital transmission and distribution services. The Ministers for Communication, Information Technology and the Arts, and Finance and Administration (the Ministers) were charged with overseeing the broadcasters' procurement of transmission and distribution services with a view to minimising the call on the Budget.

40. The ABC procured these services through competitive tendering processes covering its entire digital transmission and distribution network. SBS decided to procure transmission and distribution services in stages. SBS has procured distribution services and, until recently, transmission services, through competitive tendering processes. Of late, the Ministers approved a change to SBS's procurement approach for transmission services that has SBS now directly negotiating with the dominant transmission service provider using a comprehensive pricing model.

41. The ANAO notes that the contracting of transmission and distribution services, and the progressive rollout of new services by providers, is being undertaken at a pace that has met, and is likely to continue to meet, legislative requirements for digital broadcasting.

42. The ANAO considers that the robust nature of the procurement processes for digital transmission and distribution services oversights by DCITA, provides assurance that the national broadcasters have procured effectively to meet the requirements of the Strategies and have thus far minimised the call on the Budget.

Reconciliation of appropriated amounts to actual cost

43. The Government's agreement to fund the actual costs of digital transmission and distribution services requires DCITA, with assistance from the Department of Finance and Administration (Finance), to reconcile appropriated funds to actual costs for the national broadcasters. Although digital transmission services have been provided since January 2000, the first reconciliations have only been completed recently. DCITA and Finance indicated that the ABC and SBS have been overpaid about \$5.7 million and \$9.1 million, respectively.¹ The ABC and SBS have agreed with the reconciliation amounts, which they will be required to repay shortly (although SBS has sought approval from the Minister to retain \$4.8 million that SBS reallocated to its costs of operating the digital equipment—see *Needs Assessment*).

44. Finance indicated that delays in completing the first reconciliations were caused by delays in constructing a detailed forward estimates model to match appropriations to ABC and SBS contracted payments. Finance further indicated that Finance and DCITA will undertake future reconciliations on a yearly basis.

Contract monitoring

45. The ANAO considers that there are appropriate mechanisms operating within the auspices of the contracts to monitor the performance of digital transmission and distribution services. The national broadcasters are generally satisfied with these services and have taken action when performance deviated from agreed requirements. The national broadcasters and the service providers have reserve broadcasting equipment, which results in audience reception being unaffected by most transmission and distribution problems.

Oversight by DCITA (Chapter 5)

46. DCITA's role in the ABC's property rationalisations and the national broadcasters' procurement of digital transmission and distribution services are covered in the preceding chapters.

Capital procurement

47. In approving the national broadcasters' Phase 2 Strategies in March 2000, the Government agreed that the proposed contracts for the purchase of digital equipment, transmission and distribution services by the ABC and SBS be assessed by the Ministers with a view to minimising the call on the Budget. In April 2000, the Ministers agreed that no further scrutiny of the national

¹ The national broadcasters cannot use the overpayments for purposes other than to satisfy the costs of digital transmission and distribution services.

broadcasters' digital capital costs was necessary for a number of reasons. The reasons included that independent consultants confirmed the reasonableness of the cost estimates for the broadcasters' Strategies and that the Auditor-General would be asked to review digital conversion costs in 2003. DCITA considers that this approach reflected the view that digitisation was an activity of the broadcasters themselves. DCITA, nevertheless, expected to be informed of any significant impediments to the national broadcasters' achievement of the Strategies and any significant scope changes.

48. However, the ANAO considers that some risks to the Government's objective of minimising the call on the Budget still remained. In the ANAO's view, the existence of such risks obliged DCITA to take steps to address them. These risks included that the national broadcasters would not:

- institute and document project management processes of sufficient rigor and with sufficient transparency to demonstrate to Government (and satisfy DCITA) that the call on the Budget would, in fact, be minimised; and
- provide comprehensive and timely information to DCITA on significant changes and/or refinements to project scope.

49. A greater proactive monitoring or management of these risks may have enabled the Minister and DCITA to be better informed of the significant SBS scope changes/refinements. As noted in *Needs Assessment*, SBS benefited by \$14.8 million from two reallocations of digital conversion funding within the project. DCITA has suggested that SBS approach the Minister to seek government approval to retain the first reallocation of \$4.8 million. In relation to the second reallocation of \$10 million, DCITA indicated to the ANAO its belief that Cabinet's decision did not require SBS to demonstrate that digital capital funding was applied to the specific equipment identified in the Strategies.

50. The ANAO considers that DCITA's latter comment means that SBS had the ability to transfer the \$10 million in distribution capital costs to the operating expenditure stream, without having to reduce the capital budget by a similar amount. The ANAO further considers that this undermines the Ministers' rationale for not scrutinising the broadcasters' digital capital costs, because SBS's reallocation had the potential to alter the independent consultant's opinion on the reasonableness of the Strategies' original cost estimates. In addition, relying on the ANAO's audit to review the digital conversion projects 'after the event', could not have replaced the value of DCITA monitoring the risks to minimise the call on the Budget as the national broadcasters' projects progressed. DCITA remains of the view that its level of oversight of the digitisation Strategies has been appropriate and

commensurate with its formal current relationship with the national broadcasters.

Generic performance information

51. With no established specific reporting or monitoring protocols, it can be argued that appropriate performance information on significant funding initiatives should appear in agencies' annual reports. The ANAO notes that SBS annual reports, and to a lesser extent ABC annual reports, over the past few years only make general mentions of digital conversion progress and activities, including key purchases. Nevertheless, the ANAO suggests that agencies and their portfolio department should consider negotiating appropriate performance indicators consistent with better practice for all significant funding initiatives. Agencies should then report regularly on their performance against such indicators while the initiatives remain active. Ideally, this would include reporting through annual reports to promote greater accountability for the expenditure of public funds.

Recommendation

52. The ANAO has directed one recommendation to SBS to aid its management of future capital projects.

Agency responses

53. The audited agencies provided the following summary comments in response to the audit. The full text of the ABC's and SBS's responses is located at Appendix 1.

Australian Broadcasting Corporation

The ABC welcomes the ANAO's finding that the Corporation has efficiently undertaken one of the largest and most complex capital equipment projects in its history. The audit report acknowledges that the ABC has: integrated digital conversion with other business planning; met legislated timeframes without any interruptions to service; increased the quality and timeliness of its broadcast material; improved the efficiency of content production; delivered to technology users the functionality they expected; avoided 'equipment excesses'; and applied 'better practice' procurement disciplines.

In return for the Government's capital contribution of about \$90 million, the ABC has delivered a digital conversion program throughout Australia to a total value of about \$225 million. It did so at a time of considerable fluidity in the digital technology environment, purchasing necessary equipment from overseas suppliers when the Australian currency experienced a depreciation of around 30% in relation to the US dollar.

Special Broadcasting Service Corporation

SBS agrees with the ANAO's overall conclusions that SBS has undertaken digital conversion efficiently, that SBS staff did a commendable job, and that the digital conversion has met all of the legislative deadlines set by Government. In respect of digital outcomes, SBS has achieved excellent results, as evidenced by:

- SBS is the only free-to-air television network in Australia running a digital multi-channel service (24 hours a day), which was fully operational as at 1 January 2001.
- SBS was also the first free-to-air network in Australia to concurrently simulcast the entire output of its main channel in high definition.
- SBS maximised its available spectrum and is broadcasting more digital services than any free-to-air broadcaster in Australia.

These outcomes were delivered significantly within the appropriation provided, thereby minimising the call on the Commonwealth Budget.

Department of Communications, Information Technology and the Arts

The Department of Communications, Information Technology and the Arts (the Department) welcomes the ANAO's conclusion that the Department's oversight of the procurement and management of transmission and distribution services was robust. (Paragraph 42).

The Department notes the concerns raised about SBS digital conversion funding at paragraph 25 of the report and that SBS has written to the Department in relation to the \$10m reallocation and to the Minister for Communications, Information Technology and the Arts in relation to the \$4.8m reallocation referred to in that paragraph.

In relation to oversight more generally, the Department will take into account the ANAO's suggestion at paragraph 5.10 for improving the management of residual risk in major new technology funding initiatives for the national broadcasters.

Department of Finance and Administration

The Department of Finance and Administration notes that it has been agreed between the Minister for Finance and Administration and the Minister for Communications, Information Technology and the Arts that the reconciliation of actual digital transmission and distribution costs to the amounts appropriated to the ABC and SBS will occur annually by November each year.

Recommendation

**Recommendation
No.1
Para. 2.67**

The ANAO recommends that, for significant SBS projects and components therein, SBS management provide its Board with comprehensive, regular 'whole-of-project' budgetary and expenditure reports. This would better assist management's accountability to the Board by keeping the Board fully informed of the projects' status.

Agency Response:

SBS agrees with qualification.

Audit Findings and Conclusions

1. Introduction

This chapter outlines the importance of digital broadcasting and conversion to digital equipment by the national broadcasters; the main legislative digital broadcasting requirements of the national broadcasters; the Strategies agreed to by Government and the national broadcasters to frame digital conversion; the objectives, scope and methodology of the audit; and the structure of the remainder of this report.

Background

1.1 The Australian Broadcasting Corporation (ABC) and Special Broadcasting Service Corporation (SBS), the national broadcasters, are core institutions that help to reflect Australia's national identity, foster the arts and encourage cultural diversity through their broadcasting services. The ABC's broadcasting services have included analogue radio since 1932 and analogue television from 1956. From SBS's establishment in 1978, its broadcasting services have included both analogue radio and television. In more recent times, both broadcasters have delved into the use of electronic media broadcasting services through the Internet.

1.2 The conversion of broadcasting from analogue to digital transmission marks a significant shift in Australia's communications technology. Since its introduction into Australia in 1956, television broadcasting has relied on analogue transmission technology, which converts sound and pictures into continuously varying electronic signals. Analogue has certain technical limitations—the signal can be easily distorted, it uses the full bandwidth of the spectrum, and it requires a clear delivery path from the broadcaster's transmitter to the viewer.

1.3 The introduction of digital technology removes substantial constraints of the old analogue system. Although both systems use limited spectrum, the digital signal occupies less space on the spectrum; frees up additional spectrum formerly reserved to counter potential signal interference between channels; and allows pictures and sound of a higher quality to be transmitted. Within legislative boundaries and their assigned digital spectrum, broadcasters have discretion to broadcast a wide range of digital services and format qualities. These include combinations of high definition television (HDTV), multiple standard definition television (SDTV) channels (multi-channelling), and datacasting services. The ABC also broadcasts one radio service, and the SBS two, through their digital television spectrums.

1.4 In general, digital broadcasting currently encompasses program and related content that is gathered, manipulated, stored and broadcast in a digital format by information technology. It also encompasses the digital broadcasting of analogue material. Receiving 'free-to-air' digital broadcasts requires either a

digitally enabled television or a digital receiver (a 'set-top box') connected to televisions that are not digitally enabled.

1.5 Digital broadcasting technology also opens up new ways for ABC and SBS content to be received by consumers. Both ABC and SBS digital broadcasts are available through at least one Australian pay-TV operator's network. In addition, customers of one telecommunications company can watch live ABC and SBS footage through their mobile telephones.

Digital broadcasting policy in Australia

1.6 In March 1998, the Government announced the introduction of digital terrestrial television broadcasting (DTTB) in Australia. The major digital broadcasting policy outcomes were enacted through amendments to the *Broadcasting Services Act 1992*. The outcomes, as they affect the national broadcasters, include the following:

- The mandated introduction of DTTB (that is, SDTV) in metropolitan areas from 1 January 2001 and in all regional areas by 1 January 2004.
- Existing analogue broadcasts are to continue for at least eight years after the start date for digital services in their licence/coverage areas (although the duration of the simulcast period is to be reviewed before 2006).²
- Broadcasters must achieve the same level of reception coverage for digital broadcasting as they do with their analogue transmissions as soon as practicable at the start of the simulcast period. This must be completed by the end of the simulcast period.
- The mandated introduction of 1040 hours of HDTV per year in each licence/coverage area within two and a half years of the areas receiving digital services.
- The ability to provide restricted multi-channelling, with their additional channels able to show a range of programs including educational programs, regional news and current affairs, science and arts programs, children's' programs and occasional dramas. The national broadcasters may also transmit their radio services through their television channels.
- The ability to provide digital enhancements to their main simulcast programs, provided they are directly linked to, and contemporaneous with, the main program.
- The ability to provide datacasting services within their spectrum.

² 'Simulcast' is the simultaneous broadcasting of analogue and digital signals containing the same content.

1.7 The Minister for Communications, Information Technology and the Arts (the Minister) has overall responsibility for digital broadcasting policy and overseeing the implementation of the digital broadcasting legislation. The Australian Broadcasting Authority (ABA) administers the legislation relevant to digital broadcasting by commercial, national and community broadcasters. The ABA implements and monitors certain legislative aspects, such as the determination of Digital Channel Plans for various geographic areas, which the broadcasters use to develop their Digital Implementation Plans. The Minister must approve the national broadcasters' Digital Implementation Plans before digital transmission can begin. This audit did not examine the ABA's role in digital broadcasting.

1.8 Digital broadcasting legislation required a number of policy reviews to be completed by 1 January 2000. The results of these reviews did not significantly influence the national broadcasters' implementation of their digital conversion Strategies. A further round of digital policy reviews is set to be undertaken over the next two years covering simulcast arrangements, subscription service constraints, datacasting arrangements, broadcast service bands, underserved area arrangement, indigenous broadcasting and HDTV quota arrangements. The extent to which these reviews could influence the future digital conversion activities of the national broadcasters is uncertain.

Digital conversion by the national broadcasters

1.9 The Mansfield Report (January 1997) into the ABC recommended, among other things that, when the cost of the ABC's conversion to digital broadcasting ('digital conversion') was known, the Government consider the need for a modest one-off grant towards the end of the century to assist in financing the upgrade. In 1997, the ABC and SBS each developed digital conversion Strategies that were submitted to Government for its consideration. Both papers proposed a multi-phase conversion process, funded by a combination of internal and external (government) funding.

1.10 A complicated and iterative process of multiple submissions from the national broadcasters and independent reviews commissioned by the Department of Communications, Information Technology and the Arts (DCITA) preceded the Government funding decisions for digital conversion. The independent reviews include:

- *Review of ABC and SBS Phase 1 Strategies* dated December 1997;
- *Evaluation of the ABC's Digital Strategy Follow-up Consultancy* dated March 1998;
- *Independent Analysis of ABC and SBS Phase 2 Digital Television Funding Submissions* dated November 1999;

- *Evaluation of National Broadcasters' Digital Transmission Procurement* dated June 2000; and
- *Evaluation of National Broadcasters' Digital Transmission Procurement—adjusted for ABC whole of roll-out* dated August 2000.

1.11 The ABC's and SBS's conversion to digital broadcasting is framed by the broadcasters' individual Strategies that were submitted to, and partly funded by, the Government. The challenge for the national broadcasters, when developing the Strategies, was to integrate basic digital broadcast requirements with broader organisational issues and industry trends. The Strategies are outcomes focused and contain broad statements of desired functionality. Each broadcaster submitted two Strategies, based on a two 'phase' conversion process (Phase 1 and Phase 2). The content of each Phase is discussed below for each broadcaster.

1.12 Conceptually, the digital conversion project costs can be broken into two basic areas. The first is the upgrade costs to equipment and infrastructure to produce programs in a digital format and encode them ready for transmission (capital costs). The second is the additional operating costs for separate digital distribution and transmission services that broadcast the signal around the country (transmission and distribution costs).

1.13 It is worth noting that, in strict terms, only a proportion of the equipment purchased is mandatory for basic digital broadcasting. The Strategies however, proposed a much wider upgrade of equipment. The main rationale for more extensive replacements was the broader generational change to digital based equipment that required additional funding. The overall increase in the capacity (not quantity) of the new equipment would result in enhancements to program service quality and output. The national broadcasters could then use the full potential of digital broadcasting and appropriately position themselves amongst global public and commercial broadcasters.

ABC Strategies for digital conversion

1.14 The ABC submitted its Phase 1 Strategy to the Minister in November 1997. It focussed on upgrades to program production equipment that integrated the requirements, and potential, of digital broadcasting. Examples included outside broadcast vans, digital editing suites, cameras, radio consoles and digital communication networks. Digital conversion was designed to integrate with other ABC strategic initiatives underway at the time, including the collocation of television and radio news and current affairs production. The ABC estimated that the cost of its Phase 1 conversion was \$100–110 million.

1.15 The ABC submitted its Phase 2 Strategy to the Minister in September 1999. It encompassed the operating costs of digital transmission and

distribution, and capital costs for production equipment for both widescreen SDTV and HDTV. A small amount of seed funding for digital radio broadcast trials was also provided. The Strategy envisaged the purchase of HDTV production equipment in addition to HDTV playout equipment. The ABC estimated that the capital cost of Phase 2 conversion was \$74 million and that digital transmission and distribution costs would rise annually to an estimated \$75 million per annum by 2007.

SBS Strategies for digital conversion

1.16 SBS submitted its Phase 1 Strategy to the Minister in September 1997. It outlined 20 digital technology outcomes and priorities that addressed a wide range of aspirations including legislative transmission requirements, multi-channelling and digital equipment procurement strategies. The Strategy also contained narrative capital plans for television, radio and digital satellite equipment conversion with attachments detailing functional requirements and their indicative costings for each. Examples included studio equipment, edit facilities and master control rooms. SBS estimated that the cost of its Phase 1 conversion was \$21.5 million.

1.17 SBS submitted its Phase 2 Strategy to the Minister in June 1999. It specifically addressed SBS's digital transmission operating and capital requirements. The Strategy contained 16 sub-strategies under the four broad components of Transmission, Program Distribution, Playout and Encoding, and Studio Requirements. Attachments contained narratives and detailed equipment lists with indicative costings. A minimum amount of expenditure on HDTV to enable its playout was proposed. SBS estimated that the capital cost of Phase 2 conversion was \$38 million and \$80 million in annual digital transmission and distribution costs by 2007, assuming a digital transmission network that matched that of the ABC.

Digital broadcasting by the national broadcasters

1.18 Sales of free-to-air digital 'set top boxes' and integrated digital televisions in Australia reached 409 000 units to the end of June 2004—with 77 per cent of those sales recorded in 2003–04 alone.³ This means that 5.2 per cent of Australia's 7.8 million homes have digital television.

1.19 As noted in Chapter 4, the national broadcasters have fulfilled their legislative obligations to begin digital broadcasting from 2001 in metropolitan areas and in regional areas from 2004. As at 30 June 2004, ABC had commissioned 97 digital transmitters broadcasting to 94.3 per cent of

³ Digital Broadcasting Australia 2004, *Free to View Digital Television Information Bulletin [Sep-Oct 2004]*.

Australia's population.⁴ At the same time, the SBS had commissioned 72 digital transmitters broadcasting to an estimated 80 per cent of Australia's population.⁵

1.20 As at 30 June 2004, the ABC uses its digital television spectrum to broadcast one SDTV service (continuously) and one HDTV service (1040 hours per annum). Earlier, the ABC also operated two other multi-channel services (*ABC Kids* and *Fly*) but the ABC indicated that these services ceased in mid-2003 because of the ABC not obtaining separate funding support. In August 2004, the ABC announced plans to launch an additional digital television channel in March 2005 that would provide a 'comprehensive and quality mixture of children's, documentary, arts, international and regional news programming'.⁶ The ABC asserts that this channel will be a sustainable service as its ongoing cost will be significantly less than the ABC's previous multi-channel service. It will offer time-shifted content from the ABC main channel, Broadband and Radio.

1.21 As reported in the 2003–04 SBS Annual Report, SBS uses its digital television spectrum to broadcast one SDTV service (continuously), one HDTV service (continuously), a World News multi-channel (continuously), two digital SBS radio services and an electronic program guide. SBS has self-funded the content for its multi-channel. SBS also indicated that it is the only free-to-air broadcaster in Australia that uses its full digital spectrum.

Digital broadcasting in other countries

1.22 Digital broadcasting has started in most, if not all, developed countries around the world. In Europe, both the United Kingdom and Finland have more than 10 per cent penetration in digital terrestrial television (compared to 5.2 per cent in Australia at June 2004). In Germany, digital terrestrial television is taking hold region by region and free-to-air analogue services ceased in the Berlin area in August 2003 following the 'switchover' to digital services. In the United States, the penetration rate for digital television was eight per cent after five years.⁷

1.23 The Australian National Audit Office (ANAO) considers that there is insufficient reliable and comparable information on the digital conversion activities of overseas public broadcasters to make further comparisons with the Australian experience.

⁴ ABC (2004), *Annual Report 2003–04*.

⁵ SBS (2004), *Annual Report 2003–04*.

⁶ ABC (2004), *ABC to Launch Second TV Channel*, Media Release.

⁷ Inside Digital TV (2004), *Global DTT: Still a lot to do*, September 29, 2004.

Previous digital conversion audits and background to this audit

1.24 In November 1998, the then Minister for Communications requested that the Auditor-General undertake an assessment of the actual costs of digital conversion by the national broadcasters; the sources of funds applied; and the efficiency with which the funds had been used. This was to be a precursor to the Government considering further funding to the ABC and SBS for their respective conversion programs.

1.25 The Auditor-General agreed to the Minister's request and the audit results were reported in Audit Report No.11 1999–2000 *Financial Aspects of the Conversion to Digital Broadcasting* (the 1999 audit). The 1999 audit assessed a range of financial issues about the ABC's and SBS's conversion to digital broadcasting. At the time of the 1999 audit, little expenditure had been incurred for Phase 1 digital conversion, and Phase 2 digital conversion Strategies had just been submitted to government for consideration. The primary conclusion of the 1999 audit was:

The ANAO noted the involvement and technical expertise of [Arthur Andersen Corporate Finance] in assessing the ABC and SBS digital conversion strategies and found that the broadcasters had developed appropriate methods for the formulation of their estimates. In light of AACF's involvement, advice given to the government, and its acceptance of the scope of those strategies and associated costings, the ANAO concluded that the overall processes involved in compiling the Phase 1 estimates gave confidence that the ABC and SBS digital strategies reflected the minimum reasonable costs for this phase of their conversion to digital broadcasting.

1.26 In January 2003, the then Minister requested the Auditor-General audit the actual costs of Phase 1 and 2 digital conversion by the ABC and SBS; the sources of funds applied; and the efficiency of funds utilisation. In February 2003, the Auditor-General agreed to the Minister's request and indicated that the ANAO would undertake two audits—the first audit to assess the actual cost of ABC's Phase 1 conversion; and the second audit to address the remaining aspects of the Minister's request. The first of these audits was tabled as a chapter to Audit Report No.61 *Control Structures as part of the Audit of Financial Statements of Major Commonwealth Entities for the Year Ending 30 June 2003* (the 2003 audit). The primary conclusion of the 2003 audit was:

In June 1999, the estimated total cost of Phase 1 was \$110.0 million (plus a component of \$9 million covering interest for borrowings). In December 2002, the estimated total cost for Phase 1 had risen to \$147.7 million (including interest of \$9.9 million). The ABC Board approved the allocation of \$27.8 million for additional expenditure from future ABC capital allocations for Phase 1 digital conversion for future acquisitions of digital equipment in order to fully complete the project.

1.27 This audit report represents the second of two audits that the ANAO agreed to undertake in February 2003.

Audit objective, scope and methodology

1.28 The overall objective of the audit is to determine the efficiency and effectiveness of the conversion to digital broadcasting by the national broadcasters. This encompasses:

- addressing the request from the former Minister for an audit of the actual cost of digitisation for Phase 1 and Phase 2 of ABC and SBS digital conversion, the sources of funds applied and the efficiency of funds utilisation;
- reviewing the status of the national broadcasters' fulfilment of their digital conversion Strategies agreed with, and partly funded by, the Government;
- reviewing the process for maximising the disposal proceeds of national broadcasters' property 'tied' to the funding of the digital conversion Strategies; and
- determining whether the legislative requirements of the roll-out of digital broadcasting, primarily standard and high-definition transmission, have been met.

1.29 The audit also examined the role of DCITA in assisting its Minister to monitor that the conditions attached to the funding assistance provided to the national broadcasters for digital conversion have been met.

1.30 The ANAO separately examined the national broadcasters' procurement of digital equipment and digital transmission and distribution services, which reflects their differing management needs and processes. A greater proportion of audit resources was allocated to the former as its management is conceptually more difficult than the latter. Hence, the majority of this report is directed towards the procurement of digital equipment.

1.31 The ANAO held extensive discussions with relevant agency staff and reviewed documentation supporting the management of the digital conversion projects in each broadcaster. This included the following:

- reviewing the overall project management controls and reporting;
- reviewing the project's financial management controls and reporting;
- reviewing the procurement and supporting documentation for a sample of the capital equipment purchased;
- discussions with project management staff;

- discussions with equipment users; and
- correspondence between the national broadcasters and the Minister/DCITA.

1.32 The ANAO has placed reliance, where appropriate, in the work performed by others, including the independent reviews of the Strategies; earlier work of the ANAO in 1999 and 2003 into the national broadcasters' digitisation; relevant ABC and SBS internal audit work; and the work performed annually by the ANAO as part of the financial statement audits.

1.33 The ANAO engaged Mr Greg Flavel, a consultant with skills and experience in broadcasting technology and infrastructure, to independently assess SBS's Strategic Plan Review into its Digital Television Broadcasting and determine:

- the extent to which the future direction arising from SBS's Review were a refinement of, or change to, SBS's approved Phase 1 and Phase 2 Strategies; and
- the reasonableness of the cost estimates for SBS's future directions.

The ANAO appreciates the assistance provided by Mr Flavel during the audit.

1.34 The audit fieldwork began in February 2004 and concluded in June 2004. The audit was conducted in conformance with the ANAO Auditing Standards and cost approximately \$435 000.

Report structure

1.35 The report is organised into five chapters. This chapter provided an overview of the features of digital broadcasting; digital broadcasting policy; digital conversion by the national broadcasters; the background to this audit; and the audit's objective, scope and methodology. Chapters 2, 3 and 4 address the national broadcasters' implementation of their Phase 1 and 2 Strategies for digital conversion as follows:

- Chapter 2: Procurement of Digital Equipment—about how the national broadcasters managed elements of good project management practice in their digital conversion projects;
- Chapter 3: ABC Property Rationalisations—that analyses how the ABC is meeting its requirement to provide a proportion of digital conversion funding by disposing of some of its property; and
- Chapter 4: Procurement and Management of Digital Transmission and Distribution Services—about the process of procuring the national broadcasters' digital transmission and distribution services.

1.36 Chapter 5 considers the oversight role played by DCITA to assist its Minister to meet the Government's requirements for digital conversion to minimise the call on the Budget.

2. Procurement of Digital Equipment

This chapter analyses how the national broadcasters managed their digital conversion projects according to the elements of good management practice.

Introduction

2.1 This ANAO considers that a good project management process is likely to lead to good results. Therefore, this chapter analyses how the national broadcasters managed the elements of good project management practice in their digital conversion projects. The elements include the following:

- project management approach;
- risk management;
- financial management;
- needs assessment;
- procurement; and
- achievement of the Strategies.

Project management

2.2 The conversion to digital broadcasting began in late 1997 and has been, arguably, the largest and most complex capital equipment projects ever undertaken by the national broadcasters. The national broadcasters' Phase 1 and 2 Strategies, approved by Government, formed the framework of the expected conversion activities. The Strategies outlined a goal of, among other things, converting much of the production and studio equipment from analogue to digital and purchasing playout and encoding equipment for digital broadcasting. Each broadcasters' Strategies categorised their intended equipment purchases into components and sub-projects.⁸

2.3 Under the Strategies, the national broadcasters expected to spend in total some \$248.5 million (now \$284.1 million due to budgetary increases) on new equipment for their premises throughout Australia (and, in the case of the ABC, overseas). The ABC undertook digital conversion at the same time as many other large capital projects, including the relocation and collocation of facilities from Gore Hill to Ultimo, and significant refurbishments of other

⁸ Examples of digital conversion sub-projects include editing suites, camcorders and VTRs. Components are either (i) collections of sub-projects under categories such as 'Radio Equipment', 'TV Equipment' in the ABC and 'TV playout and encoding equipment' and 'Studio equipment' in SBS; or (ii) large stand-alone sub-projects such as the ABC's Archives component.

ABC locations. Similarly, SBS was relocating its Melbourne's facilities to Federation Square when it was undertaking digital conversion. Together, digital conversion and the other capital projects were anticipated to dramatically change the way in which many ABC and SBS staff worked. The ANAO notes that the ABC and SBS successfully commenced digital broadcasting to meet the legislated timeframes.

2.4 The ANAO acknowledges that the Strategies were developed in the face of significant uncertainties, given the evolution of digital broadcasting technologies at the time. These uncertainties included the types, specifications, price and delivery lead times of some digital equipment (particularly high definition equipment) that would need to be purchased; the timing of supplier/manufacturer withdrawal of support for analogue equipment; the rate of take-up of digital services by the market; the regulatory/policy environment; the industry equipment standards and operational practices; and Australian and international industry take-up of equipment. Nevertheless, the ABC and SBS each contend that there was only ever one logical 'path', which only ever led to one possible 'destination', for their digital conversion to be achieved at minimal cost. The national broadcasters indicated that the options within the path to digital conversion became clearer over time as the uncertainties reduced.

Past project management practices

2.5 Better practice suggests that with a project of the size, complexity and importance as digital conversion, formal project management methodologies should be applied at the 'whole-of-project' or 'whole-of-phase' level. However, the ANAO found little documentary evidence to suggest that either ABC or SBS applied any formal, comprehensive whole-of-project management to their digital conversion projects in the projects' first years. The ABC only began applying robust project management controls when it identified a major shortfall in the digital conversion budget in April 2002. SBS only began to apply these controls in 2004, six years after the project began.

ABC project management

2.6 The ANAO identified the following areas where the ABC's approach fell short of better practice:

- high-level project planning and scope definition (see *Needs Assessment*);
- budget management (see *Financial Management*);
- identifying and managing project risks (see *Risk Management*); and
- monitoring the achievement of the Strategies (see *Achievement of the Strategies*).

These deficiencies had the potential to adversely impact the smooth implementation of the ABC's digital conversion project in the first few years.

2.7 The ANAO notes that formal project management methodologies were not applied from the commencement of the project for a number of reasons. These included (i) an apparent lack of personnel in the ABC with skills or experience in managing large projects; (ii) a general lack of impetus to apply formal project management in the ABC; and (iii) project management costs were not funded under the Strategies.

2.8 The ABC indicated that cuts to its budget in the mid 1990s led to it significantly reducing project administration staff in the Technology and Distribution Division (T&D) in the few years preceding the digital conversion project. T&D had primary carriage of the ABC's digital conversion project. The digital conversion project and the other capital projects in train at the one time led to T&D's project staff becoming spread too thinly. In addition, the ABC was reluctant to contract-in dedicated project managers to manage the digital conversion project as funding bids in the Strategies were considered to be modest and did not specifically cater for the funding of project management expenditure. The ABC indicated that most of its staff managing digital conversion components or sub-projects have done so in addition to their regular workload.

2.9 Three ABC internal audit reports⁹ dated from between mid-1999 and January 2002 provided indications of the need to apply good project management practices, or otherwise recommended improvements to project management practices for the digital conversion project. However, these suggestions/recommendations appear to have gone largely unaddressed. T&D acknowledged to internal audit in early 2002 that the digital conversion project had staffing resources considerably below most commercial projects to conserve funds and that the resources did not permit the traditional highly structured project management and control model.¹⁰

2.10 Another subsequent ABC internal audit report not specifically related to digital conversion, dated mid-2002, noted that the project management practices, policies and procedures of T&D were in need of improvement.

SBS project management

2.11 For SBS, the ANAO noted a general lack of project management documentation that would normally be expected for a project of the size and complexity as digital conversion. SBS indicated that it is a relatively small

⁹ Digital Strategy Review (October 1999), Digital Production Resources Capacity (March/April 2000) and Digital Rollout Review (January 2002).

¹⁰ Digital Rollout Review (January 2002), Management Response to Recommendation 2.

organisation, with a small team managing the digital conversion project in addition to their regular workload. The small team meant that they could adequately communicate and coordinate their actions without having to resort to detailed project management documentation. In many cases, the project planners are also the project implementers. In addition, SBS considers that instituting formal project management methodologies would have significantly increased SBS's costs of administering the project.

2.12 However, the ANAO considers that a well-documented process demonstrates adequate consideration and management of project risks and improves the transparency of decision-making. This enhances management's accountability to internal stakeholders (the Board) and external stakeholders (including government and the Parliament). The ANAO found that SBS's project management documentation was arguably not sufficient to properly meet the internal accountability requirements to the SBS Board and the external accountability requirements imposed by Government through SBS's approved Strategies for digital conversion.

2.13 The Strategies not only represent a preliminary planning document, but a document against which SBS is accountable for the expenditure of digital conversion funding. The lack of documentation has reduced the transparency of SBS's decision-making on the project and, thus, has adversely affected SBS's ability to meet its accountability requirements to the Board and Government. Examples of shortcomings in SBS's project management documentation include the following:

- a project implementation plan that linked the broad, outcomes-based statements of desired functionality in the Strategies to its procurement actions;
- evidence of SBS's routine, strategic multi-year budgetary management of the project;
- evidence of formal risk management at the whole-of-project level;
- evidence that the Minister approved SBS's reallocation of digital distribution services funding to its costs of operating the digital equipment; and
- evidence of SBS determining the need under the Strategies for the procured quantities of peripheral television equipment, such as camcorders, video tape recorders (VTRs) and picture monitors.

2.14 SBS indicated that its project management has been thorough and the type of project management followed by SBS was adequate for their particular circumstances. SBS concedes that the project was not documented according to current best practice. However, in 1999 the project management

documentation techniques were not as highly developed as they are today. The ANAO acknowledges that the structure of project management has become more formalised in the public sector in recent years, but notes that adequate documentation has been a longstanding requirement of project management. In addition, the ANAO considers that sub-optimal documentation devalues the importance of the internal and external accountability requirements of the project cited above.

Current project management practices

2.15 Both the ABC and SBS have taken positive steps to improve their project management methodologies from those applied at the start of digital conversion. Since mid-2002, the ABC (T&D) has changed the project management and governance used on digital conversion components/sub-projects and has mandated changes for all future capital projects. Similarly, the new Chief Technology Officer in SBS began introducing a revised project management methodology from early-mid 2004. SBS considers that now is an appropriate time to introduce more formal project management methodologies to the digital conversion project as its studio elements will require SBS to engage more of its staff in the project than has been the case thus far.

2.16 The national broadcasters' revised project management guidance and training material, reviewed by the ANAO, are broadly consistent with current better practice (eg. Project Management Body of Knowledge—PMBOK®). However, SBS's project management material makes limited reference to formal risk management, for example, that project risks were being formally identified, logged and tracked. In line with better practice, the ANAO encourages formal risk management to be fully integrated with other project planning and monitoring mechanisms.

2.17 In addition, the ANAO considers that it would be of benefit to the national broadcasters if their project management training guidance documents explicitly acknowledged the need to address external accountability in the Australian Government Public sector early in project planning. This is primarily relevant to large, separately-funded capital projects, such as digital conversion. The ANAO notes the importance of the operational independence of the national broadcasters, but specific funding and administrative accountability will likely be an aspect of future large capital projects.

Figure 2.1

Examples of digital equipment procured by the ABC



(Clockwise from top left) Technician in the new Hobart Master Control Room (March 2001); New digital control area in Adelaide (no date); Operator in Digital Edit Booth in Canberra (April 2001); and Digital Television Presentation Area in Ultimo (2001).

Source: ABC 2004

Risk management

Whole-of-project risk management

2.18 Formal risk management is strongly encouraged for Australian Government agencies. The Risk Management Standard AS/NZS 4360:2004 (and the previous 1999 version) anticipates the adoption of formal Risk Management in a wide range of organisational contexts, including projects. The PMBOK® includes Risk Management as one of nine Project Management knowledge areas. Better practice would suggest that formal risk management integrated into a project of the size and complexity as digital conversion should have been adopted, beginning with a project risk assessment from the start of the project.

2.19 The ANAO found that the ABC and SBS did not undertake or integrate formal whole-of-project risk assessments with their digital conversion projects from the outset. This process (as part of a comprehensive project implementation/management plan) would have assisted and enhanced the efficient and effective implementation of the Strategies. In particular, it would have assisted in identifying whole-of-phase risks. In general, these were project management related risks such as shortcomings in formal processes, skills, resources, budgetary management, and scoping. These are discussed in more detail in the relevant sections of this report. They are a function of the special attributes of digital conversion that were more complex than capital projects previously undertaken by the ABC and SBS. They include:

- the scale and the evolving nature of the subject matter of the project; and
- the special funding accountability imposed through the Phase 1 and 2 Strategies.

2.20 SBS contend that there have been no adverse risk events, given the successful project outcomes, and that the small project team and governance bodies conducted significant risk management that has not been documented. SBS also indicated that formal risk management was not as well developed in 1999 as it is today, and that strategic organisational and technology risks are addressed in the Strategies.

2.21 Given there was no project-specific risk management planning, the ANAO examined the extent to which corporation-wide risk management identified, assessed and managed the risks in, or from, the digital conversion project. The ANAO found that the ABC first undertook a corporate-wide risk assessment in 2000–01. Digital conversion and project management were not identified as stand-alone risks for the ABC at that time.

2.22 SBS has incorporated two high-level digital conversion risks, and other generic risks that could have impacted the digital conversion project, into its annual Risk Management Plans dated November 2002 and September 2003. Both of the specific digital conversion risks have a strong technology focus. After taking into account the existing control environment, both risks were rated as acceptable without further treatment. No specific events arising from these risks came to the attention of the ANAO during the course of the audit. The other generic risks SBS identified in the Plan relate to project management, accountability processes, capital planning, and 'key man' risks. SBS rated the first three generic risks as unlikely and acceptable risks.

2.23 However, the two 'key man' risks identified in the Risk Management Plan, 'loss of key personnel' and 'concentration of specialised knowledge', are rated as being among SBS's greatest corporate risks. They are also significant

risks for the digital conversion project, particularly given the largely undocumented knowledge base held within its small project management team. SBS has assessed the existing controls for the 'loss of key personnel' risk as 'good/fair' and, therefore, has undertaken little direct action to address it in the digital conversion project. SBS has assessed the existing controls for the 'concentration of specialised knowledge' risk as 'poor'. From 2003–04 SBS has taken, and intends to take, further action to address the risk. However, the lack of earlier documentation supporting SBS's management of risks means that it was not obvious to the ANAO how SBS mitigated this perceived risk before 2003–04.

2.24 The findings of an SBS consultant's report in late 2003 support the active management of the second 'key man' risk. The report found that SBS places an unreasonable level of dependence on one particular manager to provide the answers to all technical problems. The consultant also found that there was a 'huge knowledge void' between this manager and his subordinate. SBS indicated that the project had at least one, and sometimes, two back-up staff with enough detailed knowledge to step in and undertake the role without disrupting the project.

2.25 Since mid-late 2002, the ANAO notes that the ABC has incorporated formal risk management into its project management processes and documentation. SBS has also recently introduced a formal project management methodology. However, SBS's project management reference material does not explicitly mandate the inclusion of formal risk management in project management processes and documentation. The ANAO considers that SBS should review the adequacy of the coverage of risk management in its project management material.

2.26 The ANAO also considers that it would be prudent for both national broadcasters to reassess their corporate risks (particularly relating to capital planning, project management and external stakeholder accountability), in light of the ANAO's findings and the work done recently by the ABC and SBS to improve their project management methodologies. The ABC advised that corporate risks are reviewed regularly and agreed to by the ABC Board. Monthly governance reports respond to the identified areas as issues arise. On this basis, the ABC considers that it is reviewing factors that could contribute to its corporate risks on an ongoing basis.

Management of risks at the procurement/sub-project level

2.27 The ANAO considers that the national broadcasters appropriately managed most risks at the component/sub-project level. They have risk management mechanisms embedded in their longstanding procurement procedures. Although risk management terminology does not feature prominently in the national broadcasters' procurement guidelines, many better

practice procurement processes and controls were in evidence when the ABC purchased its digital equipment and SBS purchased its digital radio equipment (see *Procurement*). Furthermore, additional procurement controls used by sub-project managers, such as demonstrations and trials of equipment before purchase, managed the risk that the equipment would not operate as designed in the national broadcasters' information technology (IT) environments.

2.28 In line with the ABC's implementation of a more formal project management approach from 2002, the ANAO noted that risks were being formally identified, logged and tracked for those digital conversion components that the ABC planned and implemented since 2002.

Financial management

Sources of funding

2.29 The sources of funding to implement the digital conversion agreements between the national broadcasters and Government are summarised in Table 2.1.

2.30 In October 2002, the ABC Board approved a \$27.8 million increase to its digital conversion Phase 1 budget (see Table 2.1). The circumstances of the increase are described later in *Financial Management*. In December 2002, the ABC Chairman informed the Minister of the increased budget for digital conversion and the ABC's decision to self-fund the budget increase.

2.31 Similarly, a \$7.8 million increase in the budget for SBS's Phase 2 Strategy arose from the SBS Board approving the recommendations of SBS's Strategic Plan Review into its Digital Television Broadcasting. This is described under *Achievement of Strategies*, later in this chapter.

Timing of Government funding

2.32 The ANAO found that external government funding for Phase 1 and 2 digital conversion has been drawn down in accordance with agreed schedules and arrangements. As noted in the 1999 audit, some SBS drawdowns were in advance of need in the first years of Phase 1. However, the ANAO considers that the overall opportunity cost to the Australian Government is not significant. SBS funding since that time, and ABC funding overall, have not been drawn down significantly in advance of when it was needed.

Table 2.1

Sources of funding for the Strategies for digital conversion

	Digital conversion	Original cost estimate (adjusted) ^a	Additional cost estimate	Government funding	Agency funding
ABC	Phase 1 Capital ^b	\$119m (including \$9m borrowing expenses)	\$31.8m ^c (including \$27.8m increase to budget and \$4.0m in extra interest expense due to property sales delays)	<ul style="list-style-type: none"> \$20m (indexed to \$20.8m) over five years from 1998–99 Funding to cover ABC’s outstanding Phase 1 debt at the end of 2002–03 (\$32.6m) 	<ul style="list-style-type: none"> \$36m revenue from property sales \$30m ABC capital contributions \$27.8m extra ABC capital contributions \$3.6m extra ABC contributions to cover interest incurred from July 2003
	Phase 2 Capital	\$74m	Nil	<ul style="list-style-type: none"> \$36.8m over three years from 2000–01 	<ul style="list-style-type: none"> \$37.2m ABC capital contributions
	Phase 2 Distribution and Transmission	\$78m per annum	Not applicable	Actual costs of distribution and transmission	Nil
SBS	Phase 1 Capital ^d	\$22.5m	Nil	<ul style="list-style-type: none"> \$16.9m (indexed to \$17.7m) over five years from 1998–99 	<ul style="list-style-type: none"> \$0.3m from lease of property \$4.5m SBS capital contributions
	Phase 2 Capital	\$42.0m	\$7.8m ^e	<ul style="list-style-type: none"> \$40.8m (indexed to \$42.0m) over nine years from 1999–00 	<ul style="list-style-type: none"> \$7.8m from extra SBS capital contributions
	Phase 2 Distribution and Transmission	\$78m per annum	Not applicable	Actual costs of distribution and transmission	Nil

Source: ANAO analysis 2004.

- a Adjusted to reflect the indexation of government funding and the other adjustments referred to in notes b and d below.
- b Includes change to funding agreement made in October 1998.
- c Increase of \$27.8 million to budget approved by the ABC Board in October 2002.
- d Includes a budget revision approved by the SBS Board in June 1999.
- e Increase to budget approved by the SBS Board in May 2004 following SBS’s Strategic Plan Review into its Digital Television Broadcasting.

2.33 Part of the funding for the ABC Phase 1 Strategy involved the ABC using debt financing to fund the project. This funding, including net interest expense, was to be paid out by the Government as at 30 June 2003 on confirmation from the ANAO of the actual costs of ABC Phase 1 conversion to digital broadcasting. On 30 June 2003, the ANAO tabled a report on actual costs to February 2003 and estimates to complete.¹¹ In October 2003, the Government paid the ABC \$32.6 million to satisfy the funding agreement with the ABC. This amount was calculated in accordance with a funding model agreed in advance by the ABC and the Department of Finance and Administration (Finance).

Digital conversion expenditure

2.34 Actual expenditure of digital conversion funding to 30 June 2004 is summarised in Table 2.2 below.

Table 2.2

ABC and SBS digital conversion expenditure as at June 2004

	Digital conversion	Original estimate (adjusted) ^a	Current estimate	Actual cost and commitments at 30 June 2004	Estimate to completion at 30 June 2004
		\$m	\$m	\$m	\$m
ABC	Phase 1 Capital	110.0	137.8	124.4	13.4
	Phase 1 Interest exp.	9.0	13.0	11.9	1.1
	Phase 2 Capital	74.0	74.0	48.5	25.5
	Phase 2 Distribution and Transmission ^b	444.5	392.4	392.4	Not applicable
	Total for ABC	637.5	617.2	577.2	40.0
SBS	Phase 1 Capital	22.5	22.5	20.9	1.6
	Phase 2 Capital	42.0	49.8	24.2	25.6
	Phase 2 Distribution and Transmission ^b	395.8	250.1	224.3 ^c	25.8
	Total for SBS	460.3	322.4	269.4	53.0

Source: ANAO 2004

- a Includes adjustments for indexation of government funding and budget changes agreed in 1998 (ABC) and 1999 (SBS).
- b Estimates are to 30 June 2008. Although transmission and distribution costs for ABC of approximately \$76 million (plus indexation) per annum and SBS of approximately \$54.8 million (plus indexation) per annum will be ongoing.
- c Includes \$4.8 million SBS spent on operating its digital equipment (see *Needs Assessment*).

¹¹ ANAO 2003, Audit Report No.61 2002–03 *Control Structures as part of the Audit of Financial Statements of Major Commonwealth Entities for the Year Ending 30 June 2003*, Chapter 7.

Financial management information systems

2.35 The ANAO assessed the adequacy of general ABC and SBS financial management information system (FMIS) controls as well as those specific to digital conversion. This section addresses the adequacy of general FMIS controls. Financial controls specific to digital conversion are considered in the next section. The ANAO reviewed a range of internal and prior external audit material that commented on the national broadcasters's general FMIS.

2.36 This material included the following:

- the 1999 and 2003 ANAO audits of the Financial Management of the Conversion to Digital Broadcasting;
- the annual audits of the ABC's and SBS's Annual Financial Statements conducted by the ANAO; and
- a number of relevant ABC and SBS internal audit reports.

2.37 The results of these audits support the ANAO's view that, over the period of digital conversion capital spending, general FMIS controls have been operating effectively for digital conversion procurement. This included the authorisation of procurement sub-projects, the authorisation of expenditure incurred and its allocation to approved ledger codes in the broadcasters' accounts and records.

Accuracy of asset register

2.38 With the digital conversion projects involving the procurement of over \$250 million in new assets, the ANAO conducted audit work to assess whether digital conversion equipment has been appropriately recorded in the national broadcasters' asset registers. The ANAO physically sighted a sample of digital conversion equipment selected from the asset register (where the final locations had been determined).

2.39 In general, asset recording was adequate given the many thousands of pieces of equipment. The ANAO was able to sight most of the equipment it looked for, although some equipment was not sighted as it was in for service/repair with the manufacturer, or, in the case of the ABC, at another ABC location. However, anomalies noted by the ANAO suggest that asset recording is not yet completed and scope for further improvement in recording systems may exist.

2.40 During the audit, the ABC was still in the process of identifying the final locations of some of its bulk-purchased digital equipment (for example, picture monitors, and non-linear editing suites)—some 2½ to 3 years after purchase. The ABC expected to complete this process for all completed digital purchases by mid-2004. The ABC indicated that it is investigating technologies

that will better automate the equipment stocktaking process that the ABC undertakes each year.

2.41 In regard to SBS, the ANAO was able to sight most of the digital equipment it looked for, but did note that some items were not accurately recorded in the asset register and observed that quite a number of pieces of equipment in the equipment room did not have barcode tags attached. Barcodes are a significant asset control mechanism and much of the equipment is valued in the thousands or tens of thousands of dollars per item. SBS indicated that the handling and recording of SBS's 5500 or more assets is a complex task and delays placing tags on equipment occur. The ANAO notes that SBS's asset management has been considered as satisfactory for external reporting purposes but encourages SBS to appropriately tag and record all assets in the asset register.

Management of project budgets

2.42 Budgetary management is fundamental to the successful and efficient conduct of projects such as digital conversion. The ANAO therefore undertook significant audit work into budgetary management of the capital components. The ANAO found that there were some significant differences in the approach and context surrounding budgetary management for the ABC and SBS. For these reasons, there is a separate discussion of each national broadcaster. However, the criteria used for better practice in budgetary management control, was common to both national broadcasters.

ABC budgetary management

Past ABC budgetary management

2.43 The ANAO found that between early-2000 and mid-2002, there were deficiencies in the project's budgetary management, which flowed through to expenditure forecasts in reports to the ABC Board. This led to the Board not being informed, in a timely manner, of a budgetary shortfall of \$27.8 million to complete its digital conversion project. Although acknowledging shortcomings with its project budgetary management, the ABC considers that its general FMIS controls ensured that the project never expended or committed more than that approved by the Board. In addition, the ABC considers that the Board's options for progressing the digital conversion project in light of the budgetary shortfall were not impeded by the late notice of the shortfall. However, the ANAO considers that the ABC's budget management deficiencies for the project exposed the ABC to an unnecessary risk that may have limited the Board's alternatives in responding to the options available to it.

2.44 The ANAO noted three key deficiencies in the ABC's whole-of-project budgetary management and reporting practices on the digital conversion project between early-2000 and mid-2002.

2.45 First, there was not a robust process to maintain, at project level, 'final forecast cost-to-complete' estimates at the whole-of-phase or individual sub-project levels. The risk was that by not doing so, in conjunction with no initial 'top-down' allocation of the budget (see below), managers would, collectively, require more funds than the originally approved budget to complete the project and this would not necessarily be detected or addressed in a timely manner. The ABC indicated that limitations to its project-costing system, newly adopted at the time of the digital conversion project, meant that the ABC had to use spreadsheets as 'workarounds' to monitor final forecast cost-to-complete. However, the spreadsheets proved to be ineffective as it was later revealed that they contained structural and formula inadequacies and they were not being kept up-to-date. In any event, the ABC did not appear to apply any systematic approach for individual sub-project managers to provide final forecast cost-to-complete estimates on a regular basis. In addition, the ANAO did not find formal evidence that sub-project managers were routinely monitoring individual budgets, although this may have been occurring informally.

2.46 Second, although digital conversion expenditure was correctly reported in total, it was not mapped accurately between Phase 1 and 2 until mid-2002. This resulted in a material misallocation of expenditure between Phases 1 and 2, thus 'skewing' the estimates of remaining funding to complete each Phase. The ABC has indicated that its project-costing system could not easily cater for coding ABC's bulk equipment purchases to both Phases 1 and 2. The sheer volume of digital equipment purchases and the lack of project management resources led to bulk purchases being coded entirely to Phase 1, to be reallocated at a later date. Consequently, when it became apparent that significant cost overruns were likely to occur for outside broadcast (OB) vans (Phase 1) in 2000, T&D staff assured management that issues were broadly in hand and that the increase in OB van costs would be broadly offset by the cost of the bulk purchases that needed to be transferred to Phase 2. It was not until mid-2002, when the ABC accurately allocated costs between the two Phases, that it was determined the T&D staff's assurances were not based on reliable data. Notwithstanding that there were administrative staff constraints during that period, the ANAO is of the opinion that a prudent strategy would have been to conduct basic quality assurance of the information provided. Large-scale anomalies, such as the effect of OB van cost increases could have become apparent significantly earlier.

2.47 Third, until mid-2002, financial management reports (FMRs), contained significant inaccuracies in their line-item reference to the digital conversions Phases. The FMRs, provided monthly to the Board, have been the primary, regular financial reports for the Board to monitor digital conversion since the inception of the project. These reports were prepared by ABC Finance and, for digital conversion, relied on financial information provided by T&D. Although T&D was aware of the material misallocation of expenditure between Phase 1 and 2 (see above), the reports made no mention of this fact. Nor did the reports explicitly provide accurate final forecast cost-to-complete estimates. The ANAO considers that, there was inadequate coordination between ABC Finance and T&D on the project's financial management reporting in the main procurement stage of digital conversion. Thorough project planning and coordinated project management would have identified the SAP 'workarounds' as risks to sound financial management of the project. One possible risk treatment could have been for ABC Finance to conduct quality assurance on the digital conversion financial information it was responsible for reporting to the Board.

2.48 The ANAO also noted that there was no initial 'top down' allocation of broad budget parameters to the many sub-project managers responsible for procurement at the component level. It was not until the tender processes were underway or complete did the tender price become the de-facto budget for the sub-project. The ANAO considers that providing sub-project managers with working budgets in advance would have likely prompted more timely information flows back to senior management on major projected budget overruns. This would have assisted in mitigating the risk that the project's total budget would not be sufficient to cover past expenditure, current commitments and forecasted expenditure to complete sub-projects/components.

ABC's recognition of budget management deficiencies

2.49 In April 2002, it became obvious to ABC Finance that the project's financial management reporting had significant shortcomings concerning the allocation of costs between Phases 1 and 2. T&D undertook a detailed and time-consuming exercise to correctly allocate expenditure to Phases 1 and 2 and obtain up-to-date final forecast cost-to-complete estimates. In August 2002, the ABC determined that there was not only an allocation issue, but a budgetary issue as well. The Board was notified that the quantum of the budgetary shortfall would be determined as soon as possible. In October 2002 the Board's approval was sought for an additional \$27.8 million in funding for the project to cover cost increases (of approximately \$20 million, relating mostly to the OB van construction costs) and scope increases (of approximately \$8 million for two extra OB vans that had been overlooked in the original Strategies). This represented a 25 per cent increase in the original budget for

Phase 1. No other digital conversion sources or offsets were identified. It was recommended that the increased budget be funded from future ABC capital appropriations.

2.50 The October 2002 briefing paper also indicated that, in general, sub-project managers were not adequately tracking or reporting the final forecast cost-to-complete for their sub-projects. Procurement contracts overlapped a range of Phase 1 and 2 components but were managed as a single pool. Underlying all this, project staffing was substantially under resourced and responsible senior management were overly focused on 'technology solutions'. The ANAO concurs with the broad findings provided to the Board on the project's budgetary management. See Table 2.3 for a summary of the project's status as at June 2004.

Table 2.3

ABC capital expenditure by component on Phase 1 as at June 2004^a

Component	Original estimate (adjusted) ^b	Actual spent to 30 June 2004	Estimated to complete	Current expenditure estimate	Percentage change from original estimate
	\$m	\$m	\$m	\$m	
Radio	11.9	16.8	3.5	20.4	+71.4
Television	74.4	95.0	2.4	97.4	+30.9
IT and Infrastructure	12.1	8.1	0.0	8.1	-33.1
Archives	10.9	3.6	7.2	10.9	0.0
Training	1.1	0.8	0.2	1.1	0.0
Integrated News Room System	0.4	0.0	0.0	0.0	-100.0
Funding adjustment ^c	-0.8				
Total	110.0	124.4	13.4	137.8	+25.3

Source: ABC master project spreadsheet dated June 2004.

a Totals may not add precisely due to rounding errors.

b Includes adjustments for indexation of government funding and budget changes agreed in 1998.

c To correct an ABC over-allocation of Phase 1 project to the various components.

2.51 The Board decided to approve the recommended budgetary increase for the project and to self-fund the increase. However, the Board expressed 'great concern at the opportunity lost for other capital projects due to the additional requirements for completion of the [digital conversion] project'.

2.52 The ANAO considers that the ABC's project budgetary management deficiencies delayed the identification of the budget shortfall by up to a year. However, the ABC considers that the late notice of the shortfall was of little consequence and that the Board's options for progressing the project would not have changed had notice been received earlier. The ANAO acknowledges this but considers that the deficiencies exposed the ABC to an unnecessary risk that many have limited the Board's alternatives in responding to the options available to it. Had the budgetary shortfall been greater, the ABC's capacity to self-fund the budget increase would have been diminished. In such a case, earlier notice of a budget shortfall would have allowed the Board to scrutinise strategic priorities, procurement options and negotiation possibilities in greater detail.

Current ABC budgetary management

2.53 The October 2002 paper to the Board also noted the actions taken to prevent a recurrence of the financial management problems. New project and financial control arrangements were put in place. Comprehensive final forecast cost-to-complete estimates and scope definitions were mandated. New project management procedures were to be developed. Staff training and awareness of their responsibilities was to be a priority. Workloads of project staff were to be reviewed to enable adequate project control and governance.

2.54 ANAO work indicates that digital conversion budgetary management and associated project-related financial controls are now satisfactory. Budgetary reporting is based on robust estimates that are appropriately reconciled and monitored. A master control spreadsheet is subject to rigorous monthly reconciliations and correctly records the allocation of expenditure to Phases 1 and 2. The ANAO noted that uncompleted individual projects were subject to regular budget monitoring and final forecast cost-to-complete estimates were regularly sought from sub-project managers. Current project management and governance was found to exhibit better practice in many respects (see *Project Management*).

2.55 ABC Finance now has formal responsibility for financial reporting of the digital conversion project. The information reported in the FMRs by ABC Finance is consistent with T&D control spreadsheets. However, the ANAO considers that FMRs could better label the final forecast cost-to-complete information, as the current label of 'actual balance of project' cost is ambiguous in its meaning.

SBS budgetary management

SBS's annual budgeting

2.56 SBS's routine monitoring of digital conversion capital budgets is centred on an annual budgeting cycle and is integrated with the management processes for all SBS expenditure and revenue. SBS Finance coordinates the formulation of each annual budget, with input provided by the other SBS Divisions. For the digital conversion project, numerous sub-project managers from the other Divisions were responsible for (i) formulating the annual budget for their components, in line with corporate priorities and the funding provided to the project by Government and SBS, and (ii) monitoring expenditure against the budget, by using expenditure reports prepared monthly by SBS Finance.

2.57 There is evidence to suggest that annual budgets for the digital conversion project were generated before the start of the year to which the budgets related. However, documentation outlining the basis of each sub-project manager's approved annual budget was difficult to obtain. SBS was unable to provide the ANAO with this documentation for Phase 1 capital purchases for the Television Division. Where capital equipment purchases were specifically identified in the annual budgeting process (for example, some Phase 2 television capital purchases), there was no documented reconciliation of these items to those listed in the original Strategies. SBS advises that this did, nevertheless, occur. The ANAO considers that there is greater scope for SBS to more systematically record such documentation. This is closely related to the formal project management deficiencies discussed in the relevant section of this report.

2.58 The ANAO found that SBS's monitoring of expenditure against the annual budgets was satisfactory. Audit evidence (including internal audit findings) indicates that SBS Finance regularly generated FMIS reports that were monitored by the SBS Finance staff and digital conversion sub-project managers to aid their budgetary management. The relatively small size of SBS assisted communication between SBS Finance and sub-project managers on current year budgeting matters. Where a sub-project manager's annual budget was trending towards an overrun, expenditure was either delayed to the following year or formal approval was obtained to increase the sub-project manager's budget accordingly. SBS Finance also produced FMRs monthly for the SBS Board and quarterly for SBS's Audit and Finance Committee.

SBS's multi-year budgeting

2.59 The ANAO considers that while annual budgeting is necessary, it is not of its own sufficient, to adequately manage the finances of a complex, multi-year project such as digital conversion. Multi-year budgeting (that is, budgeting covering all remaining years of the project) is necessary so that sufficient funds remain to fund all equipment purchases required over the life of the project, including the procurements that are yet to begin.

2.60 An SBS internal audit into Digital Television Conversion dated December 2002 found that 'controls are in place addressing key operational and financial risks and appear to be operating effectively'. However, the ANAO found that SBS's own internal strategic reviews of the digital conversion project, undertaken in mid-2000 (for both Phases) and early 2004 (for Phase 2 only), provide the only documented evidence of SBS comprehensively considering the project's financial status. Consequently, the ANAO considers that there was a risk that the Board was not being kept comprehensively and regularly informed of the financial status of the project. The following three aspects of multi-year budgeting are salient to the digital conversion project.

2.61 First, there was no documented evidence of an initial 'top down' allocation, and subsequent monitoring, of the broad budget parameters covering all planned components of each Strategy over the life of the project. This is important for maintaining whole-of-project budgetary control. SBS Radio and Television Divisions were aware of their broad divisional budgets under each Phase and the original functional lists in the Strategies. However, these were not formal budgetary constraints, and budget parameters were only set annually.

2.62 Second, there was not a robust and routine process to document final forecast cost-to-complete estimates at the whole-of-phase or individual sub-project levels. The risk was that by not doing so, in conjunction with no initial 'top-down' allocation of the budget, managers would collectively overcommit the total budget and this would not necessarily be detected or addressed in a timely manner.

2.63 Third, as noted in *Needs Assessment*, there is little documentation supporting the allocation of some digital equipment purchases between Phase 1 or Phase 2 digital conversion. Better documentation of the linkages between procurement and the Strategies would have aided the allocation process and increased SBS's accountability of the specific funding it had been appropriated.

2.64 The ANAO considers that more regular reporting of final forecast cost-to-complete estimates for the project would have provided greater assurance to the Board and external stakeholders of the robust nature of SBS's management of the project. SBS advised that it adequately monitored key risks, such as budget over-commitment and overruns, although it agrees the documentation could have been improved. SBS also indicated that there was no necessity to prepare formal multi-year or cost-to-complete analyses because of the year-by-year underspending on the project and the confidence SBS had in its tight, annual fiscal management.

2.65 SBS also believes that its small project management team meant that they could adequately communicate and coordinate their actions without having to resort to detailed supporting documentation. However, the ANAO noted shortcomings in communication within the project management team for one significant element of the project. The Artarmon, Sydney Accommodation sub-project (primarily building and air-conditioning works to house the new digital equipment) was originally budgeted to cost less than \$0.5 million but progressive annual budgets increased this amount to \$4 million. The sub-project manager indicated that adjustments to the sub-project's budget could have been factored into the project's total budget in a timelier manner. Although this had no lasting consequences for the project as a whole, the ANAO suggests that more formal processes for regularly documenting the financial status of significant sub-projects would have reduced the risks of miscommunication within SBS project teams. Furthermore, a verifiable document trail would enhance the rigour of any subsequent analysis of financial issues.

2.66 The ANAO considers that SBS should regularly produce comprehensive and documented budgetary reports of significant SBS projects for component and whole-of-project management purposes. This would be consistent with SBS's transition to formal project management better practice. These reports, or summaries thereof, could then be provided to the Board to demonstrate SBS's accountability for public funds.

Recommendation No.1

2.67 The ANAO recommends that, for significant SBS projects and components therein, SBS management provide its Board with comprehensive, regular 'whole-of-project' budgetary and expenditure reports. This would better assist management's accountability to the Board by keeping the Board fully informed of the projects' status.

Agency Response

2.68 SBS agrees with qualification. SBS provides comprehensive and detailed digital broadcasting budgetary information to senior executives and the Board of SBS. The Executive receives monthly, quarterly and annual financial reporting of expenditure against budget in all digital categories. The Board receives regular budgetary and expenditure summary reports in relation to the Digital Conversion Project. In previous years ‘whole-of-project’ assessments have been conducted but not formally documented as suggested in this recommendation. ‘Whole-of-project’ financial reports are now provided to the Board.

Strategic capital management

2.69 Both the ABC and SBS have indicated that long-term strategic capital planning is currently underway. The ANAO endorses this action, noting that the national broadcasters have recently reassessed their digital equipment needs to fully implement the Strategies. Strategic capital planning will assist them to determine their capacity to fund and manage their total equipment needs for the future.

Needs assessment

Whole-of-project level

2.70 Needs assessment commences with project planning and defining the project’s scope. Better practice suggests that whole-of-project Implementation Plans that turn outcomes-based Strategies into specific actions are more likely to lead to the national broadcasters obtaining the best value for money. The ANAO notes that the ABC and SBS did not prepare Implementation Plans covering their digital conversion projects. Such Implementation Plans would have, among other things:

- outlined the projects’ (multi-tiered) governance arrangements from line management through to reporting to the Boards;
- defined the projects’ scope (or contained mechanisms that would have allowed project scope to become more definitive over time); and
- identified and assessed project risks and offered treatments (see *Risk Management*).

The ANAO considers that the absence of proper Implementation Plans contributed to the difficulty the ANAO had in forming a conclusive opinion on whether the broadcasters’ digital conversion achievements fully reflect their application of logical approaches to scoping the boundaries of their projects.

2.71 At the broadest level, the Strategies indicated that digital conversion would go beyond funding the minimum necessary for the ABC and SBS to broadcast in a digital format. Similarly, it was recognised that the Strategies were not expected to fund the conversion of all of the national broadcasters' analogue equipment to its digital counterparts. The Strategies envisaged digital conversion to fall somewhere between the bare minimum and total equipment conversion. The ABC and SBS would, therefore, be expected to define their projects' scope as best they could from the start. Over time, the scope would be refined, using the projects' governance frameworks to reach agreement on what was 'in' or 'out'.

2.72 The ANAO found that neither broadcaster employed a structured, consolidated approach to turn the broad, outcomes-based statements of desired functionality in the Strategies into explicit actions and targets for the project. Furthermore, there was no consistent and documented methodology for modifying and refining project scope over time, including the approved reasons for changes, in the first years of the projects. Some scope changes/refinements noted by the ANAO are included in Table 2.4.

ABC scope changes/refinements

2.73 In addition to the scope changes/refinements listed in Table 2.4, the ABC significantly altered its approach for delivering the Archives conversion component from the original Phase 1 Strategy. A lesser quantity of analogue tape will now be converted, in the short term, in favour of tape/disk based server 'libraries' at each ABC state office. Nevertheless, the ABC's revised solution will prove to be more cost-effective in the long run. It will allow greater and swifter access to the archived material and avoid the need to reconvert the material again at a later date.

2.74 The first two scope changes/refinements in Table 2.4 for the ABC occurred in 2003 and 2004, respectively, in an environment where the ABC had recognised the need for more formal project management documentation. Procurement documentation evidences the large change to the delivery of the Archives component. However, it is the smaller scope changes/refinements, such as those listed last in Table 2.4 for the ABC, which are not so well documented. It is not clear to the ANAO the extent to which the smaller changes/refinements were planned ahead of procurement or were made 'on the run' in response to contemporaneous factors.

2.75 Three ABC internal audit reports¹² dated from between mid-1999 and January 2002 forewarned the ABC of the need to properly plan the project, or otherwise make recommended improvements to digital conversion project planning. However, these suggestions/recommendations appear to have gone largely unaddressed until budgetary management problems were identified in late 2002.

2.76 T&D indicated to internal audit in mid-2001 that a detailed implementation plan for digital conversion was not developed due to a range of unknowns caused by both internal and external factors. Internal factors included the lack of forward production planning; the requirement to coordinate with various building and collocation programs; and the very nature of the conversion program itself—building a digital network in and around a working analogue network. External factors included outstanding Australian Government policy decisions that directly affected the nature and timing of equipment and installation needs; and a range of unknowns surrounding the cost, availability, reliability, suitability or future development of new digital technology.

2.77 In response to the ANAO's concerns, the ABC documented the links between the Strategies' objectives and its procurement actions during the audit. The document consolidates the previously undocumented (or poorly documented) assumptions underlying the ABC's digital conversion and the disparate management documentation supporting the ABC's actions. However, the ANAO considers that it would have been better to have maintained a consolidated and contemporaneous record of key scoping decisions. This would have provided greater assurance to external stakeholders of the rationale for the boundaries for the ABC's digital conversion at minimum cost. Project implementation plans would have assisted in this regard.

¹² Digital Strategy Review (October 1999), Digital Production Resources Capacity (March/April 2000) and Digital Rollout Review (January 2002).

Table 2.4

Digital conversion scope changes/refinements noted by the ANAO

ABC
<p>Constructing one less OB van by recycling an existing van, which saved the ABC \$2 million without reducing functionality (see comment later in this section of the report).</p>
<p>Significantly altering the HDTV Implementation Strategy that will see one less HD OB van constructed, one less studio converted and HD ‘field kits’ deployed in their place.</p> <p><i>The ABC considers that the change will provide equivalent functionality to what was originally proposed. DCITA has raised no concerns or objections to the ABC’s revised approach.</i></p>
<p>Equipping only some of the ABC’s radio networks (ABC Local Radio and Radio National) with digital audio workstations, providing non-linear editing suites for weekly television current affairs—except for <i>Four Corners</i>, and partially converting the ABC’s international bureau with digital equipment, leaving the remainder of each area to be converted at a later date using ABC-sourced funds.</p>
SBS
<p>Using \$4.8 million in ‘excess’ distribution and transmission funding from 2000–01 to supplement SBS’s costs of operating digital equipment in parallel with its analogue network.</p> <p><i>SBS has stated that it obtained approval from DCITA to use the excess funding in this way instead of returning it to Consolidated Revenue, but SBS cannot locate any documented evidence of the approval in its records. However, DCITA denies any knowledge of this matter before it was brought to DCITA’s attention in early 2004 by the ANAO. As DCITA indicated, it would not be in a position to give its approval, as to do so would be contrary to Minister’s approvals of funding for specific digital transmission and distribution services. The ANAO considers that if documentary evidence cannot be produced to support SBS’s claim, SBS has probably spent digital conversion funding contrary to the purposes for which it was approved. SBS has taken DCITA’s suggestion to formally advise the Minister of the circumstances surrounding the \$4.8 million and ask that the Government consider permitting SBS to retain the funding.</i></p>
<p>SBS’s decision to include the ownership and maintenance of the down-link satellite equipment (dishes and receivers) as part of the down-link satellite services. As a result, the cost is now incorporated in the service provider’s recurrent cost to SBS, rather than being, largely, an upfront capital investment to SBS estimated in the Phase 2 Strategy to cost about \$10 million. (The Government separately funds these recurrent costs). This change is sound given the difficulties SBS would have faced maintaining this equipment at over 200 sites. However, SBS has reallocated the \$10 million capital cost saved to its other digital capital components (see Table 2.5) rather than returning the funding to Consolidated Revenue.</p> <p><i>SBS indicated that the \$10 million was part of the total capital amount provided to put in place the infrastructure required for digital conversion and that movement between capital sub-categories over the life of the project was expected. DCITA indicated that Cabinet’s decision did not require the broadcasters to demonstrate the expenditure of funding appropriated for digital purposes on the specific equipment identified in the Strategies. DCITA further indicated that SBS’s digital distribution service costs remain substantially under their original estimates and the amounts approved by Cabinet.</i></p> <p><i>However, the ANAO considers that SBS’s ability to transfer costs from capital to operating expenditure may undermine the Ministers’ rationale for not scrutinising the broadcasters’ digital capital costs (See Chapter 5).</i></p>

SBS (continued)

SBS's decision to deploy a more extensive terrestrial distribution service than originally planned and, in turn, delay the purchase of satellite distribution services. This decision was taken because of slower than expected roll-out of digital services and falling terrestrial transmission prices. This arrangement has thus far saved the Australian Government money. However, if the extended terrestrial distribution service agreement is renewed in 2005, SBS will incur greater distribution costs to the Australian Government overall than if SBS proceeded with its original distribution strategy. Current cost projections for distribution services indicates SBS's intends to renew the extended distribution service agreement.

SBS indicated that this change in approach was fully explained to DCITA.

Installing digital equipment to create a greater number of digital radio studios in Sydney (an extra two) and Melbourne (an extra three) than was originally envisaged under the Phases 1 and 2 Strategies.

SBS indicated that this change was made as part of the overall management of the digital project and that SBS was not required to report to DCITA on capital outlays.

A large increase in the cost of the accommodation works in Sydney and Melbourne over what was originally envisaged under the Phase 1 and 2 Strategies (from \$1.0 million to \$2.0 million for Federation Square and from \$0.15 million to \$4 million for Artarmon).

SBS indicated that this arose, in part, because the Phase 2 Strategy anticipated that the digital equipment purchased would be smaller in size and require less power. This did not occur. Consequently, the cost of building and air conditioning works to house the digital equipment increased.

SBS further considers that this represents an example of robust project management. The accommodation budget was increased repeatedly at the regular quarterly reviews, whilst the project remained within the overall appropriation.

Source: ANAO analysis, SBS response to Discussion Paper.

SBS scope changes/refinements

2.78 The evidence indicates that SBS made significant scope changes/refinements early in the project's life that the Minister and DCITA were not aware of until the changes/refinements were drawn to DCITA's attention by the ANAO. Specifically, the first two scope changes/refinements listed in Table 2.4 for SBS resulted in SBS 'benefiting' by \$14.8 million through reallocations of digital conversion funding within the project. SBS disagrees with our comment for the reasons outlined in Table 2.4. DCITA's response to these scope changes/refinements is also outlined in Table 2.4.

2.79 From the available documentation, it is not clear to the ANAO the extent to which the other scope changes/refinements for SBS in Table 2.4 were planned well ahead of procurement or were made 'on the run' in response to contemporaneous factors. For example, the ANAO noted that the budget for the accommodation works in Sydney was revised upwards each year. With SBS's focus on annual budgeting, it is not obvious to the ANAO that SBS considered upfront (i) how much would be spent in total on accommodation works over the life of the digital conversion project; and (ii) what effect this

would have on SBS's ability to fund other digital conversion capital components. SBS has indicated that, having a small project management team, meant operational scoping refinements could be agreed within the team without the need for formal documentation.

2.80 SBS's recent Strategic Plan Review into its Digital Television Broadcasting reassessed the meaning of the Strategies in light of a maturing digital technology market. As a result, SBS is varying its approach to converting its television studio facilities that will, in effect, more than double the original cost estimate for converting SBS's studios from \$11.8 million to \$25.4 million (see Table 2.5). SBS's original Strategy assumed that the existing analogue studio environment would be maintained and that 'digital conversion' would consist of deploying the minimal amount of equipment and resources required to generate a parallel digital program stream. SBS has revised its dualistic approach and instead has adopted a digital-only strategy that will see virtually all of its capture, editing and post-production completed in HDTV, and most of its analogue facilities will be phased out. SBS's rationale for the change is that (i) running dual facilities generates greater operating costs than combining the two, and (ii) 'industry trends' now more clearly point towards digital being the preferred production platform (even for programs eventually broadcast in analogue). SBS indicated that its Phase 2 Strategy always envisaged the phasing out of analogue equipment. It has just happened earlier than SBS originally expected. The ANAO acknowledges that this approach represents the transition from digital conversion per se, to the broader acquisition of digital technology, which represents core business for SBS.

Conclusion

2.81 The ANAO acknowledges that there was much uncertainty at the time the national broadcasters' Strategies were first being implemented. However, this should not have prevented the ABC and SBS developing the foundations of whole-of-project Implementation Plans that, at the start, may have contained knowledge gaps that, over time, would have been reduced as the original uncertainties diminished. At the very least, Implementation Plans produced early in the projects' lives could have recognised the uncertainties and documented their potential effect. These could have been updated over time as scoping and procurement decisions occurred.

Table 2.5**SBS capital expenditure by component on Phase 2 as at December 2003**

Component	Original estimate (unadjusted) ^a	Actual spent to 31/12/03	Estimated to complete	Current expenditure estimate	Percentage change from original estimate
	\$'000	\$'000	\$'000	\$'000	
Transmission	500	271	0	271	-45.8
Distribution	12 388	1 954	0	1 954	-84.2
Playout/Encoding	13 960	19 653	1 523	22 176	+58.9
Studio	11 800	209	25 409	25 410	+115.3
Total	38 648	22 087	26 932	49 811	+29.5

Source: ANAO Consultancy into the SBS's Review of its Conversion to Digital Technology (July 2004).

a Does not include adjustments for funding indexation and a June 1999 budget revision approved by the SBS Board.

Integrating digital conversion with other business planning

2.82 The ANAO noted that the national broadcasters have adequately integrated digital conversion with other business planning. An examination of the ABC's Ultimo Collocation project revealed that the digital conversion process was clearly integrated into the relocation/collocation of the ABC's radio and television news staff from Gore Hill to Ultimo, in Sydney. News and Current Affairs planning documents dated from June 1999 onwards also emphasise the need for a managed change process that integrates digital conversion with other relocations and collocations around Australia.

2.83 The ANAO also found that the digital conversion process was clearly integrated into SBS's Federation Square construction project. This was demonstrated in part, through the apportionment of some Federation Square construction costs to the digital conversion project directly or on a pro-rata basis.

Functionality/component level

2.84 The ANAO considers that determining equipment needs for a project of this scale is not a once-only exercise undertaken at the start. It is an iterative exercise undertaken throughout the project. This should take into account: the strategic direction of broadcasting technology; Strategy requirements; peak work-loads; the functionality, quality and reliability of digital equipment on the market; and previous procurements.

2.85 The ANAO found that both broadcasters assessed the direction of digital broadcasting technology and digital equipment on the market (by consulting staff, consulting other broadcasters and attending trade shows where digital equipment was showcased) well in advance of procuring the equipment the ANAO examined. From this, the ABC developed comprehensive technical and operational specifications of the required equipment, which formed part of their tender documents. SBS did the same for its radio equipment purchases.

2.86 Documentation of the efforts the ABC went to to determine quantities of some bulk-purchased digital equipment (including picture monitors, camcorders and VTRs, non-linear editing systems and digital audio workstations) is somewhat lacking. However, from the available documentation and discussions with the ABC staff involved in the procurements, the ANAO considers that the ABC undertook formal and informal quantitative studies to determine the quantities of the equipment required in each location. Similarly, documentation supporting the quantities of some radio equipment purchased by SBS was lacking. Nevertheless, SBS Radio indicated that as it was responsible for the radio equipment purchases, it got the type and quantities of equipment needed.

2.87 SBS indicated that much of the television playout and encoding equipment purchases were in line with those listed in the Phase 2 Strategy. However, this was difficult for the ANAO to verify as SBS has not documented the extent to which its capital purchases match the detailed equipment lists from the Strategies. A large proportion of the television playout and encoding equipment was purchased without comprehensively documenting the technical and operational specifications of the required equipment in advance of procurement. This was because SBS relied on the results of tenders for similar digital equipment purchased for SBS's analogue and/or digital networks a few years earlier. However, without this documentation there is an increased risk that the equipment may not meet all the desired specifications or that extra, unneeded capacity/functionality may be purchased at greater cost. SBS indicated that the small project team contained highly skilled technicians on whom SBS relied.

2.88 There is also little documentation to support how SBS determined its needs for other peripheral television equipment (including camcorders, VTRs and picture monitors). In some cases, these purchases, which were made on an 'as needed' basis, were made without consultation with the Manager Television Engineering. Purchasing approval documents do not demonstrate (i) how or why the equipment is needed to implement the Strategies, and (ii) the rationale behind recording some equipment as part of one Phase while similar purchases are recorded as part of the other Phase (for example, VTRs and picture monitors). SBS indicated the peripheral television equipment

needs were determined by discussions. SBS further indicated that although documentation of the discussions would have been ideal, it is questionable as to whether this would have led to different, or better, outcomes for these relatively low-value purchases.

Figure 2.2

Examples of digital equipment procured by the ABC and a transmission facility



(Clockwise from top left) Engineer at the digital television transmission control rack at Ultimo (June 2001); The first new outside broadcast (OB) van delivered to Gore Hill (early 2002); Interior of OB van showing the production area (no date); and New digital television transmitter at Mt Major, near Shepparton, Victoria covering the Goulburn Valley region (no date).

Source: ABC 2004

2.89 Both broadcasters consider they determined their equipment needs to achieve the digital conversion Strategies at minimum cost. The ANAO concurs that once scoping decisions were made, sub-project managers generally determined their equipment needs to meet minimum cost. However, the ANAO noted two instances where the broadcasters were able to improve the value for money they received, without adversely affecting functionality, by varying the planned procurement actions. In the face of budgetary pressures and site issues, the ABC varied the construction contract for its OB vans to include the refurbishment of an existing OB van in Melbourne in place of a new van constructed from scratch. This saved the ABC about \$2 million, without compromising functionality. Similarly, budgetary pressures resulted in SBS reducing its data storage needs from original requirements for its Playout Servers, saving \$11,800 on this purchase. SBS indicated that it now has to delete historical material from the server more frequently because of the lessened data storage capacity.

2.90 The ANAO also noted comments from a consultant engaged by SBS in late 2003 to review its implementation of digital technology. The consultant found that there are an enormous number of VTRs in SBS resulting from (i) isolationist work practices, and (ii) the unplanned spread of edit and dubbing suites in non-technical areas. The consultant concluded that by greater networking and revised work practices, the VTR expense could be reduced and operational efficiency improved.

Procurement

2.91 The ANAO examined the national's broadcasters' procurement of a significant proportion of the equipment, or classes of equipment using digital conversion funding.

2.92 The ANAO found that the ABC's digital conversion equipment and SBS's radio equipment had been procured according to established procurement processes that met better practice. The national broadcasters obtained value for money during the procurement of these individual pieces of equipment. Procurement of the equipment typically involved:

- determining the required technical and operational specifications in advance (usually after consulting staff and other broadcasters, and attending trade shows);
- an open call for tenders, using a comprehensive tender document;
- a rigorous shortlisting process, using predetermined criteria, including an assessment against the specifications from the request for tender;

- suppliers demonstrating the shortlisted equipment either at ABC's premises, the suppliers' premises or at sites of other organisations using the equipment;
- formal, or informal, testing or trials of the shortlisted equipment by ABC IT and users at ABC premises; and
- recommendation/selection of the successful tenderer according to ABC delegations (which may involve the Contracts Review Committee, Managing Director and/or the Board, depending on the equipment's cost).

2.93 Other procurement controls applied by the ABC, as and when needed, included:

- vetting of contracts by ABC legal;
- consideration of insurance risks (eg. on importation);
- considering the existence of any conflicts of interest;
- making the largest proportion of progress payments to suppliers when the goods are received and accepted; and
- vetting the manufacturer's/supplier's capacity to support their products (including, at times, requiring them to provide significant Bank Guarantees).

2.94 The ANAO found that the selection of the successful tenderer for the ABC equipment and SBS radio equipment was justified as the logical choice, after taking into account an assessment of whether the tenders met the specifications, results of demonstrations and trials, the price and the results of the other procurement controls.

2.95 The ANAO found that most of SBS's television playout and encoding equipment (excluding HDTV-related equipment) valued at \$6 million was not purchased through competitive tender. Instead, SBS, relied on the results of previous tenders of similar digital equipment purchased for SBS's analogue and/or digital networks. SBS followed its procurement guidelines in each case examined by the ANAO where equipment was not purchased through competitive tender. SBS obtained the approval from the appropriate delegates to enter into a sole-supplier arrangement, as SBS considered that the equipment could only be sourced from one supplier in Australia. SBS indicated that the primary reason for its sole-supplier purchases was the desire for the new equipment to be compatible with the old (which was purchased 2–3 years

earlier) in terms of the technical nature and human interface.¹³ This would allow operators to move easily between the equipment purchased for analogue and digital broadcasting. SBS considers that it received value for money as their key staff are aware of price movements in the digital equipment marketplace. As well, SBS attracted significant discounts on the list price for the equipment. SBS further considers that it would be counter-productive to continually conduct tender exercises once a satisfactory solution had been decided upon and user feedback had been positive.

2.96 The ANAO found that SBS purchased other peripheral television equipment valued at \$3.6m on an 'as-needed' basis using predetermined brands selected by competitive tender in prior years. In the case of VTRs, which comprise the bulk of the value of peripheral equipment, SBS chose the DVC PRO50 format of one manufacturer in December 1997 in a competitive tendering exercise. Subsequent purchases accord to this format, with the model determined by the purchaser according to its intended use. When purchasing DVC PRO50 VTRs, SBS selects the lowest quote from one of the only two suppliers in Australia.

2.97 In the case of camcorders and picture monitors, SBS had not undertaken a competitive tendering exercise, either before or during the digital conversion project, before selecting the manufacturer of choice for this equipment for SBS. SBS indicated that the particular manufacturer was widely regarded in the industry as the best and the equipment has shown itself able to meet SBS's needs (although SBS emphasised that it tries to minimise the number of broadcast quality monitors, and purchases other monitor brands of less quality and price when broadcast quality is not necessary). SBS further indicated that a member of its digital conversion project management team has been involved in formal evaluation trials of the manufacturer's pre-test models before their commercial release. When purchasing camcorders and monitors, SBS usually obtains two or three quotes from different suppliers, in line with its procurement guidelines.

2.98 SBS indicated that it did not enter into bulk contracts for peripheral television equipment because of the lack of flexibility for the Corporation and the changes to technology that occurs over time. SBS claims that it receives significant discounts through its ongoing relationships with suppliers/manufacturers. The ANAO saw evidence to support this claim.

2.99 All digital equipment examined by the ANAO was purchased in accordance with SBS's Procurement Guidelines. However, for other peripheral television equipment, the ANAO considers that it would be prudent for SBS to

¹³ SBS's goal at the time of purchase was to construct its digital playout and encoding system to sit in parallel with its analogue playout system.

retest the marketplace at regular intervals to obtain assurance that it is still receiving value for money. SBS's VTR brand of choice was chosen by tender nearly seven years ago. SBS indicated that, expanded use of tendering, would have introduced considerable delay into an already tight timeframe to get on-air by the legislative deadline. The ANAO notes, however, that the ABC was able to conduct thorough competitive tendering exercises for all of its digital equipment even though its requirements were more complex than those of SBS.

Timely commissioning of equipment

2.100 Evidence suggests that, at times, some equipment procured by the ABC lay in storage for 12–18 months before installation and commissioning. However, this did not appear to have a detrimental effect on the ABC's ability to meet legislative deadlines for digital broadcasting or pose significant opportunity costs for the Corporation.

2.101 The digital conversion project was undertaken at the same time as relocations to, and refurbishments of, many ABC premises. In some cases, construction/refurbishment delays have led to some equipment purchased in bulk laying in storage for longer than originally anticipated. Similarly, delays in the construction of the OB van frames also led to equipment being held in storage for some time until the frames were ready to have the equipment installed.

2.102 The ABC indicated that the equipments' useful lives were not adversely affected by delays to their installation and commissioning. In addition, the (very) small cost of repairing equipment that would have been under warranty had it not been in storage, was more than offset by discounts obtained by the ABC from purchasing in bulk.

2.103 For SBS, indications are that most equipment was installed and commissioned soon after purchase. However, for a few pieces of equipment, there have been extensive time periods of up to two years between the purchase and their installation/commissioning.

2.104 The ANAO notes that delays between purchase and installation/commissioning did not have a detrimental effect on the equipments' useful lives or on SBS's ability to meet legislative deadlines for digital broadcasting. However, with new and improved digital equipment coming on the market continually, SBS may have incurred an opportunity cost by purchasing in 2002 and 2003 rather than delaying purchases until the equipment could be promptly installed and commissioned. SBS considers that the price increases since SBS purchased this equipment may have resulted in SBS saving money.

Operational efficiency

2.105 ABC and SBS managers and equipment users are, essentially, pleased with the new digital equipment. The equipment is delivering on the functionality that suppliers demonstrated during the equipment's procurement. As to be expected there were some 'teething' problems at the start, but these have now been addressed. The equipment has been of good quality and is reliable.

2.106 It is generally acknowledged that the new digital equipment has reduced (in some cases, significantly) the time it took to perform some functions performed by analogue equipment (eg. non-linear editing vs 'cut and tape' linear editing). Therefore, it can be argued that there may be opportunities to replace analogue equipment with lesser quantities of digital equipment to maintain functionality. However, the broadcasters indicated that the quantum of time savings from the new equipment only became evident once staff became familiar with the equipment.

2.107 Those involved in the digital conversion process, including users of the digital equipment have indicated to the ANAO that the time they save using the new equipment over the old is used to increase the quality and quantity of output. For example, with respect to story editing, the new non-linear editing equipment allows the ABC to increase the combinations of original footage with newsreader narration, graphical presentation and sound and visual effects. Some minor editing shortcomings that were once tolerated at SBS, are no longer tolerated. Furthermore, there are a greater number of edited stories from which to choose from when a news broadcast is put together.

2.108 The ANAO notes that the Strategies infer that greater functionality will come from digital equipment, which will enhance the visual and audio experience of audiences. Early in the life of digital conversion, the ABC couched the benefits of digital transmission as follows:

Conversion to digital production and transmission can enable the ABC to efficiently and effectively extend the life and value of its program content across the platforms of radio, television and online services. Opportunities open up to gather and capture content in forms which can be adapted for use on more than one medium; to repurpose content which is captured and stored in digital form in the ABC's archives; to provide ancillary information and data to support broadcast programs; and to allow for greater interactivity.¹⁴

2.109 The ANAO also notes that new digital equipment has resulted in work practice changes that have increased the efficiency and/or reduced the cost of newsgathering and broadcasting functions. For example, the ABC now uses

¹⁴ ABC 1997, *The Mansfield Review Recommendations: Additional ABC Input to the Minister for Communications, the Information Economy and the Arts* [also known as the Phase 1 Strategy], p. 16.

single person crewing for some newsgathering due, primarily, to the extra functionality of the new digital camera equipment. In addition, less people are now involved in news syndication through the increased automation of this process. The ABC indicated that staff affected by the changes have been redeployed onto other tasks. SBS Radio representatives indicated that SBS employs about a third fewer studio operators because of the introduction of the new digital equipment.

Figure 2.3

Examples of digital equipment procured by SBS



(Clockwise from top left) Digital on-air mixer for Radio; SBS World News channel control station; Digital reference clock generator and digital sound amplifier; and Digital production mixer.

Source: SBS 2004.

Achievement of the Strategies

Monitoring of the Strategies' achievement

2.110 For the first few years of their digital conversion projects, the ANAO saw little recorded evidence that the national broadcasters monitored the extent to which the planned and completed components/sub-projects fulfilled the original Strategies. As noted under *Financial Management*, between early-2000 and mid-2002 there was little documentation on the ABC's monitoring of the project on a consolidated basis. Since that time, the ABC's monitoring of the digital conversion project has had a strong financial focus. However, the spreadsheet ABC uses to monitor project expenditure and final forecast cost-to-complete is not structured in the same way as the Strategies to which it relates.¹⁵

2.111 Documentation sighted to evidence SBS's monitoring of the digital conversion project also has, predominantly, a financial focus, through the setting and monitoring of expenditure against annual budgets. SBS indicated that the digital conversion project was regularly and comprehensively reviewed as part of its annual and quarterly budget reviews. However, the ANAO found that this documentation does not evidence a thorough and consolidated consideration of the project's overall status. The only evidence of consideration of the project's progress against the Strategies were reviews in August 2000 (for both Phases), and in early-mid 2004 (Phase 2 only).

2.112 The ANAO considers that Implementation Plans would have assisted the ABC and SBS to better monitor the financial and performance aspects of their projects from the outset.

2.113 The ANAO also considers that there may have been gaps between Strategy achievement and the national broadcasters' original expectations for digital conversion. However, as their original expectations were not documented in a consolidated manner, it is difficult to determine if and where gaps may exist.

2.114 The ABC indicated to the ANAO that the 2002 review of the Phase 1 and 2 cost allocations examined the link between the ABC's project achievements and the Phase 1 Strategy. In early 2003, the ABC reconciled the elements of its management spreadsheet to those in its Phase 2 Strategy. The ANAO also notes that the ABC's recent efforts to document the link between the Strategies' objectives and its procurement actions (see *Needs Assessment*)

¹⁵ For example, the Phase 1 Strategy has components that include: Enhancement of Regional Services; Archive Initiative; Preparation for DTTB and DRB, Digital Radio Broadcasting (DRB); and Digital Terrestrial Television Broadcasting (DTTB). However, the spreadsheet ABC uses to monitor the project has the following components: Radio; Television; IT & Infrastructure; Archives; and Training.

provide assurance that significant gaps in Strategy achievement are unlikely to exist.

2.115 Although SBS considers that its Phase 1 Strategy has been substantially implemented, the ANAO sighted little evidence of SBS monitoring the relationship between this Strategy and its procurement actions. SBS has indicated that a formal assessment or post-implementation review of the Phase 1 Strategy would be conducted at the conclusion of the project.

2.116 SBS has undertaken a Strategic Plan Review into its Digital Television Broadcasting in February 2004 that covered SBS's progress against the 16 sub-strategies in its Phase 2 Strategy. The review found that 11 of the 16 sub-strategies have been achieved or are expected to be achieved shortly. The review concluded that:

SBS has made significant progress towards its digital conversion and is on track to complete the conversion in line with the strategy endorsed by Government. SBS is of the view that it will have completed the infrastructure necessary for digital conversion by 2008.

2.117 Because of the review, SBS has reassessed the meaning of its sub-strategies in light of a maturing digital technology market. SBS has decided to self-fund the increase in project costs arising from the project scope changes/refinements identified in the review to address the outstanding sub-strategies that are within SBS's control.

The efficiency and effectiveness of digital conversion

2.118 Although the Strategies are broad outcomes-focused statements of desired functionality, each broadcaster considers that there was only ever one logical 'path', which only ever led to one possible 'destination', for digital conversion to be achieved at minimal cost in their organisation. The national broadcasters also advise that, after completing certain outstanding components, their Phase 1 and 2 digital conversion Strategies will have been achieved. Outstanding components in the ABC are, primarily, the Media Archive Project and HDTV Implementation Strategy. SBS's outstanding component is, primarily, digital studio equipment.

2.119 The ANAO acknowledges that the levels of digital conversion being achieved accord with the general intent of both broadcasters' Strategies. The ANAO further acknowledges that the digital conversions are being achieved efficiently. The national broadcasters obtained value for money from individual pieces of equipment procured and from the national broadcasters' decisions to self-fund the increases in their project budgets. In the ABC, the agreement to use any windfall gains on property rationalisations to partly offset the Government's financial contributions to the project also contributed to the value for money of the project. SBS considers that value for money it has

received has been bolstered by the use of its full digital spectrum through multi-channelling—the only free-to-air broadcaster to do so—with self-funded content.

2.120 The ANAO considers that both the ABC and SBS met general expectations for digital conversion as outlined in their Strategies. However, the ANAO cannot form a more precise opinion on whether digital conversion achievements fully reflect the national broadcasters' application of logical approaches to scoping the boundaries of their projects. As noted under *Needs Assessment*, this is due to a lack of a consolidated and contemporaneous record of key scoping decisions. Nevertheless, the ANAO noted:

- no obvious equipment excesses in the ABC and noted that the ABC undertook formal and informal quantitative studies to determine the quantities of equipment required at each ABC location; and
- examples of SBS's frugal use of its resources identified during the audit and noted the findings of a consultant engaged by SBS to review the status of SBS's digital conversion in late 2003 that did not highlight any significant equipment excesses.

2.121 In any event, the ANAO considers that precisely defining the scope limits of the digital conversion projects is not important when it is considered in the context of the broader acquisition of digital technology. Digital conversion, as defined by the Strategies, forms only a part of a broader acquisition of digital technology to provide adequate new platforms for the ABC's and SBS's broadcasting services. The digital technology acquisitions, which will be an ongoing cost over the coming years, are integral to the core business of the broadcasters. (SBS's 2004 review against its Phase 2 Strategy illustrates the transition from digital conversion per se, to a broader acquisition of digital technology.) The broadcasters have thus far obtained value for money from purchasing equipment that is relevant to their digital technology acquisitions. Therefore, it is suggested that the broadcasters' focus should be on continuing to obtain value for money from purchasing appropriate equipment throughout their digital technology acquisitions. Strategic capital planning can assist in this regard.

3. ABC Property Rationalisations

This chapter analyses how the ABC is meeting its digital conversion funding requirements to contribute \$36 million by disposing of some of its property.

Strategy requirements

3.1 Part of the ABC's agreement with government for digital conversion required the ABC to source \$36 million from property disposal proceeds to fund Phase 1 capital expenditure. The ABC later agreed that any 'windfall profits' in excess of the \$36 million would be returned to the Australian Government. (Specifically, it was intended that any windfall would partly offset the \$32.6 million Phase 1 debt incurred by the ABC and later paid out by the Australian Government).

3.2 The ABC determined the property disposals to apply to the Phase 1 funding, as part of its ongoing strategic property planning. The process was iterative over a number of years. At one time, four properties (in Sydney, Brisbane, Perth and Canberra) were under consideration for disposal. DCITA has advised that the ABC Board determined that proceeds from the disposal of Gore Hill (Sydney) and Adelaide Terrace (Perth) would be ABC's contribution to Phase 1.

3.3 The current status of the disposal process is that gross proceeds for the ABC are likely to exceed the \$36 million windfall threshold for the sale of Gore Hill and Adelaide Terrace.

3.4 The ANAO noted that the ABC and DCITA had not identified in detail at the beginning of the project exactly which costs would be offset against the gross proceeds of sale to arrive at the net proceeds that the ABC agreed to contribute towards digital conversion. Similarly, no timeframes were agreed to establish how long the government would allow the offset to include property holding or sale costs under this arrangement. The disparate documentation supporting the property disposal obligations does not provide adequate clarification on this point. This issue potentially has significant implications for the ABC as the sale costs that it wishes to offset from the gross proceeds may run to millions of dollars and be ongoing for quite some time. For the Gore Hill disposal, these include site maintenance costs and external tendering costs (for example, consultants engaged in tender preparation), as well as some indirect costs such as interest incurred after June 2003 on the Phase 1 debt caused by the delayed property sales. The ABC has advised that it will discuss with DCITA the costs that should form part of the offset, once the ABC has itemised these sale costs.

3.5 The ANAO considers that it would have been better for the ABC and DCITA to have formally addressed the item offset and timing issues at the

commencement of the digital conversion process. The risk is that issues of this nature, which were not clearly addressed, may have affected the assumptions that underpinned the strategic property decisions made by the ABC. It may have also affected the expectations of the government's return, and hence its overall funding commitment.

Maximising property disposal proceeds

3.6 ANAO audit findings indicate that the ABC is complying with the property disposal obligations made to the Minister. In general, the ABC has planned and acted to maximise 'net' proceeds from both property disposals 'tied' to digital conversion Phase 1. The ABC has undertaken many disposal-related activities for the Gore Hill and Adelaide Terrace properties that are generally accepted as better practice for commercial property disposals. These included strategic property planning; and appropriate use of experts, consultants, independent valuers and probity advisors/auditors. The Gore Hill disposal has taken several years longer than anticipated due to factors such as a protracted rezoning process and an unsatisfactory sales tender response. At the time of this report, a sale agreement has been signed but settlement has not yet occurred. Audit evidence, as discussed below, supports the view that the ABC managed these challenges in an appropriate manner. In regard to the Adelaide Terrace disposal, delays of several years have also occurred and the disposal tender process has been delayed until 2005. This is discussed further below and relates to the original joint sale and construction arrangement that was terminated in 2003. The ABC contends that the cost of the Adelaide Terrace disposal delays are likely to be minimised due to a resilient Perth property market.

3.7 The Gore Hill property disposal was suggested in the Mansfield Report of 1997 and the ABC Board approved its inclusion in ABC property rationalisations in February 1999. A Gore Hill disposal strategy was approved in June 2000. As per the approved strategy, consultants were engaged to advise on the disposal. An independent (financial) review of the disposal strategy was conducted to assess that it would maximise revenue for the ABC. Also, a probity auditor was appointed to oversee the sale process in general. A protracted rezoning and sale tender process then occurred between March 2001 and June 2003. However, the ABC terminated the process when tender bids were all significantly below price expectations. The ABC was in the process of reassessing disposal options when it received an unsolicited offer in December 2003. The offer significantly exceeded previous tender bids and the most recent independent property valuations. In February 2004, an independent probity report cleared the way for the ABC to accept the unsolicited offer and also endorsed the ABC's actions to date including that the ABC acted properly throughout the rezoning and tender activities. The ABC

Board approved the proposed sale in February 2004. The ABC advised the ANAO that under the agreement between it and the purchaser, final settlement must occur before March 2005.

3.8 For the Adelaide Terrace property disposal, an expression of interest released in 1997 had resulted in several suitable proposals. A preferred proposal was identified, and later accepted, that envisaged an 'umbrella' arrangement combining the sale of the current site for a fixed price in line with market valuations, and construction of a new ABC facility at East Perth. A process of project refinement, negotiation and approvals occurred over several years. As none of the potential tenderers for the construction project had direct experience in constructing a purpose-built broadcasting facility, the ABC built safeguards into the construction contract to manage this risk. This included an option for the ABC to terminate the contract on a 'no fault basis'.

3.9 In April 2002, a revised project delivery method was proposed and approved before construction began. This occurred because of concerns from the contractor that the approved budget was insufficient under the existing fixed cost contract. Construction began in November 2002, but the project started to experience time delays and further increases in the estimated construction cost. The ABC terminated the contract(s) to construct the new facility and sell the Adelaide Terrace property in July 2003, and entered into a new interim construction contract with another contractor. The ANAO notes that the ABC had sought extensive legal and expert independent advice before proceeding with the termination of the contract on a 'no fault basis' and the appointment of a new construction contractor.

3.10 In December 2003, a Board paper provided detailed analysis of actions taken before and after the contract termination and made recommendations regarding the project. The report summarised prior actions included appointing an experienced property consultant to review the project's status and evaluation options. The Board approved a range of project related changes. A revised project governance arrangement was adopted with a boarder and more structured 'Project Review Group'. The ANAO noted the ABC's intention to formally appoint the new contractor based on a recommendation of the expert consultant. The ANAO also noted that a range of alternatives were analysed including reducing the scope or abandoning the project altogether. The ABC advised that practical completion of the East Perth Building was achieved on 15 November 2004, and that final settlement on the Adelaide Terrace property may not occur before December 2005.

3.11 The Adelaide Terrace disposal will now occur separately to the East Perth construction project. The ANAO acknowledges that the ABC made a strategic decision to link the East Perth construction project with the Adelaide Terrace disposal. This had the significant benefit of a guaranteed market price at a time when the Gore Hill disposal faced significant uncertainties.

4. Procurement and Management of Digital Transmission and Distribution Services

This chapter outlines the process of procuring the national broadcasters' digital transmission and distribution services. It also briefly examines the processes the ABC and SBS use to monitor and manage the performance of their digital transmission and distribution service providers.

Procurement of digital transmission and distribution services

4.1 In March 2000, Cabinet agreed that the Australian Government would fund the actual costs of digital transmission and distribution services for the national broadcasters. The Ministers for Communication, Information Technology and the Arts, and Finance and Administration (the Ministers) were charged with minimising the calls on the Budget from digital conversion.

4.2 The ANAO notes that the procurement of the national broadcasters' digital transmission and distribution services proceeded on the approval of the Ministers, after extensive liaison between DCITA, Finance and the national broadcasters. The ANAO considers that the robust nature of the procurement processes for digital transmission and distribution services oversights by DCITA, provides assurance that the national broadcasters have procured effectively to meet the requirements of the Strategies and have thus far minimised the call on the Budget.

4.3 The ANAO notes that ABC and SBS chose different approaches to procuring transmission services. The ABC chose to contract out its transmission services in one parcel, to maximise volume discounts and encourage competitive interest in a large-scale, long-term transmission services contract. SBS chose to progressively contract digital transmission services in a bundle of sites at a time, to take advantage of anticipated price savings as the digital transmission market matured. Both broadcasters have procured their distribution services to align with their transmission procurement strategies.

4.4 DCITA's scrutiny of the national broadcasters' procurement of digital transmission and distribution services includes engaging independent consultants to review the national broadcasters' Phase 2 Strategies, and to review their proposed transmission contracts. Because of the latter, the ABC entered into negotiations with the preferred transmission service provider for 'whole-of-rollout' transmission. The ABC reduced the price of the contract by over \$15 million per annum (plus indexation) at mature rollout in exchange for

operational and contract variation trade-offs. The revised price was in line with the amount forecast in the ABC's Phase 2 Strategy. DCITA considered that the trade-offs did not represent an unacceptable transfer of risk to the Australian Government.

4.5 DCITA has also reviewed the distribution services contracting processes as well as the level of competition in the distribution market. DCITA, Finance and SBS have agreed a Contracting Protocol, which was based on the recommendations of the consultants who reviewed the first two competitive tendering processes for SBS transmission services. For each new batch of transmission and distribution services SBS wishes to contract for, SBS is required to report to DCITA against this protocol before Ministerial approval can be given.

4.6 In early-mid 2004, SBS proposed a revised method of contracting transmission services. In recognition that the transmission market is getting smaller, SBS requested Ministerial approval to move away from traditional tender processes to a direct negotiation with the dominant transmission service provider at benchmarked prices. The benchmarked prices are derived from a comprehensive model that calculates current, real term prices based on the best market prices that SBS has obtained for services in the past from competitive tendering processes. SBS considered that it would 'cap' prices for the services not yet contracted, while retaining the right to seek lower prices should new technologies or changes in the market make that possible. The Ministers gave their approval after DCITA and Finance reviewed the model. DCITA was satisfied with SBS's application of the model in the pricing of the latest batch of 37 regional sites recently approved by the Ministers.

4.7 The ANAO notes that the contracting of transmission and distribution services, and the progressive rollout of new services by providers, is being undertaken at a pace that has met, and is likely to continue to meet, legislative requirements for digital broadcasting.

Reconciliation of appropriated amounts to actual cost

4.8 The Government's agreement to fund the actual costs of digital transmission and distribution services requires DCITA, with assistance from Finance, to reconcile appropriated funds to actual costs for the national broadcasters. Actual costs vary from appropriated funds primarily because of timing differences with respect to planned and actual rollout of contracted services. After DCITA produces the reconciliations, the national broadcasters would be reimbursed for any underpayments and repay any overpayments. The national broadcasters can only apply these appropriated funds to the cost of digital transmission and distribution services. Any overpayments are not to be used for other purposes.

4.9 Although digital transmission services have been provided since January 2000, the first reconciliations covering the 2000-01 to 2003-04 years have only been completed recently. DCITA and Finance indicated that the ABC and SBS have been overpaid about \$5.7 million and \$9.1m million, respectively. The ABC and SBS have agreed with the reconciliation amounts, which they will be required to repay shortly (although SBS has sought approval from the Minister to retain \$4.8 million that SBS reallocated to the its costs of operating the digital equipment – see Chapter 2).

4.10 DCITA records indicate that information delays from Finance over the last 18 months have delayed the reconciliations. Finance indicated that it has been constructing a detailed forward estimates model, which includes historical appropriation information, to match future appropriations to the ABC and SBS to the required contract payments. Delays in the construction of this model delayed the reconciliation task and the provision of information to DCITA. Processes have been agreed between Finance and DCITA to undertake the reconciliation on a yearly basis in future years.

Management of digital transmission and distribution contracts

4.11 The ANAO conducted a brief review of management mechanisms that relate to national broadcasters monitoring of digital broadcast transmission and distribution service contracts. This was because the ongoing performance of digital transmission and distribution is fundamental to the achievement of the digital conversion Strategies.

4.12 The ANAO concluded there are appropriate mechanisms operating within the auspices of the contracts to monitor the performance of digital transmission and distribution service providers. The ANAO noted that contract documentation contained service level/key performance indicator information and that these contract specifications had been assessed satisfactorily as part of each broadcaster's contract approval process. The ANAO also noted that the broadcasters were appropriately monitoring the contract billings against the services provided.

4.13 In regard to the 'rolling out' of new digital transmitters, the national broadcasters both have contractor coordination arrangements and a formal commissioning process. Discussions with management, and documents sighted, indicate that the rollout is being adequately monitored and that it is occurring to the satisfaction of the broadcasters. The ANAO notes that rollout is being undertaken at a pace that has met, and is likely to continue to meet, legislative requirements for digital broadcasting.

4.14 Discussions with senior management and a review of documentation support that there are satisfactory structures, staff and procedures in the

national broadcasters to monitor contract performance. Management processes are broadly consistent with analogue transmission and distribution service monitoring. The national broadcasters consider that the quality of contractor performance reporting is generally satisfactory. The ANAO sighted evidence of regular meetings between each broadcaster and contractors to discuss performance issues. This ranged from day to day monitoring by technical staff, progressing in management hierarchy, up to periodic meetings between senior broadcaster and contractor management. Regular reporting to each of the Boards on digital transmission and distribution rollout and performance is occurring.

4.15 The ANAO did note that reports were less formalised for some aspects of distribution monitoring. The broadcasters did not assess this as a high-risk area, given the reliable nature of satellite service levels. For transmission, both broadcasters noted future plans to increase 'real time' monitoring of remote transmission sites. Also noted for SBS was the consideration of service performance and business continuity in a risk review undertaken on its transmission contract. The ANAO encourages both broadcasters to pursue improvements in performance reporting and to further develop the cooperative relationship with their service contractors.

4.16 The ANAO noted that the national broadcasters have been generally satisfied with the performance of transmission and distribution services and have take action when performance deviated from agreed contract arrangements. Deviations, when they occurred, related mainly to some regional transmission sites. The national broadcasters and the service providers have reserve broadcasting equipment, which results in audience reception being unaffected for most transmission and distribution problems.

5. Oversight by DCITA

This chapter analyses DCITA's role in overseeing the national broadcasters' capital procurement of digital equipment. It outlines DCITA's role, monitoring approach and the implications for the Government's funding decisions. The chapter concludes with a discussion of the value of overseeing departments using existing reporting mechanisms as a means of monitoring agencies' significant funding initiatives, such as digital conversion.

Introduction

5.1 This chapter considers the role that DCITA played in oversight the capital procurement aspects of the national broadcasters' conversion to digital broadcasting. DCITA's role in the ABC's property rationalisations and the broadcasters' procurement of digital transmission and distribution services are covered in the preceding chapters.

5.2 Conceptually, the scoping of the digital broadcasting (that is, transmission) requirements is relatively straightforward. They are set by legislation and the ABA's Digital Channel Plans. The same cannot be said for the digital capital equipment requirements of the Strategies. The ABC's Phase 1 and 2 Strategies are outcomes focused and contain broad qualitative statements of desired functionality. So too are SBS's Phase 1 and 2 Strategies, although they also contain specific lists of the quantities and types of equipment to be purchased. However, SBS indicated to the ANAO that the equipment lists were SBS's 'best estimate' at the time and SBS did not expect to be held to account for specifically delivering them. Instead, SBS considers that the 16 sub-strategies of its Phase 2 Strategy, which contained broad outcomes-focused qualitative statements of desired functionality, became the key strategic drivers of the project.

5.3 The broadly specified capital outcomes of the Strategies has complicated DCITA's role of assisting the Minister to minimise the call on the Budget from digital conversion.

DCITA's role in the procurement of digital equipment

Background

5.4 After approval of the Phase 1 Strategies, DCITA did not attempt to establish any protocol or mechanism for either of the national broadcasters to report regularly on their progress towards implementing the capital equipment aspects of their respective Strategies. DCITA indicated that this was the case because the Government agreed that, before consideration would be given to Phase 2 funding, the Auditor-General would assess 'the actual cost of

digitisation, the sources of funds applied and the efficiency with which the funds have been used’.

5.5 However, because of the subsequent setting of the legislative deadline to begin digital broadcasting (1 January 2001), the Auditor-General’s audit was brought forward to 1999. DCITA considered that the outcomes of the 1999 ANAO audit were essentially inconclusive because of the lack of expenditure by the broadcasters at that stage. Nevertheless, the ANAO identified no major areas of concern and DCITA took comfort in the conclusion that ‘for the most part, the mechanisms developed by the ABC and SBS for tracking digital expenditure function well’. By default, DCITA accepted that both the ABC and SBS adopted exceptions-based reporting, that is, unless reports to DCITA said the contrary, the Strategies were assumed to be on track.

5.6 In approving the national broadcasters’ Phase 2 Strategies in March 2000, the Government agreed that the proposed contracts for the purchase of digital equipment, transmission and distribution services by the ABC and SBS be assessed by the Ministers with a view to minimising the call on the Budget. In April 2000, the Ministers agreed that no further scrutiny of the national broadcasters’ digital capital costs was required because of the following events:

- Digital capital costs are much smaller and finite in nature when compared to digital transmission costs.
- Capital funding bids under Phases 1 and 2 were reviewed by independent consultants who concluded that the bids were reasonable.
- The ANAO, through its 1999 audit, was satisfied that the Phase 1 costs were the minimum reasonable costs of equipment conversion, based on the ANAO’s review of the methodologies for developing the funding bids.
- The processes used by the national broadcasters to determine costs for Phase 2 Capital were essentially the same as those used for Phase 1 Capital.
- The Government decided to get the Auditor-General to review digital conversion costs in 2003, which would satisfy the independent consultant’s recommendation for a review of digital conversion in or after 2003 to look at how equipment prices had varied and whether costs had changed.
- The independent consultant found that a relatively competitive global supplier market exists for both studio equipment and play-out and encoding equipment. As well, the global trend towards digitisation would lead to buoyant demand, large volumes and economies of scale and therefore prices should be driven downwards.

DCITA's monitoring approach

5.7 Since mid 2000, DCITA has confined its involvement in the national broadcasters' digital conversion activities to the procurement of transmission and distribution services. The national broadcasters were consequently left alone to implement the capital component of their respective Strategies. DCITA considers that this approach reflects the view that digitisation is an activity of the broadcasters themselves. Accordingly, close scrutiny has been applied to the cost of the broadcasters' strategies, and the outcomes of those strategies, rather than the broadcasters' implementation of those strategies. DCITA further considers that as with other operational activities of the broadcasters, no requirement for Government oversight is mandated beyond that put in place by the ABC and SBS Acts. In any event, the ANAO would be reviewing the national broadcasters' implementation of digital conversion and DCITA could make funding adjustments based on the ANAO's findings.

5.8 The ANAO partly agrees with DCITA's approach to monitoring the capital component. The national broadcasters should be accountable for delivering the Strategies agreed by Government. They are Commonwealth companies under the *Commonwealth Authorities and Companies Act 1997*, with their own Boards to guide their management to fulfil their functions, including digital conversion. However, as the department assisting the Minister to approve the expenditure of digital conversion funding by the national broadcasters, it would be expected that the national broadcasters would consult with the Minister through DCITA when contemplating significant scope/delivery changes to the digital conversion project. In this regard, the ANAO notes that the ABC informed DCITA of a \$27.8 million increase to the Phase 1 Budget and its revised HDTV Implementation Strategy. SBS informed DCITA of its 2004 Strategic Plan Review into its Digital Television Broadcasting.

5.9 Under the terms of Cabinet's approval of financial assistance for digital conversion by the national broadcasters, the ANAO notes that DCITA had a specified role to play in assisting its Minister to make determinations that the national broadcasters' procurement actions would 'minimise the call on the Budget'. The ANAO acknowledges the reasoning behind the Ministers' decision in April 2000 to undertake no further scrutiny of the national broadcasters digital capital costs. However, the ANAO considers that some risks to the Government's objective of minimising the call on the Budget still remained. In the ANAO's view, the existence of such risks obliged DCITA to take steps to address them. These risks included that the national broadcasters would not:

- institute and document project management processes of sufficient rigor and with sufficient transparency to demonstrate to Government

(and, satisfy DCITA) that the call on the Budget would, in fact, be minimised; and

- provide comprehensive and timely information to DCITA on significant changes and/or refinements to project scope.

5.10 One way of managing the first risk would have been for DCITA to seek high-level documentation from the national broadcasters (for example, project implementation plans) on how they intended to progressively plan, manage and document the projects in accordance with better practice. This could have provided the assurance DCITA required, without unnecessarily impinging on the independence of the national broadcasters or their overall responsibility for implementing digital conversion. This documentation could have also assisted DCITA to manage the second risk by outlining how the national broadcasters intended to keep DCITA informed of any and all proposed scope changes/refinements of significance.

5.11 A greater proactive monitoring or management of the risks may have enabled the Minister and DCITA to be better informed of the significant SBS scope changes/refinements. Table 2.4 details SBS benefiting by \$14.8 million from two reallocations of digital conversion funding within the project. SBS has taken DCITA's suggestion to approach the Minister to seek government approval to retain the first reallocation of \$4.8 million. In relation to the second reallocation of \$10 million, DCITA indicated to the ANAO its belief that Cabinet's decision did not require SBS to demonstrate that digital capital funding was applied to the specific equipment identified in the Strategies.

5.12 The ANAO considers that DCITA's latter comment means that SBS had the ability to transfer the \$10 million in distribution capital costs to the operating expenditure stream, without having to reduce the capital budget by a similar amount. The ANAO further considers that this undermines the Ministers' rationale for not scrutinising the broadcasters' digital capital costs. The Ministers' decision to no longer scrutinise the national broadcasters' digital capital costs was based, in part, on an independent assessment of the reasonableness of the broadcasters' capital conversion costs. The conclusion that costs were indeed reasonable took into account the fact that SBS had identified that a significant proportion of capital costs would be incurred in purchasing distribution equipment. Now that the funds formerly allocated to distribution equipment are to be spent on other capital components, it is unclear whether the consultant would have still considered SBS's overall capital costs to be reasonable. There would appear to have been a role here for DCITA to manage the risks to the Ministers' rationale for not scrutinising the broadcasters' digital capital costs.

5.13 The ANAO further considers that, relying on the ANAO's audit to review the digital conversion projects 'after the event', could not have replaced the value of DCITA monitoring the risks to minimise the call on the Budget as the national broadcasters' projects progressed. DCITA remains of the view that its level of oversight of the digitisation strategies has been appropriate and commensurate with its formal current relationship with the national broadcasters.

Generic performance information

5.14 With no established specific reporting or monitoring protocols, it can be argued that appropriate performance information on significant special funding initiatives should appear in agencies' annual reports. The ANAO's *Better Practice in Annual Performance Reporting* guide suggests that consultation and negotiation with agency stakeholders (on what is useful for them) is a mature approach to designing reporting information. Portfolio departments could then use the reporting information to monitor the relevant performance of the agencies. To this end, the ABC agreed to establish a new Outcome, Outcome 3, in the 2001–02 Budget. Outcome 3, which is related to ABC's digital television services, has its own output and performance information that is reported in the annual PBSs and annual reports. (DCITA indicated that a similar additional Outcome for digital funding for SBS would be considered in the forthcoming review of agency outcomes by Finance). Although this adds to the national broadcaster's accountability for transmission and distribution funding, it does not aid their accountability for the capital component of the Strategies.

5.15 DCITA indicated that past ABC annual reports discussed the digitisation process, although the ANAO noted that the latter ABC annual reports make very little mention of the digital conversion Strategies and the ABC's performance against them.

5.16 SBS annual reports have contained specific mention of digital conversion progress and activities, including key purchases, since 1998–99. Nevertheless, the ANAO suggests that agencies and their portfolio department should consider negotiating appropriate performance indicators consistent with better practice for every significant funding initiative. Agencies should then report regularly on their performance against such indicators while the initiative remains active. Ideally this would include reporting through annual reports to promote greater accountability for the expenditure of public funds.

5.17 DCITA indicated that this is a useful suggestion and that it has implemented similar requirements for subsequent national broadcasting funding initiatives. DCITA considers that existing oversight mechanisms should be fully explored before any consideration is given to developing additional oversight mechanisms. The ANAO agrees with DCITA's comment.

Canberra ACT
15 February 2005



P. J. Barrett
Auditor-General

Appendices

Appendix 1: Agency responses

Australian Broadcasting Corporation

The ABC believes that its digital broadcasting conversion program constitutes a significant achievement that strengthens the Corporation's long-term capacity to fulfil its legislative obligations to the community. As the ANAO report correctly acknowledges, the program has been one of the largest and most complex capital equipment projects ever undertaken by the ABC (paragraph 2.2).

The report attributes the ABC's efficient conversion process primarily to the value for money obtained on individual pieces of equipment and to the work of sub-project managers. It should be acknowledged, more explicitly, that these sub-projects were part of an integrated systems design approach to digital conversion. In order to meet effectively the Government's legislated requirements for digital broadcasting, the ABC had to convert the production/broadcasting chain: widescreen presentation capability; equipment to capture content in a digital format; studio production; editing, graphics and audio facilities; presentation and distribution facilities for putting programs to air; and archival facilities.

The audit team identified what it believed to be some gaps in the comprehensive documentation of the key project scoping decisions. But the report concludes 'that precisely defining the scope limits of the digital conversion projects is not important when it is considered in the context of the broader acquisition of digital technology' (that is, beyond the scope of the specific digital conversion funding program agreed between the ABC and the Government) (paragraph 2.121).

In response to initial ANAO comments, the ABC documented the linkages between higher-level project strategies and equipment sub-projects, drawing on a range of project planning, procurement and implementation reports. This documentation drew together, for the benefit of the audit team, the linkages that were clearly understood within the ABC. Significantly, on the basis of the ABC's documentation, the ANAO report concludes 'assurance that significant gaps in Strategy achievement are unlikely to exist'.

The ABC welcomes this comment. It reflects an understanding that the bulk of the digital conversion program was defined by the minimum physical requirements for infrastructure and equipment in key locations around Australia. In particular, the ABC needed the capability, in each capital city, to at least maintain the capacity to present daily and weekly television news and current affairs output. Overall, the scope of the project was to maintain the

level of capacity required to deliver existing analog programs and services in digital.

Support for the ABC's assertion that it undertook digital conversion not only efficiently but also effectively may be drawn from the detailed findings of the ANAO report.

Relevantly, the audit team acknowledges the ABC has adequately integrated digital conversion with other business planning (paragraph 22). It met legislated timeframes for the introduction of digital terrestrial television transmission, without any interruptions to service (paragraph 5), and later commenced to provide the requisite amount of High Definition transmission (paragraph 1.20). The audit team acknowledges the ABC increased the quality and timeliness of its broadcast material, as a result of the digitisation project; and improved the efficiency of content production through work practice changes (paragraph 5). It reports that technology users and managers are pleased with the new equipment, which delivers the functionality they expected; and that the ABC has used the productivity benefits of digital equipment to increase the quality and quantity of output (paragraph 31).

The report notes there are no 'obvious equipment excesses in the ABC' and that the Corporation undertook formal and informal quantitative studies to determine equipment requirements at each location (paragraph 2.120). It affirms that ABC procurement processes 'met better practice' (paragraph 28).

Together, these provide the most relevant performance indicators that the Corporation achieved its stated digital outcomes efficiently and effectively, consistent with its legislative duty to provide 'maximum benefit to the people of Australia' (s8, the *Australian Broadcasting Corporation Act 1983*).

The ABC draws attention to the very significant value for money achieved in relation to the total cost of achieving the original scope of the Corporation's digital conversion. In return for the Government's capital contribution of about \$90 million, it has achieved an efficient ABC digital conversion program to a total value of about \$225 million. Of the additional \$27.8 million budget for Phase One, \$18.7 million is for Outside Broadcast (OB) vans. Almost \$8 million related to the provision of vans in Canberra and Darwin, which had not been included in the original budget; and the remainder due to the increased cost of delivering in-scope equipment. It should be noted that the Australian currency experienced a depreciation of around 30% in relation to the US dollar during this critical period of equipment procurement from overseas manufacturers.

Financial Management – paragraphs 19, 2.43 and 2.55

The ABC has acknowledged certain deficiencies in high-level project management, between 2000 and early 2002, which were then rectified. Although these affected the timing of advice to the Board in relation to the proposed upward revision of the digital conversion budget by a total of \$27.8 million (which the Corporation had proposed to self-fund) the timing of advice in no way inhibited the Board's decision-making process. In fact, the Board had the same range of options open to it, irrespective of whether the matter had come before it at an earlier time.

The ANAO offers the opinion that ABC financial management reports (FMRs) should re-label project final forecast cost-to-complete information, which are currently labelled 'actual balance of project' (paragraph 2.55). In response to the comment that the current label is 'ambiguous in its meaning', the ABC expresses confidence that recipients of the FMRs – including Board Directors - understood clearly that they included final cost-to-complete forecasts.

Proceeds of Property Rationalisation - paragraphs 37 and 3.4

The ABC wishes to note the following in support of its assertion that any windfall gains above \$36 million from the disposal of properties are to be calculated in net rather than gross terms (ie allowing for legitimate costs of sale, calculated according to general accounting principles):

- All the Corporation's relevant financial models provided to the government since 1999 have been explicitly calculated in net terms. These models were provided in support of correspondence relating to government equity injections or debt arrangements
- The ABC's most recent annual financial statements, audited by the ANAO, confirm that \$6.5 million had been incurred as costs of sale of the Gore Hill property in Sydney as at 30 June 2004 (p134, *ABC Annual Report 2003–04*)
- Moreover, it should be acknowledged that there was a reasonable, foreseeable expectation that property disposal would incur substantial costs of sale; and that it would be usual, prudent business practice to account for these costs as part of the total transaction. The fact that DCITA has asked the ABC to itemise the costs it wished to include would appear to be an implicit acknowledgement of the reasonableness of the Corporation's assertion.

In 3.4, the ANAO observes that no timeframes were agreed to establish 'how long the government would allow the (funding) offset to include property

holding or sale costs under this arrangement'. It argues the issue is potentially significant because the sale costs the ABC may wish to offset from gross proceeds may run to millions of dollars and be ongoing for some time.

The ABC points out the importance of a consistent approach to the consideration of the funding model for digital conversion. The estimate of property proceeds constituted one line in a cash flow model, just as expenditure on digital Phase One constituted another. There was neither agreement with government on the timing of digital expenditure nor on how long the process of property rationalisation would take.

In each case, planning was based on the best assessment available at the time, in relation to timing, costs and market valuations. The ABC understood it was required to maximise the proceeds of property sales. Its capacity to do so depended both on the timing of operational relocations and market dynamics. As such, the ABC is of the view that its processes for property disposal, including the timelines, have served to maximise the proceeds of sale.

It is premature to conclude, as in the last sentence of paragraph 38, that the delay in completing the sale of the Adelaide Terrace property, in Perth, is 'adding to the costs for the ABC'. At the time of writing, the ABC is not in a position to know whether the outcome of the sale will result in higher or lower net profit.

Digital Transmission Funding (paragraph 43)

The ANAO's use of the word 'overpayment', in reference to budgeted payments made temporarily to the ABC in excess of the actual costs of transmitting digital broadcasts, ought not to suggest that the Corporation received any benefit.

The ABC receives digital transmission funding as one of three annual Appropriations from Parliament: 'Outcome One' Appropriation is operational funding, 'Outcome Two' is for the cost of analog transmission and 'Outcome Three' is for digital transmission. The separation of digital transmission from other Appropriations means the ABC cannot use the funding (or any consequent interest) for purposes other than the cost of digital transmission and distribution services.

Special Broadcasting Service Corporation

Overall Audit Conclusion

SBS agrees with the ANAO's overall conclusions that SBS has undertaken digital conversion efficiently, that SBS staff did a commendable job, and that

the digital conversion has met all of the legislative deadlines set by Government.

In respect to digital outcomes, SBS has achieved excellent results, as evidenced by the following:

- SBS is the only free-to-air television network in Australia running a digital multi-channel service. One of these channels, *The World News Channel*, features international news in 15 languages provided to SBS from their country of origin via satellite. It operates 24 hours a day.
- SBS was the first free-to-air network in Australia to concurrently simulcast the entire output of its main channel in high definition (using the 576p standard noted in our 1999 strategy). SBS has maximised its available spectrum by using statistical multiplexing in our digital play-out. In addition to our main channel, high definition channel and multi-channel, statistical multiplexing allows us to broadcast two SBS Radio channels and an electronic program and information guide. SBS is broadcasting more digital services than any other free-to-air broadcaster in the country.
- *SBS Essential*, our electronic program and information guide, is tightly integrated into the organisation's information technology local area network, ensuring that duplication in digital content creation is avoided at the production 'coal face'.
- In respect of the roll-out of digital television services, SBS delivered all of the requirements of the Government timetable for digitisation set out in the legislation. Initial digital television services to the five metropolitan markets was delivered by 1 January 2001 and DTV commenced in regional markets by 1 January 2004 as required by the Television Broadcasting Services (Digital Conversion) Act 1998. SBS has rolled-out 81 digital regional services to date. The procurement processes followed to arrange the digital services have ensured that the prices obtained have minimised calls on the Commonwealth Budget.

These outcomes were delivered efficiently and within the timeframe set out in the legislation for both metropolitan and regional markets, and well within the appropriation provided, thereby minimising the call on the Commonwealth Budget.

The overall tenor of the audit report is negative with a detailed focus on perceived problems with process issues, many of which are disputed by SBS.

This tenor has the effect of detracting from the recognition of SBS's achievement of the outcomes agreed with Government. SBS has efficiently and effectively managed the conversion to digital broadcasting, and this has been achieved in a context, acknowledged by the ANAO, as being arguably the largest and most complex capital equipment project undertaken by the national broadcasters.

SBS is continually examining its administrative processes to look for improvements and efficiencies. SBS has recently implemented the ANAO's suggestions for improvement with regards to project documentation and reporting.

The audit emphasis on process and documentation may have been warranted if the quality of the service had been poor or provided outside the timeframe and budget. This is clearly not the case given SBS's excellent digital service delivery which provides a comprehensive and high quality digital service to its viewers and listeners.

The SBS approach has always been to minimise the amount of funds requested from Government and to rely on the dedication and commitment of its staff to provide innovative and economic solutions to broadcasting issues. If SBS is to be compared to other broadcasters in relation to the digital conversion process undertaken, then there should be recognition given to the many outstanding achievements and outcomes of SBS digital conversion relative to the other broadcasters, not merely a comparison in one specific area. SBS considers that its digital broadcasting represents best practice in the Australian broadcasting industry.

To provide all the administrative requirements recommended by the ANAO in this audit, SBS would need to request additional administrative funds from Government. This additional requirement for project management funds will therefore be included in funding requests in future.

SBS COMMENTS ON KEY FINDINGS – PROCUREMENT OF DIGITAL EQUIPMENT

Project Management

Paragraph 12: SBS agrees that formal documentation of its project management processes could have been improved. But, as stated, it considers that the project management process has been thorough and effective.

Risk Management

Paragraph 17: The ANAO refers to (a) SBS's assessment of a "key man" risk in its Corporate Risk Management Plan (a risk which emerged in 2003–04), and also to (b) the findings of a consultant who was engaged by SBS to independently review the SBS technical infrastructure.

The 'key man' risk had been included in the SBS Risk Management Plan and there is documentation supporting the controls in place to minimise this risk throughout all areas of SBS's operations.

The consultant report referred to by the ANAO specifically relates to SBS Television operations and associated transmission risks, i.e. the normal daily running of the TV technical areas. This risk does not relate to the management of the digital conversion project itself. SBS always had highly qualified, experienced television engineers in place to back up the Chief Television Engineer's role in the digital conversion project. Therefore, SBS questions the validity of raising this point with such prominence in the Executive Summary.

SBS does not agree with the ANAO when it states in paragraph 15 that formal project risk management processes "*would have greatly assisted in the early identification of project management risks that subsequently emerged*". This clearly is not the case as there was no issue regarding the lack of back-up staff/engineers at SBS in relation to the digital conversion project.

Regardless, the outcome of the technical consultant's report was extremely positive for SBS and resulted in a restructure of the technical division coming into effect early in 2004. SBS considers that the appropriate use of the consultant to identify areas for improvement to be sound management practice and questions why the ANAO found it necessary to imply that major problems exist with this risk when SBS has clearly addressed it through normal and sound management measures.

The negative comments in relation to SBS's risk management are also puzzling as SBS was assessed in a different audit by the Business Support Process Branch of the ANAO, as recently as May 2004, to be 'better practice' in relation to its risk management processes.^[16] In addition, SBS has in the past 4 years been rated by Comcover, the government agency with responsibility for Risk Management, as being in the 'Advanced Implementation' category in its Risk Management processes.

¹⁶ The ANAO notes that the ANAO audit SBS refers to, Audit Report No.55 2003–04 *Management of Protective Security*, concentrated on security risk assessment and management information.

Financial Management

Paragraph 21: SBS provides comprehensive and detailed digital budgetary information to senior executives and the Board of SBS. The Executive receives monthly, quarterly and annual financial reporting of expenditure against budget in all digital categories. The Board receives regular budgetary and expenditure summary reports in relation to the Digital Conversion Project.

In previous years 'whole-of-project' assessments have been conducted but not formally documented as suggested in the recommendation. 'Whole-of-project' financial reports are now provided to the Board.

Needs Assessment and Procurement

Paragraph 25: SBS disagrees that it made significant scope changes/refinements early in the project's life. The principal reason for the ANAO's claim is that SBS incorporated, in its contract with the service provider, the ownership of the down-link satellite equipment. This was originally planned as a capital cost to SBS, but as a result of the change, it became a recurrent cost.

The requirement for this change was recognised and supported as appropriate by the technical consultant engaged by the ANAO to assess the SBS approach. The scope of the digital conversion project was always to provide satellite downlinks for digital services. The scope did not alter, only the means of delivering this requirement varied.

In respect of capital, the Government provided SBS with a set amount to achieve a digital infrastructure. It is not unusual that in a highly fluid environment of emerging digital technology there would be movement within and between the sub-categories used as a guide in the original digital capital estimates contained in the strategy developed five years previously. The SBS capital expenditure remains well within the funding provided and SBS does not intend to approach Government for further capital funds for the digital phase 2 conversion project.

Paragraph 30: SBS tested the market regularly to obtain up-to-date quotations, ensuring that it was receiving value for money. SBS takes great pride in its ability to negotiate the best possible price. The ANAO in fact acknowledges this, stating in paragraph 29 that SBS did attract significant discounts on the list price for the equipment.

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