Electronic procurement in the Victorian government

AUDITOR GENERAL
VICTORIA

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President
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MELBOURNE

The Hon. Judy Maddigan MP
Speaker
Legislative Assembly
Parliament House
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Under the provisions of section 16 of the *Audit Act* 1994, I transmit my performance audit report on *Electronic procurement in the Victorian government.*

Yours faithfully

J.W. CAMERON
Auditor-General

3 June 2003

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Foreword

In the late 1990s, the Victorian Government set out to encourage the uptake of e-commerce in the community. One such initiative centred around seeking further efficiencies in public sector procurement.

The planned introduction of e-procurement into the Victorian public sector was heralded as offering great potential savings. Not only in respect of the cost of purchases made, but in improving procurement practices and other business processes in agencies.

The realisation of the perceived benefits has been less than expected. The rate of implementation has been slow and challenges remain to encourage greater uptake so that the full potential of the vision can be realised.

This report provides a timely comment on progress achieved and identifies some barriers to further progress.

J.W. CAMERON
Auditor-General

3 June 2003

Part 1

Executive summary

INTRODUCTION

1.1   In 1996, the Victorian Government announced a leading edge initiative to put all government services, including electronic commerce, on-line by 2001. The announcement was made in an environment of significant reform, when there were high expectations of the pace of development of the electronic marketplace (e-marketplace) and of the benefits to be gained from it.

1.2   In 1998, the Electronic Commerce for Procurement (EC4P) Project was established, having been preceded in 1997 by work by the Victorian Government Procurement Board and the Department of Natural Resources and Environment to enhance and reform the Department's procurement and payments processes. After 2 years that saw progress under the Project mostly limited to developments within the Department of Natural Resources and Environment, the EC4P Project was re-launched in 2000. From that time, the Project was also required to encourage small-to-medium enterprises and regional and rural suppliers to become involved in the e-marketplace.

1.3   Electronic procurement (e-procurement) involves changing work practices and processes, and introducing new technologies, including:

- An e-procurement application, which allows a purchaser to look up items from an electronic catalogue and to create a requisition for those items;
- A workflow system that routes documents for authorisation, creates purchase orders and initiates payments; and
- An electronic catalogue that lists suppliers, the items they sell and price. In Victoria, some agencies have chosen not to establish a catalogue.

AUDIT OBJECTIVE AND SCOPE

1.4   The objective of the audit was to assess the efficiency and effectiveness of the planning and introduction of e-procurement in government agencies. The audit examined the achievements of the EC4P Project, and the management of key implementation and operational risks, and determined whether adequate plans and management structures are in place to ensure maximum benefits from e-procurement, and its sustainability and roll-out to the broader public sector.

1.5   The audit examined development and management at the whole-of-government (strategic) level by a central project team in the Department of Treasury and Finance. It also examined implementation of electronic procurement and its sustainability from a whole-of-government perspective, focusing on the Department of Education and Training, the former Department of Natural Resources and Environment (now the Department of Sustainability and Environment and the Department of Primary Industries but at the time of the audit, still sharing corporate services), and Victoria Police.

AUDIT CONCLUSION

1.6   Early public statements of the benefits from the introduction of e-procurement were overly optimistic, materially overstating the likely cost savings, and were based on inadequate business cases by participating agencies. In July 2000, the Government announced potential savings of between $60 million and $240 million per annum, or conservatively at least $12 million per annum, from introducing e-procurement across the 8 budget sector departments and Victoria Police. No evidence has been located to substantiate these estimates. In 2002, forecast cost savings were significantly reduced, as were the number of agencies involved. The Project is now expected to break even after 4 years and to provide savings of $11 million per annum from the 5th year.

1.7   The business cases prepared by agencies to justify the introduction of e-procurement were likely to have materially overestimated the financial benefits and contained conceptual flaws including treating expected productivity savings as if they were cash.

1.8   The Victorian government took a visionary path when committing to the introduction of e-procurement in Victorian government agencies. It sought to lead the Victorian economy to develop an e-marketplace. The e-marketplace remains in its infancy. To some extent, the EC4P Project was ahead of its time. In the longer-term, government agencies may find themselves well placed to respond to new developments in the e-marketplace. However, a less optimistic assessment of the business cases may have led to a different approach: smaller agencies may not have introduced e-procurement unless it was in the context of other IT and business improvement initiatives in their agencies, and the external catalogue may not have received the same level of support by agencies or interest from the catalogue service provider.

1.9   Agencies have taken the opportunity to streamline internal processes and improve workflow solutions. Consistent with the experience in other jurisdictions and in the public sector, most savings realised have come from this source. Apart from the Department of Natural Resources and Environment, agencies we examined are struggling to demonstrate financial benefits coming from increased price competitiveness from e-procurement.

1.10   Agencies must rightly comply with policies applying to all procurement, i.e. whether electronic or paper-based. However, there are now more overt tensions between government policies which require efficient and economic procurement and those which encourage small-to-medium and regional and rural suppliers to take up e-commerce. The upfront cost to most suppliers for participation in the Government's external electronic catalogue is currently met by agencies to varying degrees and supplier commitment is uncertain. This may affect the long-term future of the external catalogue.

1.11 The Project, viewed in its entirety, did not adequately address many key themes for ensuring successful government IT projects. While the key risks inherent in e-procurement are mostly being managed adequately, contractual risk is not. Legal advice from the Victorian Government Solicitor indicates that the service agreements between agencies and the service provider of the e-procurement systems do not sufficiently protect the agencies and the State in the event that the service provider fails to provide the agreed services, ceases operations or ceases to exist. This risk is compounded by the fact that due diligence checks of the service provider completed in 1999 were not re-performed prior to agencies signing their agreements in 2002 and 2003.

1.12 There are government-wide issues which need to be addressed: procurement policies must keep pace with developments in the e-marketplace (a responsibility of the Victorian Government Purchasing Board), agencies must be kept abreast of developments in e-procurement and e-government more generally (a responsibility of Multimedia Victoria), and the long term future of the external catalogue must be addressed by the Department of Treasury and Finance.

AUDIT FINDINGS

Progress and achievements of the EC4P Project

1.13 The expectations of the scope, savings and timelines for implementing e-procurement changed over time. Public announcements and information about the expectations of the Project were constantly changing. *(para. 3.2)*

1.14 At the end of February 2003, the revised expectations of the EC4P Project have been partially met. However, progress of implementation within agencies is substantially behind announced expectations. At this stage, the Department of Natural Resources and Environment is the only major user of the external catalogue. *(para. 3.4)*

1.15 No supporting evidence was available to substantiate savings of $150 million per annum advised to the Treasurer and the Minister for Finance in May 2000. The Department of Treasury and Finance was unable to explain why its advice to the Treasurer and the Minister differed from the result of the business case which showed savings of $65 million over 5 years. *(para. 3.7)*

1.16 The business cases were not consistent with some principles of the Department of Treasury and Finance's policy and guidelines, or accepted practice, and the templates and instructions provided to agencies by the Department contained conceptual errors. Agency business cases were inadequate as they included unexplained assumptions about agencies' purchasing patterns; treated productivity savings inconsistently; contained inconsistencies across agencies; made basic omissions; and overstated the effect that implementing e-procurement would have on financial operating performance of agencies in future years. *(para. 3.11)*

1.17 Many key themes for ensuring successful government IT projects, including ensuring the project is small enough to be managed, monitored and re-evaluated at key stages; using known technologies; ensuring compliance with best practice project management; managing knowledge prudently; and recruiting and retaining the staff necessary to deliver the Project, were not adequately addressed. *(para. 3.17)*

E-procurement: moving towards "business as usual"?

1.18 Legal advice obtained from the Victorian Government Solicitor indicates that none of the service agreements for the 3 agencies examined provide for payments to the service provider to be varied (reduced) whether for a lower than anticipated volume of services or sub-standard performance of services. In such an event, any variation would require mutual, voluntary agreement between an agency and the service provider. *(para. 4.8)*

1.19 Clauses in service agreements between the 3 agencies and the service provider, which related to performance guarantees, and financial undertakings were either waived, marked as "not applicable" or were not completed. Agencies and the central project team were unable to provide documentation to substantiate verbal legal advice provided during contract negotiations, which led to this action being taken. *(paras 4.11 and 4.12)*

1.20 Due diligence checks[1] undertaken during the process to select a Panel of service providers in 1999 were not updated prior to the Department of Education and Training and Victoria Police signing their service agreements, around 3 years after the initial checks were performed. This is imprudent given the rapid changes in the corporate structure of the IT industry in the intervening period. *(para. 4.13)*

1.21 The ability of agencies to require the service provider to provide performance guarantees and financial undertakings, under the service agreements, was affected by the failure of the central project team to provide the conditions of contract to tenderers during the request for tender stage of the Panel selection process. *(para. 4.15)*

1.22 Improvement in security and control over the external catalogue, including the ability of administrators of individual agency catalogues to access the catalogue information of other agencies, password security, and independent audit requirements are necessary. *(para. 4.17)*

1.23 The process of supplier engagement has been slow for 2 main reasons: agencies chose to address other aspects of e-procurement first, and suppliers have been less willing to participate than anticipated. *(para. 4.18)*

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[1] Due diligence is the process by which a purchaser or an investor investigates the records of another organisation to assess its value and to identify whether there are any circumstances that could impact on its viability.

1.24 Under a contractual arrangement between the Department of Natural Resources and Environment and the catalogue service provider, the Department is required to bear the suppliers' costs of data transformation and management for 2 years. Almost 80 per cent of suppliers surveyed who had joined the catalogue (28 suppliers of 35 surveyed) said that they would not remain on the catalogue if they had to bear the cost of its maintenance. In most cases this was because the business benefits were not being realised. *(para. 4.22)*

1.25 There is tension between policies aimed at encouraging business, particularly small-to-medium businesses and those in regional and rural areas to take up e-commerce and to access the government marketplace, and delivering efficient procurement. Best practice advice issued by the Department of Treasury and Finance that indicates that agencies should not routinely use electronic catalogues as the only means of identifying suppliers, adds to uncertainty, reduces the value to agencies of the catalogue, and may also undermine the longer-term viability of the catalogue from the perspective of the service provider. These tensions are currently impacting on the decisions being made within agencies about the future direction of their e-procurement development. *(paras 4.23 to 4.27)*

1.26 Several sites within the 3 agencies audited were visited to observe the e-procurement system being used. The system was being used to place purchase orders, approve purchases or pay invoices. The users reported satisfaction with most aspects of the system. *(para. 4.28)*

1.27 The EC4P Project Steering Committee and the central project team were wound-up in September 2002. Prior to this, the central project team developed a transition plan to assist agencies with implementing e-procurement post-September 2002. Departmental Secretaries are ultimately responsible for implementing e-procurement. However, there are some government-wide issues that need to be addressed: procurement policies must keep pace with developments in the e-marketplace, and agencies must be kept abreast of developments in e-procurement and e-government more generally. *(paras 4.39 and 4.40)*

1.28 The agencies audited have a vision for e-procurement and a phased approach for achieving that vision. Each of the agencies audited had a timetable for roll-out and a training and change management plan. They had an appropriate management structure that identified key players and their roles and responsibilities, and appropriate mechanisms for reporting progress achieved internally. *(para. 4.45)*

RECOMMENDATIONS

Paragraph number	Recommendation
Progress and achievements of the EC4P Project	
3.22	We recommend that the Department of Treasury and Finance ensure that future business cases:
	• adopt accepted business principles and comply with established guidelines; and
	• are completed at an early stage to enable them to be used to inform investment decisions.
3.23	We recommend that the Department of Treasury and Finance use best practice principles for large information technology projects in future and in its guidance.
3.24	We recommend that the Department of Treasury and Finance revisit the single supplier database to re-assess its relevance and whether it is likely to provide value-for-money.
E-procurement: moving towards "business as usual"?	
4.54	We recommend that the Department of Treasury and Finance:
	• work with the Victorian Government Purchasing Board to address the tensions between procurement policies, and between the policies and best practice advice, to provide a more workable environment for agencies and reduce barriers to supplier participation in the e-marketplace;
	• re-examine issues related to the catalogue, including its viability under the current arrangements and the requirement for interoperability, in the light of experience to date;
	• following re-assessment of the catalogue, and jointly with Multimedia Victoria, assist agencies to further develop strategies for growing the e-marketplace; and
	• review its contracts for information technology projects to ensure that they provide adequate protection to the State in the event of non-performance or failure of service providers.
4.55	We recommend that agencies:
	• review their implementation of e-procurement to assess achievements and the effectiveness of action to date, to inform the future approach to training and use of the e-procurement system, and the electronic catalogue;
	• periodically survey potential suppliers to determine reasons for non-participation in the e-marketplace, to assist development of a procurement strategy and refinement of supplier engagement strategies; and
	• establish a program of post-implementation follow-ups and periodic surveys of users to ensure that staff are using systems efficiently and effectively, and to inform the development of training and strategies for improvement.
4.56	We recommend that agencies ask the external catalogue provider to review the control weaknesses identified in this report and agree on a solution to minimise the risk of unauthorised access to data. Particular areas of focus should include:
	• enhancing catalogue administrator password configuration and logging mechanisms within the system; and
	• providing for a separate review of the controls in the electronic marketplace application to obtain assurance over its security and integrity.

RESPONSE *by Secretary, Department of Treasury and Finance*

Overall comments

The Department of Treasury and Finance believes that the EC4P model is a robust, open and flexible approach to the implementation of e-procurement in Victorian government departments. The Department is proud of its contribution to the success of the project to date.

The key features of the EC4P model are:

- *Devolved implementation within a consistent framework*

    The EC4P Project was a centrally co-ordinated whole-of-government initiative with departments responsible for their own e-procurement implementations within the context of a consistent model, strategy and objectives.

    This approach was adopted to provide a balance between the individual needs of departments and the requirement to meet government policies such as ease of access for all suppliers, particularly regional and small to medium enterprises. The goal was to ensure a consistent approach while avoiding a one-size-fits-all model which could hamper individual departmental procurement strategies.

- *Integrated procure-to-pay system*

    The solution is a procure-to-pay system which fully integrates with departmental financial management systems. This maximises cost-efficiencies and enables departments to leverage off existing financial systems and hardware.

- *Interoperability and the Australian Procurement and Construction Council*

    The EC4P Project is consistent with the Australian Procurement and Construction Council's "Government Framework for National Cooperation on Electronic Procurement". Both departments and the selected eCatalogue provider will adhere to the Council's interoperability requirements.

- *External catalogues*

    The EC4P solution is based on implementing externally-hosted catalogues. The management of internal catalogues is not a core government function, nor is it the most effective and efficient way to manage catalogue information. Interoperability can only be achieved with external catalogues.

The Project is currently in the early stages of the implementation phase within departments. Implementation requires significant re-engineering of purchasing processes, including a review of the approvals, requisitions, sourcing, training and payments associated with procurement practices. When fully rolled-out (over the next 2-3 years), EC4P will realise time and efficiency savings, reduction in procurement expenditure and reduction of "non-contract" purchases. This means departments will have reduced purchasing cycle times, streamlined and automated the purchasing process, and eradicated redundant processes.

Specific comments on matters raised by audit are provided later in this report.

RESPONSE *by Secretary, Department of Education and Training*

Overall comments

In November 2000, the Department of Education and Training commenced its E-Commerce project which included the Whole of Victorian Government (WofVG) E-Commerce for Procurement (EC4P) project as a key initiative within the project's scope.

The Department undertook extensive analysis of its requirements with regards to implementing an on-line procurement solution. Based on the standard methodology established by the WofVG EC4P Project within the Department of Treasury and Finance, the Department of Education and Training developed a business case that indicated that there was positive benefit in implementing an e-procurement solution within the Department.

RESPONSE *by Secretary, Department of Education and Training - continued*

The Department of Education and Training had set clear objectives with regards to the downsizing of its centralised Accounts Payable area which meant that the implementation of the EC4P solution within the Department initially focused on the deployment of the e-procurement workflow solution. Following full deployment of the e-procurement workflow solution, the Department will commence engaging its suppliers in the WofVG marketplace.

A pilot of the e-procurement solution was conducted from August 2002 to October 2002 at which point a staged roll-out to all Departmental business areas commenced. The Department has now fully deployed its e-procurement workflow solution and is achieving approximately 95 per cent of its expected transaction throughput through the system.

The Department has realised its key objective of reducing reliance on a centralised Accounts Payable area and has achieved a staff reduction in the area from 13 to 2 which is a direct cost benefit to the organisation.

Through post-implementation review sessions conducted with business areas, and in support of the review findings by the Auditor-General's audit process, there is a high level of satisfaction with the e-procurement solution across the Department's business areas with regards to the overall implementation and support of their business requirements.

The EC4P Project has met a number of key objectives and successfully effected a significant improvement in purchasing processing across the organisation in a short period of time. The implementation to date has laid the foundation for the Department to leverage further significant benefits as it moves forward with related e-commerce initiatives.

Specific comments on matters raised by audit are provided later in this report.

RESPONSE *by Secretary, Department of Infrastructure*

Overall comments

The Department of Infrastructure agrees with the majority of the audit conclusions, some of which formed the basis of the decision for the Department not to proceed with catalogue implementation at this point in time. With regards to the "inadequate business cases" that "materially overstated the likely cost savings", it should be noted that the Department (as one of the participating agencies), through <u>both</u> preliminary and final business cases, submitted a negative project net present value result. This meant the Department was not able to justify full catalogue implementation.

The following factors contributed to the negative business cases:

- *The purchasing profile of the Department where the benefits from catalogue purchasing are relatively minor;*

- *Maverick buying is not a significant issue for the Department;*

- *The Department has a very small centralised purchasing and accounts payable functions and significant savings are unlikely in this area;*

- *The prohibitive entry costs associated with a catalogue-based solution for a department with a relatively small Maintenance Repair and Operations budget in contrast with its large contractual service-based expenditure pattern; and*

- *Minimal savings can be identified as likely to arise from catalogue sourcing due to the existing use of contracts.*

This led to the decision to fully implement the purchasing workflow and electronic approvals system, in order to improve internal efficiencies (which have been achieved).

It is hoped that with the increasing usage and market maturity the implementation and ongoing costs will be reduced by the external catalogue provider in the future, which will allow the Department to participate in external catalogue procurement.

RESPONSE *by Secretary, Department of Primary Industries*

The Electronic Procurement Project of the former Department of Natural Resources and Environment is now provided as a shared service to both the Department of Primary Industries and the Department of Sustainability and Environment, by the Department of Primary Industries. The comments provided are responses to those parts of the performance audit specifically relating to the former Department of Natural Resources and Environment, and are consistent with the practice used in the performance audit where reference is made to the former Department of Natural Resources and Environment rather than the Department of Primary Industries and the Department of Sustainability and Environment.

These comments do not address aspects relating to the Whole of Government EC4P Project Management for which the former Department of Natural Resources and Environment was not responsible.

Specific comments on matters raised by audit are provided later in this report.

RESPONSE *by Deputy Commissioner, Victoria Police*

I have noted the contents of the audit report on "Electronic procurement in the Victorian government" which drew on examinations within our organisation and relevant research, information data and consultants. I appreciate the opportunity, on behalf of the Chief Commissioner, to reply and the following comments are in response to the findings contained within your review.

The audit report is perceived to focus its assessment on the central project team from the Department of Treasury and Finance, and the methods adopted in establishing and administering the project.

With regards to Victoria Police, there is nothing of an adverse nature that would give rise to alarm or concern. It is especially noted that there are numerous statements that affirm our initiatives in using the Electronic Commerce for Procurement Project (EC4P) to introduce a number of reforms and efficiencies into this department.

The recommendations made specifically to Victoria Police within the report are both positive and constructive, and it is intended to introduce such effective measures at the first opportunity.

The efforts of your audit staff are acknowledged.

Part 2

Background

INTRODUCTION

2.1   This audit examined the efficiency and effectiveness of the planning and introduction of electronic procurement (e-procurement) in Victorian government agencies, with a focus on:

- achievements of the Electronic Commerce for Procurement (EC4P) Project and key factors impacting on progress to date;

- the identification and management of key risks associated with the implementation and ongoing operations of e-procurement; and

- planning and management to ensure the sustainability and roll-out of e-procurement to the broader public sector.

2.2   The audit included examinations within:

- the Department of Treasury and Finance, the central agency responsible for co-ordination and management of the EC4P Project from a whole-of-government perspective; and

- 3 of the agencies in which e-procurement is in the process of being implemented, namely:

   - the Department of Natural Resources and Environment[1];

   - the Department of Education and Training; and

   - Victoria Police.

2.3   A description of the audit's objectives, scope and methodology is provided in Appendix A of this report.

WHAT IS ELECTRONIC PROCUREMENT?

Traditional procurement

2.4   Traditional procurement activities in government follow a typical process. Someone decides what to buy, identifies possible suppliers, chooses a supplier and creates a requisition. A manager approves the requisition, and a purchase order is printed and posted to the supplier. The supplier delivers the goods or services and sends an invoice. The invoice is approved for payment and processed in the financial management system, which then produces a cheque. A central finance unit then posts the cheque to the supplier by mail.

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[1] The former Department of Natural Resources and Environment was split into 2 separate entities on 9 December 2002. The entities are the Department of Sustainability and Environment and the Department of Primary Industries. However, during the course of this audit, the 2 entities continued to share corporate services including the e-procurement system. For the purposes of this report we have continued to refer to the Department of Natural Resources and Environment.

2.5 The traditional manual procurement process is time-consuming and resource-intensive, involves many steps, and requires re-processing of the same data several times.

Electronic procurement

2.6 Electronic procurement (e-procurement) is a tool used to procure goods and services by using computers to communicate electronically. This communication occurs both within the organisation making the purchase, and externally to suppliers and bankers.

2.7 Chart 2A depicts a high-level model of e-procurement.

**CHART 2A
A MODEL OF E-PROCUREMENT**

Purchaser	Manager	E-procurement system	Supplier
Looks up electronic catalogue		Provides information on suppliers and their goods and services	
Creates a requisition			
Sends requisition for approval			
	Approves requisition	Routes requisition to appropriate manager	
		Creates purchase order and sends to supplier	Receives purchase order
Records receipt of the goods or services			Delivers goods and services
		Records invoice information	Sends invoice to e-procurement system
		Matches purchase order to receipt and/or invoice, creates payment and sends to supplier	Receives money directly in bank account

Legend

------► Electronic communication of information

───────► Delivery of goods and services

Source: Victorian Auditor-General's Office.

2.8   The first step in any procurement process is to identify the source of the goods or services to be purchased, and then to choose a supplier. Traditionally, a printed catalogue, the telephone directory, a list of preferred suppliers, or other means is used to identify potential suppliers. In a public sector environment, this includes a public tender process to select a preferred supplier for goods and services, who then becomes a contracted supplier. In a typical e-procurement system, a purchaser has an additional tool from which to choose a supplier and the specific goods or services for purchase: an electronic catalogue that lists suppliers, the goods and services that they sell, and their prices. The nature and number of suppliers listed on an electronic catalogue depends upon the procurement policies or business rules established for that catalogue. For example, some catalogues list only pre-qualified suppliers, i.e. those that have been selected through a tender process and who are under contract as the sole supplier of certain goods and services. Other catalogues list an unlimited number of suppliers of various goods and services, and users of the catalogue are able to browse the catalogue to choose a supplier.

2.9   To create a requisition, a purchaser completes a form on his or her computer indicating what goods and services are required, either by choosing from the electronic catalogue, or by describing the items on the requisition form.

2.10   The purchaser sends the requisition electronically to a manager for approval. A computer system, known as a "workflow system", manages the routing of requisitions. The workflow system holds information about employees and their managers, so that it knows where to send the requisition for approval. It sends the manager an email or other electronic notification that a requisition is ready to be considered for approval, and once the manager approves the requisition, the workflow system creates a purchase order and automatically sends it electronically to the supplier.

2.11   When the supplier delivers the goods or services, the purchaser records in the computer system that the goods or services have arrived. This record is called the receipt of the goods or services.

2.12   The supplier sends the invoice electronically, in a format that can be imported directly into the organisation's financial management system. The purchasing system matches the purchase order with the receipt (and, if necessary, the invoice) electronically. This match causes the system to send payment direct to the supplier's bank account.

2.13   In e-procurement, all communication of information and money is electronic, and physical transfer of paper documents is made redundant.

Implementing e-procurement

2.14 Implementing e-procurement involves 2 separate, but related, activities:

- introducing new technologies; and
- changing work practices and processes.

Introducing new technologies

2.15 Implementation of an e-procurement system involves the introduction of 3 main technologies, i.e.:

- the e-procurement application, which allows a purchaser to look up items from an electronic catalogue, and to create a requisition for those items (in most cases, the purchaser also records the receipt of the goods or services in this application);
- the workflow system that routes documents for authorisation, creates purchase orders, and initiates payments; and
- the electronic catalogue that lists suppliers, the items they sell and prices.

2.16 In some systems, the first 2 elements of those technologies are combined in one application.

2.17 When implementing e-procurement, an organisation must choose where to store the electronic catalogue, and how it is to be maintained. The catalogue can be stored (or "hosted") on one of the organisation's own computers and maintained by its own staff. This is known as an internally-hosted, or internal, catalogue. Alternatively, an organisation can engage a third party to host and maintain the catalogue. This is known as an externally-hosted, or external, catalogue. Chart 2B shows the difference between an internal and external catalogue.

CHART 2B
INTERNAL AND EXTERNAL CATALOGUES
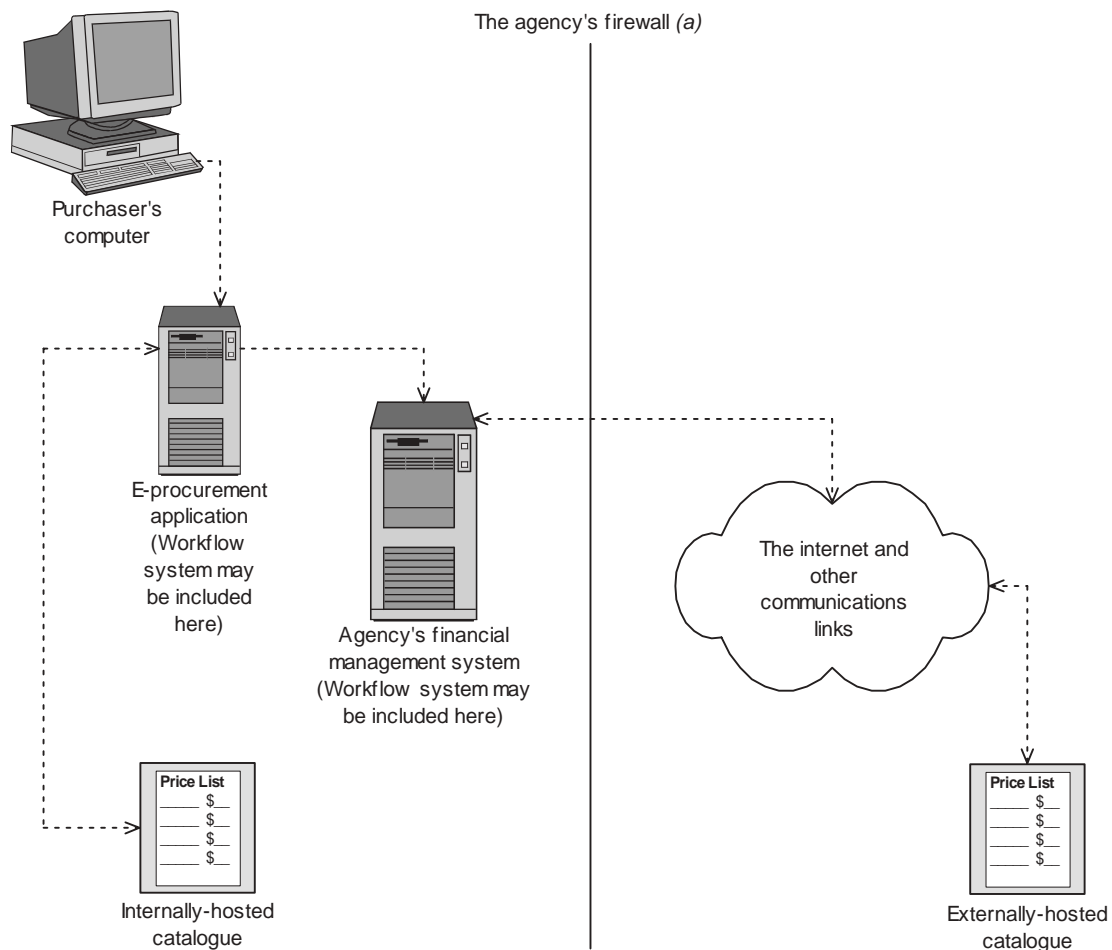
(a) A firewall is a barrier that exists between an organisation's computer system and the external world. A firewall exists to prevent unauthorised access to the organisation's system. A firewall may be constructed from hardware, software, or a combination of both.

Source: Victorian Auditor-General's Office.

Changing work practices and processes

2.18 E-procurement involves using new technologies, so implementing e-procurement requires a change to work practices and processes. An organisation must develop and deliver training programs to show employees how to use the technologies. The organisation must also develop business rules about when and how the new technologies are to be used, and train users in those business rules.

2.19 Most organisations that implement e-procurement systems take the opportunity, at the same time, to review (re-engineer) their processes and eliminate some processing steps to make procurement more efficient.

Potential benefits of e-procurement

2.20   Potential benefits of an e-procurement system are of 2 broad kinds:

- Process improvements that derive from the e-procurement application; and

- Expense reductions that derive from using an electronic catalogue.

**2.21**   These benefits are outlined further below.

Simplified processing

2.22   E-procurement simplifies processing of purchases. This may occur in 2 ways:

- Some centralised steps may be eliminated, e.g. if staff load invoice data from the suppliers directly into the financial management system, then it may be possible to reduce the size of the centralised accounts payable section, because less central processing is required. With a reduction in staff, such process improvements can lead to realisable savings; or

- Electronic transfer of information may reduce the time spent physically transferring paper-based requisitions and purchase orders, or transcribing information, therefore enabling staff throughout the organisation to do tasks faster. While they free up small amounts of an individual's time, these benefits do not generally result in realisable cash savings, i.e. they do not result in reductions in staff numbers.

2.23   An example where introduction of e-procurement has simplified processes is the Department of Natural Resources and Environment which has eliminated human involvement in 8 of the 15 steps in its procurement cycle, as shown in Chart 2C.

CHART 2C
THE IMPACT OF THE INTRODUCTION OF E-PROCUREMENT
ON THE PROCUREMENT CYCLE
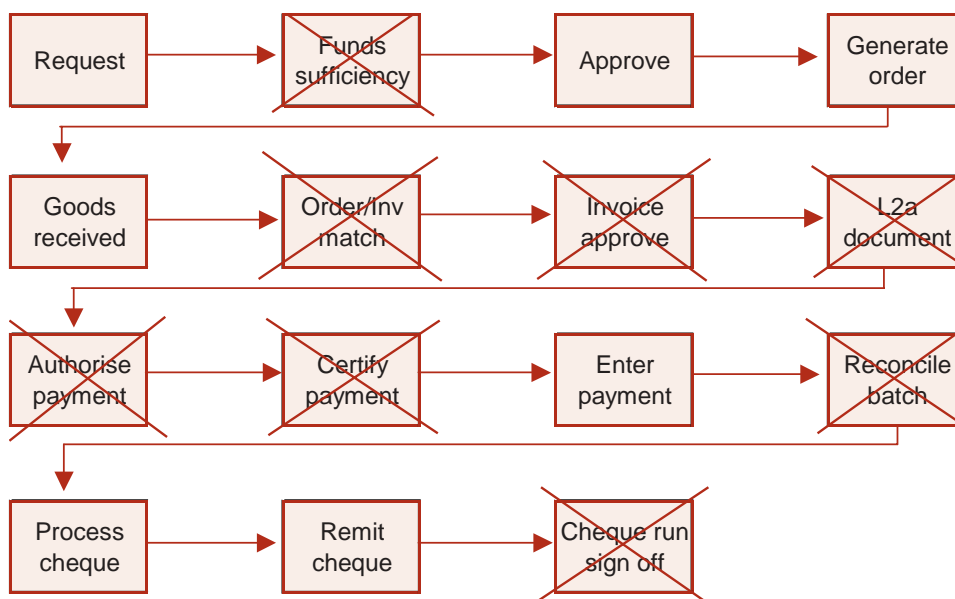
Source: Victorian Auditor-General's Office based on material provided by the Department of Natural Resources and Environment.

Fewer mistakes

2.24   E-procurement can lead to fewer processing mistakes as processes previously undertaken by staff may be processed within the computer, and data is communicated from one system to another electronically. Because data is not re-typed several times, keying errors are reduced.

Improved accountability

2.25   By requiring data to be entered electronically, e-procurement can establish or improve local financial accountability.

Faster purchasing

2.26   E-procurement speeds communication both within the organisation that is making the purchase, and between that organisation, its suppliers and bankers. For example, in a traditional procurement environment, a staff member within an organisation may use the internal mail or a fax to send a paper requisition to his or her manager for approval. This may take several days. In an e-procurement system, the requisition is available to the manager for approval immediately.

Reduced "maverick" buying

2.27   "Maverick" buying is off-contract buying. For example, an organisation may establish an agreement in which a supplier of goods and services offers lower prices in return for being the organisation's sole or preferred supplier. A "maverick" purchase occurs when an employee buys from a different supplier, possibly at higher prices.

2.28   E-procurement can reduce maverick buying and purchasing costs because the electronic catalogue may list only authorised suppliers.

Lower purchase costs

2.29   There are claims that e-procurement can reduce the cost of the purchases, in one of 3 ways:

- a supplier may reduce its prices in the belief that receiving orders and payments, and sending invoices electronically will reduce its own processing costs; or
- an organisation could aggregate its purchases, and receive volume discounts; or
- a purchaser may access an electronic catalogue to identify a broader range of suppliers than would be possible in a manual system and, therefore, negotiate lower prices because of the greater possible competition among suppliers.

2.30 The way in which an organisation reduces expenses through e-procurement can depend on how the electronic catalogue is used. For example, if the number of suppliers listed on the catalogue is restricted, an organisation could aggregate its purchases to achieve volume discounts. In this model, the organisation may obtain "value-for-money" through a tender process rather than through having many suppliers of the one product listed on the catalogue.

2.31 There are many anecdotal reports of e-procurement leading to lower purchase costs, but there is little independent empirical evidence to support the claim. The Department of Natural Resources and Environment has collected empirical data to support cost savings of $1.3 million from the introduction of e-procurement within that agency.

PROCUREMENT WITHIN THE VICTORIAN BUDGET SECTOR

2.32 Victorian government departments spend about $2.3 billion on goods and services annually[2]. About $1.2 billion is expenditure on maintenance, repairs and operations[3]. These goods and services include day-to-day operating expenses and fixed assets[4].

Government policy

2.33 Since the mid-1990s, successive governments have announced policies aimed at encouraging the take-up of electronic commerce in the public and private sectors, including:

- A policy announced in June 1997 to introduce electronic commerce throughout the public sector[5]. The government committed to having *"all purchases and payments by budget sector departments and agencies on-line by December 2001"*[6];

- *Connecting Victoria: The Victorian Government's Strategy for Information and Communications Technologies*, a strategy for developing the information and communications technology industries, with an emphasis on support for businesses in rural and regional Victoria[7]. The policy was announced in November 1999; and

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[2] Minister for Finance, *Government selects preferred eCatalogue provider*, Media Release, 7 December 2001.

[3] Department of Treasury and Finance, *Electronic Commerce for Procurement EC4P: Business Case*, version 4.3 (Final), p. 9, 17 May 2000.

[4] Department of Treasury and Finance, *Electronic Commerce for Procurement - Glossary of Terms*, 10 September 2001, http://www.ec4p.dtf.vic.gov.au accessed 4 March 2003.

[5] Multimedia Victoria, *Concept Paper: Best Practice Procurement and Payment Systems: A comparison between Corporate Resource Agency (CRA) and Department of Natural Resources and Environment (DNRE)*, Version 2.4, 11 September 1998.
http://www.egov.vic.gov.au/Victoria/ ElectronicProcurementPayments/NRE/bestprac.htm accessed September 2002.

[6] This commitment has been reported widely, for example in Victorian Government Purchasing Board, *Annual Report*, 1998-99, Features section.

[7] Minister for State and Regional Development, *Connecting Victoria: The Victorian Government's Strategy for Information and Communications Technologies*. Multimedia Victoria, November 1999.

- *Victoria's E-commerce Advantage*[8]*,* a policy announced in April 2001 to provide *"a framework for increasing e-commerce uptake"* in the private and public sectors.

2.34   In addition to the above polices which specifically promote electronic commerce, e-procurement in Victoria is subject to the same policies as apply to traditional procurement methods. Those policies established by the Victorian Government Purchasing Board (the Board), a statutory body established under the *Financial Management Act* 1994, apply to all budget sector departments, Victoria Police and the 9 administrative offices defined in the *Public Sector Management and Employment Act* 1998. The policies of the Board are aligned with the above government policies, e.g. in relation to encouraging take-up of e-commerce and supporting rural and regional Victoria.

THE VICTORIAN GOVERNMENT'S EC4P PROJECT

History and structure of the EC4P Project

2.35   In 1997, the Victorian Government Purchasing Board and the Department of Natural Resources and Environment initiated activity that led to the establishment of the Electronic Commerce for Procurement (EC4P) Project[9] in 1998. The Project aimed to have all budget sector departments using an e-commerce solution by the end of 2001. In early 1998, the Department of Natural Resources and Environment was the first agency to use e-procurement when it piloted a system in its Ballarat office.

2.36   In November 1998, a project team within the Department of Treasury and Finance was established along with a Steering Committee with representation from Multimedia Victoria, the Department of Treasury and Finance, and the Department of Natural Resources and Environment. A project strategy plan was developed by the central project team and was approved by the Steering Committee in August 2000.
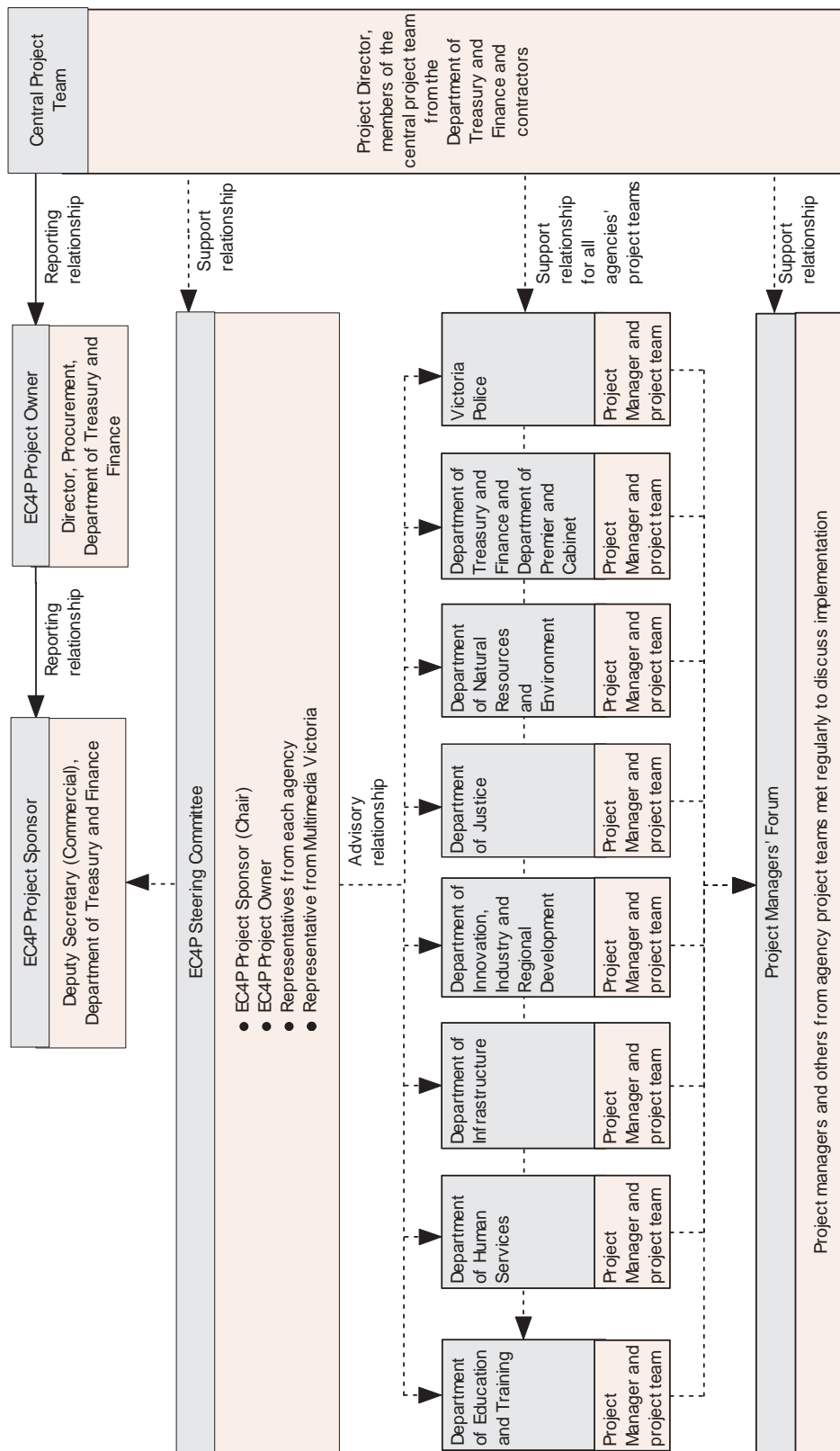
2.37   The structure of the EC4P Project changed over time. During its busiest period, from 2000 to 2002, the Project encompassed a number of simultaneous projects including a central project within the Department of Treasury and Finance and 8 individual projects covering the 8 budget sector departments and Victoria Police[10]. The structure and relationships between the entities involved in the EC4P Project are shown in Chart 2D.

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[8] Minister for State and Regional Development, *Victoria's E-commerce Advantage: Making e-commerce work for you.* Multimedia Victoria, April 2001.

[9] Victorian Government Purchasing Board, *Project Definition for the Electronic Commerce for Procurement Project for Victorian Government Departments*, v. 1.3, 9 November 1998. www.egov.vic.gov.au/pdfs/proj13.pdf accessed 5 March 2003.

[10] While 9 agencies were included under the EC4P Project, the Department of Treasury and Finance and the Department of Premier and Cabinet shared a project team, and so there were 8 agency projects teams in total.

CHART 2D
STRUCTURE AND RELATIONSHIPS FOR THE EC4P PROJECT

Central Project Team		
	Project Director, members of the central project team from the Department of Treasury and Finance and contractors	

Reporting relationship

Support relationship

Support relationship for all agencies' project teams

Support relationship

EC4P Project Owner
Director, Procurement, Department of Treasury and Finance

Reporting relationship

EC4P Project Sponsor
Deputy Secretary (Commercial), Department of Treasury and Finance

Reporting relationship

EC4P Steering Committee
- EC4P Project Sponsor (Chair)
- EC4P Project Owner
- Representatives from each agency
- Representative from Multimedia Victoria

Advisory relationship

Department of Education and Training	Department of Human Services	Department of Infrastructure	Department of Innovation, Industry and Regional Development	Department of Justice	Department of Natural Resources and Environment	Department of Treasury and Finance and Department of Premier and Cabinet	Victoria Police
Project Manager and project team	Project Manager and project team	Project Manager and project team	Project Manager and project team	Project Manager and project team	Project Manager and project team	Project Manager and project team	Project Manager and project team

Project Managers' Forum

Project managers and others from agency project teams met regularly to discuss implementation

	Entity

Source: Victorian Auditor-General's Office.

2.38   The Department of Treasury and Finance co-ordinated the EC4P Project and established a panel of service providers capable of providing e-procurement systems to the public sector. Each of the 8 budget sector departments and Victoria Police established its own project and was responsible for:

- choosing its own e-procurement service provider from the panel;
- implementing the e-procurement system it chose; and
- developing and implementing e-procurement within the agency which involved:
  - developing business and workflow rules;
  - reviewing, re-engineering and documenting processes;
  - nominating pilot sites and implementing new systems at those sites;
  - identifying training needs and organising training; and
  - managing implementation of the new systems and new work processes.

2.39   The central project team was wound-up in September 2002. At the time of preparing this report, the project teams in the departments and Victoria Police continue to develop and implement e-procurement.

Funding for the EC4P Project

2.40   In 2000, the Minister for Finance approved $14.5 million to be made available to fund budget sector departments and Victoria Police to implement e-procurement[11]. The agencies were to pay back that funding within 2 years of initial implementation.

2.41   This funding was available to agencies for:

- purchase, customisation and ongoing maintenance of the e-procurement system;
- contribution to the Department of Treasury and Finance in respect of the central project team's costs (the initial cost estimate was $234 688 per agency but was later reduced to $179 506);
- some implementation costs incurred within the agency; and
- funding of suppliers to join the electronic catalogue.

2.42   Although funding was available to each of the agencies that participated in the Project, only the Department of Human Services and Victoria Police sought such funding. Other agencies chose to fund their e-procurement systems from internal sources.

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[11] Department of Treasury and Finance, *Electronic Commerce for Procurement - Project Approval and Funding*, Ministerial Brief to the Treasurer and the Minister for Finance, reference T05264, 25 May 2000.

Previous reports by the Victorian Auditor-General's Office

2.43   As mentioned earlier, in 1998 the Department of Natural Resources and Environment introduced an e-procurement system to 1 500 staff. In our June 2000 *Report on Ministerial Portfolios*, we reported on that project, finding that the system was effective and had led to savings in processing costs.

2.44   The report observed that *"… the first year of implementation of [the Department of Natural Resources and Environment's] electronic procurement system has generated savings of more than $1.3 million. If these savings were extrapolated across all government departments, the total annual savings to the State would be more than $6.5 million"*[12].

THE EXPERIENCE OF E-PROCUREMENT IN OTHER LOCAL JURISDICTIONS

2.45   Government e-procurement systems are being implemented in most Australian States and Territories, and in New Zealand. The progress in these other jurisdictions ranges from the research stage through to live processing of procurement transactions. In jurisdictions where e-procurement has moved past the research phase, e-procurement forms a very small part of total government purchasing.

2.46   There is considerable variety in the way jurisdictions have addressed systems architecture. For example, the options chosen for cataloguing span the range of possible solutions, i.e. there are internal, external, government-hosted, contractor-hosted and private catalogues being used.

Australian Procurement and Construction Council

2.47   The Australian Procurement and Construction Council is the peak council of departments responsible for procurement and construction policy for the Commonwealth, State and Territory Governments. It reports to the Australian Procurement and Construction Ministerial Council comprised of Ministers with responsibility for procurement and construction policy[13].

2.48   In 1999, the Council co-ordinated the development of a national e-procurement framework, and updated the framework in *Government Framework for National Cooperation on Electronic Procurement* in June 2002[14]. Victoria has supported the national framework, and service providers appointed to the EC4P Panel were required to comply with the framework.

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[12] Victorian Auditor-General's Office, "Electronic Procurement within the Department of Natural Resources and Environment" in *Report on Ministerial Portfolios*, June 2000.

[13] Australian Procurement and Construction Council, www.apcc.gov.au/apcc/about-apcc/ accessed April 2003.

[14] Australian Procurement and Construction Council, *Government Framework for National Cooperation on Electronic Procurement*, June 2002.
http://www.apcc.gov.au/apcc/publications/publicationDetail.asp?Publication=1 accessed September 2002

Part 3

Progress and achievements of the EC4P Project

WHAT WERE THE EXPECTATIONS OF THE EC4P PROJECT AND WHAT HAS IT ACHIEVED?

3.1   Policy relating to e-procurement, particularly during the early years of its development, has largely been couched within government policy pronouncements relating to electronic commerce or e-government. Specific activity relating to e-procurement began in 1997 and the Electronic Commerce for Procurement (EC4P) Project was established in 1998.

Project expectations

3.2   The expectations of the scope, savings and timelines for implementing e-procurement changed over time. Public announcements and information about the expectations of the Project were constantly changing. Table 3A identifies some key announcements.

TABLE 3A
SAVINGS, SCOPE AND TIMELINES FOR DELIVERY OF E-PROCUREMENT
IN THE VICTORIAN PUBLIC SECTOR

Year	*Cost savings to be achieved, by when*	*Scope:* • *Who was to use e-procurement?* • *For what purchases?*
1998	• At least $100 million per annum • By December 2001	• Budget sector departments • For 40 per cent of transactions (and the transactions total $10 billion a year)
1999	• Savings not restated • By December 2001	• Budget sector departments and agencies • For all purchases and payments
2000	• $60-$240 million per annum • At least $12 million per annum	• All Victorian Government • For all purchases and payments (including grants)
June 2001	• Savings not restated • By June 2002	• All government departments • Full implementation of e-procurement
Late 2001	• Savings not restated • Pilot implementation by June 2002	• All departments and Victoria Police • Full roll-out to follow after the pilot phase
2002	• Breakeven after 4 years. From the 5th year, $11 million per annum	• 3 departments piloting e-procurement by June 2001 with the remainder of the implementation to be completed in future years • Low cost, high volume, purchases only

Source: Victorian Auditor-General's Office.

Project achievements

3.3 Table 3B, shows the achievements of the EC4P Project at February 2003, compared with the last announced expectations, i.e. those announced in 2002.

TABLE 3B
**ACHIEVEMENTS OF THE EC4P PROJECT AS AT FEBRUARY 2003 COMPARED WITH
EXPECTATIONS ANNOUNCED IN 2002**

Attribute	*Expectation*	*Actual achievement (a)*
Cost savings to be achieved	Breakeven after 4 years. From the 5th year, $11 million per annum *(b)*.	Savings to date have not been identified for the Project as a whole. The Department of Natural Resources and Environment has identified savings of $1.3 million and indicated that processing costs were reduced by 70 per cent.
Who was to use e-procurement?	3 departments piloting e-procurement by June 2001. The remainder of the implementation to be completed in future years.	One agency completed roll-out. Six agencies are piloting e-procurement. One agency has not begun its pilot.
For what?	Low cost, high volume, purchases only.	Generally, a small proportion of all purchases, covering a wide variety of types of purchases. For the Department of Natural Resources and Environment, over 98 per cent of the agency's transactions are done using e-commerce tools and covering the full range of transactions.

(a) Victorian Auditor-General's Office, based on survey of budget sector departments and Victoria Police, March 2003.

(b) Consolidation of agency final business cases Department of Treasury and Finance, *Electronic Commerce For Procurement—Project Outcomes and Status*, Ministerial Brief—Minister for Finance, Reference: MB B07844), 12 August 2002.

Source: Victorian Auditor-General's Office.

3.4 Table 3B shows that at the end of February 2003, the revised expectations of the EC4P Project have been partially met. Progress of implementation within agencies is substantially behind the announced expectations. Table 3C summarises this progress.

TABLE 3C
PROGRESS IN IMPLEMENTING E-PROCUREMENT, AT FEBRUARY 2003 *(a)*

Agency	E-procurement application and workflow		Electronic catalogue		
	Piloting	*Rolled-out*	*Piloting internally-hosted catalogue*	*Piloting externally-hosted catalogue*	*Externally-hosted catalogue rolled-out*
Department of Education and Training		✓	✓	✓	
Department of Human Services	✓			✓	
Department of Infrastructure *(b)*	✓		*(d)*	*(d)*	*(d)*
Department of Innovation, Industry and Regional Development *(c)*			*(d)*	*(d)*	*(d)*
Department of Justice	*(e)*✓				
Department of Natural Resources and Environment *(f)*		✓			✓
Department of Treasury and Finance and Department of Premier and Cabinet	✓		✓	✓	
Victoria Police	✓		✓		

(a) For the purposes of this table, "pilot" is defined as the use of the technology by a small number of people to process live (not test) transactions. "Rolled-out" means that all potential users in all relevant parts of the agency, are using the technology.

(b) The e-procurement activities of the newly created Department of Victorian Communities are currently managed by the Department of Infrastructure.

(c) The Department of Innovation, Industry and Regional Development took responsibility for the Department of Tourism, Sport and the Commonwealth Games in the EC4P Project.

(d) These departments made decisions not to implement an electronic catalogue.

(e) Workflow solution only. The Department of Justice is not using a separate e-procurement application.

(f) The e-procurement activities of the newly created Department of Sustainability and Environment and Department of Primary Industries are reported here under the Department of Natural Resources and Environment.

Source: Victorian Auditor-General's Office based on agency responses to a questionnaire relating to procurement activity in March 2003.

RESPONSE *by Secretary, Department of Infrastructure*

Table 3C states that the Department of Infrastructure has not rolled-out its e-procurement application and workflow. The Department believes that it has indeed rolled this out as all divisions are using Oracle Internet Procurement V5 (iP5) to raise purchase orders. While a few users in one division were yet to be trained at the time of the survey, the Department believes that it is definitely past the "piloting" stage as defined in the table.

RESPONSE *by Secretary, Department of Infrastructure - continued*

Note (b) in Table 3C states that "The e-procurement activities of the newly created Department of Victorian Communities are currently managed by the Department of Infrastructure". This should be amended to state that the Department of Infrastructure is only looking after the Local Government Division of the Department of Victorian Communities as an interim arrangement.

Quality of information for decision-making

3.5   In July 2000, the Minister for Finance announced that savings of between $60 million and $240 million per annum (5 to 20 per cent of materials, repairs and operations purchasing) were expected from the introduction of e-procurement to budget sector departments and Victoria Police. At the same time, the Minister announced that conservatively, savings would be at least $12 million per annum. Evidence to substantiate the size of the announced savings was unable to be identified.

3.6   An important aspect of the audit was to identify whether the expectations of the Project were supported by sound advice. However, advice provided at some key stages could not be substantiated.

Advice to ministers

3.7   In May 2000, the Department of Treasury and Finance provided a Ministerial Brief to the Treasurer and the Minister for Finance about the EC4P Project. The Brief sought approval of funding for the Project. The Brief estimated that introducing e-procurement would save $150 million per annum[1]. The Brief was accompanied by the Project's whole-of-government business case[2], which indicated that e-procurement would save the much lower amount of $65 million over 5 years. No supporting evidence was available to substantiate the savings of $150 million. The Department of Treasury and Finance was unable to explain why its advice to the Treasurer and the Minister differed from the result of the business case.

Business cases

3.8   To help determine how well-informed the decision-makers were, the business cases developed for the Project were reviewed against Department of Treasury and Finance guidelines[3] and accepted practice in financial analysis.

3.9   Two major financial analyses of the Project were examined, i.e.:

- The whole-of-government business case (referred to earlier); and

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[1] Department of Treasury and Finance, *Electronic Commerce for Procurement - Project Approval and Funding*, Ministerial Brief to the Treasurer and the Minister for Finance, reference T05264, 25 May 2000.

[2] Department of Treasury and Finance, *Electronic Commerce for Procurement EC4P: Business Case*. v. 4.3 (final), 17 May 2000.

[3] Department of Treasury and Finance, *The Investment Evaluation Policy and Guidelines*, 1996. While these guidelines relate to infrastructure investments, i.e. investments in infrastructure and capital assets, the preface to the guidelines states that "most guidance however applies to equally to the appraisal of any expenditure decisions".

- Final business cases prepared by agencies in 2002. These were based on a template and instructions provided by the Department of Treasury and Finance.

3.10 We also examined the consolidated summary of agencies' final business cases prepared by the Department of Treasury and Finance, for the Minister for Finance[4]. We did not examine preliminary business cases prepared by agencies.

3.11 The business cases examined were not consistent with some principles of the Department of Treasury and Finance's policy and guidelines, or accepted practice, and the templates and instructions provided by the Department of Treasury and Finance contained conceptual errors. Agencies used the templates to prepare the financial analyses in their final business cases and the business cases were inadequate. In particular, the business cases:

- Included unexplained assumptions about agencies' purchasing patterns, the proposed extent of use of e-procurement, the speed at which e-procurement would be taken up in the agency, the extent of improvement in data quality and the reduction in the need for maintenance. Each of these factors had a material effect on the financial analyses. The Department of Treasury and Finance explained that some assumptions were derived from anecdotal evidence from businesses in the information technology industry, and that each agency reviewed its financial systems and made informed decisions on what could be addressed through the catalogue or workflow improvements;

- Treated productivity savings inconsistently[5], e.g.:
    - In the summary of the financial analysis, the template treated non-cash productivity savings as if they were cash. This is a misuse of the analytical technique employed, which is designed to analyse cash; and
    - Some business cases provided the results of financial analyses, but went on to explain that the savings could not be realised;

- Contained inconsistencies across agencies, e.g.:
    - Some agencies included costs for training users, others did not;
    - The estimated cost of processing a transaction varied from $7 at one agency to $38 at another. While some variability is to be expected, this large difference was not explained; and
    - The proposed extent of the use of e-procurement after 5 years varied from 8 per cent of maintenance, repairs and operational purchases at one agency to 100 per cent at another. Again, while some variability is to be expected, this large difference was not explained;

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[4] Department of Treasury and Finance, *Electronic Commerce For Procurement - Project Outcomes & Status*, Ministerial Brief to Minister for Finance, reference B07844, 12 August 2002.

[5] Productivity savings were mostly notional calculations of saved time. They would not result in a reduction in the work force, and would not result in a cash saving. Rather, productivity savings would free-up staff time.

- Made basic omissions, e.g.:
  - In the case of one agency, adjustments were made to its business case following its decision not to proceed with the electronic catalogue. The adjustments removed all consultants' costs for implementation and all ongoing software licensing and maintenance costs, even though the e-procurement application and workflow were still to be implemented;
  - For most agencies, the business cases did not record cash outflows at the time they were to occur, but instead allocated them to future years, contrary to accepted practice and *The Investment Evaluation Policy and Guidelines* of the Department of Treasury and Finance;
  - Several business cases spread costs over 6 years, but calculated the final result by using only 5 years' data. They thus omitted approximately one-sixth of the total costs from the analysis; and
  - Business cases included the goods and services tax in the cash outflows, but did not show the input tax credit to be received from the Australian Taxation Office as a cash inflow; and
- Overstated the effect that implementing e-procurement would have on financial operating performance of agencies in future years. The cases omitted significant relevant expenses, e.g. some agencies omitted hardware or software upgrades, software licences or ongoing training. The cases assumed that unrealised productivity improvements would be reflected in financial operating statements as a real fall in expenses.

3.12   The above inadequacies are likely to mean that the calculations in the business cases resulted in an overstatement of the savings to be achieved from the introduction of e-procurement, and a material overestimation of the effect on the financial operating performance of agencies.

3.13   Business cases are normally used to decide whether to proceed with implementing a particular initiative. However:

- Several agencies had contracted with service providers to provide an e-procurement application or workflow solution and had proceeded with significant implementation of e-procurement before the business cases were prepared; and
- Some agencies advised that they used the business cases to decide whether to take up funding available from the Department of Treasury and Finance. This confuses the investing and funding decisions, contrary to the policy of the Department of Treasury and Finance[6]. The business cases were, therefore, used for the wrong purpose.

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[6] Department of Treasury and Finance, *The Investment Evaluation Policy and Guidelines*, 1996.

RESPONSE *by Deputy Secretary, Department of Treasury and Finance*

Para. 3.4

The Auditor-General states that the progress of implementation of EC4P in departments is behind "expectations". It does not appear that the Auditor-General's statement is based on an assessment of each department's progress against the timelines set in its implementation plans. Accordingly, the Department of Treasury and Finance believes the statement has not been substantiated.

Paras 3.7 to 3.10

The EC4P business case templates were developed in consultation with the Budget and Financial Management Division of the Department and in accordance with all relevant Department of Treasury and Finance policy and guidelines.

The report does not accurately describe the business case process. The stages were:

- *Whole-of-government business case – the purpose of this business case was to demonstrate the potential of the Project, to obtain approval to proceed to the next stage of assessment of its viability, and to obtain in-principle agreement that upfront funding would be made available as a loan to meet initial implementation costs. The focus at this stage was on demonstrating that the Project had a positive business case. The scale of the potential savings was canvassed (para. 3.7) but this was not relevant to the decision at this stage;*

- *Preliminary business cases were developed by each department to test the viability of the Project in that department, and to obtain agreement to proceed to the next stage of assessment of the Project; and*

- *Final business cases were developed by each department to establish accurate savings and costs figures so as to form the basis of each department's decision to commit to proceed with implementation of EC4P. The final business cases were also used as the basis for the Treasurer's approval of upfront funding where requested by a department. The key additional piece of information available for the final business case was the actual cost of workflow and catalogue solutions which were factored into the final business cases.*

Each of the final business cases was presented to the Minister for Finance for noting. Once all business cases had been noted, the Minister was presented with a status report on the outcomes of the EC4P Project. This report also included a summary of the final business cases.

Para. 3.11

The Department of Treasury and Finance reviewed each departmental business case and sometimes challenged assumptions made by departments, or the inclusion of out of scope costs.

Decisions on the contents of the final business case, the signing-off of the business case and commitment to proceed with implementation remained with the department. Any adjustments to business cases could only be made by the responsible department.

Para. 3.12

The Department of Treasury and Finance believes that departments adopted a conservative approach to the key drivers of the business case, e.g. percentage of routine purchasing which would be processed under EC4P. The Department has not seen any analysis which supports the Auditor-General's conclusion that it is "likely" that there was "an overstatement of the savings to be achieved".

RESPONSE by Secretary, Department of Education and Training

The Department of Education and Training utilised the business case cost matrix spreadsheet as provided by the Whole of Government EC4P Project Team as a standard tool to be adopted by all participating departments. From the outset, the Department recognised that the direct cost-benefits suggested by the spreadsheet could not be realised through the implementation of the EC4P solution. The Department clearly indicated this in Section 2.6 of its Final Business Case (dated July 2002):

> *"From the EC4P financial analysis, approximately half of the total gains identified are productivity gains for direct procurement activities. Under the Department of Education and Training structure, staff responsible for purchasing activities are also responsible for other corporate services and program activities. This model means there is limited capacity to identify positions dedicated solely to direct procurement activities. Consequently the realisation of these productivity gains through direct position shedding may not be viable and the productivity gains identified may not immediately translate into a direct cash benefit for the Department of Education and Training. Productivity gains are likely to be realised through targeting other value adding activities within the areas of corporate services and program area responsibility".*

KEY FACTORS AFFECTING PROGRESS OF THE EC4P PROJECT

3.14   The factors that have impacted on the progress of the EC4P Project to date were also examined. As shown in Chart 2D, the EC4P Project had a complex structure comprising a Steering Committee, a central project team and 8 project teams in agencies.

3.15   The following assessment relates mainly to the whole-of-government component (i.e. the EC4P Project Steering Committee and the central project team based at the Department of Treasury and Finance) and the Project as a whole, rather than the projects and project teams within the individual agencies, i.e. the 8 budget sector departments and Victoria Police.

3.16   Assessment of the factors that affected the EC4P Project was made with reference to themes identified by the Organisation for Economic Co-operation and Development (OECD) for ensuring successful government IT projects[7]. In making the assessment, it is recognised that the EC4P Project was not only an IT project; it was also an exercise in change management. This is the case in most large IT projects, where success or failure depends not only on the adequacy of the technological solution but also on the level of engagement of users of the technology. In this case the users are public servants who purchase goods and services, and suppliers who make those goods and services available in the marketplace. The following discussion recognises the change management strategies used by the central project team.

3.17   The themes, and our comments about the EC4P Project are presented in Table 3D. Further comments about the user take-up and supplier engagement are made in Part 4 of this report.

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[7] OECD, *The Hidden Threat to E-Government: Avoiding large government IT failures*, OECD Public Management Policy Brief No. 8, March 2001. The themes in the policy brief are based on the experiences from participants and country reports presented at a meeting on 26-27 October 2000. Representatives of 17 countries met at OECD headquarters in Paris to share experiences on managing large public IT projects. The meeting helped to define the problems and find possible solutions.

TABLE 3D
ASSESSMENT OF THE EC4P PROJECT
AGAINST THEMES FOR GETTING GOVERNMENT IT PROJECTS RIGHT

Theme/includes	Was the theme adequately addressed?	Audit comment
Establish appropriate governance structures Rapid policy change, higher standards of accountability and short deadlines are common-place in the public sector. These risks to the IT implementation project should be identified and managed.	Partially	Responsibility for the Project shifted between the Victorian Government Purchasing Board, Multimedia Victoria and the Department of Treasury and Finance. Eventually it found a home within the Procurement Branch of the Department of Treasury and Finance. During its 4-year life, the Project has had 2 governments, 6 ministers, 3 steering committees, 2 project owners and 4 project managers/directors. The Minister for Finance was the project sponsor. The departmental sponsor was in the Department of Treasury and Finance, with access to the Minister (and the Treasurer). However, there is little evidence of the Steering Committee approving Ministerial Briefs, communicating with the Minister about the Project, or being fully engaged in making strategic decisions. The Victorian Government Purchasing Board and Cabinet determined the policies relevant to e-procurement and mandated the need for agencies to complete business cases. As accountable officers under the *Financial Management Act* 1994, Departmental Secretaries are responsible for implementing the policies.
Think small Undertake projects that can be reasonably completed over 6 months, offer technical simplicity and have modest ambitions for business change.	No	The Project required a degree of change that could not be delivered over a short time frame. At the time of establishing the Project, e-procurement in the public sector was leading edge and largely untested. The move to introduce e-procurement to the Victorian public sector started in October 1997 when a Registration of Interest for service providers was published. The EC4P Project commenced in 1998. After 4 years, some agencies included in the Project have yet to begin a pilot of their e-procurement application. The Project was substantial and complex. It involved change to processes that manage up to 1.5 million transactions a year[8], involve 40 separate steps, over 7 000 users and 3 quite separate technologies (the e-procurement application, the workflow component and the electronic catalogue). While the Department of Natural Resources and Environment had undertaken a pilot, each agency had to find an e-procurement solution best suited to its own business.

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[8] Victorian Auditor-General's Office, derived from data presented by agencies in their final business cases of 2002.

TABLE 3D
ASSESSMENT OF THE EC4P PROJECT
AGAINST THEMES FOR GETTING GOVERNMENT IT PROJECTS RIGHT – *continued*

Theme/includes	Was the theme adequately addressed?	Audit comment
Identify and manage risks For risk identification programs to be effective, management needs to address problems immediately and thoroughly.	Partially	Discussion about risk identification and management is presented in Part 4 of this report.
Use known technologies Use known technologies rather than new technologies, and minimise customisation of standard software. If new technologies are unavoidable, a rigorous testing program should be undertaken prior to establishing an implementation contract.	Partially	Electronic catalogue technology in a web environment is relatively new, while workflow systems are mature technologies that have been used by large numbers of organisations for many years. While the EC4P Project's policy was that internally-hosted catalogues were not acceptable as a long-term strategy, 3 agencies are using them. Internally-hosted catalogues are older, and better-understood technology than externally-hosted catalogues. Agency project teams chose the same service provider and, therefore, reduced the immediate need for interoperability between catalogues in the Victorian public sector. Changes in technology that occurred during the period of the EC4P Project supported the implementation of e-procurement. The EC4P Project is following appropriate technical standards. The Department of Natural Resources and Environment tested its chosen product prior to implementation. A single supplier database being established by the Department of Treasury and Finance at a cost of $190 000, is designed to meet the requirements for "single sign-on" by suppliers[9]. EC4P Project agencies are expected to use the single supplier database but none have plans to do so. Other jurisdictions are expected to use the database. However, we were told that the last discussions with other jurisdictions about this matter took place in 2000.

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[9] The Australian Procurement and Construction Council's *Government Framework for National Cooperation on Electronic Procurement* requires that a supplier of goods and services through an electronic catalogue should be able to register its details with one agency, making that information available to all government agencies in those jurisdictions. This is known as a "single sign-on".

TABLE 3D
ASSESSMENT OF THE EC4P PROJECT
AGAINST THEMES FOR GETTING GOVERNMENT IT PROJECTS RIGHT *– continued*

Theme/includes	Was the theme adequately addressed?	Audit comment
Hold business managers accountable IT system implementations must be led by senior management and not IT experts. Senior management leadership, responsibility and accountability are critical to the success of an IT project. In planning the project it is necessary to identify who will be held accountable for delivery, and when performance will be measured.	Yes.	Each agency was required to sign-off on its business case, thereby committing the agency to implement e-procurement to the extent identified in the business case. Under Victorian Government Purchasing Board requirements, Accredited Purchasing Units within each agency must report to the Board annually about the extent of implementation of e-procurement within the agency and compliance with Board procurement policy. The central project team developed a post-implementation review template to assist evaluation of project success.
Ensure compliance with best practice for project management	No	The outcomes and deliverables and project team responsibilities for the Project were articulated in the EC4P Project Strategy Plan but changed over time and were not clearly defined, making it difficult to assess achievements. Generally accepted definitions of the terms "pilot" and "implementation" were not applicable. Project reporting did not clearly, or accurately, convey actual progress achieved. The central project team received training in project management to assist it to manage the project. A full-time project manager was not appointed until December 1999, more than a year after the Project was established. A full-time project director was not appointed to the project until February 2001, some 3 years after commencement of the Project. Other than a mandate to prepare business cases, the central project team could not direct specific action to be taken by agency project teams. The team considered it had the responsibility to co-ordinate and facilitate activities of the agencies only. It used the Steering Committee (multi-agency representation and sign-off on decisions) and the business cases as tools to get agency "buy-in" to the Project and to transfer responsibility. When delays were impacting on the ability to meet Project deliverables, it is unknown why the Steering Committee and central project team did not escalate matters to speed up the process.

TABLE 3D
ASSESSMENT OF THE EC4P PROJECT
AGAINST THEMES FOR GETTING GOVERNMENT IT PROJECTS RIGHT – *continued*

Theme/includes	Was the theme adequately addressed?	Audit comment
Recruit and retain talent Frequently, the public sector has a lack of relevant IT skills, creating a high level of reliance on contractors.	Partially	The EC4P Project was a significant undertaking, requiring skills in process design, financial management systems and information technology. Because of the new technologies and processes involved with introducing e-procurement, the staff working on the Project (including the central project team members) were learning as it proceeded. However, because of high turnover of personnel, the Project was unable to rely on that learning and momentum was lost. The Project retained one consultancy firm from 1998 to 2002 to staff the central project team. This brought some continuity and stability to the Project. The engagement of a project director in 2001 provided valuable project management expertise to the central project team.
Prudently manage knowledge Knowledge management initiatives include training staff, arranging seminars, and collecting and managing IT-related information in databases.	No	The central project team established a public website to disseminate information to agencies and other jurisdictions. The team also produced brochures, annual reports and other publications to communicate information about the EC4P Project. However, that information was not always disseminated, e.g.: - Original government policy for e-commerce was for all departments and agencies to make all purchases on-line by December 2001 (extended to June 2002). The EC4P Project's objectives were narrower; budget sector departments and Victoria Police would make all materials, repairs and operations purchases on-line by June 2002. In March 2001, the EC4P Steering Committee was informed that it was unlikely that all the project's objectives would be achieved on time[10] but did not appear to communicate this to the Minister; and - The Department of Treasury and Finance continued to inform the public and suppliers that all departments were required to carry out purchasing by electronic means by December 2001 and implement full electronic purchasing (including catalogue sourcing) by 30 June 2002[11]. The central project team established several groups, including the Project Managers' Forum to share information and co-ordinate development of their e-procurement systems.

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[10] *EC4P Status Report 23 March 2001*, tabled at the meeting of the EC4P Steering Committee of 28 March 2001 and *EC4P Status Report 12 April 200*1, tabled at the meeting of the EC4P Steering Committee of 18 April 2001.

TABLE 3D
ASSESSMENT OF THE EC4P PROJECT
AGAINST THEMES FOR GETTING GOVERNMENT IT PROJECTS RIGHT *– continued*

Theme/includes	Was the theme adequately addressed?	Audit comment
Establish an environment of trust with private vendors This could involve offering rewards for good performance such as bonuses rather than just focusing on penalties for poor performance. It also involves partnering and sharing an agency's vision and objectives in relation to the project with vendors so that they have a better understanding of the business requirements.	Yes	Some agencies contracted with a service provider to provide all 3 e-procurement technologies. Others have purchased their e-procurement application and workflow system from one provider and the electronic catalogue from another. Agencies are, therefore, dependent both on the service providers, and on the co-operation between providers. The Department of Natural Resources and Environment has worked to establish an environment of trust with the service provider. Re-negotiations of contract payments, and performance monitoring practices adopted by the Department, were designed to ensure good relationships with the service provider. The contract management practices at Victoria Police and the Department of Education and Training were not examined as neither agency had advanced to this stage at the time of the audit.
Involve end-users	Yes	The central project team included agency project teams in decision-making and used the business cases as tools to get agency "buy-in" to the Project. The Department of Education and Training conducted a pilot with end-users to check the effectiveness of training sessions under development. The Department of Natural Resources and Environment's Electronic Commerce Champions Group, a group of key users, trains other end-users in using the products, and was invited to help devise a functionality "wish list" to be considered for future development or upgrades; and to organise and undertake user acceptance testing for new versions and new products. Further comments about how the agencies involved suppliers and users in developing their e-procurement solutions are presented in Part 4 of this report.

Source: Victorian Auditor-General's Office.

RESPONSE *by Deputy Secretary, Department of Treasury and Finance*

Para. 3.17

The Department briefed the Minister fully on all EC4P matters, both verbally and in formal briefs. It was the responsibility of the Project Sponsor not the role of the EC4P Steering Committee to communicate directly to the Minister. This reporting line is shown in the project reporting structure in Chart 2D.

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[11] www.vgpb.vic.gov.au/polguid/polC9.htm accessed 11 September 2002.

RESPONSE *by Secretary, Department of Primary Industries*

> *Para. 3.16*

> *The Department of Primary Industries does not accept that the principles used by the performance audit, based on the OECD Policy Paper for IT projects, are those on which the project should be judged.*

> *The Department of Natural Resources and Environment's vision was to reform business practices and implement systems to improve procurement, provide savings, improve compliance and meet business needs. This was seen as a procurement and change management project, not an IT project. The project successfully met milestones and achieved significant benefits.*

FURTHER AUDIT COMMENT

> *As stated in para. 3.16, "the EC4P Project was not only an IT project, it was also an exercise in change management".*

CONCLUSION AND RECOMMENDATIONS

3.18   Early public statements of the benefits from the introduction of e-procurement were overly-optimistic, materially overstated the likely cost savings and were based on inadequate business cases. In May 2000, the Treasurer and the Minister for Finance were advised by the Department of Treasury and Finance of savings in the vicinity of $150 million per annum. Subsequently, in July 2000, the Government announced potential savings of between $60 million and $240 million per annum, or at least $12 million per annum, from introducing e-procurement across the 8 departments and Victoria Police. No evidence has been located to substantiate these estimates. The only savings supported by documentation was the estimate of $65 million over 5 years identified in the problematic business case that accompanied the advice to the Ministers in May 2000.

3.19   Since that time, forecast cost savings have been significantly reduced, as have the number of agencies involved. The Project is now expected to break even after 4 years and to provide savings of $11 million per annum from the 5th year.

3.20   The 8 departments and Victoria Police each prepared an agency business case to support the introduction of e-procurement. However, the business cases, which used a format and methodology prepared for the central project team by a private consultant contained conceptual errors, treating productivity savings as if they were savings of cash and failing to explain the assumptions made. In our opinion, the business cases were likely to have materially overestimated the financial benefits to be achieved from e-procurement.

3.21   The Project, viewed in its entirety, did not adequately address many key themes for ensuring successful government IT projects, including the project was small enough to be managed, monitored and re-evaluated at key stages; using known technologies; ensuring compliance with best practice project management; managing knowledge prudently; and recruiting and retaining the staff necessary to deliver the Project.

Recommendations

3.22   We recommend that the Department of Treasury and Finance ensure that future business cases:

- adopt accepted business principles and comply with established guidelines; and
- are completed at an early stage to enable them to be used to inform investment decisions.

3.23   We recommend that the Department of Treasury and Finance use best practice principles for large information technology projects in future and in its guidance.

3.24   We recommend that the Department of Treasury and Finance revisit the single supplier database to re-assess its relevance and whether it is likely to provide value-for-money.

RESPONSE *by Deputy Secretary, Department of Treasury and Finance*

Para. 3.22

The Department of Treasury and Finance notes both parts of the recommendation.

The business cases developed as part of the EC4P Project adopted accepted business principles and complied with all relevant guidelines. The Department of Treasury and Finance agrees that this is essential for future projects.

Departments used the final business cases as the basis for decisions on whether to proceed to implementation stage.

Para. 3.23

The Department of Treasury and Finance notes the recommendation. The Department agrees that a strong project management methodology should be used for all projects. The Department's central project team was trained in the Anassis project management methodology. The team used this training and the best practice principles therein to develop its Project Strategy Plan. The team used this methodology to clearly set out the Project's scope, milestones and deliverables.

A key element of the Plan was the development of a Communication Plan and Strategy which identified communication activities pertinent to each stakeholder and supported the dissemination of information and guidance material about EC4P through the purpose-built web-based information repository.

Para. 3.24

The Department of Treasury and Finance does not agree with the recommendation. The report does not explain the basis for this recommendation. The Department of Treasury and Finance believes that the Supplier Database is integral to the flexibility of the EC4P model. The Supplier Database allows the government to retain core information about suppliers so that departments can more easily change to a new eCatalogue provider or providers if they wish to do so.

E-procurement: Moving towards "business as usual"?

INTRODUCTION

4.1   As Part 3 of this report indicated, e-procurement is still in its infancy in many of the agencies involved in the Electronic Commerce for Procurement (EC4P) Project. Over time, it is expected that e-procurement will become fully integrated into the way the public sector goes about its everyday business, as already happens in the Department of Natural Resources and Environment. However, this stage is some way off. If e-procurement is to continue to develop and be taken up by agencies, it is important that:

- risks are appropriately identified and managed; and

- strategies are in place within agencies to encourage and manage the changes necessary for its sustainability.

RISK IDENTIFICATION, ANALYSIS AND TREATMENT

4.2   Risk management provides a structured way of assessing and dealing with future uncertainty and can lead to more effective and efficient decisions, greater certainty about outcomes and reduced risk exposures. This Part of the report assesses how well the central project team and selected departments identified and managed risks. In making the assessment, we were guided by the approach of the Australian Standard on risk management[1] that provides for risks to be identified, analysed and treated.

4.3   The following risk categories were identified by the audit as relevant to the establishment and ongoing operation of electronic procurement in the Victorian public sector. The key risk categories are:

- business and technical architecture[2], i.e. the risk that architecture fails to meet the business requirements of an organisation and is not secure, reliable or flexible;

- business process re-engineering, i.e. the risk that agencies in introducing e-procurement might not take the opportunity to streamline their business processes and might choose to simply automate existing processes;

- choosing a service provider, i.e. the risk that the most appropriate service provider is not selected;

- contractual agreements, i.e. the risk that the contractual agreements between agencies and the provider of the e-procurement systems fail to protect the interests of the State;

- security of data in the external electronic catalogue, i.e. the risk that data on the catalogue can be accessed and changed by unauthorised persons, and arrangements for audit of data are inadequate;

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[1] Standards Australia, *Risk Management, AS/NZS 4360:1999.*

[2] The architecture of a system consists of the software, hardware, data and networks utilised, as well as the layout and linkages between them.

- supplier engagement and participation, i.e. the risk that suppliers will choose not to enter the electronic marketplace (e-marketplace);

- user acceptance, i.e. the risk that staff in agencies may choose not to use the e-procurement system; and

- project continuity, i.e. the risk, that following the wind-up of the central project team, agencies will not have adequate support to ensure the continuation of introduction of e-procurement and the investment to date will be lost.

4.4   The central project team and the 3 agencies examined had identified key risks to the Government and to the individual agencies. Table 4A provides a summary of the assessment of the results of action taken by the central project team and the agencies examined to mitigate the key risks.

TABLE 4A
HAS ACTION TAKEN MITIGATED THE RISK?

We expected to see:	Whole-of-government	Department of Natural Resources and Environment	Department of Education and Training	Victoria Police
Appropriate business and technical infrastructure	J	J	J	J
Some business process re-engineering	n.a.	J	J	J
Appropriate choice of service provider *(a)*	J	J	J	J
Contractual agreements that protect the State's interests	I	I	I	I
Effective security over data in the external electronic catalogue	m	m	*(b)* n.a.	*(b)* n.a.
High levels of supplier participation	I	m	*(b)* n.a.	*(b)* n.a.
High levels of user acceptance	n.a.	J	J	m
Project continuity	m	J	m	m

Legend: I = inadequate action taken to mitigate risks

J = adequate action taken to mitigate risks

m = some improvement needed

n.a.= not applicable

(a) We assessed how agencies selected the provider of their e-procurement systems from the Panel of service providers that had been established through a tender process in April 2000. We did not assess the process of establishing the Panel.

(b) Neither the Department of Education and Training or Victoria Police were making purchases through the external electronic catalogue during the period of the audit.

Source: Victorian Auditor-General's Office.

4.5   Table 4A shows that many of the risk categories had been adequately addressed. Specific comments about the areas where the risk had not been adequately mitigated follow.

Contractual agreements

4.6   The contractual agreements with the service provider of the e-procurement system[3] comprise:

- An agreement (the Head Agreement) which appointed the service provider to the whole-of-government Panel of Service Providers (the Head Agreement expired in March 2003); and

- Individual service agreements between each agency and its chosen service provider. The service agreements were based on a pro-forma service agreement provided in the Head Agreement.

4.7   The Head Agreement, and the service agreements for each of the 3 agencies[4] were examined. Greater attention should have been given to:

- linking contract payments to performance; and

- providing performance guarantees and financial undertakings.

Linking contract payments to performance

4.8   Legal advice obtained from the Victorian Government Solicitor indicates that none of the service agreements for the 3 agencies examined provide for payments to the service provider to be varied (reduced) whether for a lower than anticipated volume of services or sub-standard performance of services. In such an event, any variation would ultimately be the result of mutual, voluntary agreement between an agency and the service provider.

4.9   The Department of Natural Resources and Environment re-negotiated its agreement with the service provider in August 2002, resulting in a reduction in the supplier engagement targets[5]. In addition, the Department negotiated significant benefits including a reduction in the contract cost and a 12-month extension in supplier contracts at no cost. The service provider advised that the cost reduction was to align payments under this agreement with those applicable to other agencies that had subsequently contracted with the service provider. In return, it was agreed that there would be no penalty to the service provider if the revised targets were not met.

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[3] The systems include software, workflow solutions (i.e. the software to route documents such as purchase requisitions for approval) and may include an electronic catalogue for listing suppliers of goods and services. Each agency has its own e-procurement system incorporating some or all of these components, depending on what is considered the best solution for the agency.

[4] In the case of Victoria Police, the agreement was still at the draft stage.

[5] As introduction of e-procurement within the Department of Natural Resources and Environment occurred much earlier than in other agencies, the Department's service agreement was developed at a time when e-procurement was relatively new to the public sector and the viability of the market had not been tested. In this environment, the level of supplier interest in participating in the e-marketplace was difficult to gauge at the time the agreement was established.

Providing performance guarantees and financial undertakings

4.10 Performance guarantees, and financial undertakings in contracts are designed to protect a purchaser in the event of the non-performance or collapse of the service provider. Where goods and services to be provided are highly specialised, require significant outlays of money for development, or are not easily transferable to, or sourced from, another provider, these contractual provisions are particularly valuable. While their inclusion in an agreement can add to the contract price, their exclusion should occur only after careful consideration of the risks involved.

4.11 The service agreements for the agencies audited:

- either waived the performance guarantee or marked the related schedule as "not applicable"; and

- either failed to complete the schedule of financial undertakings or marked it "not applicable".

4.12 Agencies advised that they acted on legal advice. The central project team members confirmed that verbal legal advice was provided during the contract negotiations, and was passed on to the agencies who made their own decisions. However, the central project team and the 3 agencies audited were unable to provide documentation to substantiate this claim.

4.13 There have recently been some spectacular failures of large multi-national companies, in many cases as a result of failures in corporate governance. While business failures are not new, the recent experience serves to underline the importance of appropriate checks prior to forming important alliances or making significant investments. All members of the Panel of service providers underwent due diligence checks[6] during the Panel selection process in 1999. However, those checks were not updated prior to 2 agencies signing their service agreements, around 3 years after the initial checks were performed[7]. It would have been prudent to renew the due diligence checks before the service agreements were signed, particularly given the rapid changes in the corporate structure of the IT industry in the intervening period. Indeed, during the period of this audit, the service provider of the e-procurement system has gone through a number of changes in name, and given its changed shareholder backing, is quite a different entity today, than when appointed to the Panel in 2000.

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[6] Due diligence is the process by which a purchaser or an investor investigates the records of another organisation to assess its value and to identify whether there are any circumstances that could impact on its viability.

[7] The Department of Natural Resources and Environment entered into a contract with the service provider in May 2000, within a reasonable period of the initial due diligence checks being performed.

4.14 Legal advice provided to audit by the Victorian Government Solicitor indicated that, in the absence of any concerns about the financial viability of the service provider or its capacity to perform the services, there would not have been any ascertained risk that a financial undertaking or a performance guarantee would have ameliorated. The advice indicated that a due diligence process conducted as part of the agencies' request for quote process would have served to ascertain whether such a risk existed.

4.15 Our legal advice pointed out that the ability of agencies to require the service provider to provide performance guarantees and financial undertakings under the service agreements, was affected by the failure to provide the conditions of contract to tenderers during the request for tender stage of the Panel selection process.

> **RESPONSE** *by Deputy Secretary, Department of Treasury and Finance*
>
> *The initial EC4P panel was established in March 2000. Appointment to the panel was subject to a favourable due diligence check performed on each panelist. The State issued a Request for Quote to the panel in October 2001 for a single eCatalogue provider. A cross-government evaluation team made a selection for a preferred provider in December 2001. As part of the evaluation process, the team chose not to pursue due diligence checks on each panel member. Moreover, an externally-appointed probity auditor oversaw the Request for Quote process, and the team followed a specifically developed probity plan to ensure all aspects of evaluation were met. (para. 4.13)*
>
> *The Department of Treasury and Finance rejects the assertions made in paragraph 4.15. All departments that have signed with the eCatalogue provider have negotiated their contracts to suit their respective needs. All departments and the service providers were fully aware of the performance guarantees and financial undertakings aspects of the agreements. Following an assessment of risk and value-for-money, departments chose not to include the performance guarantee and financial undertaking clauses in their agreements.*

> **RESPONSE** *by Secretary, Department of Education and Training*
>
> *The Department of Education and Training engaged external legal counsel to advise on the contract development with its EC4P service provider. The legal counsel had been involved in the development of the Head Agreement for the WofVG EC4P Panel of Service Providers and had also advised another department with regards their contract development with the same service provider.*
>
> *The Department of Education and Training recognised that the major component of the e-procurement implementation from both a financial and intellectual property perspective lay in the implementation of the procurement workflow solution. To this end, the contract between the Department and the service provider included securing the Department as beneficiary to the Ariba Escrow program which maintains the current version of the Ariba application software.*
>
> *The primary investment in the WofVG TPN Marketplace was for services related to engaging suppliers in participating in the marketplace and hosting and management of supplier data in the form of electronic catalogues. Through the Request for Quote process, the Department of Education and Training was aware that there were a number of alternative suppliers who would be able to offer similar services in the event of the selected service provider failing to fulfil its obligations under the contract.*

RESPONSE by Secretary, Department of Education and Training - continued

The Department examined the areas of both financial undertakings and performance guarantees. Following advice from legal counsel and based on the Department's assessment of the risk and impact of the service provider failing to meet performance expectations versus the potential cost and viability of obtaining these guarantees, the Department chose not to exercise either schedule to the contract.

RESPONSE by Secretary, Department of Primary Industries

The contract entered into by the Department of Natural Resources and Environment was developed under Government IT Contract guidelines, with advice from the recognised leading IT lawyer in Australia. His advice was that the contract protected the Department's interests adequately and provided an appropriate spread of risk. There appears to be a difference in legal opinion between the lawyer used by the Department of Natural Resources and Environment and those consulted by audit.

FURTHER AUDIT COMMENT

After further consideration of the information provided by agencies during the audit, the comments in paras 4.6 to 4.15 stand.

Security over data in the external electronic catalogue

4.16   During the planning stages of the EC4P Project, security-related issues within the e-procurement systems and externally-hosted electronic catalogue were considered by the central project team. Through on-site visits and assessment of information provided to us by the external catalogue provider, we established that the catalogue has controls so that:

- suppliers are unable to change prices or terms and conditions without the agencies' knowledge or consent;

- suppliers are not able to learn about other suppliers' prices or terms and conditions;

- unauthorised people cannot learn what the Government is buying; and

- suppliers cannot be inadvertently or purposefully removed without agency or supplier approval.

4.17   A number of areas for improvement in relation to security and control over the external catalogue were identified. These included:

- The ability of administrators of individual agency catalogues to access the catalogue information of other agencies;

- Weak password standards over the administrator user accounts and an inability to log and monitor the administrator's activity within the system. These control weaknesses increase the risk of unauthorised access to supplier data; and

- Audit arrangements, specifically:

    - There has been no independent review of security and control over the external catalogue to test the security in the application itself. Without such a process, the Government cannot be assured that security is adequate and that appropriate control measures are implemented and effective; and

    - There are no provisions in agreements to allow for the Government to require an audit of the system.

Supplier participation

4.18   As at February 2003, there was a total of 220 suppliers registered on the externally-hosted catalogue. Of these, 160 had been engaged by the Department of Natural Resources and Environment against its target of 500 suppliers. The process of supplier engagement has been slow for 2 main reasons, i.e.:

- agencies had chosen to address other aspects of e-procurement first, i.e. to address the implementation of hardware and/or workflow solutions prior to addressing development of the catalogue and supplier engagement; and

- suppliers have been less willing to participate than anticipated.

4.19   The Department of Natural Resources and Environment[8] had prepared a range of strategies to address barriers to supplier participation, including preparation of brochures for suppliers addressing each of the above concerns. To gauge how well the barriers had been addressed and the level of supplier satisfaction with the Department's supplier engagement processes, a survey was conducted of suppliers[9] who had either:

- joined the electronic catalogue; or

- been contacted by the Department or service provider to join the electronic catalogue and were either in the process of joining or had decided not to join.

4.20   A summary of survey results is shown in Chart 4B.

---

[8] Of the 3 agencies audited, only the Department of Natural Resources and Environment had progressed to the stage of using the external electronic catalogue. This was largely because its e-procurement system had been under development for a considerably longer period of time and the earlier phases of business process re-engineering etc. had been completed.

[9] Sixty-three suppliers were surveyed. Of these, 35 had joined or were in the process of joining the catalogue and 28 had chosen not to join. Refer to Appendix B of this report for the survey methodology.

CHART 4B
SATISFACTION WITH SUPPLIER ENGAGEMENT PROCESS
DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
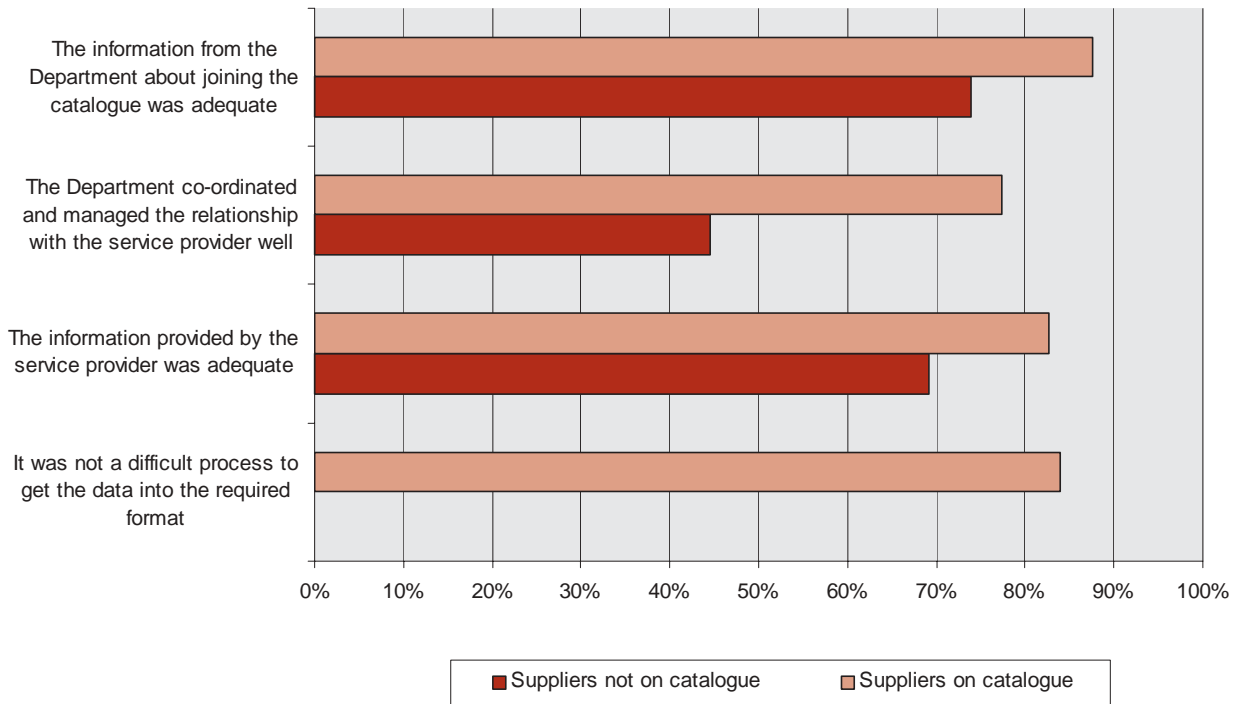
Source: Victorian Auditor-General's Office.

4.21   Of the 28 surveyed suppliers who chose not to join the catalogue, the main reasons given related to concerns over data security, and that the benefits did not warrant the cost or effort involved. This indicates that the strategies of the Department may need further refinement. Some of these respondents indicated that their competitive edge lay not in further product exposure but in building personal relationships with agency staff. This was particularly mentioned by smaller suppliers in regional and rural areas, who said that they knew their clients in the Department personally, and were able to offer follow-up services.

4.22   None of the surveyed 35 suppliers who joined the electronic catalogue had to meet the costs of joining. Under a contractual arrangement between the Department and the service provider, the Department elected to bear the suppliers' costs of data transformation and management for 2 years. The most significant concern arising from the survey was that almost 80 per cent of respondents who had joined the catalogue (or 28 suppliers) said that they would not remain on the catalogue if they had to bear the cost of its maintenance. Most of these respondents said that this was because the business benefits were not being realised.

> **RESPONSE** *by Deputy Secretary, Department of Treasury and Finance*
>
> *The Department of Treasury and Finance rejects the Auditor-General's conclusion that suppliers are unwilling to participate as premature and unsubstantiated. The survey of suppliers shows a high level of satisfaction with the supplier engagement process. It will become standard practice for suppliers to include the relatively small cost of maintenance of an eCatalogue in the tender pricing.*

RESPONSE *by Secretary, Department of Primary Industries*

Given that the initial supplier engagement period is not complete and future costs to suppliers have not been finalised, it is too early to determine the business case for ongoing supplier involvement in the catalogue. The e-procurement marketplace is rapidly developing and becoming more competitive, and it is anticipated that the cost to suppliers will reduce significantly over time. However, there will continue to be a requirement for ongoing supplier engagement and support.

FURTHER AUDIT COMMENT

The report recognises that supplier involvement in the Victorian Government's electronic catalogue is in its early stages. It does not conclude that suppliers are unwilling to participate in e-procurement. The report states in paras 4.18 and 4.22 that suppliers have been less willing to participate than anticipated, and that the results of our survey of suppliers show that almost 80 per cent of respondents who had joined the catalogue said that they would not remain on the catalogue if they had to bear the cost of its maintenance.

Policy environment

4.23   In Victoria, procurement policies that apply to both electronic and traditional (paper-based) procurement aim to:

- encourage business, particularly small-to-medium businesses and those in regional and rural areas to take up e-commerce and to access the government marketplace; and
- deliver efficient procurement.

4.24   There is a tension between the 2 policies, namely:

- boosting the local economy by purchasing from smaller regional suppliers may result in higher prices to agencies; while on the other hand,
- efficiencies are more likely to be achieved through purchasing from large suppliers, to the detriment of smaller regional suppliers.

4.25   These tensions are currently impacting on the decisions being made within agencies about the future direction of their e-procurement development. Agencies were encouraged to identify and make savings in their implementation of e-procurement; these savings may be dependent on choice of the cheapest supplier. From the perspective of smaller suppliers, participation in the electronic catalogue has a cost which they may be reluctant to bear if they expect to receive little business.

4.26 When purchasing goods and services up to $15 000 in value, Victorian Government Purchasing Board policy requires purchasers to obtain one quote. For purchases of between $15 000 and $100 000, at least 3 written quotes are required. The policy does not describe how purchasers should identify the suppliers from whom they seek quotations, and does not constrain the use of any traditional avenues for identifying suppliers[10]. However, best practice advice[11] issued by the Department of Treasury and Finance states that *"Government buyers should not routinely use electronic catalogues as the only means of identifying suppliers because other suppliers which do not have an online catalogue may offer better value for money"*. This implies that agencies will need to continue sourcing suppliers and seeking quotes through traditional avenues rather than simply using the electronic catalogue to access a range of suppliers and then negotiate lower prices. This reduces the value to agencies of the catalogue, and may also undermine the longer-term viability of the catalogue from the perspective of the service provider.

4.27 Agencies are struggling to achieve a balance between the competing policies. Unfortunately, the central project team and the EC4P Steering Committee did not provide guidance on how to balance the policy aims. There is a need to ensure that procurement policies reflect the purchasing environment.

> **RESPONSE** *by Deputy Secretary, Department of Treasury and Finance*
>
> *The Victorian Government Purchasing Board policy framework is based on using competition for the supply of goods and services in order to achieve maximum value-for-money in the expenditure of government funds. For lower value purchases, the competition is via quotations while for higher value purchases, a public tender process is required.*
>
> *While departments are also required to ensure that regional businesses are able to compete for government business, value-for-money remains the primary criterion for selection of suppliers.*
>
> *The Department of Treasury and Finance does not accept the Auditor-General's conclusion that there is a tension between "procurement policies, or between the policies and best practice advice" issued by the Department of Treasury and Finance. It would be contrary to the principle of open and fair competition to give preference to a business which has an eCatalogue.*

User acceptance

4.28 Several sites within the 3 agencies audited were visited to observe the e-procurement system being used. The system was being used to place purchase orders, approve purchases or pay invoices. They reported satisfaction with most aspects of the system.

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[10] The Department of Treasury and Finance advised that only a small percentage of purchases in the Victorian Government are "general browsing/shopping" type purchases, i.e. purchases of goods and services from non-contracted suppliers, which therefore require 3 quotes to be obtained. However, this claim is based on judgement rather than on analysis of purchasing data and could not be substantiated.

[11] Department of Treasury and Finance, *Best Practice advice, EC4P: Ensuring open and fair competition in government procurement*,
http://www.vgpb.vic.gov.au/CA256C450016850B/WebObj/BestPracticeAdvice-EC4P/$file/BestPracticeAdvice - EC4P.doc accessed 3 April 2003.

4.29   However, all agencies used a mixture of the old paper-based system and the new electronic system regardless of the extent of roll-out in the particular agency. For example,:

- Little use was being made of the electronic catalogue, except for stationery and clothing. In one agency, the catalogue was also used for purchasing personal computers and laboratory equipment;

- Use of paper catalogues even when an electronic catalogue was available;

- Staff printing out purchase orders and faxing them, rather than faxing directly from the electronic workflow application. In this case, the agency involved was not prepared to invest in auto-faxing due to the cost and its intention to move to e-messaging; and

- Invoices being physically sent to head office for processing rather than transmitted electronically.

4.30   Within Victoria Police, electronic time sheets and stores requisitions have been introduced to increase the level of staff proficiency with computers. While these applications are not strictly within the boundaries of e-procurement, the expectation is that increased staff proficiency will remove some of the barriers to user acceptance when e-procurement is rolled-out across the agency.

4.31   The Department of Natural Resources and Environment does all of its financial processes electronically, including purchasing, petty cash, expenses, corporate card and journals.

Survey of users

4.32   A survey of users in 2 agencies[12] was conducted to assess the user acceptance of the e-procurement systems in operation.

TABLE 4C
SELECTED RESULTS FROM THE USER SURVEY *(a)*
(per cent)

Question	Department of Natural Resources and Environment	Department of Education and Training
How would you rate the user-friendliness of the system?		
"Satisfactory" and above	50	85
How would you rate the speed of system on your computer?		
"Satisfactory" and above	80	85
How would you rate the adequacy of the training you received?		
"Satisfactory" and above	84	95

(a) The sample size in each agency was 20.
Source: Victorian Auditor-General's Office.

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[12] Forty users in the Department of Education and Training and the Department of Natural Resources and Environment were surveyed. Refer to Appendix B of this report for the survey methodology.

4.33   While the survey sample is quite small, it does provide some indicators of the level of satisfaction within agencies. The survey indicated that the systems have been relatively well received and accepted within the 2 agencies. However, for the Department of Natural Resources and Environment, the most common response (by 40 per cent of respondents) was that the system still needed improvement to increase user-friendliness. The Department advised that its system is designed to improve efficiency, transparency, accountability, purchasing practices and to improve the quality of purchases. Its focus is on ensuring compliance rather than the user interface.

4.34   Across both agencies, when asked to nominate the features they liked best, users commonly responded that there was less (paper) work involved, they were forced to be consistent and they could track their orders on the system. When asked to nominate any features that annoyed them:

- users from the Department of Education and Training mainly referred to problems with software configurations that remain in the workflow component; and

- users from the Department of Natural Resources and Environment referred to inefficiencies in processing, e.g. that manual approvals were still faster, and that the system was not efficient and doubled up information.

4.35   These responses indicate that both agencies have some further work to do to address these issues and to maximise efficiencies.

4.36   Across both the agencies, the majority of users surveyed (98 per cent) indicated that they had undertaken formal training, in most cases, more than one course or type of training. The response to the training was very positive in both the agencies.

4.37   It was only the users in the Department of Natural Resources and Environment who had had any experience with the electronic catalogue. Of the 19 users who had raised a purchase order, 11 (58 per cent) had also accessed the electronic catalogue. Nine (82 per cent) of these users said that using a paper-based catalogue to source orders was quicker than using the electronic catalogue. The Department advised that the catalogue is currently being rolled-out with most users finding it easy to use.

4.38   The Department of Natural Resources and Environment has developed a 10-point strategy to boost user awareness and usage of the catalogue. Use of the catalogue is at an early stage within the Department and the effectiveness of the strategy has yet to be assessed. The Department advised that since extending the range of goods provided by a large stationery supplier through the catalogue, there has been a noticeable increase in user access to the catalogue.

Project continuity

4.39   The EC4P Project Steering Committee and the central project team were wound-up in September 2002. Prior to this, the central project team developed a transition plan to assist agencies with implementation of e-procurement post-September 2002. The transition plan provides a number of forums, tools and information sources appropriate for this purpose. However, in order to maximise the benefit to be gained from the forums and to ensure that e-procurement is effectively integrated into the public sector mainstream, it will be important that strong links are developed within agencies between the EC4P project teams, Accredited Purchasing Units and financial systems managers.

4.40   Departmental Secretaries are ultimately responsible for implementing e-procurement. However, there are some government-wide issues that need to be addressed. In particular, procurement policies must keep pace with developments in the e-marketplace (a responsibility of the Victorian Government Purchasing Board), and agencies must be kept abreast of developments in e-procurement and e-government more generally (a responsibility of Multimedia Victoria).

4.41   The Victorian Government Purchasing Board sub-committee on e-commerce is looking at the next model for e-procurement, which is to include additional benefits to suppliers, such as automatic linkages to their back-end financial systems.

PLANNING AND MANAGING FOR SUSTAINABILITY

E-procurement in the agencies

4.42   Currently, all but one of the 9 agencies involved in the EC4P Project is at the "project" stage. The exception is the Department of Natural Resources and Environment where implementation of e-procurement has progressed past that stage and has been introduced as normal business practice.

4.43   For the agencies still in the project stage, the audit criteria were that each project team had plans for the completion of the roll-out within the agency and that there was a sound project management structure in place with an appropriate focus on driving the necessary change and providing adequate accountability. In the case of the Department of Natural Resources and Environment, a greater focus was expected on evaluating progress to date and on encouraging the take-up of e-procurement throughout the Department where considered appropriate.

4.44   Criteria for examining how well the 3 agencies were planning to achieve optimum benefit, sustainability and roll-out of e-procurement, focused on whether agencies had a strategy that provided a clear focus on the achievement of the desired deliverables, including:

- a timetable for implementation;
- training and change management plans; and
- targets for number of users and suppliers to be achieved, with a clear timeline for achievement.

4.45   On the whole, the agencies have a vision for e-procurement and a phased approach for achieving that vision. Each of the agencies had a timetable for roll-out and a training and change management plan. They had an appropriate management structure that identified key players and their roles and responsibilities, and appropriate mechanisms for reporting progress achieved internally.

4.46   However, the quality of the performance information reported could be enhanced. Based on examinations of reporting by the selected agencies and suggested performance measures included in a post-implementation review template prepared by the central project team, reporting to management could include:

- speed of access to and from the e-procurement system and the external electronic catalogue;
- periods of systems' downtime;
- proportion of purchases made through e-procurement;
- the proportion of purchases that were made using the electronic catalogue;
- number of users and user compliance and satisfaction;
- number of suppliers and supplier satisfaction with the agency and the service provider;
- reduction in procurement processing costs; and
- reduction in procurement cycle time.

4.47   Both the Department of Education and Training and Victoria Police have undertaken post-implementation reviews based on visits to pilot sites, feedback from users and analysis of usage statistics. Both agencies made enhancements to their workflow systems and their business processes as a result of these reviews. The Department of Natural Resources and Environment has undertaken informal reviews and made changes to processes as a result, but would benefit from a formal review of achievements to date.

CONCLUSION AND RECOMMENDATIONS

4.48   The Victorian Government took a visionary path when committing to the introduction of e-procurement in government agencies. It sought to lead the Victorian economy to develop an e-marketplace. The e-marketplace remains in its infancy. To some extent, the EC4P Project was ahead of its time. A less optimistic assessment of the business cases may have lead to a different approach: smaller agencies would have been unlikely to introduce e-procurement unless it was in the context of other IT and business improvement initiatives in their agencies, and the external catalogue may not have received the same level of support by agencies or interest from the catalogue service provider.

4.49   In the longer-term, Victorian government agencies may find themselves well-placed to respond to new developments. However, with the exception of the Department of Natural Resources and Environment, they are currently struggling to demonstrate financial benefits from e-procurement other than the savings to be made from improved workflow solutions. The agencies are unable to deal effectively with a system of procurement policies and supplier behaviour that is not yet ready for a fully-functioning e-marketplace. Most at risk is the commitment to the external catalogue: the number of suppliers and the usage of the catalogue is below expectations and the benefits expected to be derived from its use are impacted by a best practice statement that discourages exclusive use of the catalogue to source goods and services. The implications of this for the cost and continuation of the catalogue are unclear, but require urgent attention by the Department of Treasury and Finance.

4.50   Despite problems with the methodology, agency business cases clearly show that the major savings to be achieved result from business process re-engineering. This is consistent with the experience in other jurisdictions and in the private sector. The 3 agencies examined in this audit, i.e. the Department of Natural Resources and Environment, the Department of Education and Training and Victoria Police have taken the opportunity to streamline their internal processes.

4.51   The EC4P Project was required to comply with government policies that aim to deliver efficient procurement and to encourage small-to-medium and regional and rural suppliers to take up e-commerce and to access the government marketplace. While these policies apply to all procurement, i.e. whether electronic or paper-based, the tensions between them have become more overt and more difficult to balance in the e-procurement situation, as there is a cost to suppliers for entry to the market. While these costs are currently met by the Government, a small survey of suppliers indicated that they were unlikely to continue to participate if required to meet the costs of maintaining their catalogue listing.

4.52   The central project team and project teams within the agencies audited, adequately identified the key risks inherent in e-procurement and developed strategies to address them. In most cases these risks are being managed adequately, except for contractual risk. Individual service agreements had been established between most of the agencies involved in the Project and the service provider of e-procurement systems. Legal advice from the Victorian Government Solicitor indicates that the service agreements do not sufficiently protect the agencies and the State in the event that the service provider fails to provide the agreed services, ceases operations or ceases to exist. This risk is compounded by the fact that due diligence checks of the service provider completed in 1999 were not re-performed prior to agencies signing their agreements in 2002 and 2003.

4.53   The EC4P Project Steering Committee and the central project team were wound-up in September 2002. Strategies have been developed to address the management and sustainability of e-procurement in each of the agencies. However, there remains a need to address some government-wide issues: procurement policies must keep pace with developments in the e-marketplace (a responsibility of the Victorian Government Purchasing Board), agencies must be kept abreast of developments in e-procurement and e-government more generally (a responsibility of Multimedia Victoria), and the long-term future of the external catalogue must be addressed by the Department of Treasury and Finance.

Recommendations

4.54   We recommend that the Department of Treasury and Finance:

- work with the Victorian Government Purchasing Board to address the tensions between procurement policies, and between the policies and best practice advice, to provide a more workable environment for agencies and reduce barriers to supplier participation in the e-marketplace;

- re-examine issues related to the catalogue, including its viability under the current arrangements and the requirement for interoperability, in the light of experience to date;

- following re-assessment of the catalogue, and jointly with Multimedia Victoria, assist agencies to further develop strategies for growing the e-marketplace; and

- review its contracts for information technology projects to ensure that they provide adequate protection to the State in the event of non-performance or failure of service providers.

4.55   We recommend that agencies:

- review their implementation of e-procurement to assess achievements and the effectiveness of action to date, to inform the future approach to training and use of the e-procurement system, and the electronic catalogue;

- periodically survey potential suppliers to determine reasons for non-participation in the e-marketplace, to assist development of a procurement strategy and refinement of supplier engagement strategies; and

- establish a program of post-implementation follow-ups and periodic surveys of users to ensure that staff are using systems efficiently and effectively, and to inform the development of training and strategies for improvement.

4.56 We recommend that agencies ask the external catalogue provider to review the control weaknesses identified in this report and agree on a solution to minimise the risk of unauthorised access to data. Particular areas of focus should include:

- enhancing catalogue administrator password configuration and logging mechanisms within the system; and

- providing for a separate review of the controls in the electronic marketplace application to obtain assurance over its security and integrity.

RESPONSE *by Deputy Secretary, Department of Treasury and Finance*

Para. 4.54

The Department of Treasury and Finance does not agree with the recommendation to review procurement policies. (Refer response following paras 4.23 to 4.27.)

The Department notes the recommendations regarding re-examining issues related to the catalogue and assisting agencies to further develop strategies for growing the e-marketplace. Because the EC4P model is an open and flexible solution, it will accommodate both a future review of the eCatalogue and a range of review outcomes, e.g. a number of eCatalogue providers. As most departments are implementing internal workflow first, with eCatalogue implementation to follow, it is too early to conduct a review of the eCatalogue. A post-implementation review at this early stage is not consistent with good project management practice.

The Department disagrees with the recommendation to review its contracts for information technology projects to ensure that they provide adequate protection to the State in the event of non-performance or failure of service providers. The contracts between departments and the eCatalogue provider provide for variations and protect the State in the event of non-performance. Each departmental contract identifies the level of service required in accordance with the department's business case projections.

Para. 4.55

The Department agrees with the recommendation that agencies undertake reviews of their implementation of e-procurement. The central project team has provided each department with a Post-Implementation Review template and framework to assist departments in their project reviews. This approach is consistent with the standard project management methodology employed by the central team.

The Department agrees in part with the recommendation that agencies periodically survey potential suppliers. The Department does not believe that the Auditor-General has substantiated the conclusion that suppliers are unwilling to participate in EC4P. The Department has put in place a monthly EC4P forum which involves key departmental stakeholders. The main purpose of the forum is the ongoing management and engagement of suppliers for EC4P and it is expected that any refinement of the supplier engagement strategy will be facilitated via this forum.

The Department agrees with the recommendation that agencies establish a program of post-implementation follow-ups and periodic surveys of users. Post-implementation review is a standard element of departments' EC4P implementation plan.

RESPONSE *by Deputy Secretary, Department of Treasury and Finance - continued*

Para. 4.56

The Department agrees with the recommendation that agencies ask the external catalogue provider to review the control weaknesses identified. The security and integrity of the eCatalogue was verified based on the evidence provided by the eCatalogue provider during the demonstration phase of the eCatalogue Request for Quote in 2001 and through the "Proof of Concept" stage successfully completed by the selected provider during the EC4P pilot implementation at the Department of Natural Resources and Environment during 2000.

The issues raised in the report will be referred to the eCatalogue provider.

Appendix A

Conduct of the audit

AUDIT OBJECTIVE

The objective of the audit was to assess the efficiency and effectiveness of the planning and introduction of e-procurement in government agencies. In particular, the audit:

- assessed the achievements of the Electronic Commerce for Procurement (EC4P) Project to date against initially established (and currently expected) deliverables, and the key factors impacting on progress to date;
- assessed whether key risks associated with the implementation and ongoing operations of e-procurement have been identified and appropriately managed; and
- determined whether adequate plans and management structures have been established and are in place to achieve optimum benefit from electronic procurement, and ensure its sustainability and roll-out to the broader public sector.

AUDIT SCOPE

The audit comprised 2 major elements, the first focusing on the activities of the central project team within the Department of Treasury and Finance which was responsible for the development and management at the whole-of-government (strategic) level.

The second element concentrated on the implementation of electronic procurement and its sustainability from a whole-of-government perspective, and within:

- the Department of Education and Training;
- the former Department of Natural Resources and Environment (now the Department of Sustainability and Environment and the Department of Primary Industries); and
- Victoria Police.

The audit included:

- examinations of files and documentation within the 4 agencies and discussions with key personnel involved in the EC4P Project;
- site visits to observe users of the systems and surveys of users and suppliers within the 3 agencies selected for more detailed examinations (refer to Appendix B of this report for details of the survey methodology);
- a survey of the 9 agencies involved in the EC4P Project to gauge their progress in implementing e-procurement and the extent of usage of the systems within those agencies; and
- discussions with project managers across the 9 agencies involved with the Project to ascertain their views on issues facing the introduction and sustainability of e-procurement in the Victorian Government.

PERIOD COVERED BY THE AUDIT

The audit covered the period from the announcement of the EC4P Project in 1998 to date.

COMPLIANCE WITH AUDITING STANDARDS

The audit was performance in accordance with Australian Auditing Standards applicable to performance audits and, accordingly, included such tests and other procedures considered necessary in the circumstances.

ASSISTANCE TO THE AUDIT TEAM

Significant support and assistance was provided to my officers by staff of the Departments of Treasury and Finance, Natural Resources and Environment, and Education and Training and Victoria Police. I wish to express my appreciation to these agencies for this assistance.

I would also like to express appreciation to the staff of each of the 8 departments and Victoria Police who provided valuable information relating to the status of e-procurement activity in the Victorian budget sector.

Appendix B

Survey methodology

INTRODUCTION

The second audit objective was to assess whether key risks associated with the implementation and ongoing operations of e-procurement have been identified and appropriately managed. As a part of our examinations, we used surveys to test both supplier and user acceptance of the e-procurement system in the selected agencies.

We conducted 2 telephone surveys: a supplier survey and a user survey. Staff from the Victorian Auditor-General's Office conducted both surveys in February and March 2003 following pilot testing in February 2003.

SUPPLIER SURVEY

The purpose of the supplier survey was to determine the experiences of suppliers who had been approached by the Department of Natural Resources and Environment to join the externally-hosted electronic catalogue. The Department provided a list of some 300 businesses, all of which had been invited to join the catalogue. We stratified the list into suppliers who had joined the catalogue and those who had not. We randomly selected 45 firms from each list and telephoned those suppliers to make an appointment to conduct the survey.

A total of 63 firms responded to the survey: 35 that had joined the catalogue and 28 that had not. This represents an overall response rate of 70 per cent. Due to the design of the sample frame, the survey results are accurate to a 90 per cent confidence level.

USER SURVEY

The purpose of the user survey was to test user acceptance of the e-procurement system in the Department of Natural Resources Environment and Department of Education and Training.

Both the Department of Natural Resources and Environment and the Department of Education and Training provided us with a list of users of their e-procurement systems. We intended to obtain 20 completed user surveys from each of these agencies. Allowing for some non-response, we randomly selected 30 users from each agency's list. Agencies then emailed the selected users to advise them that a representative from the Victorian Auditor-General's Office would telephone to arrange to conduct the survey.

Out of a total of 55 users who were contacted, 40 participated in the survey (20 from each of the 2 agencies). This represents an overall response rate of 73 per cent. Due to the design of the sample frame, the survey results are accurate to an 85 per cent confidence level.

Appendix C

Glossary
of terms

GLOSSARY OF TERMS

Business and technical architecture

The architecture of a system relates to the business processes that define what the system does, as well as the underlying technology that supports those processes. Components that make up the architecture of a system are the software, hardware, data and networks utilised, as well as the layout and linkages between them.

Due diligence

The process by which a purchaser or an investor investigates the records of another organisation to assess its value and to identify whether there are any circumstances that could impact on its viability.

Electronic catalogue

An electronic listing of suppliers, the goods and services that they sell, and the prices for those goods and services. A purchaser looks up an electronic catalogue to select the goods and services to be placed on a requisition or purchase order.

E-commerce or electronic commerce

Electronic commerce is the integration of electronic communications, data management and security services to allow commercial activity between organisations to be conducted in a paperless manner. It includes interchange of data electronically, email and electronic funds transfer. Electronic procurement is a subset of electronic commerce.

Electronic Commerce for Procurement (EC4P) Project

The Project, instigated in 1998, to introduce e-procurement to the 8 budget sector departments and Victoria Police. The EC4P Project consisted of a central EC4P project, managed by the Department of Treasury and Finance, and 8 projects in individual agencies. While 9 agencies were included in Project, the Department of Treasury and Finance and the Department of Premier and Cabinet shared a project team making 8 agency project teams in total.

E-marketplace or electronic marketplace

An electronic communication and information sharing facility where resources, goods, and services can be identified, explained, compared, bought, and sold.

E-procurement or electronic procurement

A method of procuring goods and services by communicating electronically both internally within the organisation making the purchase and externally to suppliers and bankers. Electronic procurement is a subset of electronic commerce.

Externally-hosted catalogue

An electronic catalogue that is hosted on an external organisation's computer system, and is maintained by the external organisation.

Internally-hosted catalogue

An electronic catalogue that is hosted on an organisation's own computer system, and is maintained by the organisation.

Interoperability

The ability of software and hardware on different machines from different vendors to share data. For the EC4P Project, interoperability specifically referred to the ability of an electronic catalogue from one service provider to access data stored in both the catalogues of other service providers and suppliers' own catalogues.

Panel

A group of pre-qualified suppliers of goods or services from which agencies may purchase those goods or services. The EC4P Panel was established in 2000 with 4 suppliers. Three suppliers were added in 2001.

Pilot

A project step in which a new technology or process is used within an organisation, by a small number of people, for processing live transactions. A pilot is often seen as a test, at the end of which a decision will be made, either to use the new technology across the organisation, to revise the model or mode of delivery, or to cancel the project.

Purchase order

A document sent to a supplier listing the goods and services that an agency wants to buy, and the prices for the goods and services.

Requisition

A document prepared by a purchaser in an agency that lists goods and services that the purchaser wants to buy. A requisition is sent to a manager for approval. After approval, a requisition is turned into one or more purchase orders.

Request for quote

A document sent by an agency to potential suppliers seeking a quotation for the supply of specific goods and services. If a panel agreement has been established for the goods or services to be purchased, and the panel agreement does not include prices, then an agency seeking to buy the goods or services may issue a Request for Quote to the panel members.

Request for tender

A document issued by an agency, seeking offers to supply the agency with specified goods and services. Victorian Government Purchasing Board policies require that all purchases over $100 000 be the subject of a public tender.

Registration of interest

A registration of interest process often precedes a selective request for tender. Documents are made available to suppliers of goods or services seeking their interest in supplying the goods or services to the department.

Service provider

The supplier of all or part of a service. For the EC4P Project, the service provider was the supplier of the e-procurement system that includes computer systems, applications, telecommunications and consulting used as part of an agency's e-procurement solution.

Small-to-medium enterprises

The Australian Bureau of Statistics provides the following definitions of small-to-medium enterprises:

- micro business, i.e. a business that employs fewer than 5 people;
- other small business, i.e. a business that employs 5 people or more, but fewer than 20; and;
- medium business, i.e. a business that employs 20 people or more, but fewer than 200.

Sourcing

The process of identifying suppliers of a required good or service, and then choosing a supplier.

Supplier

A party that supplies goods and/or services.

Workflow

In a financial management system or similar application, the functionality that sends documents or information from one person to another, based on a set of pre-defined rules. For example, workflow can be used to route an application for annual leave to the appropriate manager for approval.

For the EC4P Project, the Department of Treasury and Finance used the term "workflow" to mean the e-procurement application used within an agency to accept a user's input to create a purchase order, route that purchase order for management approval, send it to the supplier, and record receipt of the goods or services. Some agencies also use the "workflow" application to record invoices.

PERFORMANCE AUDIT REPORTS
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Report title	Date issued
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Teaching equipment in the Technical and Further Education sector	May 2001
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Teacher work force planning	November 2001
Management of injury claims by the Victorian WorkCover Authority	November 2001
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Managing risk across the public sector	March 2003
Drug education in government schools	March 2003
Managing medical equipment in public hospitals	March 2003
Performance management and reporting: Progress report and a case study	April 2003
Fire prevention and preparedness	May 2003

(a) This report is included in Part 3.2, Human Services section of the *Report on Ministerial Portfolios,* June 2001.

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