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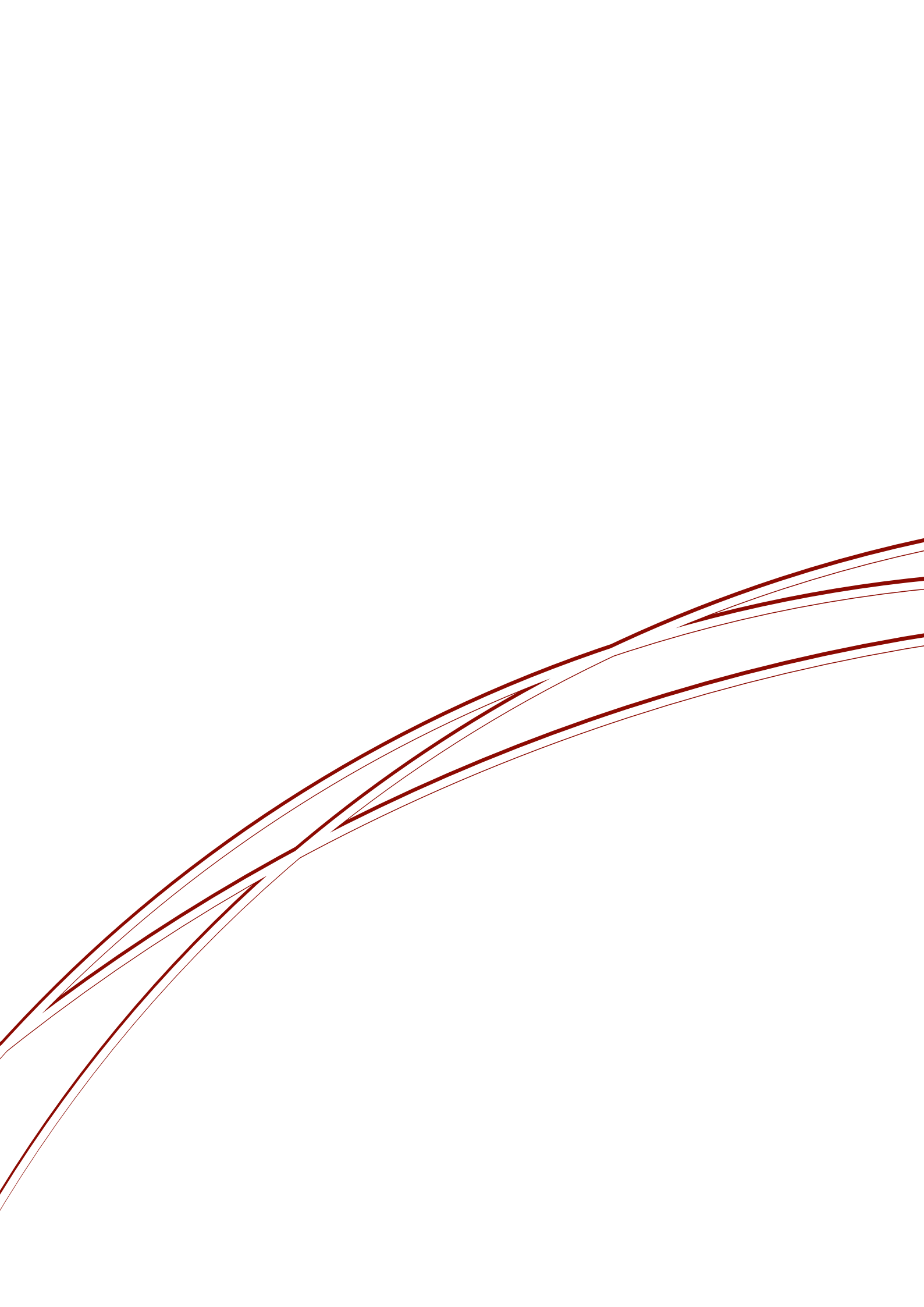
INDEPENDENT COMMISSION
AGAINST CORRUPTION

NEW SOUTH WALES



CONTROLLING CORRUPTION OPPORTUNITIES IN THE PROVISION OF MAINTENANCE SERVICES

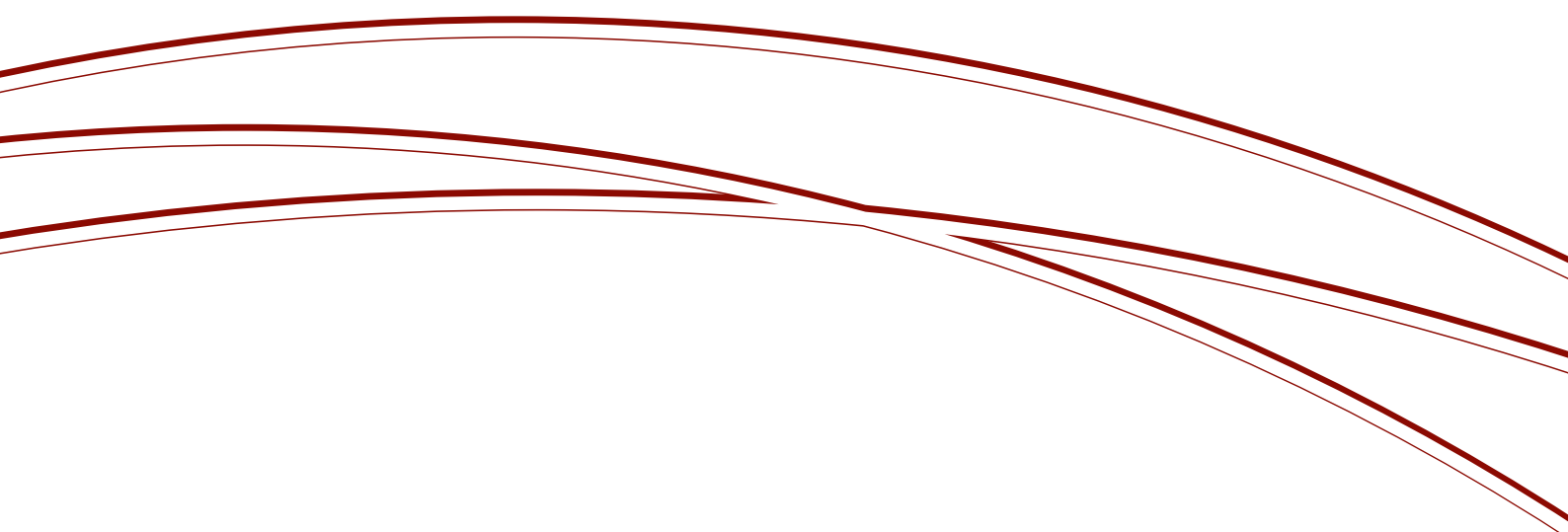
FEBRUARY 2017





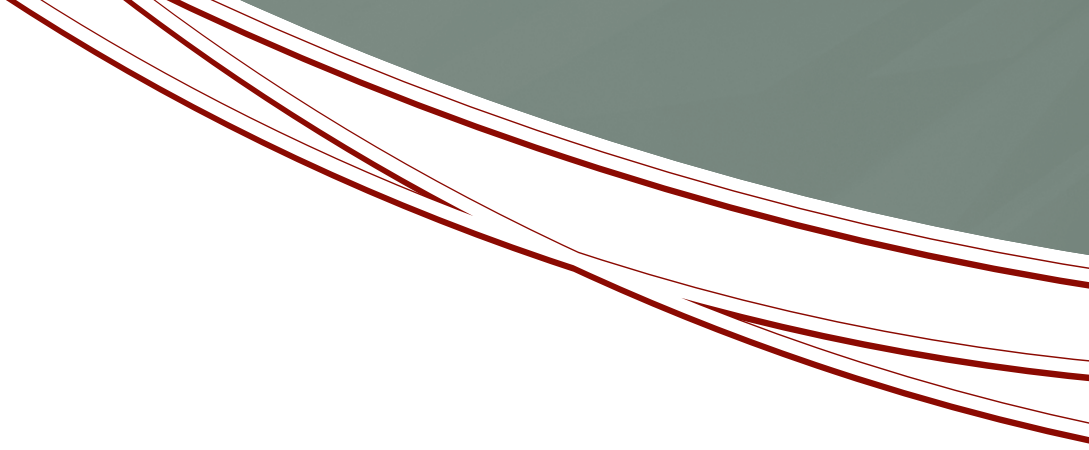
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**CONTROLLING
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THE PROVISION OF
MAINTENANCE SERVICES**

FEBRUARY 2017



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ISBN: 978-1-921688-72-0

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Contents

Overview	5	Chapter 3: Designing your maintenance system: what to integrate	19
Chapter 1: Introduction	6	Integrating supply with need	20
What is included in maintenance services?	7	Integrating data about asset performance and costs with contractor performance management	21
The unique challenges involved in maintenance services	7	Chapter 4: Designing your maintenance system: what to segregate	22
Efficiency, effectiveness and corruption – the relationship	8	Segregating responsibility for key activities	22
Chapter 2: Obtaining insight into your assets: locations, conditions and maintenance costs	10	Segregating specific functions from day-to-day operations	24
Understanding the location and condition of assets	10	Reliance on integration and segregation	25
Why is it difficult to obtain insight into the location and condition of assets?	11	Chapter 5: Factors to consider when choosing maintenance contracting models	26
Improving asset knowledge	12	An agency's internal skill capabilities	26
Understanding asset maintenance costs	13	Internal resourcing levels	27
Knowing what maintenance actually costs your agency	13	The likelihood of information imbalance	29
Knowing what maintenance ought to cost your agency	15	Chapter 6: Aligning contractor interests with those of your agency	31
Obtaining value for money	17	The strategic consolidation of contracts	31
		Tightly defined scopes of work	32

Contents

Contractor payment arrangements	33
Measuring contractor performance through KPIs	34
Verifying contractor performance	35
Chapter 7: Conclusion	36
Appendix 1: Glossary	37
Appendix 2: Summary of corruption opportunities arising from commercial arrangements and mitigating controls	39



Overview

The purpose of this report is to guide public officials who are accountable for decisions about facilities maintenance systems and those responsible for overseeing maintenance contracts. Private sector companies involved in government maintenance contracts may also find this report useful for understanding the key corruption prevention issues of concern to the NSW Independent Commission Against Corruption (“the Commission”).

The report is informed by interviews with senior staff from 24 public and private sector organisations about good-practice maintenance systems. It includes case studies drawn from the interviews and the Commission’s own research, which demonstrate successful practices. Previous investigations undertaken by the Commission and examples from other jurisdictions are also included in the report to highlight poor practices that have allowed corruption to occur.

This report is structured in the following way:

Chapter 1 explains the basis of the Commission’s interest in facilities maintenance. The chapter also outlines the key premise of the report that organisations which have efficient and effective operating environments have inherently fewer opportunities for corruption.

Chapter 2 discusses the importance for an agency to understand the location and condition of assets, as well as the costs involved in maintaining them, and outlines various strategies for improving asset knowledge. Knowing what maintenance actually costs an agency – compared to what it ought to cost – is explained as a key corruption prevention control. A number of approaches that can assist in developing meaningful cost benchmark comparisons are considered, as is the concept of value for money in the provision of maintenance services.

Chapter 3 deals with the notion of integrating activities and processes to provide transparency across maintenance systems. Examples are included to show how data management systems can be used to integrate various

types of information about asset performance and how this data can be used to monitor contractor performance. Processes within a maintenance system can also be integrated to ensure they inform each other.

Chapter 4 considers the importance of segregation to a well-designed maintenance system. Ensuring in-built separations between public officials responsible for the key activities involved in maintenance processes and public officials involved in different maintenance processes is a key corruption control measure. Sometimes a process should also be removed from operational staff working with contractors to ensure the integrity of a maintenance system.

Chapter 5 examines a variety of maintenance contracting models and the factors that should influence an agency’s decision about which model to adopt. These factors include an agency’s internal skill capabilities, its internal resourcing levels and its level of insight into asset conditions and costs.

Chapter 6 focuses on contractor motivations as a key factor impacting on the effectiveness of commercial maintenance arrangements. Key issues influencing the behaviour of contractors are the strategic consolidation of contracts, how a scope of work is drafted, contractor payment arrangements, the writing of effective key performance indicators (KPIs) and approaches for verifying contractor performance.

Chapter 7 concludes the report by summarising the central features of a well-designed maintenance system.

Appendix 1 is a glossary containing maintenance contracting models and maintenance terms.

Appendix 2 outlines various contracting arrangements and the potential corrupt behaviours and organisational inefficiencies that can arise under each arrangement. It describes factors exacerbating the potential for corrupt behaviours and organisational inefficiencies along with examples of mitigating controls.

Chapter 1: Introduction

Every year, the NSW Government and NSW local councils spend billions of dollars on maintaining assets. In 2016–17, the NSW Government estimates that it will spend \$4.25 billion on maintenance¹ (compared with over \$1.2 billion spent on maintenance in 2013–14 by local councils)². The trend towards outsourcing by governments means public sector agencies have to exercise greater vigilance in overseeing maintenance contracts.

In the past decade, investigations conducted by the NSW Independent Commission Against Corruption (“the Commission”) have involved corruption in maintenance contracts worth millions of dollars. The number of past investigations and the high monetary value of the sector drove the Commission’s interest in the corruption opportunities involved in the provision of maintenance services.

Given the scale of the financial commitment to maintaining public assets, a key challenge for the public sector is the development of efficient and effective maintenance systems. Such systems can also reduce opportunities for corruption. This is because well-designed maintenance arrangements are inherently characterised by robust budgets and strong internal contract management capabilities giving transparency to asset service requirements and costs. These features also reduce opportunities for corruption and make it easier to detect such behaviour when it does occur.

In producing this report, the Commission interviewed senior staff from 24 organisations from the public and

private sectors to understand the practices and operational foundations which support well-designed maintenance systems that also reduce corruption. The organisations included national retailers, industry consultants, national and global maintenance providers, as well as federal, NSW, interstate, and NSW local government agencies.

In conducting its research for this report, the Commission focused on entities that have a large distribution of physical assets. The Commission also examined the arrangements of agencies with complex infrastructure systems that include pipelines, roads and railways. Additionally, the Commission examined the arrangements of a number of local councils, given their large expenditure on asset maintenance and the diversity of their asset base.

This report provides examples from organisations that highlight good practice. It also provides examples of poor practice in the provision of maintenance services arising from previous Commission investigations and those from other jurisdictions to illustrate systemic problems that had allowed corruption, or behaviour conducive to corruption, to occur.

This report is not a “how to” guide. Nor does it seek to replicate existing government frameworks about the strategic management of assets such as NSW Treasury’s Total Assessment Management Policy. Instead, the Commission is seeking to provide insight into the diverse range of practices that can minimise corruption and other types of opportunistic behaviour, while also supporting efficient and effective maintenance systems.

As a result of the shift towards government agencies adopting some form of outsourced maintenance arrangement, this report focuses on outsourced maintenance arrangements as opposed to situations where staff undertake maintenance tasks in-house. However, many of the lessons learnt and advice contained in this report remain relevant to agencies with an in-house maintenance function.

¹ NSW Treasury, *Budget paper no.2: Infrastructure statement 2016–2017*, pp. 1–13. Accessed on 31 October 2016 at http://www.budget.nsw.gov.au/__data/assets/pdf_file/0008/128609/Budget_Paper_2_-_Infrastructure_Statement_revised.pdf.

² NSW Office of Local Government, *Your council: Profile and performance of the NSW local government sector*, June 2015, p. 25. At the time of publication, there were no figures available for estimated expenditure during 2016–17.



What is included in maintenance services?

The physical asset base of the NSW Government and local councils consists of infrastructure systems, plant and equipment as well as land and buildings.³

Infrastructure assets are essential to ensuring the planned delivery of services and represent over 50% of state and local governments' physical assets in NSW.⁴ The maintenance of infrastructure assets includes repairs to roads, bridges, pipelines, railways and dams.

Plant and equipment can range from low-value items, such as chainsaws and mowers, through to high-value items such as magnetic resonance imaging scanners. Local government plays a particularly important role in maintaining plant and equipment, given that council depots are repositories of large volumes of machinery used by work crews to undertake maintenance works. In NSW, Rural Fire Service vehicles and equipment are also vested in council ownership.

Facilities management (FM) is an inherent component of the maintenance sector. The term FM refers to the design of processes within a built environment to either deliver core functions or support the delivery of core functions. The main purpose of FM is to allow assets to do what they are designed to do in a workplace setting that complies with health and safety regulations, while optimising their lifespan.

FM has evolved from a caretaker-like role of ensuring buildings are maintained and cleaned into a major industry that functions at both an operational and strategic level. Increasingly, agencies are designing FM systems that are aimed at obtaining organisational goals such as ensuring safe working environments.

While there are many different types of maintenance services, this report covers “hard” and “soft” services. Hard services are those involving the maintenance of physical assets, such as lifts and fire equipment. Soft services are maintenance services that largely involve labour; for example, cleaning, waste management and grounds maintenance. This report does not include workplace functions, such as reception and information technology services. While these functions are included in some FM definitions, they do not capture the core concerns of the Commission.

The unique challenges involved in maintenance services

Similar opportunities for corruption in standard procurement activities are also present in maintenance services. For example, public officials splitting invoices to avoid scrutiny when awarding contracts based on their personal interests; however, there are also unique challenges in the provision of maintenance services that can create additional opportunities for corruption.

Assets can be “slippery”, in the sense that collecting basic data about their condition and maintenance costs is sometimes difficult and laborious. Analysing and effectively using data about asset conditions and costs requires skilled staff and can involve sophisticated software. Obtaining this type of insight into assets can be a particular challenge for small organisations with dispersed assets, such as local councils situated in rural areas. Understanding maintenance requirements, such as the condition of assets and how much it costs to maintain them, is fundamental to understanding maintenance budgets and reducing corruption opportunities.

The delivery of maintenance services can be difficult to measure and quantify, particularly in the case of

³ Op cit, *Budget paper no.2*, pp. 1–11. See also *ibid*, pp. 26–27.

⁴ *Ibid*, pp. 1–11. See also op cit, *Your council*, pp. 26–27.

soft services. For example, when maintaining a garden, what is “acceptable” in terms of the presence of weeds and condition of plants may be difficult to define. The requirement for subjective assessments can also make estimating maintenance budgets and assessing value for money difficult. In addition, even if an agency can clearly define the desired outcome, it is difficult to determine and monitor the effort required to maintain assets, especially across a large infrastructure network, to achieve that outcome. This is difficult, in part because one of the aims of maintenance is to stop the appearance of the asset changing and consequently a physical inspection may not reveal much and it can be easy to deceive any “proof of work done” inspections.

In contrast to service-based contracts, commodity-based contracts can be relatively straightforward, as the number and quality of an item can be easy to specify. For instance, when purchasing pipes, quality standards may specify the size (for example, 600 millimetre diameter), nature (for storm sewer run-off) and materials (corrugated steel). Goods can also be inventoried making them easy to quantify. While consumables and other types of goods are often needed to perform maintenance services (for example, cleaning products are essential to undertaking cleaning services) the time and effort involved in the performance of the actual maintenance service cannot be inventoried. As a result, it can be difficult to quantify the service component of maintenance works.

The iterative nature of maintaining assets – that is, never-ending, repeated works requests, invoicing and contractor monitoring – means systems become tired or complacent over time, leading to unproductive arrangements. A distinction can be drawn with capital works that are typically based on a business case with a defined start and end date and have a specific fund allocation from a capital expenditure budget. Also, because maintenance is often considered a “business as usual” function, it tends to attract less internal and external scrutiny than capital projects.

Maintenance work is more prone to having open purchase orders, whereby, for example, the annual service required is estimated to be \$1 million. This provides a contractor with an easy run to charge the full \$1 million over the course of the year, even if the real requirement is, for instance, \$800,000.

For many soft maintenance services, the barriers to entry (and exit) of the market are very low. Such situations can result in multiple small contracts. While there tends to be heightened scrutiny around large maintenance contracts, this is not always the case with low-value contracts awarded to small firms. Consequently, it is easier for a public official with procurement and contract monitoring responsibilities to collude with such contractors for

improper purposes, to engage in unauthorised secondary employment or to award work to their own company. Small or inexperienced firms may be more likely to produce poor quality invoices and supporting documentation reducing transparency around transactions.

If maintenance work is ultimately performed by subcontractors, a government agency is limited in its likely ability to vet, induct and manage the maintenance workforce. A government agency may also have limited transparency over the maintenance workforce.

Corrective maintenance involving emergency works (for example, if vital equipment fails) may create an opportunity to bypass normal procurement processes and requirements for documentation. This creates an opportunity for contractors to exploit both the urgent situation and any information imbalance that arises when they have more information than an agency about maintenance costs and requirements.

The design of a maintenance system may also facilitate corruption. The interplay between contractor pricing arrangements, performance measures and the amount of risk an agency transfers to a contractor can be complex and create unintended outcomes that have a negative impact on contractor behaviour.

Efficiency, effectiveness and corruption – the relationship

This report analyses the relationship between designing an optimal maintenance arrangement that is efficient and effective while adequately controlled to minimise opportunities for corruption. A fundamental premise of this report is that integrating efficiency with corruption controls will minimise corruption opportunities as well as improve an organisation’s productivity.

Agencies that have productive operating environments have inherently fewer opportunities for corruption. Agencies that are in control of their maintenance systems are driven by a strong strategic direction that is linked to the efficient and effective operation of their assets (for example, through a focus on safety) and are less tolerant of contractor non-compliance or poor performance.

The notion that an agency can accurately predict and measure its maintenance costs is central to any efficient and corruption-resistant maintenance system. Careful management of maintenance expenditure is essential to reducing opportunities for corruption that arise when repeated and serious cost blowouts are accepted as normal practice. Chapter 2 of this report deals with the importance of understanding maintenance costs and the factors that prevent the attainment of this goal, such as a lack of awareness of the condition of assets.

Traditional approaches to corruption prevention, including those relating to maintenance services, have primarily focused on the principle of segregation as a core internal control. Typically, responsibilities for contractor selection, work allocation and performance verification are separated in order to reduce opportunities for contractor collusion with in-house staff. Yet, reliance on integration to improve and link insights into asset conditions and costs, along with optimising interactions between processes to ensure they inform each other, will also minimise corruption opportunities. The concept of integration is also key to designing systems in a way that boosts productivity and improves operations. Integration and segregation are not “either/or” solutions; both are essential strategies and should be implemented concurrently. The important issue is understanding what and when to segregate and integrate.

Public sector agencies also need to maintain their assets in a way that accords with their level of expertise and they should ensure that their maintenance systems are tailored to their specific context.

The success of an agency’s FM system will also be contingent on a number of factors that motivate contractors and help align their interests with those of an agency. Such factors include the details of pricing arrangements and the design of incentive schemes that motivate a contractor to perform. Chapter 6 addresses these issues.

Chapter 2: Obtaining insight into your assets: locations, conditions and maintenance costs

This chapter focuses on understanding basic information about assets that is essential to minimising corruption in the provision of maintenance services: the location and condition of assets, and the costs involved in maintaining them. An agency needs to know what assets it owns, the condition of these assets and the costs involved in maintaining them to deter theft and fraudulent activities arising from contractors charging for maintaining non-existent assets, as well as overcharging or over-servicing existing assets. Once this information is obtained, an agency can adopt a more complex analysis to determine whether it has obtained value for money in the procurement of maintenance services.

Understanding the location and condition of assets

Understanding the location and condition of assets is fundamental to the provision of maintenance services and preventing corruption. However, many government agencies and private sector companies struggle to obtain even this fundamental level of insight.

Case study 1: Understanding the condition of assets and maintenance needs

In 2008, the Commission's Operation Monto investigation examined allegations of corruption in RailCorp, the state-owned corporation at the time that was responsible for running city trains and maintaining the rail corridor in the Sydney Basin and to nearby regional cities.⁵ The focus of the investigation was RailCorp's Asset Maintenance Group (AMG), which

was responsible for maintenance of the rail corridor, including track and signal repairs, graffiti and rubbish removal, and vegetation management.

The investigation exposed systemic corruption including improper allocation of contracts worth \$19 million, bribery and other corrupt receipts totalling \$2.5 million, contractor under performance and overcharging, and endemic timesheet fraud.⁶

Although RailCorp was subsequently restructured and its operation and maintenance functions transferred to other entities, during the period of the investigation, operational inefficiency and ineffectiveness allowed corruption to occur, for example:

- available maintenance data was not analysed to improve effectiveness, meaning RailCorp lacked robust benchmarks for job volumes. For instance, data on track welds relating to trends relevant to cracking, asset life cycles and costs were not used to highlight the condition of assets and to determine maintenance needs. RailCorp's inability to easily determine whether rail welds were actually needed allowed an internal project manager and a contractor to obtain funds dishonestly⁷
- assets were not controlled or tracked well, creating an opportunity for theft. For example, RailCorp property and scrap metal worth about \$10,000 was stolen by employees and delivered to a scrap metal dealer, who split the proceeds with the staff. The missing property was not detected by RailCorp⁸

⁵ Eight investigation reports were released in total. NSW Independent Commission Against Corruption (ICAC), *Investigation into bribery and fraud at RailCorp: Eighth report*, December 2008. This volume deals with the corruption prevention issues arising from all of the investigation reports.

⁶ Ibid, p. 5.

⁷ Ibid, p.15.

⁸ NSW ICAC, *Investigation into bribery and fraud at RailCorp: Seventh report*, November 2008, pp. 16–17.

- bulk purchase orders were preapproved for amounts of up to \$50,000 for work that was not yet specified. This made it difficult to track the maintenance work needed.⁹

The Commission made 40 corruption prevention recommendations about changes to RailCorp's structure, practices and procedures aimed at addressing the above issues.

Case study 2 provides a further example of the importance of determining the scope of organisational need when purchasing services.

Case study 2: Ensuring the purchase of a service meets an organisational need

The British Ministry of Justice allocates significant funds to electronically monitor offenders on home detention, curfews and bail. Between 2005 and 2013 it spent more than £700 million on these services.¹⁰ In 2013, it received information that two security firms with contracts to electronically monitor offenders were charging to monitor the movements of offenders who were dead, back in prison or who had been deported. The British Government secured payments of £172.4 million from the contractors related to overbilling.¹¹

But how could such overcharging have occurred in the first place? The scale of overcharging suggests that the

ministry had inadequate knowledge of the various costs involved in monitoring offenders; otherwise, how could so much excess funding be available? It also suggests that the ministry had inadequate knowledge about the numbers and locations of offenders (akin to its "assets"); otherwise, how could it not know that offenders for which it was being charged were actually back in prison, deported or deceased?

The design of the electronic monitoring system contained weaknesses that allowed opportunities for overcharging to remain undetected. The ministry did not know the "actual number of separate individuals monitored each year".¹² Both contractors charged the ministry for each alleged offence, rather than charged per offender.¹³ In one case, a person was convicted of four separate offences and the contractor charged four separate monitoring fees for the same person.¹⁴

Why is it difficult to obtain insight into the location and condition of assets?

Assets are sometimes in difficult to reach locations, such as below-ground powerlines and pipes buried in residential areas. Activities such as the inspection and cleaning of air conditioning filters in underground railway stations, where large amounts of brake dust and dirt are generated, discourage close monitoring. Assets are sometimes purposely dispersed; for example, when heavy machinery is stored outside town where land is less expensive. An

⁹ NSW ICAC, *Investigation into bribery and fraud at RailCorp: First report*, August 2008, p. 15.

¹⁰ National Audit Office, *The Ministry of Justice's electronic monitoring contracts*, London, November 2013, p. 5.

¹¹ National Audit Office, *Transforming government's contract management*, London, September 2014, p. 7. The amounts repaid covered rebates, investigation costs and interest related to the overbilling.

¹² Op cit, *The Ministry of Justice's electronic monitoring contracts*, p. 6.

¹³ The ministry's view was that this practice was not in accordance with the contract (although the contractors argued that they had different contractual interpretations to the ministry).

¹⁴ Op cit, *The Ministry of Justice's electronic monitoring contracts*, p. 13.

agency may also have assets located across NSW because of their service-delivery functions and community needs, such as the provision of housing, hospitals and schools.

Agencies with remote and isolated assets are particularly disadvantaged compared to agencies that are in either close physical proximity to their assets or can rely on asset custodians to oversee their assets. Geographical remoteness can also make it difficult to enforce consistent asset maintenance processes and ensure that correct procedures are followed.

The ease of access to an asset can have a direct bearing on opportunities for corruption. In 2007, the Commission's Operation Persis investigation exposed corruption in the improper allocation of RailCorp cleaning contracts valued at \$710,000 for station air-conditioning systems. RailCorp's ability to detect the corruption that occurred was impeded because it was difficult for supervisors to physically access assets (for example, air-conditioning units behind locked doors, and grills in underground railway stations and cooling towers in difficult to reach locations).¹⁵

Improving asset knowledge

Developing an up-to-date asset register is an obvious initial step towards an agency understanding the assets it actually owns or controls. Asset registers are the foundation for planning and decision-making around the provision of maintenance services. Registers also provide a constant backbone to service many different applications of information within an agency, including those concerning project management, purchasing, accounts payable and the general ledger account.

While public sector agencies are required to maintain asset registers, there is a large degree of variation among agencies in terms of the accuracy of the information obtained. A well-designed asset register, underpinned by key information, is integral to assisting an agency with knowing the assets it needs to maintain and their location, the length of time for which the assets ought to be maintained, and the amount of money it should spend over an asset's lifetime.

Well-designed registers also capture corporate memory about the nature of assets and their performance. Inaccurate and disorganised asset registers – characterised by incomplete information, the misclassification of assets and the incorrect grouping of assets disguising the importance of particular assets – help to conceal asset information. Without complete and accurate asset information knowledge, planning and budgeting is based on guesswork, and maintenance work becomes ad hoc

and more vulnerable to corruption due to the ensuing uncertainty around costs and requirements.

Even though highly sophisticated databases are available for use in tracking assets, these databases need to be populated with data in the first place. Developing a reliable asset register can be difficult and time consuming. Sometimes uncertainty or disputes over the ownership of assets by two or more agencies means an asset does not get registered in a database and its maintenance is neglected. Similarly, keeping track of assets that are bequeathed to councils and monitoring assets when public agencies merge can also be challenging and create confusion about ownership.

There are a number of strategies that can be incorporated into an asset maintenance system to understand and track the location of assets and to determine their condition, as follows.

- **Inspect documents** – documents such as leases and the as-built drawings produced at the completion of construction show the elements of completed works including the location and dimensions of assets. The performance of assets can also be ascertained by reviewing written work order histories and commissioning information.
- **Inspect assets** – the regular visual inspection of assets can be tedious and time-consuming, but it may be essential in building an adequate asset register. The Commission spoke with staff from one regional council that had come into existence as a result of a merger between various regional councils. Due to uncertainty about the accuracy of records from one of the former councils, the new council decided to visually inspect council property to determine what assets existed and to assess their condition. This data was used to populate a new asset register.

Some agencies also adopt deliberate strategies to facilitate customer feedback on their assets as a way of improving asset knowledge. One local council uses “public placement officers”, who are members of the public that inspect and observe visible assets used by the community, and then liaise with the council about maintenance needs and other problems. All work order requests are then linked to the asset register.

On the other end of the technology spectrum, some agencies are beginning to trial drone technology for asset inspections, using this information to then update their asset registers. The use of such technology provides a number

¹⁵ NSW ICAC, *Report on an investigation into corrupt conduct associated with RailCorp air-conditioning contracts*, June 2007.

of advantages compared to manual inspection methods, such as improved data quality and efficiency, and safety benefits.¹⁶

- **Use software that corresponds with an agency's needs** – as agency asset portfolios grow and become more complex, it becomes increasingly difficult to ensure that the location and attributes of fixed and mobile assets remain known. Even when agencies have a clear understanding of what they own, the design of the asset register may not be sophisticated enough to catalogue all the required information about assets.

The demands on an asset register will also vary according to the size of an agency and the complexity of its assets. For some very small agencies with few assets, a spreadsheet may be entirely adequate. Agencies with large infrastructure, such as utilities, will require asset register software that can cope with a complex set of asset characteristics.

Some local councils store and represent asset information with various layers of descriptions and measurements relating to asset condition assessments, asset replacement dates and suggested preventative maintenance schedules. This type of data is also represented in map form; for example, streets, pipes and footpaths are broken down into segments that are geo-coded and treated as individual asset pieces to facilitate maintenance planning.

- **Use global positioning system (GPS) technology** – real-time location systems are useful for agencies that have large quantities of movable assets, and assets that are remotely located or can be easily lost. Mobile assets, such as rubbish trucks and other machinery, can be tracked by using GPS locators so assets are easily observed. One regional council, for example, combines GPS with geographic information system technology giving it real-time spatial data about the movement of its assets
- **Continually update asset knowledge** – collecting and analysing high-quality up-to-date information about the location and condition of assets allows information to be continuously updated.

Understanding asset maintenance costs

A main line of defence against corruption is maintaining “visibility” over maintenance costs. At a most basic level, this requires an understanding of the direct costs, such as material, labour and equipment involved in maintaining an agency's assets at the transactional level compared to what it ought to be paying. A large variance between these amounts can be an indicator of corruption, as it is apparent that an agency is paying too much for a service.

For the provision of more complex maintenance services – for example, when a component of a contract includes contractor management – the establishment of benchmarks that include indirect costs (such as head contractor overheads) will reveal whether budgets are overblown. Budgets that are excessive or contain “fat” make money available for improper purposes such as overcharging.

On an aggregated scale, the comparison of maintenance expenditure across various years or similar regions can also reveal whether overall budgets are excessive or loose. By contrast, tight control over expenditure reduces corruption opportunities by limiting the supply of money for such purposes.

Knowing what maintenance actually costs your agency

Central to preventing corruption is knowing how much is spent on maintaining assets. A number of managers that the Commission consulted while undertaking research for this report expressed the view that public sector operations do not sufficiently recognise the value of budget controls in preventing opportunities for corruption. The recognition of budget control as a significant tool that can prevent opportunities for corruption is a first step in addressing this concern. This is demonstrated in case study 3.

Case study 3: Quantifying and scrutinising costs

In 2008, the Commission investigated corruption in the procurement of 39 minor capital works projects undertaken by the then NSW Fire Brigades (NSWFB) that included maintenance works such as building repairs.¹⁷ The corruption in Operation Mirna involved two project managers responsible for carrying out building projects and maintenance tasks, such as painting and air-conditioning repairs.

¹⁶ M Goldsmith, “Aerial drones: The future of asset inspection”, *Utility Magazine*, February 2015. Accessed on 10 November 2016 at www.utilitymagazine.com.au/aerial-drones-the-future-of-asset-inspection.

¹⁷ NSW ICAC, *Investigation into tendering and payments in relation to NSW Fire Brigades capital works projects*, December 2008.

Soon after starting at the NSWFB, the two project managers realised that capital works budgets were excessive. This situation made it easy to exploit NSWFB's poor understanding of its maintenance costs. One of the project managers set up shell companies and created quotes and tenders from these companies for amounts just below the allocated budget (using their insider knowledge of the estimated budgets). The project managers awarded tenders to the shell companies and then subcontracted the actual work.

NSWFB paid just over \$6 million to the companies for the 39 projects, but the actual cost of the work was \$3.6 million. This meant that the projects had a total profit margin of 40%, allowing the two project managers to keep \$2.4 million. The project managers got away with this scheme because NSWFB did not effectively quantify and scrutinise how much it was spending on the projects.

Prior to the investigation, NSWFB had excessive estimated capital works and maintenance budgets, and a lack of understanding of the costs involved in maintenance tasks. The budget allocation process provided the corrupt managers with an opportunity to benefit from its failings. Initial broad estimates of works were supposed to reflect the upper limit of what a project might cost and to avoid the need to seek additional funds in the future. The initial budget estimates were not, however, later re-costed.¹⁸ Operation Mirna shows that when an agency does not have visibility over how much it is spending to maintain specific assets, this vulnerability can be exploited by corrupt officials and contractors for improper gain.

A total of 14 corruption prevention recommendations were made to NSWFB, which included changes to budgeting and estimating processes.

An examination of aggregated maintenance expenditure against previous years or other areas with comparable maintenance needs can also highlight whether there is money available to be siphoned off for improper purposes. A particular problem for many agencies is the padding of budgets – for example, through setting aside generous amounts of money for contingencies – when there is no genuine need to allocate this money. This is demonstrated in case study 4.

Case study 4: Monitoring budgets

In 2012, the Commission investigated corruption in cleaning services undertaken at the University of New England (UNE).¹⁹ In Operation Crusader, the Commission found that the manager of campus services, who was responsible for many key maintenance activities, accepted free hospitality from contractors in breach of the university's code of conduct. This hospitality influenced him to favour one of the contractors. He also arranged for the contractors to issue fraudulent invoices worth approximately \$48,000.

At UNE, the budget for maintenance was set at expected costs, plus a contingency amount, which also meant that there was excess money in the system that was available for corrupt purposes. The trigger for review was tied to exceeding limits on the contingency rather than exceeding the budget itself. The effect was that, if the service were delivered near budget, then the contingency amount was available to the manager without oversight. This lack of focus on the use of contingency amounts and the lack of overall control of the budget was a major weakness that allowed corruption.

The Commission made five corruption prevention recommendations to UNE, including that the use of contingent funds trigger management approval.

Sometimes emergencies are used to justify expenditure with little or no scrutiny of the amount paid for the service. This becomes problematic when an "emergency" continues indefinitely, as shown in case study 5.

Case study 5: Scrutinising the use of emergency funds

In 2007, the Commission investigated the conduct of an air-conditioning maintenance engineer at RailCorp, who allocated work to a contractor, who, in turn, subcontracted the work to two firms controlled by his family.²⁰ After the contractor was awarded the contract, the budget for "emergency call-outs and emergency repairs" was raised substantially through the influence of the maintenance engineer. When the contract was extended for another year, the portion of additional emergency repairs increased further.

¹⁹ NSW ICAC, *Investigation into the conduct of a University of New England (UNE) procurement officer and UNE contractors*, August 2012.

²⁰ *Op cit*, *Report on an investigation into corrupt conduct associated with RailCorp air-conditioning contracts*.

¹⁸ *Ibid*, pp. 44–45.

Over the life of the contract, RailCorp paid \$5.4 million for air-conditioning services, of which emergency repairs constituted 56% of all payments and routine maintenance only 44%.

As a result of Operation Persis, the Commission recommended that RailCorp develop a specific procedure for managing emergency maintenance requests.

Isolating emergencies and contingency expenditure amounts within maintenance budgets can highlight conduct that warrants further investigation. Separating such expenditure from routine expenditure also helps to make it absolutely clear to an agency how much is being spent on emergency work.

Case study 6 provides a good practice example of how maintenance budgets can be tightly controlled.

Case study 6: Better practice example – a Victorian government department tracks maintenance expenditure

The Commission interviewed a senior executive from a Victorian government department who has tracked the department's FM expenditure across 200 sites over eight years for the purpose of tightly controlling these costs.

At the beginning of the eight-year period, the maintenance spend was \$10 million, but has now decreased to \$6 million. As part of the tracking system, at monthly intervals, all FM costs are sent through to head office and the regions where maintenance work is performed. These costs are not automatically paid; rather, they are examined by both sets of staff to help ensure any anomalies are detected.

Monthly maintenance trends are also tracked and compared to previous months via certain categories of expenditure that are aggregated across sites. Any category of expenditure that exceeds estimated expenditure is examined more closely. There is also a requirement for the contractor to report three times a year on the actual maintenance budget compared to the estimated expenditure, which highlights any variances.

The design of this system allows the agency to know how much it is spending on maintenance and what it is spent on. Importantly, maintenance costs are examined at different stages and at different levels of aggregation, as well as being compared to estimates and previous actual expenditure amounts. The system also facilitates scrutiny by both operational staff in the regions and central management.

Knowing what maintenance ought to cost your agency

Market competition is the usual way for agencies to “discover” prices, as contractors compete to provide their services for a realistic but profitable rate. This allows an agency to compare and contrast prices to help gauge how much a maintenance activity ought to cost.

Competitive processes, however, will not always produce a realistic gauge of the costs involved in maintenance. If there is inadequate competition driving the discovery of price, agencies can risk paying inflated costs for maintenance. When markets for maintenance services are weak because of the limited number of suppliers, there will be fewer opportunities for competitive pressure to shape the price. Signs of a weak market can include a low number of bids for a tender and few suppliers having the necessary skills and experience to fulfil all tender requirements.

In situations where there is a monopoly supplier, there is little point re-tendering because this will simply add to costs and not result in competition that produces a reasonable rate for the provision of a service. In such cases, a useful approach to understanding how much maintenance ought to cost an agency is the comparison of actual maintenance costs with cost benchmarks developed by the agency.

Benchmarking comparisons reduce the risk of corruption related to inadequate knowledge around costs by reducing the information imbalance that arises when a contractor has more information than an agency about maintenance costs and requirements. Information imbalance is discussed further in chapter 5.

Establishing internal maintenance cost benchmarks also enables an agency to determine reasonable prices for maintenance services and whether surplus money is available in the system for corrupt purposes. This often requires an agency to identify the individual cost components that comprise the total cost of a maintenance service including direct costs, industry standard profit margins and indirect costs (such as corporate overheads). Once a benchmark has been established, price comparisons can be made. A worthwhile exercise is comparing the actual costs of maintenance activities against an agency's benchmark price for that particular task. Comparisons can also be made with other internal areas or other organisations in the same sector. Some agencies also establish price benchmarks prior to tendering to assist in the assessment of the price component of proposals. Proposals are then compared to the benchmark as well as being assessed relative to each other.

Case study 7: Better practice example – a NSW water utility meets and beats the market

Since 2010, Sydney Water's civil maintenance business unit has used a benchmarking approach based on a "meet and beat the market" methodology, with the aim of reducing operating costs to industry standard best practice while at the same time continuing to meet its customer service and safety targets.

In 2011–12, along with three other Victorian utilities, Sydney Water participated in a benchmarking exercise commissioned by Barwon Water, the authority covering the Geelong area. The study found that Sydney Water was on average 18.5% more costly than its two most efficient Victorian counterparts.

Nine industry comparable tasks were used to establish reporting benchmark measures. The tasks comprised 65% of the business unit's annual workplan. The unit costs for each task contained direct labour, contractor, material, plant and equipment and overhead costs. By June 2015, Sydney Water had achieved unit cost savings of 18.3%.²¹

The meet-and-beat-the-market approach was presented internally as an alternative to across-the-board outsourcing. By improving industrial relations and securing commitment to workforce reforms, the agency has continued to deliver maintenance work in-house as opposed to outsourcing this function.²²

Comparing contractor costs and performance can also facilitate competitive tension between existing contractors, resulting in increased productivity and innovation, and highlight poor contractor performance and possible corruption.

As an example, in 1991, Melbourne Water (the Victorian government-owned statutory authority controlling much of the water system in Melbourne) had three regions – Maribyrnong, Yarra and South East Region. Each region had a significant maintenance contract with a private infrastructure maintenance company. This enabled Melbourne Water to benchmark and compare costs and service standards across regions. Each region contracted a separate maintenance company, which allowed comparisons regarding the performance (cost and service) of the three different contractors.

A comparison of the three contractors' performance, including the interval between a customer's complaint about a leaking pipe and fixing the pipe, and repeated complaints about the same leaking pipe (indicating poor maintenance work by a contractor) was also possible. This permitted the creation of cost and service benchmarks for each contractor on a transactional and aggregated level. After three years under this model, Melbourne Water itself was divided up into three retail water companies and a wholesale water company. Each company was in a position to understand the efficient cost of providing services to its customers.

Such an approach was adopted in the 1980s by the British multinational retailer Marks and Spencer. Three regions were established across England with different contractors in each region undertaking store maintenance. The creation of three regions allowed the performance of each contractor to be benchmarked. It also meant that an underperforming contractor could be replaced by a known contractor.²³

The following approaches can assist in undertaking meaningful comparisons to better understand contractor costs and performance.

- Compare the cost of services with another comparable organisation, such as a similar-sized council. Government regulators and industry bodies, such as the Water Services Association of Australia, play a role in the provision of information about cost benchmarks. As an example, the Independent Pricing and Regulatory Tribunal (IPART) has determined benchmark costs for local government infrastructure items at the request of the NSW Government. This information provides a source of consistent and efficient comparative estimates for specific infrastructure costs incurred by local councils. The setting of these prices also provides an incentive for agencies to monitor their budgets.
- Use an open-book strategy with contractors, requiring their company accounts to be provided to agencies to reveal costs and profits. The effectiveness of this approach depends on whether contractors accurately report costs as well as on the internal financial capability of agencies to make sense of what it is shown and the ability to challenge inaccurate information based on their own data.

²¹ Sydney Water, *Annual Report 2014–15*, p. 15.

²² N Hart and G Bourke, "Sydney Water Corporation – Civil maintenance modern mobile workforce project (Meet and beat the market)", February 2015. Accessed on 28 October 2016 at www.awa.asn.au/documents/005%20NHart.pdf.

²³ GL Sturgess, *Contestability in public services: An alternative to outsourcing*, Australian and New Zealand School of Government, April 2015, p. 18.

- Assess budgets from different angles – while there are several ways of structuring a budget, one approach adopted by a large FM service provider is to track overall costs by grouping budgets by 36 maintenance trades rather than against each facility. Tracking budgets by trade can help agencies to keep a better track of where variations are occurring and which suppliers are involved.
- Require tenderers to break down their fee proposals into the various input components; for example, labour, on-site and off-site overheads such as insurance and profit margins.
- Undertake a “reverse engineering costs exercise”, whereby the agency itself takes apart various components of a maintenance job and costs them individually. For example, determining cost inputs from sources, such as labour awards and industry profit margins, to determine a benchmark for comparison with fee proposals.
- Use a “shadow run approach” for first term outsourcing contracts where the primary aim is to capture data about the performance of an agency’s assets and the related costs. This data can then be used for cost benchmarking in subsequent generations of contracts.
- Seek the advice of an external consultant who understands the market and how contracts can be structured to increase competition to facilitate price comparisons during the contractor-engagement stage. Engaging external consultants can, however, create corruption opportunities, as consultants may have close ties with suppliers, especially in small sectors, giving rise to conflicts of interest.²⁴ As an alternative, an agency can improve its internal capabilities in this area if the permanent engagement of a staff member with these skills can be justified.

Obtaining value for money

Once an agency knows the location and condition of its assets and has established benchmarks based on costs and contractor performances, the next step is to consider whether it can obtain value for money in the procurement of maintenance services.

All NSW government agencies are required to obtain value for money in relation to the procurement of goods

and services.²⁵ Attaining value for money creates a solid foundation for responsible financial management, including understanding the full benefits, costs and risks involved in the adoption of a particular maintenance approach. Embedding a value-for-money culture in an agency ensures it is better placed to detect corrupt practices by reinforcing the link between monetary costs and contractor performance. Achieving value for money also means that maintenance arrangements are not necessarily based on the least expensive price, as a consideration of value for money includes the reputation of a contractor and risks such as the non-performance of contractual obligations.

The NSW Procurement Board has defined value for money as the differential between the total benefit derived from a service against its total cost when assessed over the period the service is to be utilised.²⁶ This assessment goes beyond a narrow focus on the price of a service and includes broader concepts, such as the opportunity costs involved in adopting a procurement strategy and whole-of-contract benefits and costs. The Procurement Board has identified three broad types of benefits and costs that are relevant to assessing value for money, as follows.

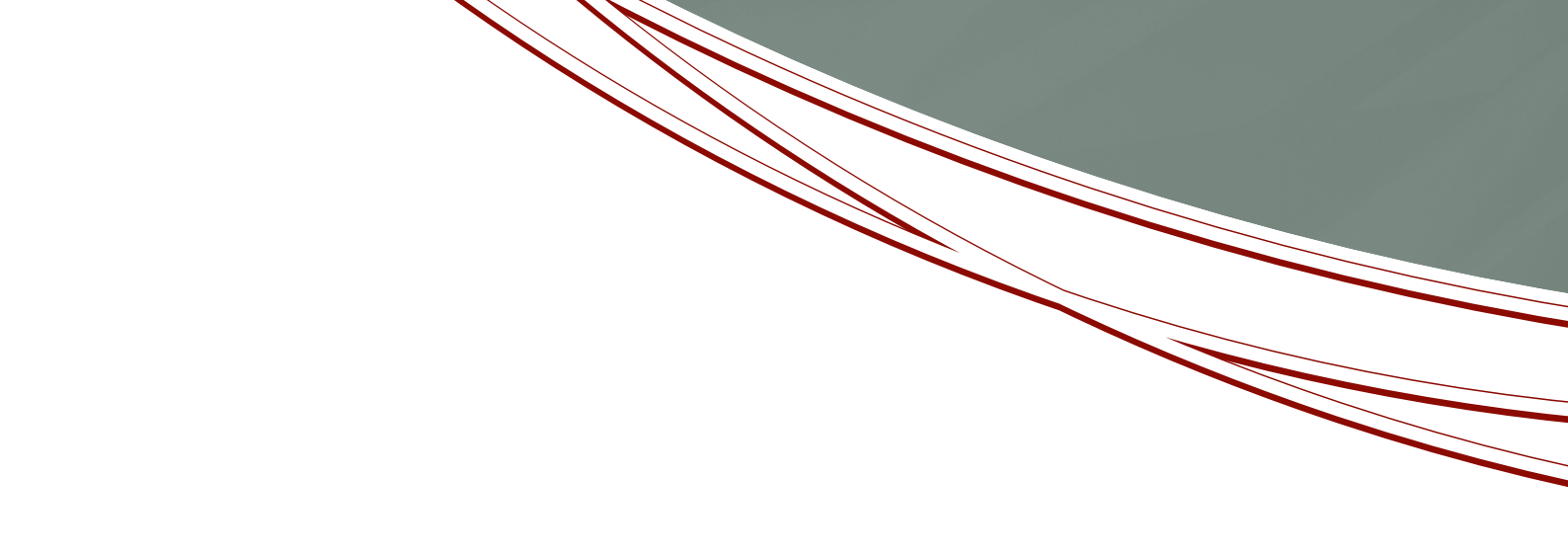
1. Up-front benefits and costs are typically emphasised during procurement activities and include factors such as direct and indirect costs for an agency associated with purchasing maintenance services as well as reductions in existing levels of expenditure. Examples include the price of a contract, revenue changes and avoided costs resulting from the procurement action.
2. After-purchase benefits and costs are often characterised as relating to the whole-of-life of a contract. Key value for money considerations include whether technology or agency preferences reduce the benefit of a contract as well as transaction costs associated with the performance of a contract, including the ongoing costs of monitoring contractor performance. Contract management risks, such as the reputational risk to an agency of contractor non-performance, are also relevant.
3. Fitness-for-purpose benefits and costs typically involve subjective assessments of non-price factors, such as a broad assessment of a contractor’s capacity to deliver a service, the capability of a service to meet an identified need and adherence to government policies.²⁷

²⁵ Section 176(2) *Public Works and Procurement Act 1912*.

²⁶ NSW Procurement Board, “Statement on value for money”, accessed on 28 October 2016 at www.procurepoint.nsw.gov.au/policies/nsw-government-procurement-information/statement-value-money.

²⁷ Ibid.

²⁴ See NSW ICAC, *Investigation into allegations of corrupt conduct in the provision of security products and services by suppliers, installers and consultants*, September 2013.



An assessment of whether value for money has been achieved will also highlight whether unnecessary “gold-plated” procurement solutions have been adopted. Importantly, any consideration of value for money includes whether a fit-for-purpose or right-sized solution meets an agency’s underlying maintenance needs. The scope for corruption in how maintenance needs are determined is significant. A type of corruption arising from the manipulation of need identification involves procuring services that were never required in the first place or procuring services to a standard that was beyond the need identified by the agency when a lower cost option was more appropriate. An initial decision to procure a service that is tainted by corruption may then be difficult to detect as the rest of the procure-to-pay process can follow proper procedures and appear compliant.

Assigning a monetary amount to the benefits and costs associated with value for money can be a difficult task. While it is unnecessary to formulate detailed value-for-money calculations for straightforward one-off transactions, it is important to consider such an exercise when assessing whether a procurement solution or maintenance arrangement provides value for money.²⁸

Further information about economic appraisals, including the quantification of costs and benefits in monetary terms, can be found in the NSW Treasury publication titled *NSW Government Guidelines for Economic Appraisal* (TPP07-05). Although the guidelines relate to capital works, they encourage the use of economic appraisal techniques across all areas of public sector activities, including the provision of maintenance services.

A consideration of value for money factors allows the overall efficiency and effectiveness of a maintenance system to be examined by an agency. Establishing benchmarks that take into account the efficiency and effectiveness of a contracting arrangement, including client satisfaction and the full transaction costs involved in delivery of a procurement solution, is another way of highlighting poor performance that typically involves deficient service standards and high costs (also indicators of corruption).

The establishment of benchmarks based on the concept of value for money, as defined by the Procurement Board, can be a difficult exercise – something not all agencies are well placed to undertake. Yet, for complex assets and long-term contracts covering a range of maintenance services, achieving this high-level aim is necessary to test the overall integrity and efficiency of arrangements.

Many of the methods discussed in this chapter cost money to implement, and some can be expensive. Their use should be proportionate to the size and sophistication of the maintenance system required by each agency, and the likely value to an agency. An initial important step for some agencies, however, is the realisation that upfront effort has to be made to achieve the long-term efficiency gains and resistance to corruption that flow from obtaining insight into asset location, condition and costs. The following chapters consider the design of maintenance arrangements in more detail.

²⁸ The Procurement Board advises that the examples provided in its value-for-money statement should be used as guidance only and that decision-makers should exercise judgment in considering individual value for money considerations.

Chapter 3: Designing your maintenance system: what to integrate

Chapter 2 discusses the importance of identifying all assets an agency owns along with their location, condition and associated maintenance costs. This chapter is about further integrating such information and ensuring processes function together to improve insights across the whole of maintenance operations. A key goal is allowing decision-makers access to the information needed to make informed choices regarding contractor selections, payment approval and contractor performance verification.

Reliance on integration in the design of maintenance arrangements is equally important as segregation as a key corruption prevention control. Integrating asset information and aligning processes can have a strong impact on controlling corruption while also improving the efficiency and effectiveness of such processes. Incorporating integration into the overall design of a maintenance system will help ensure it is less cumbersome and disjointed while allowing clearer, more consistent and seamless processes.

Different elements of a maintenance system can be combined to produce informed outcomes. Information about prior maintenance repairs can be integrated, for instance, into future budget forecasts to more accurately predict future expenditure. Case study 8 considers the concept of integration in a more sophisticated way.

Case study 8: Better practice example – a Melbourne-based water utility utilises the concept of integration

A Melbourne-based water utility operates in a particularly challenging environment; for example, demand uncertainty is high, as factors, such as the amount of rainfall, can impact on the number of burst or leaking water mains.²⁹ This corporation has

earned a reputation for being an efficient and effective organisation.³⁰

To reduce its demand uncertainty, the water utility uses a single database for all maintenance works, including initial requests, works orders, response and completion times and customer satisfaction level upon job completion. It also employs people to analyse data about maintenance repairs and costs to determine benchmarks around price, timeliness and asset life cycles.

Examples include engineers who analyse data patterns to identify the age and condition of pipes along with their performance, with the fundamental goal of improving productivity. This is achieved by accurately predicting when pipes should be replaced and determining optimal intervals for preventative maintenance to be undertaken. Accurate data about site conditions are also collected to produce a finely grained analysis of environments, including where rocks and tree roots are located. Importantly, this analysis is used to inform decisions concerning budgets, work schedules, the approval of variation claims and the assessment of contractor performance through the development of KPIs.

The utility's ultimate aim is the reliable delivery of water to residential households and businesses at the cost mandated by government, with stringent control of budgets, the quick detection and investigation of anomalies, and alerts and scrutiny around proposed contract variations.

²⁹ PH Jenson, *The impact of incentives, uncertainty and transaction costs on the efficiency of public sector outsourcing contracts*, August 2004, p. 17.

³⁰ For information about the productivity of Victorian water utilities for the period between 2006 and 2013, see M Cunningham, *Victorian urban water utility benchmarking, report prepared for the Essential Services Commission*, July 2014, pp. 35–36.

The level of sophistication and technical capabilities of the water utility's data management system discussed in case study 8 is likely to be cost prohibitive for some agencies. Nevertheless, the general point remains that agencies should use integration techniques to inform insights and improve the transparency across their maintenance systems.

In recent times, the NSW Government has focused on improving the strategic management of assets through the integration of various asset management policies, strategies and plans. The NSW Treasury's Total Asset Management Policy requires state agencies to plan for their long-term physical assets as part of their corporate planning responsibilities.³¹

Similarly, local councils are now required to comply with an Integrated Planning and Reporting Framework under the Office of Local Government, which includes various integrated components that are used to describe the condition of key assets, determine when councils ought to intervene to improve assets and identify acceptable levels of asset service. This information is then used to demonstrate how a council's assets will enable the implementation of long-term community strategic plans. The framework allows councils to draw together key information about the strategic management of assets, including asset condition assessments, deterioration modelling,³² risk analysis and life cycle costing.³³ When implemented properly, the framework improves long-term asset planning, providing a sound basis for key asset management decisions while also reducing corruption opportunities arising from poor planning and weak budgets.³⁴

Integrating supply with need

Identifying and quantifying a maintenance demand with a genuine delivery need is an important control that can help minimise corruption opportunities.

Case study 9: Integrating supply with need

In 2012, the Commission investigated allegations that staff from a number of local councils and other agencies engaged in corrupt conduct.³⁵ Operation Jarek also investigated allegations that suppliers gave bribes and gifts to storepeople in two local councils in return for the storepeople ordering hundreds of thousands of dollars of excess stock. This excess stock, which was placed in the councils' stores, included chemicals and cleaning products used by maintenance workers to clean public recreation and toilet facilities.

One of the councils had already realised that controls over its procurement and inventory processes were inefficient. Its store was full of unnecessary items, wasting ratepayers' money on products that had expired before their use-by date. These systemic weaknesses in the council's processes created the opportunities for corruption that led to them being exploited by its storeperson.

While segregation of staff responsibilities between different processes (and sometimes within a process) was introduced, important elements of the process that had been disconnected were integrated. The council responded by redesigning three key areas in order to maximise efficiency and reduce waste, as follows.

1. Procurement – an e-procurement system was introduced that ensured all approvals and purchases could be tracked and matched.
2. Inventory management – only the storeperson had understood where everything was kept and which items were part of the store proper, or had simply been put there for lack of a better place. The precise location of items within the stores, including shelf or row, was not recorded electronically and items were not barcoded. After Operation Jarek, the council tidied up the store and disposed of unwanted items. It introduced an integrated inventory management system to properly record the location of goods, their movement in and out of the store and to generate ordering alerts when stock reached critical levels.
3. Stocktake – previously, since the storeperson had, himself, led stocktakes, it enabled him to hide surplus goods or lie about actual quantities. The council made a senior manager, who physically

³¹ More information about this policy is available on the NSW Treasury website at www.treasury.nsw.gov.au.

³² Deterioration modelling assists in determining the probability that an asset will fail during the different stages of its lifespan. It has the potential to improve the scheduling of preventative maintenance and replacement.

³³ Life cycle costing is the process of identifying the total costs throughout the life of an asset.

³⁴ More information about the framework is available on the Office of Local Government's website at www.olg.nsw.gov.au.

³⁵ NSW ICAC, *Investigation into allegations that staff from a number of local councils and other public authorities accepted secret benefits from suppliers and that staff from two local councils facilitated payment of false invoices from suppliers*, October 2012.

visited the store, responsible for stocktakes, segregating this responsibility from store management. Stocktakes are also now quicker due to the reorganisation of the store area.

Importantly, these three processes are now linked to allow information to flow and improve insights across procurement needs and costs. Data is generated about assets (in this case consumable items used for maintenance) that enables the council to build its asset management capability. Specifically, target levels for stock are available and tracked against purchases, freeing up and introducing more predictability to maintenance budgets. Variations in procurement are easily detected and tracked through reports generated by the new e-procurement and inventory management systems. The net effect of connecting these processes is that fraud relating to over-ordering, failure to deliver items and theft is easier to detect.

The Commission's corruption prevention response to the conduct disclosed during Operation Jarek was based on 15 recommendations, which were mostly aimed at local councils. The Commission recommended that councils analyse inventory management systems with a view to improving controls and reducing waste, and ensure that they are able to generate reports showing the orders placed by an individual across all cost centres.

Another way supply can be integrated with need is through tracking variables such as site conditions when assets are maintained. As discussed, some large utilities are particularly advanced when it comes to using databases to integrate site condition information from previous maintenance jobs with future requests for maintenance work. This helps accurately define the scopes of work and limits the use of variations to increase contract prices once a contractor is engaged.

Integrating data about asset performance and costs with contractor performance management

The Commission's 2008 investigation into RailCorp revealed that the Asset Maintenance Group (AMG) had collected data about safety incidents and, although data was available about cost and completion times of maintenance works – in other words, data that could have then been used to measure the efficiency and effectiveness of its operating systems – AMG did not integrate this data into any formal processes for managing contractor

performance. It simply had a requirement that repairs had to be undertaken during designated periodic closures of the rail corridor, and staff occasionally gave anecdotal feedback on performance to the contractor responsible for hiring subcontractors. Yet, it was the data related to cost and completion times that were most important for measuring performance and potentially detecting practices such as over-delivery, which occurred because contractors deliberately inflated the scope of maintenance jobs.

Linking data about individual repair jobs over time allows an agency to recognise, measure and judge long-term asset trends relating to costs and performance. If used effectively, this knowledge, in turn, provides a strong indicator of contractor performance. For example, tracking and comparing the performance of assets against previous repairs would highlight whether particular assets continue to breakdown after being repaired. Similarly, the continual breakdown of certain assets may highlight a failure by a contractor to undertake scheduled preventative maintenance. Case study 10 illustrates the importance of integrating data about asset conditions, repairs and costs to contractor performance.

Case study 10: Better practice example – a national retailer integrates data about asset performance with contractor performance

A national retailer uses an asset management software package to track FM work such as refrigeration, electrical, air-conditioning, cleaning and trolley collection services. The software stores data that includes initial maintenance requests, allocation of work to a contractor, average expenditure on different types of maintenance, expenditure per store and repeat call-outs. This data is integrated into the planning process in that it is used in preventive or proactive maintenance planning that is aimed at extending the life of assets and saving money in the long run.

The integration of the data also allows the retailer to monitor contractor performance. Repeat call-outs are red-flagged for further examination; for example, to determine whether repairs were undertaken to the required standard or an item should have been replaced but was not in order to generate repeat work for a contractor. The system also highlights expenditure variances that receive closer scrutiny and may indicate over-servicing.

Chapter 4: Designing your maintenance system: what to segregate

While integration is fundamental to a well-designed maintenance system, segregation also plays an essential role. Reliance on segregation as a corruption control is not about generating requirements such as additional sign-offs and multiple certifications for the same decision. An overdependence on such measures can create red tape, waste time and provide a false sense of security. In addition, requirements for multiple layers of sign-offs and additional certifications may create corruption opportunities by diffusing accountabilities.

Instead, the key purpose of segregation is to ensure there are in-built separations between the people responsible for key activities, such as developing and scrutinising budgets, determining maintenance needs, selecting contractors, verifying services, and managing contracts. The aim of segregation is to make it difficult for any individual to obtain end-to-end control over a maintenance system, which can provide opportunities for corruption.

When responsibilities for key activities are segregated, it reduces the potential damage from a close or improper relationship. Maintenance systems that are structured to segregate responsibility for key activities can help to minimise risks, such as a supplier trying to groom a public official by developing a “friendship” so that the public official favours the supplier’s business. This is because segregation limits the extent of the control an individual may have across all key activities and processes to improperly favour a friend’s business.

Segregating responsibility for key activities

The Commission has conducted numerous investigations where insufficient segregation of duties was a major factor allowing corruption in maintenance contracts. Namely, the agency under investigation gave a single public official responsibility for key activities within procurement and

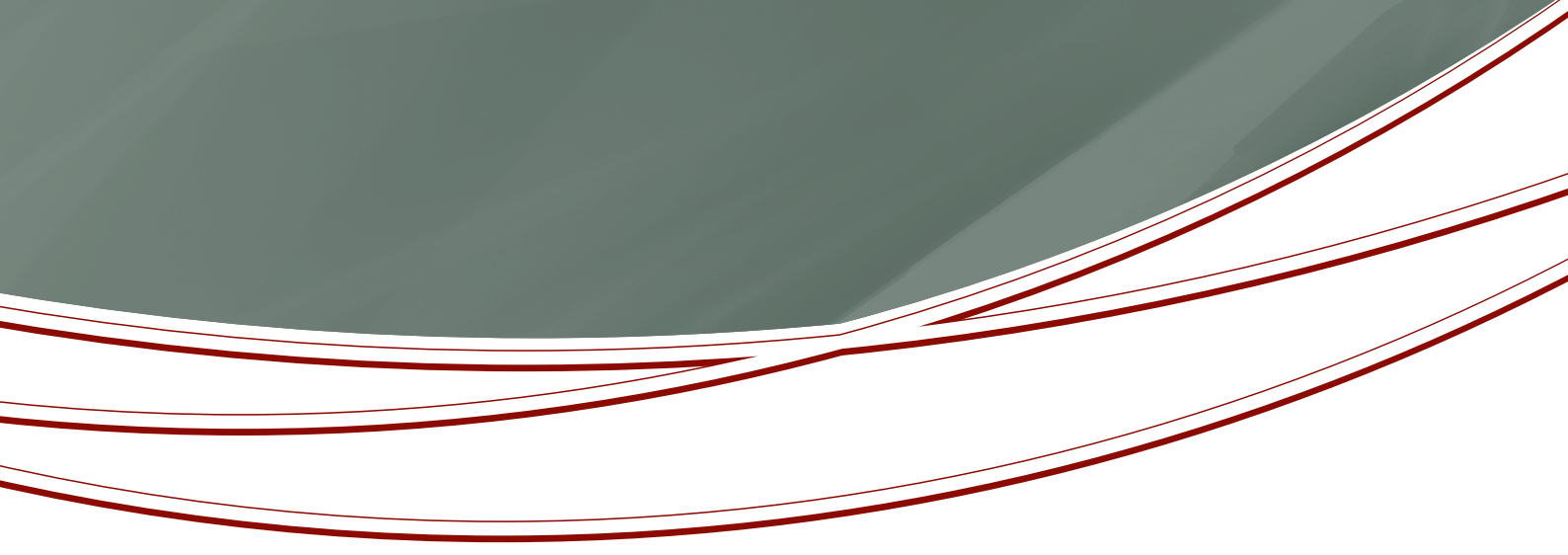
contract management processes, and he or she took advantage of this lack of segregation. There are many available examples, such as the example highlighted in case study 1, where the RailCorp project manager was responsible for identifying required welding work on rail tracks and for allocating that work and verifying that it had been satisfactorily completed. The project manager improperly obtained \$1.35 million in profit from these services.³⁶

Case study 11: Segregating staff responsible for key roles

In Operation Crusader (see case study 4), a significant weakness in the university’s processes was the inadequate segregation of people responsible for key activities within procurement and contract management. The problem was that the same staff often controlled numerous critical points in the procurement and contract management processes; for example, issuing invitations to tender, establishing the selection criteria, sitting on the tender evaluation panel, monitoring contracts, approving contract variations and approving payments. The university’s FM system achieved its stated aims, which largely centred on meeting loose budget targets, but its operational processes also allowed corruption to occur.

One approach to addressing the problem of favouritism in contractor selection is to tighten the policies and procedures around the declaration of conflicts of interest and gifts. Such measures can help establish standards of behaviour and track relationships and gift acceptance (if actually declared). While being an important element in combating corruption, an over-reliance on compliance-driven regimes can generate red tape that increases costs. Their success also relies on the honesty of public

³⁶ Op cit, *Investigation into bribery and fraud at RailCorp: First report*.



officials. These regimes are rarely effective in stopping someone who is fundamentally dishonest and intent on behaving improperly (although they do send an important signal to public officials and contractors about an agency's expectations).

An effective way of addressing problems arising from close contractor–employee relationships focuses on segregating control over the critical points in processes. Segregation was a far more comprehensive and cost-effective way of controlling corruption risks in the University of New England's maintenance regime (see case studies 4 and 11), than merely tightening regimes around declaring conflicts of interest or gifts and hospitality. If segregation of responsibility for critical points were effective, gifts and relationships would have had little chance of influencing the manager of campus services because he would have simply been unable to manipulate the entire system.

Case study 12: Better practice example – a commercial real estate services company segregates responsibility for contractor selection from facilities managers

A commercial real estate services firm has a rigorously segregated approach designed into its works order system that involves lists of contractors specialising in different trades. All maintenance jobs (for example, an electrical fault) are telephoned through to a helpdesk by field staff.

Contractors are ranked, and consequently receive work according to a performance score contained in the system, which is based on feedback from field staff and facilities managers. It is difficult for these scores to be manipulated by staff as they would have to be systematically manipulated over time for them to affect a contractor's ranking on the list.

Facilities managers are not involved in the initial

selection of contractors to get on the panels. Jobs below a certain monetary threshold are automatically allocated to the highest ranked available supplier via a pre-existing preferred contractor list. In the case of jobs above the monetary threshold, the second ranked contract is also given the opportunity to quote for the work. The firm's electronic system automatically constrains the options available for allocating work while still incorporating facilities managers' feedback on contractor performance.

In general, electronic contractor work allocation systems are useful for segregating purposes because of the automatic separation of functions designed into them. In case study 12, for example, works requests simply cannot be allocated unless the prescribed procedure is followed. The electronic system also highlights any attempt to override a preferred contractor list. Electronic procure-to-pay systems, with their in-built task segregations and delegations, also provide a similar outcome.

When considering whether maintenance processes contain adequate in-built segregations, it is often useful to map out the processes, including start and end points, steps and decision points. Basic weaknesses, which are difficult to detect when rules are spread across various policies, can become far more obvious when process maps are developed.

Once the processes applying to one of the council storepeople involved in Operation Jarek (see case study 9) were mapped out, it became apparent that the storeperson was afforded end-to-end control over all aspects of the procure-to-pay and inventory processes, particularly given the ease with which the storeperson could split orders to ensure that they were within his delegation limit. The process map in Figure 1 reveals the extent of the storeman's control, including his role in establishing the need to purchase stock and approve supplier payments. A key corruption prevention recommendation of the

investigation was that councils analyse their procurement processes to identify points of corruption risk and take steps to improve the design of their procurement processes.

An agency's size will impact on the degree to which it can segregate responsibility for key activities and implement measures such as electronic workflow systems. The overall point remains, however, that allowing an individual to have end-to-end control over the processes involved in a maintenance system will create opportunities for corruption.

Segregating specific functions from day-to-day operations

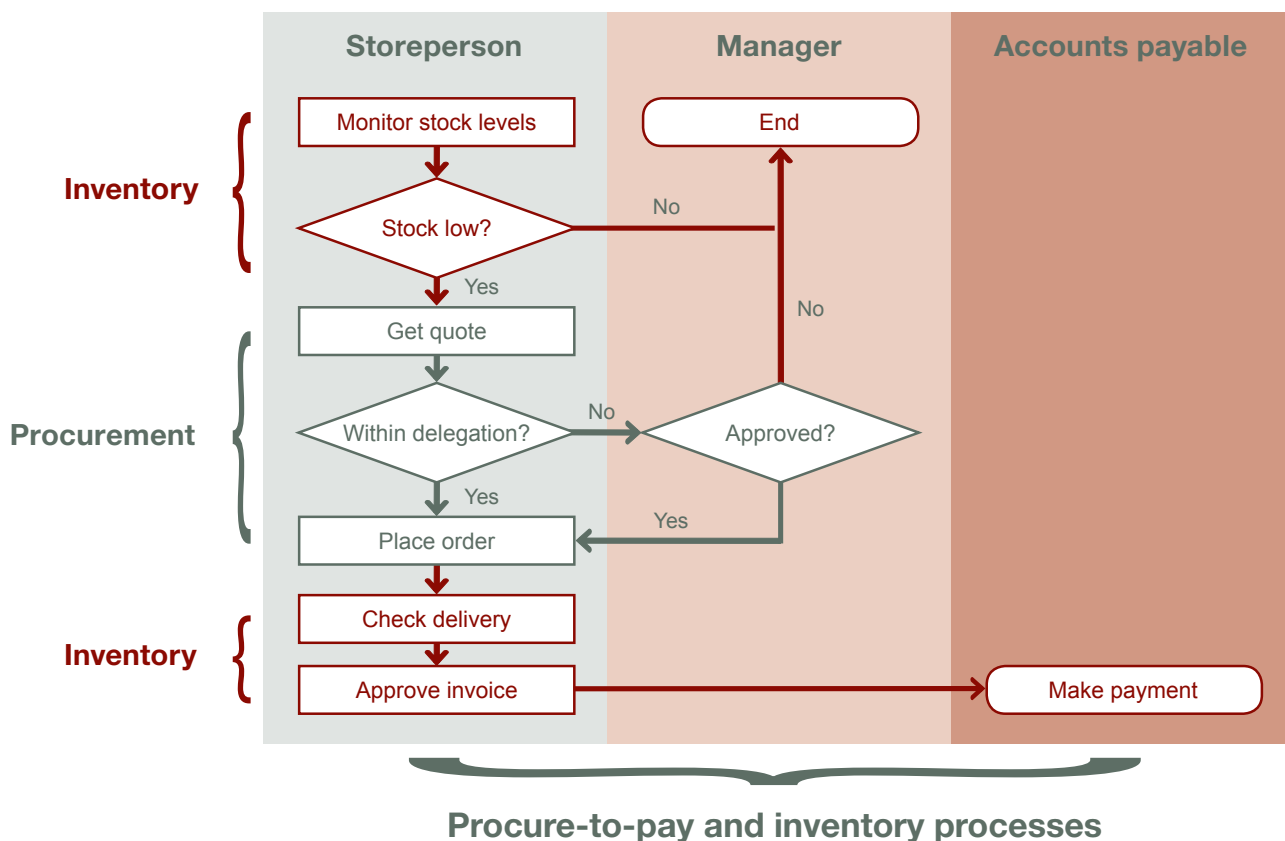
The design of maintenance arrangements can be improved when not only responsibilities for key activities are segregated but a specific function is also removed from day-to-day operations. Examples include the use of independent audit regimes and the adoption of schemes to assess the performance of contractors based on KPIs.

Sometimes in-house staff working with contractors can find it difficult to take a “get tough” approach with a contractor who is underperforming. It may also be unrealistic to expect this kind of attitude and not necessarily desirable if a close working relationship between contractors and in-house staff is needed to ensure the success of a contractual relationship. Reliance on independent assessment can help provide necessary oversight while not jeopardising good relations between in-house staff and contractors.

As part of its research, the Commission learnt of a federal agency that has segregated the monitoring of contractor performance from its operational staff. The agency has acknowledged that contractors and employees will foster close working relationships in the field. In some of the agency's remote locations its employees and contractors will inevitably form close bonds because of the small size and isolation of communities. This close-working relationship has a beneficial element, especially given that maintenance work can sometimes be dangerous.

The agency's solution is not to waste resources trying to control something that will inevitably occur as a product of

Figure 1: Corruption opportunities arising from a storeperson's end-to-end control of processes in Operation Jarek



isolation. Instead, the agency tolerates the bond between in-house staff and contractors because it creates effective working relationships. At the same time, the agency has drafted contracts to provide for the strictly “independent” assessment of KPIs and allow for the verification of work at critical stages by ensuring such oversight is conducted by head office staff.

The adoption of the above arrangement is more likely to have a positive impact on productivity than vain attempts to prevent close working relationships between contractors and field staff. In this example, the key requirement of the federal government agency for contractors and staff to work closely in an unsafe operational environment was critical to the decision to introduce a separate regime for the formal assessment of contractor performance.

Reliance on integration and segregation

The success of any maintenance system will always be underpinned by the principles of integration and segregation. Both are necessary to ensure tight and seamless control across operations with in-built measures that automatically detect variances and limit the influence of an individual's control across the system, as demonstrated by case study 13.

Case study 13: Better practice example – a national retailer incorporates integration and segregation into the design of an FM system

Prior to 2001, this national retailer's procurement of FM services was decentralised to individual stores. Contractors stayed with the retailer for years, often accumulating additional work worth millions of dollars. The exchange of gifts between contractors and the retailer's employees was common.

In 2001, work allocation and procurement processes were centralised. Individual store managers could no longer award work to contractors. A single call centre for maintenance requests was also created. Maintenance contracts were put out to tender by a specialised procurement team with a view to achieving economies of scale through the adoption of larger contracts. A list of preferred contractors was then established. While a central work allocation system was adopted, the system introduced in 2001 was also underpinned by the notion of segregation between the staff responsible for key processes.

Under the redesigned arrangements, procurement of maintenance services is kept separate from store managers. Although they must sign-off that the work

has been completed, the managers of individual stores cannot sign contracts and do not pay invoices. Regional maintenance coordinators do period checks on the quality of work and store managers also play a role in monitoring contractor performance.

All contractor invoices are also processed by accounts payable staff who are physically separated from staff in the maintenance call centre. Importantly, the accounts payable system is linked to the work order system. In order for a contractor to be paid, work orders, invoices and documentation from stores initiating maintenance jobs must match. This process escalates for attention any invoice exceeding a work order request, which then receives additional scrutiny.

As a result of the changes introduced in 2001, personnel responsible for selecting contractors, identifying maintenance needs, allocating work, monitoring work and paying invoices are segregated. Importantly, the retailer has also utilised the principles of integration through linking its work allocation and accounts payable processes. The integration of data also provides accurate cost information about repairs and budget variances. The design of a system based on the principles of segregating staff responsibilities but centralising and linking processes has addressed the tendency for personal relationships to influence the selection of small contractors and, at the same time, introduced an efficient system for repairing assets.

In addition to incorporating the principles of integration and segregation, a well-designed maintenance system is also dependent upon adopting commercial arrangements that best suit an agency's particular circumstances. Relevant factors to take into account when choosing a maintenance contracting model are discussed in the next chapter.

Chapter 5: Factors to consider when choosing maintenance contracting models

There is no one-size-fits-all approach to commercial arrangements. There is a variety of maintenance contracting models that an agency can adopt (see Appendix 1). These models include outcomes-based arrangements and the more traditional cost-input based arrangements. The overall effectiveness and suitability of a contracting model, including its resistance to corruption, will depend on a number of factors. These include an agency's internal skill capabilities, its internal resourcing levels and its level of insight into asset conditions and costs. Appendix 2 summarises some of the corruption opportunities arising from different commercial arrangements and corresponding controls that can mitigate corrupt behaviour.

An agency's internal skill capabilities

There is a practice among some agencies of promoting public officials who have undertaken in-house maintenance tasks to internal contract management roles when the provision of maintenance services is outsourced. While such staff often possess detailed knowledge of operating environments that can be useful in the design of KPIs, they can find themselves out of their depth when dealing with large and complex contracts, particularly those that involve outcomes-based arrangements. The successful management of large-scale and complex commercial arrangements requires specific capabilities, including an understanding of financial information and payment structures. As relationships between agencies and contractors become long term, additional skills, such as leadership, communication and organisational abilities, are needed to manage these types of contracts.

Some of the industry consultants that the Commission interviewed while conducting research for this report stressed the importance of an agency examining its internal skill capabilities when deciding on a maintenance

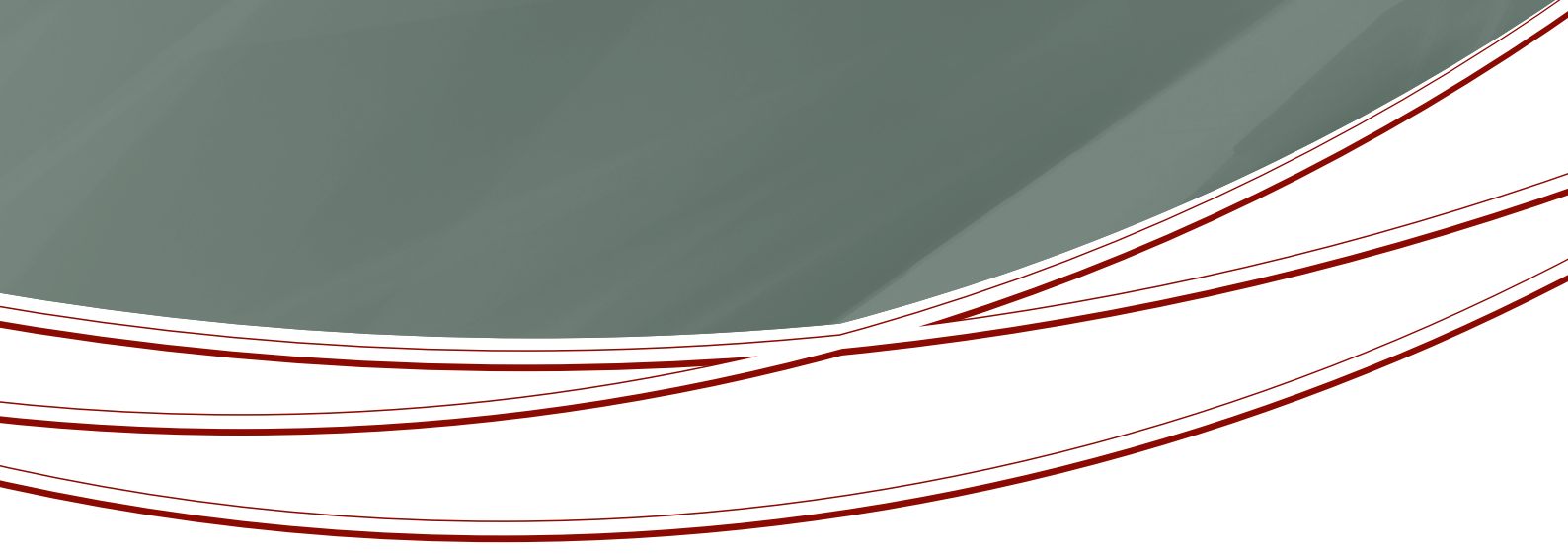
contracting model. An opportunistic contractor can easily spot deficiencies when an agency's internal skill capabilities do not match the contract arrangement it has adopted. The issue of internal capabilities is more critical for large-scale contracts because these types of arrangements tend to be complex requiring high-level skills to ensure success. Furthermore, the impact of any internal skills deficit will be far-reaching for an agency in the case of complex contracts that typically extend over a long period of time.

Along with contract management skills, the successful governance of large and complex contracts involves financial expertise. This includes the ability to track expenditure through understanding data information systems and the way data can be used to control costs and benchmark contractor performance.

Case study 14: Better practice example – a Victorian government department adopts a multidisciplinary approach to the governance of commercial arrangements that draws on a variety of skill sets

A Victorian government department has aggregated its FM functions into one large contract. The department has established a governance team to oversee the contract, which consists of a finance manager, contract manager, accounts manager and "project sponsor" who is the manager of infrastructure services. Key executives from regional areas are also involved in the governance arrangements.

The department acknowledges that, while a good relationship with the contractor is important to the success of the contract, a strong governance team is also needed. The variety of staff involved in managing the contract also allows the department to adopt a "good cop/bad cop" approach if necessary.



Importantly, the department has incorporated a multifaceted approach to contract monitoring involving financial and contract management skills. Apart from being able to draw on different skill sets, another advantage of the department's approach is that it has created a forum where senior staff with a diverse skill set can challenge assumptions about the contractor's performance.

A strong procurement and contract management capability is essential when entering into significant commercial relationships such as an alliance partnership. Alliance contracts are collaborative arrangements where participants work as an integrated team to deliver outcomes. They are characterised by risk-sharing and a no-blame culture between the parties. While typically used for capital projects, alliance arrangements (see Appendix 1) have been used for refurbishment of brown field assets such as trunk sewer mains. Sometimes agencies also adopt a contracting model that features elements of alliance contracting, such as a focus on collaboration between parties, although strictly speaking these types of hybrid models are not alliances.

When alliances work well, the sharing of responsibilities for risks, such as cost overruns and rewards such as cost underruns, motivates contractors to reduce costs, limiting an agency's vulnerability to contractors colluding with in-house staff to overcharge. The success of this model, however, and its vulnerability to corruption is underpinned by the internal capabilities of an agency.

In 2012, the NSW Commission of Audit noted the importance of experienced contract managers representing the government throughout an alliance partnership. In some cases, inexperienced contract managers have led to excessive margins for some contractors.³⁷ Similarly,

³⁷ NSW Government, *NSW Commission of Audit final report: Government expenditure*, May 2012, p. 310.

the Commonwealth Government's Department of Infrastructure and Regional Development has warned that alliances are complex commercial arrangements and that agencies should have the capability to engage with other alliance participants on an equal footing to ensure that they fully understand the implications of shared risks and rewards.³⁸

One industry consultant advised the Commission that public officials require strong financial and commercial acumen to create tight definitions around the direct and indirect costs that will be included in alliance contractor payment arrangements.³⁹ The Commission was also advised that this acumen should be combined with negotiation skills and an "eyes wide open" approach to bargaining, particularly when determining the types of costs that will be shared with an alliance partner. Sometimes the focus on sharing and trust in alliance arrangements can divert an agency's focus away from the importance of this exercise.

If a government agency lacks the requisite internal skill capability, then its ability to successfully execute long-term and complex commercial transactions will be significantly undermined.

Internal resourcing levels

While some types of commercial arrangements require internal specialised knowledge and high-level skills, other types of contracting models can be resource intensive for different reasons. An out-tasking contracting model – whereby agencies directly contract numerous service providers but retain their management in-house (see

³⁸ Commonwealth Government Department of Infrastructure and Regional Development, *National alliance contracting guidelines: Guide to alliance contracting*, September 2015, p. 25.

³⁹ For more information on alliance payment structures see *ibid*.

Appendix 1) – requires extensive contractor monitoring and the internal segregation of duties to avoid corruption. One advantage of this model is that contractors can be easily replaced as contracts are typically short term. Nevertheless, attempts to control numerous small contracts can be costly and ineffective. The in-house monitoring of these contracts consumes considerable time, even though it does not necessarily require sophisticated or rare skills.

The out-tasking contracting model may be particularly corruption-prone when multiple contracts are distributed across different sites and the level of internal monitoring and task segregation is limited. The Commission has made numerous findings of corrupt conduct involving out-tasking arrangements.⁴⁰ In many cases, the corruption risks inherent with this model are exacerbated by a failure to quantify the cost of maintenance activities and a lack of scrutiny of budget variances, so the loss of public revenue was never properly understood by anyone responsible for these budgets.

Corruption opportunities related to out-tasking are created when public officials become more closely aligned with contractors' interests that are competing with the interests of their own agencies. In other words, a public official cares more about a contractor's interest than those of their employer. This realignment, combined with the likelihood that procurement decisions and the monitoring of contractor performance are vested in the same public official because of the low value of transactions, creates a corruption risk.

Case study 15: Controlling numerous short-term contractors

In Operation Jarah, the Commission found that an engineer in the contract cable laying (CCL) division of Ausgrid received goods and other benefits from contractors and subcontractors in return for exercising his public official functions in a way that favoured contractors and subcontractors.⁴¹ The Ausgrid contracting model for CCL contracts relied on the division issuing short-term contracts to multiple contractors and managing these contracts. At its peak, the division had 30 officers supervising 87 contractor crews, each with three or four members.

Supervising many contractors spread across multiple sites that, in turn, were spread over a large physical area was a resource-intensive exercise, particularly in terms of coordination and supervision. To maintain control over this situation, Ausgrid needed tight and transparent processes for determining the scope of contracts, allocating work to contractors and monitoring contractor performance. Such processes mitigated the risk of CCL officers over-identifying with contractors' interests and their own interests, and exercising their public official functions to favour contractors and subcontractors.

Instead, the process for determining the scope of contracts was loose, allowing individual CCL officers to exercise considerable discretion. The division also did not have a formal system for managing and assessing contractor performance. It was also possible for a sole CCL officer to choose the contractor for a proposed work order, act as the contract inspector to monitor the contract, process contract variations and issue contractor non-conformance notices. The loose contractor selection and contract management processes were a significant factor in creating the opportunity for the engineer to engage in corrupt conduct.

The Commission made three corruption prevention recommendations to Ausgrid concerning the tightening of processes within the existing system for CCL work orders, the improvement of data management and retention systems, and a consideration of the optimum contracting model to deliver CCL work.

The devolution of procurement decisions and responsibility for verifying contractor performance to a single frontline public official – a common response to out-tasking arrangements involving low-value transactions – also enhances risks associated with undisclosed conflicts of interest. An example is staff awarding contracts to their own companies. This practice has been well documented in previous Commission investigations, for example, Operation Monto (see case study 1).

Out-tasking is a sensible option where paying a profit overhead for outsourced contract management does not represent value for money to an agency; for example, in the case of non-complex services such as grass cutting.⁴² An agency, however, should realistically consider whether it is well placed (and prepared to) monitor and manage numerous small contracts when contemplating this contracting model. The commercial real estate services firm discussed in case study 12, with its system of

⁴⁰ Two examples involving universities are *Investigation into undisclosed conflicts of interest of a University of Sydney employee* (September 2010) and *Investigation into the conduct of a University of New England (UNE) procurement officer and UNE contractors* (August 2012).

⁴¹ NSW ICAC, *Investigation into allegations an Ausgrid engineer corruptly solicited benefits from Ausgrid contractors and subcontractors*, May 2015.

⁴² Facilities Management Association of Australia with Currie and Brown, *Facilities management contracting guidelines*, November 2002, p. 16.

allocating work to (and monitoring) disparate tradespeople, shows that controlling hundreds of small contractors is possible. The question for agencies is whether their own processes are sufficiently robust to ensure such outcomes.

The likelihood of information imbalance

For many government agencies, maintaining assets is not core business. In contrast, maintenance service providers are experts in their field – a situation that can create an imbalance of information where a contractor has more information about maintenance requirements and costs than the government agency. The potential for information imbalance between a contractor and government agency regarding maintenance costs, as well as corrective (reactive) and preventative (planned) maintenance needs, is an important consideration when contemplating a contracting arrangement and an agency's exposure to potential corruption.

There are plentiful opportunities for corruption arising from information imbalance between agencies and contractors in complex outcomes-based contracting arrangements (see Appendix I), which tend to involve long-term relationships. In such cases, calculating or verifying the profits available to contractors can be particularly difficult where information imbalance exists. Profits and costs arising from such arrangements are not solely dependent on easy-to-measure factors such as straightforward work order requests, as in traditional contracting arrangements. Instead, concepts such as indirect contractor costs as well as shared risks and rewards can underpin payments. The determination and verification of costs on this basis requires in-depth knowledge of value for money factors. When an agency lacks this knowledge, for instance because of poor costing practices in the past, it is not in a position to independently verify information. The high degree of uncertainty and ambiguity the agency is exposed to during the life of the contract will make it vulnerable to improper behaviour on the part of contractors, including colluding with staff to falsify costs.

A relational contract, which avoids narrowly defining contractor outputs (see Appendix I), can also discourage the questioning of financial information and contractor performance because of the focus on forming a partnership, compounding any existing problems with information imbalance. Consequently, any attempt to adopt a relational arrangement to overcome problems with information imbalance will backfire if an agency does not have clear insight into its costs and maintenance requirements. Government agencies can lose control over relational contracts once they commence because of the flexibility afforded to contractors under this type of

arrangement. The introduction of a relational component into a contract should not be confused with unconditional trust. These types of contracts still require public officials to undertake an “informed client” role.

Case study 16: Better practice example – a global waste removal company adopts a relational contract where there is information symmetry

A global waste removal company adopts a relational contracting approach with its suppliers, placing emphasis on the information balance between itself and suppliers to the success of the contracting model.

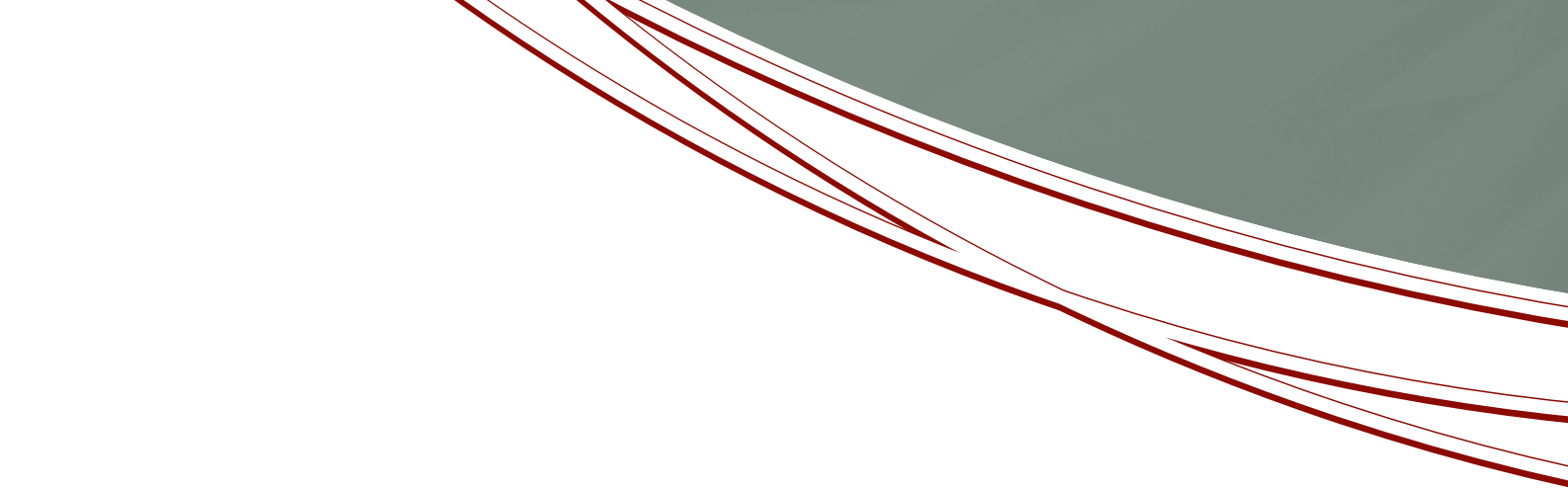
An examination of profit and loss statements from former in-house business units within the organisation helped inform it about required costs and maintenance works. The organisation's tight control on costs and service standards mitigates against collusion while still allowing for collaboration between contractors and employees. The stringent approach to costs also helps identify contractor underperformance – in the words of one senior company employee “if a contractor is underperforming, our profitability looks sick”.

Information imbalance can also create problems for traditional cost input-based contracts, where contractor payments are made on a task or activity basis, when the work required is not well known by the agency. These types of contracts can entice contractors to manipulate any shortcomings in the contract drafting with the help of public officials working in the agency. For example, cost schedules that specify maintenance inputs can either be incorrect or be missing major areas of work when an agency does not understand its maintenance requirements.⁴³ Consequently, a contractor may provide a low bid for a schedule-of-rates contract, fully aware that most work has not been included in the contract. Contractors motivated to behave improperly can then inflate variation costs. One employee from a global company that the Commission interviewed specifically warned: “beware of the deal that is too good to be true.” An initial low bid may be a warning sign of such a situation.

While traditional contracting is not immune from the risks of information imbalance, the view expressed to the Commission was that agencies should favour these types of contracts over outcomes-based contracts in situations where there are high levels of uncertainty regarding maintenance requirements and costs.⁴⁴ Under

⁴³ Facility Management Association of Australia, *Innovative procurement solutions for service delivery*, March 2009, p. 11.

⁴⁴ See also Infrastructure Partnerships Australia, *Road maintenance: Options for reform*, September 2011, p. 12.



cost-input contract models, agencies can retain an element of control over input costs, work schedules, budgets and priorities. These types of contracts can also assist in achieving consistent contractor performance, which may be important to the delivery of some maintenance services. Over the evolution of a contract (once they have improved their insights into maintenance requirements and costs and established confidence in a contractor), some agencies also choose to transition from a cost-input based arrangement to an outcomes-based arrangement.

The selection of a maintenance contracting approach that best suits an agency is an important step towards optimising commercial arrangements. After this choice is made, there are a number of other issues relevant to the structure of a relationship with a contractor that will impact on the success of an arrangement and its vulnerability to corruption. These issues are discussed in the next chapter.

Chapter 6: Aligning contractor interests with those of your agency

Once a government agency has selected its broad contracting approach, there are a number of additional mechanisms that can be used to influence its relationship with contractors. The performance of contractors can be dramatically improved and opportunities for corruption significantly reduced depending on how an agency consolidates contracts, whether a tight scope of work is drafted, and as a result of the way a contract pricing model is structured. The design of contractor performance measures and the selection of contractor monitoring practices will also impact on opportunities for corruption.

The strategic consolidation of contracts

There has been a trend over recent years for agencies to consolidate maintenance services previously provided by separate sources into a single contract with a single provider. Some agencies, for example, consolidate maintenance contracts across technical areas where natural synergies occur. The benefits associated with consolidating contracts are largely related to achieving economies of scale; although, consolidation can involve additional layers of management and other hidden costs, so it not necessarily less expensive.

Consolidation can be an effective strategy for dealing with risks such as demarcation disputes between different contractors over who is responsible for a particular aspect of an asset's performance. This is always a risk with hard services involving the maintenance of physical assets, which tend to be the focus of legislative safety-compliance regimes.

Generally, the consolidation of maintenance services into a single contract allows a contractor to capture complete data about an asset's service history and maintenance costs. Large FM firms typically invest considerable sums in the development of software for this purpose. Consequently, utilising the database of a large contractor

can make it easier for an agency to access a single pipeline of information, facilitating greater insights into costs, maintenance requirements and risks. It also avoids agencies doubling up on the cost of capturing data, which is a significant overhead expense.

A Victorian government department, however, advised the Commission that an agency should always maintain ownership of its data when entering into an agreement with a large contractor involving the capture of data. To ensure the agency does not become locked into using a particular service provider, the ownership of data should be addressed in the contract.

Contracts are also consolidated to motivate contractors to improve performance. An example is the combination of preventative and corrective maintenance into a contract where payments are based on a fixed pre-determined price or lump sum. In this type of arrangement, it is in a contractor's interests to diligently perform preventative maintenance to reduce corrective maintenance costs. If an asset is well maintained, it will be less likely to break down or fail. The idea is to ensure the contractor bears some risk for underperforming on preventative maintenance and will consequently be less likely to deceive an agency about the extent of its preventative maintenance work schedule.

Some types of work lend themselves better to consolidation to improve contractor performance. An example is alarm maintenance and monitoring in a high-security environment. A failure to maintain alarms will increase the number of false alarms that require action. Combining alarm maintenance and monitoring into a fixed-price contract presents a solution that motivates a contractor to perform preventative maintenance work to avoid call-outs due to faulty alarms. At the same time, this approach will discourage defrauding an agency through under- or over-servicing alarms.

Opportunities for contractors not servicing as required

and collusion between contractors and public officials to inflate maintenance costs can, however, be created when the scoping and delivery of maintenance jobs are rolled into the same contract. When a contractor is responsible for scoping and undertaking work, conflicting roles are generated as it is in the contractor's interest to over-scope a job (despite the attractive cost efficiencies associated with sharing both functions).

Consolidation allows scale, creating competitive tension for work in situations where competition between suppliers is otherwise hard to find. As discussed earlier, competitive selection processes facilitate comparative assessments between tenders so that bidders can be challenged on price. A competitive process will also help an agency obtain a realistic indicative price gauge.

The successful consolidation of contracts requires an understanding of the cost components involved in undertaking specific maintenance tasks. A lack of understanding about specific cost components will jeopardise opportunities to foster competition and benchmark performance through consolidation. Labour-intensive maintenance functions, such as cleaning services, where materials are cheap and represent a small component of the overall maintenance cost, fall into this category.

In such cases, it does not make sense to consolidate the function across a single large region, as the need for contractors to travel across vast areas would only drive costs up. The consolidation of contracts along smaller geographical areas would be far more effective, as it would permit performance and price comparisons to be made across regions, highlighting areas of possible corruption without increasing costs unnecessarily. This solution can only be reached with an appreciation of the cost inputs involved in maintenance services.

The consolidation of contracts, however, can narrow a market if the contract becomes so large that few firms are in a position to compete for the work.

Case study 17: Better practice example – a NSW government agency minimises the risk of non-contestable contracts

In 2013, a NSW government agency wanted to outsource road maintenance covering the south and west of Sydney. The technology involved in the performance delivery, the potential size of the bidding consortia and opportunities for developing highly specialised knowledge through collaboration, meant that the contract was at risk of becoming non-contestable in the future. The agency addressed this problem by awarding tenders to two international consortia. The contracts were for seven years with a three-year

renewal option. The agency established a collaborative approach with the consortia to deliver innovative maintenance solutions. An additional region with an existing contractor will also be transitioned to the new contracting model in the future.⁴⁵

An agency can also become locked into using its existing contractor if it wishes to re-tender the work in the future because the size and complexity of the contract makes it expensive or difficult for a competitor to develop a bid. This may occur when contracts that cover a long time period involve innovative solutions and contracting personnel acquire highly technical knowledge about an agency's maintenance requirements. Ideally, an agency's maintenance work should remain contestable in future years, so it can go back to the market. If there is no functioning market with competition between suppliers, it is difficult for an agency to test the integrity and productivity of its contractor arrangements. Some agencies adopt the strategy of a two-supplier arrangement (as seen in case study 17), even if one of them is a little more expensive. The aim of this type of arrangement is to ensure future competition and a backup source of supply.

A shallow market, where there is limited available work, will also create the risk that providers become highly motivated to retain a contract. Shallow markets are established in a number of different circumstances, including where an agency has adopted a bespoke commercial arrangement for the provision of maintenance services involving one contractor or where a contractor's assets are highly specialised and specific to maintaining the agency's facilities (a feature known as "asset specificity"⁴⁶). Without the agency contract, a company may face ruin because there are no or fewer other buyers who would be interested in their product. Supplier dependency on an agency creates a motivation to collude with in-house public officials to remain in the contractual relationship. Similarly, contractors can become susceptible to in-house staff demanding kickbacks to ensure business is retained.

Tightly defined scopes of work

A consensus emerged among those interviewed by the Commission that tightly drafted scopes of work were beneficial for traditional arrangements, such as cost input-based contracts. Tight scopes of work contain fewer ambiguities, minimising arguments about contractor performance. Contracts that blur the line between corrective

⁴⁵ Op cit, *Contestability in public services*, p. 26.

⁴⁶ Asset specificity is discussed in op cit, *Investigation into bribery and fraud at RailCorp: Eighth report*, p. 20 and p. 22.

or reactive and preventative or planned maintenance services (see Appendix 1) will create uncertainty over obligations when these types of maintenance tasks are outsourced to different contractors. A loose scope of work can also create opportunities for a contractor to collude with public officials to claim contract variations for work that has already been included in the scope of work.

Contractors also have difficulty pricing contracts when scopes of work are not well defined.⁴⁷ Many industry stakeholders advised the Commission that the market cannot price unreasonable risks because of difficulties with predicting the future maintenance activities that would be required. This becomes a problem for fixed-price contracts, as contractors are motivated to increase the price of the contract to limit financial exposure arising from unforeseen work. Alternatively, contractors may seek to renegotiate prices once a contract commences if they realise they cannot make a profit and may also seek significant contract variations. As a result, mistrust and misunderstandings between agencies and contractors typically arise down the track, creating suspicions of corrupt conduct.

One industry consultant interviewed by the Commission advised that the quality of tender documents can be measured by the closeness of bids. The consultant believed that a difference between bids greater than a 10% margin indicated that tender documents were unclear and consequently contractors were not scoping the same work.

Contractor payment arrangements

There are different ways to structure contractor payments. At the most basic level, a contractor can be paid based on the costs of inputs such as labour, equipment and supplies or, alternatively, payments can be based on achieving pre-determined outcomes. Within the outcomes-based contract model, however, there are many different contractor payments options. These include combinations of performance bonuses, shares in costs savings, as well as fixed periodic and lump-sum payments where a contractor undertakes to carry out a defined amount of work for a single lump sum. Sometimes the same contract can contain different pricing arrangements for separate maintenance functions.

Poorly designed pricing arrangements can provide incentives for contractors to engage in corrupt behaviour. If an agency does not understand its operating environment and contractor motivations, then the full impact of a payment regime may not be foreseen at the time that a contract is entered into.

Contractor payment structures determine what an agency has purchased. It is important to consider whether a contractor payment system is actually rewarding what an agency is seeking. Pricing arrangements are significant drivers for contractor behaviour. In the British Ministry of Justice example (see case study 2), charging practices were based on the number of orders rather than the number of offenders, despite the subject of multiple orders only needing to be monitored once. Charging by order rather than offender encouraged contractors to seek over-payments. Better understanding of the payment arrangements may have prevented overbilling in the ministry's contracts.

There are inherent corruption opportunities with certain types of payment arrangements. A contract that is based on hourly rates will not motivate a contractor to reduce costs by performing work efficiently, as there is no incentive to do more with less. Instead, an agency can become vulnerable to contractors colluding with public officials to overcharge by inflating the hours worked or over-scoping work. If an agency's primary maintenance goal is to reduce costs, then payment arrangements involving hourly rates and other costs inputs may undermine this objective.

A number of organisations that the Commission examined have implemented specific strategies to prevent variations resulting from "scope creep", where additional but unnecessary maintenance activities are identified by a contractor. One federal government agency requires an engineer to verify all jobs where a subcontractor claims additional costs exceeding \$500. Another large retailer has implemented a similar system along with the proviso that contractors are not guaranteed any additional work arising from variations. In both cases, there is a real possibility that a contractor or subcontractor will be removed from preferred lists where they have misrepresented the required scope of work or claim unnecessary variations.

The type of pricing arrangement adopted under an outcomes-based contract also impacts on contractor performance. Many outcomes-based pricing arrangements attempt to align contractor and agency incentives.

In the alarm maintenance and monitoring example provided earlier in this chapter, a key factor underpinning the success of the contract is the adoption of a fixed predetermined price for preventative and corrective maintenance. It is in the contractor's interests to undertake preventative maintenance so corrective maintenance costs are reduced, maximising profits. It is less likely that a successful result would be achieved if the corrective maintenance payment structure were based on the number of specific tasks undertaken. If this occurred, the contractor would be motivated to increase corrective maintenance costs by over-scoping maintenance jobs.

⁴⁷ Op cit, *National alliance contracting guidelines*, p. 11.

Some industry consultants specifically advised the Commission about payment arrangements aiming to incentivise service providers to cut costs. The success of these types of arrangements requires an appreciation of contractor motivations and an understanding of an agency's needs.

Contractors are sometimes asked to place all or a portion of their profit at risk. A contract can make provision for a contractor to pay an agreed sum for non-delivery that is measured against specific KPIs. Fining contractors for non-compliance can be effective in some circumstances but may carry risks of corrupt conduct. Problems will arise if arrangements are too harsh; for example, if a "profit at risk" regime makes it difficult for a contractor to remain viable, they may become motivated to engage in corrupt conduct.

Any profit-at-risk scheme or provision to sanction contractors for non-compliance ought to consider the need to motivate contractors in addition to ensuring there are consequences for non-delivery or poor performance. An alternative could be for the agency to hold any monetary fines arising from non-delivery and poor performance with the option of returning the funds to the contractor if performance improves. Similar approaches implemented by some agencies include providing contractors with the opportunity to negate non-compliances by submitting preventative action plans. All instances of non-compliances are then collated and wiped once they are fixed. If incidences of non-compliance reach a certain level, the contractor only then is fined.

While it is important to deal with poor contractor performance it should be remembered that, as maintenance is not high-margin work, there is limited scope to impose financial burdens on contractors or reduce contractor payments. If a contractor's viability is threatened, such schemes can have the opposite effect and encourage corruption. Ultimately, any payment arrangements should not jeopardise the profitability of a contract.

Case study 18: Ensuring a contractor can make an industry-standard profit margin

Operation Jarah (case study 15) highlights the corruption risk created when contractors find it difficult to make a profit. The CCL pricing arrangement for work orders originally involved a schedule of rates arrangement. This was undermined after a period of time when the division changed its pricing arrangement for work orders valued above \$200,000 to require contractors to bid competitively by submitting discount lump sum bids for work.

The profitability of work orders issued by the division had always varied depending on the nature and size of a job. Fixed set up and running costs made smaller

jobs expensive for contractors, resulting in little or no profit. Pricing arrangements, where some costs were reimbursed but others were not, made some jobs more profitable than others. In addition, contractors were neither guaranteed work nor paid a retainer despite the high costs of investing in personnel and capital.

In 2011, investment in the underground cable network dropped, exacerbating uncertainties for contractors by reducing the number of work orders. The lack of guaranteed profitable contracts provided the motivation for some contractors to act corruptly. It also made contractors susceptible to CCL officers soliciting benefits in exchange for making corrupt decisions, particularly guaranteeing allocation of lucrative work orders in their favour. The competitive bidding CCL then required for work orders above \$200,000 only acted to further undermine a contractor's profitability by reducing the availability of work that was needed to balance less profitable jobs.

Measuring contractor performance through KPIs

KPIs are used to establish the core deliverables under a contract and to measure performance. Designing effective KPIs for outcomes-based contracts (for example, a requirement that a contractor meet certain quality targets), can be challenging because of the subjective judgments sometimes made.

Industry consultants advised the Commission that outcomes-based contracts should include a select number of KPIs. Any attempt to define every deliverable, no matter how minor, will lead to an over focus on measurement and stifle opportunities for innovation.

KPIs should also be clear and measurable. Any uncertainty around what a contractor is required to deliver, or problems with measuring delivery, because of poorly drafted KPIs will also provide real opportunities for non-performance. For example, a KPI that requires a contractor to keep a bathroom clean will be more effective if what is meant by clean is defined; for example, "no mould on tiles". A number of large contractors told the Commission that they also preferred clear KPIs to help avoid disputes with agencies.

KPIs that are unrealistic may also place a heavy burden on a contractor that may become too great. If contractors experience financial stress as a result of unachievable targets, for example, they may become motivated to recover costs through other means that may involve conspiring with public officials for corrupt purposes. An agency then becomes susceptible to practices, such as inflated variations claims or poor performance, that are

driven by a desire to cut costs. Conversely, insufficiently rigorous targets can result in an agency paying too much and getting poor service because it never realised that the outcomes it specified were suboptimal – even though the contractor may have known this all along.

An understanding of an agency's specific operational processes and required standards can help in the writing of effective KPIs. A number of industry consultants spoke with Commission officers about the importance of consulting operational staff in the design of performance measures in order to better understand processes and gain an understanding of what drives optimum asset performance. Creating effective KPIs is also dependent on the availability of sufficient data about asset performance. If an agency is uncertain about its KPIs or lacks experience in the design of KPIs, another option is to ensure that a contract is written in such a way as to allow for the flexibility to change performance measures over a period of time.

Writing effective KPIs also requires an understanding of the impact that performance measures can have on contractor behaviour. The relationship between measuring and reporting on certain outcomes provides incentives that influence contractor behaviour. Well-drafted KPIs will align the objectives of a contractor with the agency's objectives.⁴⁸ A number of industry consultants referred to the old adage "what gets measured gets done". The temptation is for contractors to perform well with regard to what is measured and neglect other areas of delivery.

In its report, *Developing and managing contracts*, the Australian National Audit Office cites a case where a KPI was the time taken for a contractor to answer a telephone call. The contractor met the target by picking up the telephone and hanging up again. Of course, the agency's real intention was to understand the amount of time it took the contractor to adequately answer a client's enquiry but the KPI motivated the contractor to address the measurement itself and by pass the true requirement.⁴⁹

Verifying contractor performance

In Operation Monto, the Commission found that payment for services was not always linked to verification of their delivery, creating opportunities for fraud. Senior management from RailCorp acknowledged, for example, that the practice of "job and knock", which involved labour contractors completing a task and then going home early,

but claiming payment for a full shift, was endemic.⁵⁰

Rather than checking every task a contractor undertakes, it is more effective and cheaper for an agency to motivate honest behaviour. Some agencies achieve this outcome by rewarding strong contractor performance with less scrutiny while ensuring poor performance attracts greater scrutiny. When a contractor performs well, an agency can reduce the frequency of monitoring regimes. If a contractor subsequently performs poorly, the level of checking is then returned to the previous oversight level. The key aim is to ensure it is in a contractor's interest to deliver, which also reduces the need for an agency to adopt costly ongoing contractor monitoring schemes.

Cost is an important factor when considering a separate audit regime. The costs of audit regimes can quickly overwhelm any value arising from improved oversight. The Commission spoke with a commercial real estate services firm that is conscious of the need to assess the point at which this kind of oversight becomes prohibitive in relation to other methods. A number of government agencies with which the Commission spoke randomly audited five per cent of contractors' work. It was felt that this figure created a credible threat of detection while not being overly costly.

End-users are potentially useful verifiers of maintenance activities because they are well placed to notice poor work, become annoyed or raise a concern. An agency's vulnerability to corruption is increased when multiple avenues of information for overseeing contractor performance are unavailable or not utilised.

Case study 19: Using available sources of information to verify contractor performance

In 2016, the Commission's Operation Yancey concerned contractor fraud during a NSW Department of Justice courthouse upgrade program that involved maintenance.⁵¹ A key weakness in the contract management arrangements was the fact that court registrars were deprived of information regarding project processes. For example, some registrars were not informed of what works were to be performed on their courthouses nor were they involved in verifying contractor performance. Furthermore, as project information reported to organisational management came from one source whose interest was not aligned with the agency's interest, it was difficult for the agency to detect the fraud. Since the investigation the department has improved its management of project information.

⁴⁸ Grosvenor Management Consulting, *How to craft key performance indicators that boost service provider performance*, August 2016, p. 3.

⁴⁹ Australian National Audit Office, *Developing and managing contracts: Getting the right outcome, achieving value for money*, February 2012, p. 34.

⁵⁰ Op cit, *Investigation into bribery and fraud at RailCorp: Eighth report*, p. 14.

⁵¹ NSW ICAC, *Investigation into the conduct of a senior officer of the NSW Department of Justice and others*, November 2016.



Chapter 7: Conclusion

Regardless of its commercial arrangements, an agency should aim to be an informed client. It should understand the nature and condition of the assets that it owns along with the costs associated with performing maintenance services; even when an outsourced provider collects and maintains this information. An agency should also understand what it ought to cost to maintain its assets compared to the actual costs. When an agency has this insight, reduced costs and improved contractor performance are likely to flow more easily.

Central to the design of an effective maintenance system is working out the balance between segregating the responsibility for key tasks and integrating transparency across these tasks and processes. Segregation is important to ensure a system is robust and contains in-built mechanisms for scrutiny and control. Collecting and linking maintenance data about asset conditions and service history is a powerful method for preventing corruption. It builds knowledge that, in turn, helps optimise planning, budgeting and monitoring of contractors.

While there is no universal approach to the provision of maintenance services, a well-designed system that is productive and also controls corruption responds to each specific agency's context and environment. This includes whether an agency has sufficiently skilled and experienced staff and well-developed information systems.

Not all NSW public sector agencies have the internal capability to undertake complex commercial arrangements. Recognising this is an essential step in adopting the optimal approach. Agencies should design maintenance arrangements in accordance with their experience and capability. These factors should change over time, as the agency recruits some staff, loses others and as its ability to manage contractors matures.

Maintenance arrangements can evolve over time. Once an agency has control over its operations, there should be

continual review to improve its processes and model. The ultimate goal is for an agency to be in a position where it can shift between different contracting models to suit its context; for example, bring an outsourced function in-house or vice versa, with minimal disruption. The attainment of this goal is only possible where an agency has full control over its maintenance system.

Appendix 1: Glossary

This report refers to a number of commercial arrangements between NSW public sector agencies and contractors for the provision of maintenance services as well as a number of terms used in the maintenance sector. These arrangements and terms are defined below.

Alliance arrangements take collaborative approaches between agencies and contractors to a high level by adopting a risk–reward sharing philosophy involving an open flow of information between the parties. Significantly, under an alliance arrangement there is no allocation of risks, such as those arising from delays and related costs, or assignment of responsibility for delivery of an outcome between the participants.

The participants agree to be jointly responsible for delivery, to share the management of risks, such as cost overruns, and rewards, such as cost underruns, and not to assign blame between participants. The participants work as a single integrated team.⁵² These types of arrangements tend to be long term and often lack a clear project scope, initially, as innovative solutions may be required from contractors. Alliance arrangements are typically used to deliver major capital projects and are not used for routine maintenance tasks.

Corrective and preventative maintenance services: Maintenance services include both preventative and corrective maintenance. Preventative maintenance involves planned maintenance that is designed to extend the life of an asset and ensure that it functions at a satisfactory level. Typically, corrective maintenance involves unplanned or reactive work in response to a problem, such as unforeseen damage or emergency repairs.

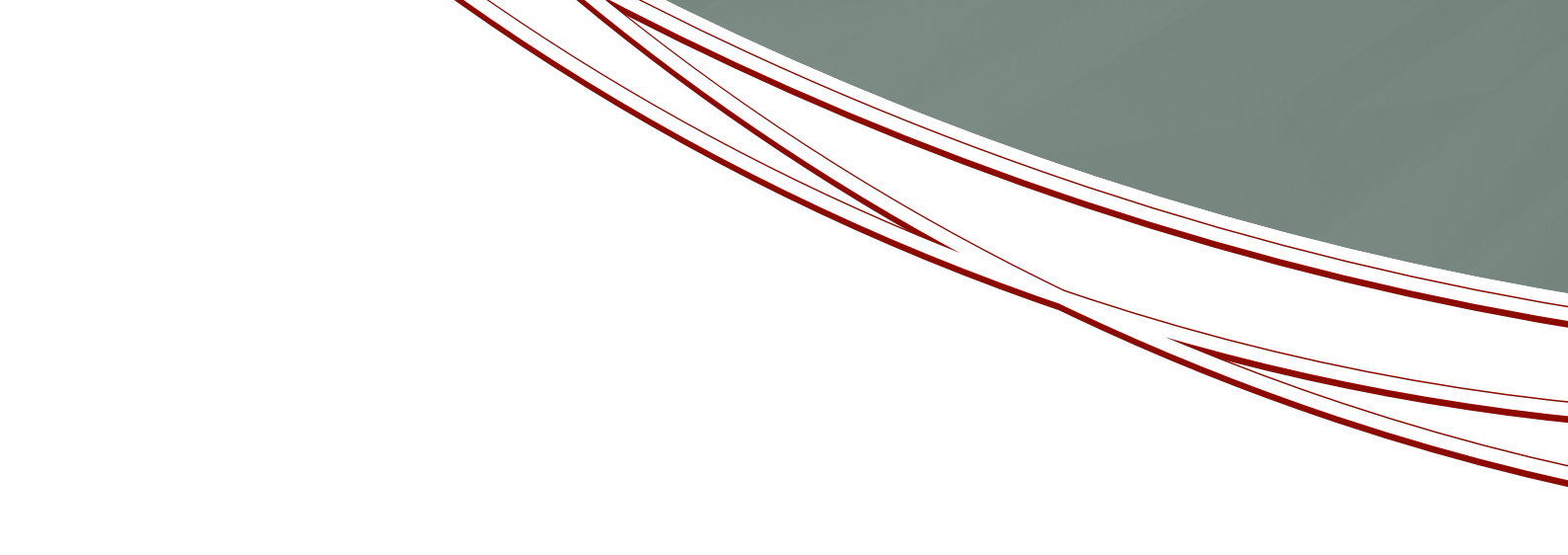
Cost input-based contract is one where payments to a contractor are calculated on an input basis – for example, the cost of labour and supplies – with an added profit margin. The contract typically includes various unit prices or schedules of rates to cover these costs. Payments are then made on a task or activity basis. For example, when payment to a contractor is based on the number of hours it takes to cut grass and the hourly hire rate of equipment or a contractor is reimbursed for the labour hours and materials involved in repairing a burst pipe. The client carries the risk of quantity variations for cost input-based contracts. These types of contracts represent a traditional contracting approach based on the notion of a buyer and seller and tend to be more at-arm’s-length than non-traditional contracting arrangements.

Non-traditional contracting arrangement refers to any type of contract on a continuum from a general collaborative approach between parties to alliance arrangements. These types of relationships are characterised by an increasing depth of interaction between the parties compared to more traditional relationships that are shaped by well-defined legal obligations.⁵³

Out-tasking is when an agency directly contracts with numerous small contractors for single services, such as plumbing. Contract management for these services is undertaken within the agency. For example, when a university campus engages separate contractors to perform services, such as cleaning and grounds maintenance, under the control of in-house staff. The contracts involved in out-tasking arrangements are typically based on cost inputs.

⁵² Op cit, *National alliance contracting guidelines*, p. 9.

⁵³ Op cit, *Facilities management contracting guidelines*, p. 14 and p. 16.



Outcomes-based contract is one whereby payments to a contractor are based on achieving pre-agreed outcomes or business results rather than prescribed activities. An outcomes-based contract stipulates what is to be achieved. For example, a building maintenance contract might specify that walls are to be kept clean and free of cracks rather than specifying when and how a contractor must clean and repair them. Typically, contractor remuneration is linked to performance, which is measured against KPIs. A contractor plans, designs and delivers work to achieve KPIs rather than undertaking specific tasks that have been identified by the client.

Relational contract is one in which a contract avoids narrowly defining contractor outputs. A relational contract may contain a provision that the parties will strongly endeavour to achieve a certain outcome. There are many different types of relational contracts but most tend to be outcomes-based. The reputation of service providers heavily influences selection processes for these types of contracts. An alliance arrangement is an example of a relational contract.

Appendix 2: Summary of corruption opportunities arising from commercial arrangements, and mitigating controls

This report considers various contracting arrangements in the context of an agency's exposure to corruption risks. Below is a summary of factors that exacerbate the potential for corrupt behaviour and compensating controls that can be used to mitigate such behaviour.

Figure 2: Corruption opportunities arising from contracting arrangements and controls mitigating corrupt behaviour

Contracting arrangement	Potential corrupt behaviour/ organisational inefficiencies	Factors exacerbating potential for corrupt behaviour or organisational inefficiencies	Examples of controls mitigating corrupt behaviour or organisational inefficiencies
Pricing structure based on cost inputs, including hourly rates	<ul style="list-style-type: none"> Unjustified variation claims by contractors. Contractors claiming unnecessary and excessive hours. Contractors over-scoping jobs. 	<ul style="list-style-type: none"> If required work is not well known by the agency, for example, because it involves non-core work, cost schedules may be missing components. This can lead to inflated claims for costs not covered by the schedule. If assets are hidden or dispersed, it can be difficult for an agency to monitor contractor hours. Emergencies can create pressure to bypass established processes and reduce scrutiny over transactions. This may provide opportunities for over-scoping jobs and inflated claims. 	<ul style="list-style-type: none"> Implementation of systems to capture data about site conditions, costs across projects and the condition of assets will help improve agency knowledge across these areas. Development of cost benchmarks will assist in assessing costs for specific jobs. Quarantining emergency budgets from normal expenditure will help ensure additional scrutiny over this type of expenditure. The use of emergency funds could automatically trigger a review.

Contracting arrangement	Potential corrupt behaviour/ organisational inefficiencies	Factors exacerbating potential for corrupt behaviour or organisational inefficiencies	Examples of controls mitigating corrupt behaviour or organisational inefficiencies
Out-tasking with internal contract management	<ul style="list-style-type: none"> Contractor selection not based on merit, including contractor selections improperly influenced by undeclared conflicts of interest. Wilful failure by in-house staff, over identifying with contractor interests, to monitor contractor performance. 	<ul style="list-style-type: none"> Lack of management systems to monitor and control public officials working with contractors in the field due to the dispersed and sporadic nature of some arrangements. Due to the often fragmented and short-term nature of this contracting arrangement, agencies can lack formal systems for capturing costs, assets performance history and information about previous contractor performance. Management may also lack detailed knowledge of arrangements. A lack of internal resources may reduce an agency's ability to manage numerous short-term contracts. 	<ul style="list-style-type: none"> Segregation of contractor selection and contractor monitoring duties can reduce the opportunities for a single public official to gain end-to-end control across procurement, contract management and payment processes. Establishing panel arrangements for the selection of contractors, with a clear and objective basis for ranking contractors, will help reduce opportunities for favouritism in selection processes. Agencies ensuring adequate resourcing levels when implementing extensive contractor monitoring processes and internally segregating duties is essential to ensuring the success of arrangements. For large contracts, conducting random audits in the field, that are carried out by parties independent of the day-to-day management of the contract, can mitigate against in-house staff over-identifying with contractors' interests at the expense of the agency's interests.

Contracting arrangement	Potential corrupt behaviour/ organisational inefficiencies	Factors exacerbating potential for corrupt behaviour or organisational inefficiencies	Examples of controls mitigating corrupt behaviour or organisational inefficiencies
Relational contract	<ul style="list-style-type: none"> • Wilful failure of contractor to achieve contract objectives. 	<ul style="list-style-type: none"> • Where there is contractor information imbalance over the agency in relation to costs and the condition of assets, a contractor may take improper advantage of this situation to manipulate outcomes. • Limited in-house staff capabilities can create situations where contractor underperformance is not detected or scrutinised. • An over-focus on flexibility and cooperative behaviour during the contract negotiation stage can discourage the questioning of financial information provided by contractors or potential contractors, allowing service providers to manipulate outcomes. 	<ul style="list-style-type: none"> • Undertaking extensive due diligence enquiries during a selection process is essential to uncovering poor contractor reputation. • Professionalising procurement capabilities will help ensure the negotiation of effective arrangements. • Agencies aligning procurement strategies with long-term strategic outlooks will improve the chances of agency objectives being met. • An extensive negotiation phase prior to the signing of a written contract, involving in-house staff with the requisite skill level, will help ensure outcomes are not adverse. • Establishing a steering group to oversee the contract will help bring high-level capabilities to the management of the contract, including financial acumen, contract management experience, and legal and negotiation skills. • Implementing systems to capture data about site conditions, costs and the condition of assets will help reduce information imbalance between the agency and the contractor. • Establishing a medium for regular feedback between a contractor and an agency will help ensure contractor outcomes are met and understood. • Establishing a clear process for communication between parties will help resolve issues as they arise.

Contracting arrangement	Potential corrupt behaviour/ organisational inefficiencies	Factors exacerbating potential for corrupt behaviour or organisational inefficiencies	Examples of controls mitigating corrupt behaviour or organisational inefficiencies
Pricing structure based on a flat fee	<ul style="list-style-type: none"> Wilful failure of contractor to achieve contract objectives due to the incentive to perform work quickly. 	<ul style="list-style-type: none"> An unclear scope of work will encourage contractors to underperform. An unclear basis for establishing prices may increase chances that a contractor will not receive a guaranteed return on work performed, motivating corrupt behaviour. 	<ul style="list-style-type: none"> Clearly defining scopes of work will reduce disputes around deliverables. Introducing flexibility to adjust pricing arrangements at the commencement of long-term contracts will help ensure unforeseen problems are addressed and contractors remain viable. A transparent and demonstrable basis for establishing prices will help ensure profitability for contractors. Techniques for establishing prices include the development of pre-tender estimates based on cost inputs and consulting other agencies with similar procurement needs about prices. Mechanisms for obtaining regular service user feedback will help in identifying contractor underperformance.
Profit-at-risk schemes	<ul style="list-style-type: none"> Contractors falsifying data relating to KPI measures. Contractors colluding with in-house staff to avoid losing profits and to ensure they remain viable. 	<ul style="list-style-type: none"> An overly harsh regime for putting contractor payments at risk for non-performance can motivate improper behaviour due to a contractor's need to remain viable. An agency may not be in a position to independently verify cost information due to previous poor practices in this area. 	<ul style="list-style-type: none"> Allowing contractors to mitigate non-compliances as an alternative to putting profits at risk, especially in the early stages of a contract, will reduce contractor incentives to collude with in-house staff. Providing an initial period of time to settle into arrangements prior to implementing profit-at-risk arrangements can reduce the likelihood of unrealistic arrangements continuing.

Contracting arrangement	Potential corrupt behaviour/ organisational inefficiencies	Factors exacerbating potential for corrupt behaviour or organisational inefficiencies	Examples of controls mitigating corrupt behaviour or organisational inefficiencies
Pricing structure based on payment for outcomes	<ul style="list-style-type: none"> Contractors falsifying data relating to KPI measures. 	<ul style="list-style-type: none"> Limited understanding of an operating environment by management can lead to poorly written KPIs, giving rise to perverse contractor incentives. Where the exact scope of services is unknown, contract scopes will be ill-defined, creating difficulties with measuring deliverables. 	<ul style="list-style-type: none"> Drafting clear service-level agreements will help ensure deliverables are met. Clearly identifying, considering and balancing contractor risks and rewards will reduce opportunities for perverse incentives to arise. Establishing clear, achievable and measurable KPIs – for example, by involving operational staff in the design of KPIs – will reduce the likelihood of poorly-written KPIs. Linking discretionary contract extensions to the achievement of KPIs can motivate contractors to perform. Introducing flexibility to allow the readjustment of KPIs due to poor design or changing needs as a contract evolves over time.



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