



National Audit Office

Report

by the Comptroller
and Auditor General

Cross-government

Open-book accounting and supply-chain assurance: case studies

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Our public audit perspective helps Parliament hold government to account and improve public services.

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Report by the Comptroller and Auditor General

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Comptroller and Auditor General
National Audit Office

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This is a complementary document to the report
Open-book accounting and supply-chain assurance
setting out nine case studies on supply-chain assurance

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Introduction

1 This is a complementary document to the report *Open-book accounting and supply-chain assurance* setting out nine case studies on supply-chain assurance.¹ We describe how nine organisations use supplier information to manage contracts so that the government can draw on their experience when considering these issues.

2 We visited nine organisations to understand how they work with suppliers. We selected the case studies (**Figure 1**), after consultation, to identify potential good practice in supply-chain management. We included a range of organisations but did not conduct a systematic review of best practice. We conducted this particular element of our work in the spirit of appreciative enquiry, and, because we are not the organisations' auditors and did not seek to validate what we were told, we do not intend this document to provide any assurance on their businesses or the way they manage their suppliers. We are grateful for the help of the organisations who volunteered their time to take us through how they manage their supply chains.

3 From the case studies we identified five strategies for using supplier information. Here we briefly explain these strategies and describe how organisations deal with the associated risks. More detail on the strategies and the implications for government is in the main report. The strategies are:

- ensuring the price complies with the contract (paragraphs 4 to 5 and case studies on Ministry of Defence and National Grid);
- making informed commercial decisions (paragraphs 6 to 7 and case studies on Affinity Water and the BBC);
- assuring processes (paragraphs 8 to 9 and case studies on IKEA, Jaguar Land Rover and Laing O'Rourke);
- maintaining control of risk (paragraphs 10 to 11 and case studies on National Grid and an anonymous high-street retailer); and
- achieving step-change innovation (paragraphs 12 to 14 and case studies on Affinity Water and Surrey County Council).

¹ Comptroller and Auditor General, *Open-book accounting and supply-chain assurance*, Session 2015-16, HC 91-I, National Audit Office, July 2015.

Figure 1

Overview of case studies

Organisation	Sector	Scope of case study
Affinity Water Ltd ('Affinity')	Utility	Two contracts for mains water-pipe repair, renewal and maintenance
British Broadcasting Corporation ('BBC')	Broadcast and media	Contracts for distributing World Service programmes via short wave and technical services
IKEA Group (Ingka Holdings BV) ('IKEA')	Retail	Group sustainability function
Jaguar Land Rover Ltd ('JLR')	Automotive	Overview of all procurement activity
Laing O'Rourke plc ('LOR')	Construction	Overview of all procurement activity
Ministry of Defence ('MoD')	Central government	Cost Assurance and Analysis Service: scrutiny of contracts for military equipment that were let without competition
National Grid plc ('National Grid')	Utility	Procurement of contracts for electricity grid enhancements
Surrey County Council ('Surrey')	Local government	Strategic partnership for repair and maintenance of roads
Anonymous: A large high-street retailer	Retail	Logistics contracts (delivery of items from suppliers to stores)

Source: National Audit Office

The five strategies

Ensuring the price complies with the contract

4 A common strategy for using supplier information is to use financial data to check the amount charged. This might be important because:

- the price is a multiple of supplier costs (a 'cost-plus' contract); or
- the customer needs to verify its supplier's costs or profit when invoking a clause to receive a share of profits ('gain-share').

5 To manage this strategy, the customer needs regular information on supplier costs. This may create an adversarial relationship. It may also take significant resources away from contract management, and the guaranteed reimbursement of costs may reduce the incentive for suppliers to innovate. Some of the ways that organisations manage these risks are in **Figure 2** overleaf.

Figure 2

Ensuring price complies with contract case studies

Organisation	Reasons for using this approach	Ways of mitigating risk of:	
		Taking an overly adversarial approach	Discouraging innovation
Ministry of Defence (defence equipment)	Lack of competitive pressure in many defence markets.	Different teams for managing the relationship and doing the audit and challenge of costs.	New legislation will allow a higher margin if the supplier shows innovation.
National Grid (construction contracts)	Difficult to fully specify design before work starts.	To make verifying costs easier, overheads are recovered from profit rather than paid as costs.	Design expertise retained in-house, supplemented by contracted-in resource.

Source: National Audit Office

Making informed commercial decisions

6 Supplier data can help a buyer make commercial decisions. For example, because changes to a contract will often be negotiated without competitive tension, the customer may benefit from access to supplier data on current and forecast costs. Access to supplier data can also help the buyer replace a contract when it ends.

7 We saw this strategy in two of our case studies.

- Affinity Water used lessons learned from one procurement to inform the re-procurement of a similar contract.
- The BBC uses open-book data to inform re-procurements. It tries to reduce the burden on suppliers by focussing on large contracts and by gathering and validating data once every two years and at the end of a contract, rather than continually.

Process assurance

8 When a process has been outsourced, a buyer may want to use supplier information to assure itself that the supplier's processes are up to standard. For example, the buyer may want assurance that the quality standards will be met. This is particularly relevant where customers expect a high quality of service or when the public expect a service to follow legal, regulatory, or ethical standards.

9 This approach typically requires detailed standards to be agreed in advance, and for the buyer to have a contractual right to regularly inspect the supplier's processes. Some of our case studies chose to co-locate staff with suppliers to do these inspections, but it is sometimes possible to avoid a permanent presence by examining systems and records or relying on an industry-wide third party. This approach may require substantial levels of skilled resources, and it may increase supplier costs – for example if the supplier has to adopt less efficient working practices (**Figure 3**).

Figure 3

Process assurance case studies

Organisation	Using this approach: reasons and method	Ways of mitigating risk of:	
		Resource intensity in procuring organisation	Adding cost to suppliers
IKEA (assuring manufacturing is sustainable)	A central IKEA value is to ensure its products are manufactured to high ethical and environmental standards. It sets standards for the working conditions of supplier employees and looks for innovative ways to reduce the environmental impact of manufacturing. Each supplier site is audited against these practices at least every 12–24 months.	IKEA is increasing its resources because it is extending its standards and growing its own business. It has reduced the number of suppliers and maintains supplier relationships for a long time (11 years on average).	IKEA helps suppliers with automation and works with them to make processes more efficient. IKEA's growth creates scope for further economies of scale among suppliers.
Jaguar Land Rover (JLR) (assuring quality of vehicle components)	JLR needs to ensure each vehicle component is produced to a high standard so it can provide a consistent customer experience. It agrees detailed design standards with suppliers and oversees production quality on a near continuous basis.	JLR's resource levels have increased as the business has grown. It has recently reduced the number of directly contracted supplier sites. Suppliers are typically used for the entire production cycle of a car, about seven years.	JLR uses quality engineers to help optimise suppliers' production techniques. These engineers co-locate with suppliers during the launch phase.
Laing O'Rourke (LOR) (assuring construction components are delivered on time)	Delivery of complex projects depends on many suppliers delivering components of buildings to the construction site at the right time. LOR shares updated project plans through a data tool so all suppliers know when components need to be delivered.	Suppliers must be approved before they can bid for contracts and again when they are awarded work. This includes checking the supplier's ability to meet minimum standards.	LOR takes a risk-based approach, giving more scrutiny to the more important elements of a contract.

Source: National Audit Office

Maintaining control of risk

10 Supplier information can help an organisation that wants to contract out a service but retain significant control of risk in-house. For example, there may be a risk that:

- is difficult or expensive to transfer; or
- the buyer needs to control for operational or policy reasons.

11 Where we saw this approach it resembled the earlier strategy 'ensuring price complies with the contract'. However, we also saw much more awareness that information would need to flow both ways. Two of our case studies illustrate this:

- National Grid often controls the design of construction projects in-house. It does this to prevent the design being over-specified and costing too much.
- The large high-street retailer controls the forecasting of the volume of items needed at each store. It is vital that it has an accurate forecast of sales throughout the year. It regularly forecasts the demand for each item it sells and shares data with its suppliers at least weekly. It scrutinises the suppliers' costs as if the service was being provided by an internal division.

Achieving step-change innovation

12 We said in our 2015 report on the centre of government that further savings through continued departmental spending controls will be challenging to achieve, and will have to come from transforming the way departments work.² This is equally true for where they are contracting-out work, but this will require both departments and suppliers to work together to transform the service.

13 Two case studies show that a more mature commercial attitude can strengthen this approach (**Figure 4**). The organisations (Affinity Water and Surrey County Council) clearly understood why they needed to make these changes and they both:

- created a contractual framework that aligned incentives so that both parties would benefit from success;
- worked with prime suppliers to identify and share best practice among subcontractors; and
- maintained or increased technical skills to help manage their contracts.

14 These two organisations held their suppliers to the terms of the contracts, while being willing to review the overall process. They used supply-chain assurance techniques to step into the prime supplier and discuss how to improve the contract to mutual advantage including identifying potential efficiencies.

² Comptroller & Auditor General, *The centre of government: an update*, Session 2014-15, HC 1031, National Audit Office, March 2015.

Figure 4

Achieving step-change innovation case studies

Organisation	Using this approach: reasons and method	Ways of mitigating risk of:		
		Being over-reliant on the supplier	Benefiting at the supplier's expense	Not changing own culture
Affinity (renewing water mains network)	Affinity renewed its water mains network at a much lower cost than it had previously achieved. Affinity used consultants to observe subcontractors in order to identify best practice, which was shared across the supply chain.	The approach is strongly Affinity led. Affinity now does the benchmarking itself.	When negotiating new working methods, Affinity agreed that only cost, not margin, would be reduced.	Affinity used consultants to change its own working practices. The new approach features procurement staff leaving the office to observe how suppliers are working.
Surrey (repair of roads)	Surrey's highways department needed to improve the condition of its roads, while dealing with adverse weather conditions and making large savings. Surrey created teams that included their suppliers, and now have a greater willingness to listen to ideas from the supply chain.	Surrey leads the team but listens to suppliers. This contrasts to its previous 'tell them how to do it' approach.	Surrey committed to higher volumes over a longer period. It removed constraints on suppliers to increase their efficiency.	Surrey provided training to change the staff culture and regularly holds workshops to assess effectiveness of the new culture. It rolled out the new approach gradually to convince staff of the benefit of change.

Source: National Audit Office

Affinity Water

1.1 This case study illustrates how supplier information can be used to support step-change innovation. The case study shows:

- the commercial culture of the buying organisation may need to be changed to make best use of supply-chain assurance;
- lessons can be learned from one contract to benefit similar contracts; and
- targeting resources can help achieve these aims with a small number of commercial staff.

Background

1.2 Affinity Water Ltd ('Affinity') supplies water to around 1.5 million customers (households and others) in the south-east of England. One of its largest costs is the repair, maintenance, and renewal of its 16,500 km of water piping. As a water company, Affinity is subject to EU procurement legislation and its regulator, The Water Services Regulation Authority (Ofwat), sets Affinity's prices every five years. At the 2009 price review, Ofwat formed a view on the capital efficiency of Affinity Water (then three separate predecessor companies owned by Veolia Water) relative to the rest of the industry that resulted in it setting a significant efficiency challenge. This prompted Affinity to adopt a new approach.

Changing the commercial culture of the buying organisation

1.3 Until 2008, Affinity shared limited information with suppliers when they tendered for work and received limited information in return, seeing this as a low-risk approach. From 2008, it began to share more detailed information during the sourcing of suppliers. This included data on Affinity's historic requirements for maintenance work and its plans for future improvements. It saw that this enabled tenderers to develop a comprehensive view of Affinity's requirements, understand variability and consequently price their bids more competitively and sustainably.

1.4 Ofwat's 2009 review identified scope for Affinity to make significant cost savings on its water pipe replacement programme. To meet the regulator's requirements, Affinity decided that it needed to replace 630 km of its mains water distribution network over five years, at a cost to the company that was a quarter less than its existing cost per kilometre. In 2010, Affinity procured a new pipe replacement contract, which, because of the high volumes Affinity could commit to, provided a saving of 14% per kilometre – still significantly short of the cost it had decided it needed to achieve. Achieving the extra saving required Affinity to make a fundamental change to its culture. Previously, it had never enquired in detail as to how contracts were fulfilled. In 2012, however, it hired consultants to observe how suppliers, subcontractors, and Affinity staff were working.

1.5 The consultants first of all baselined the existing service in a level of detail that Affinity had not previously done. This included process observation, which identified issues with staff not being fully utilised, as well as delay and rework. By benchmarking both internal (to Affinity) work gangs and a number of subcontracted work gangs the consultants were able to identify key ways to reduce costs such as:

- flexible staff deployment to maximise the productive time of staff; and
- optimum practices in activities, for example where, and how big, to dig holes.

1.6 Affinity then entered commercial negotiations with existing suppliers to persuade them to adopt new working practices on the basis that cost savings would benefit Affinity but supplier's percentage margins would be protected. The impact of this was to reduce renewal costs to well below the target set by Ofwat.

Learning lessons to benefit similar contracts

1.7 In 2014, Affinity agreed a new contract to repair and maintain its water pipes. In doing so, it adopted techniques similar to those used by the consultants to bring savings to the water pipe replacement contract. They did this by:

- review of historical financial information to identify the most significant (by value and volume) repair and maintenance activities;
- construction of a cost model for these activities through observation of internal work gangs; and
- using this cost model as a framework for re-tendering their repair and maintenance contract in 2014 such that competing staffing models were understood, inefficiency eliminated and over-optimism identified.

As a result, Affinity saved 12% on its new contract compared to its old contract and expects to make additional savings over the life of the contract.

1.8 Affinity summarised the main lessons as using procurement staff to:

- observe in detail what suppliers are doing;
- compare the approaches of different suppliers to identify best practice; and
- introduce this best practice across the supply chain.

Targeting resources at key activities

1.9 Affinity manages these contracts with a small number of staff. For example, it has only one procurement member of staff managing the £30 million it spends on water pipe maintenance, repair, and renewal. To achieve this, procurement staff are encouraged to work in tandem with a willing business and supply chain, so as to identify and fully understand the main factors that affect price and quality.

BBC

2.1 This case study illustrates how open-book data from the supplier can be used to inform commercial decisions. It shows that:

- the British Broadcasting Corporation ('BBC') has a policy on when to use and validate open-book data; and
- open-book data can be used to inform the re-procurement of a contract.

Background

2.2 The BBC is one of the UK's largest broadcasters of television, radio, and online services. The BBC uses open-book accounting to inform the procurement strategy of its broadcast services. Under the constraint of cost pressures, the BBC is also using open-book accounting to model savings.

2.3 The BBC has 11 strategic contracts. These have an annual value of at least £5 million, a term of at least five years and the ability to make a significant contribution to the business.³ The BBC includes open-book clauses in its standard strategic contracts. The BBC's executive board receives annual reports on each strategic contract, helping it manage cost and significant challenges. The BBC told us about two of these strategic contracts.

- **World Service distribution contract**

This contract is for the broadcast of BBC World Service programmes from a mix of BBC-owned, partner organisation-owned and third-party sites across the globe. Under the contract, the BBC is charged by the supplier a fixed amount for each hour broadcast, and this charge has to cover the cost of maintaining the sites. The current contract, signed in 2012, is expected to cost a maximum of £200 million over ten years.

- **Broadcast services contract**

This contract covers technical services such as 'playout' (part of the process of broadcasting TV programmes), and adding metadata such as subtitles. In 2005, the BBC sold the division that provided these services, BBC Broadcast Limited, to a newly created company and, as part of the sale, agreed a contract with the new owners that runs until 2017.

³ We reported on the BBC's strategic contracts in our 2009 Report: Comptroller and Auditor General, *The BBC's management of strategic contracts with the private sector*, presented to Parliament by the Secretary of State for Culture, Media & Sport, March 2009.

2.4 Several teams are involved in managing the BBC's strategic contracts:

- Contract managers with technical and engineering skills deal with the day-to-day contract management. They visit the distribution sites at least every 18 months.
- Procurement specialists, with financial and legal skills, help the contract manager deal with complex issues.
- A central team provides extra support for the 11 strategic contracts. The team provides advice, quality assurance and develops best practice.

Having a policy on when to use open-book accounting

2.5 BBC policy requires the use of open-book accounting for all of its strategic contracts. The BBC considers that this improves supplier relationships and reassures contract managers that the price they are paying is correct and value for money. For example, after the broadcast services division was sold, the BBC used open-book to maintain visibility and understanding of the cost of the service.

2.6 The BBC's policy requires an in-depth financial audit of the open-book data every two years, and also often at the end of contracts. These audits inform contract re-procurements. The BBC is involved in setting the scope and aim of each audit but outsources the work to accountancy firms.

Using open-book data to inform a re-procurement

2.7 The BBC told us that it saw procurement as the main way to make savings. It starts preparing for a contract renewal up to two years in advance. It estimates a target price using open-book audits of the previous contract, market intelligence, and benchmarking. It also decides how the new contract will meet current objectives.

2.8 When the BBC re-procured the World Service distribution contract, between 2010 and 2012, it reduced costs by reducing the hours of broadcasting and closed three short wave radio distribution sites. This was after the BBC was asked in October 2010 to generate 20% savings over the next five years. The BBC told us that the open-book data meant it knew the cost of each short wave hour, and this helped it negotiate because it could more easily price the reduction in scope.

2.9 At the same time, the BBC increased its ability to use open-book accounting. Previously it only had visibility of direct costs, but from 2012 it negotiated the right to see the supplier's indirect costs (overheads) as well. This gave it a better understanding of the total cost of each hour transmitted. It now uses the data to model the impact of changes in the number of hours broadcast on the cost of the contract.

2.10 The BBC told us it would use open-book data to inform the procurement strategy for its broadcast services contract in 2017. The BBC intends to compete the contract among a number of suppliers. It told us that having used open-book data to understand the current supplier's cost and commercial model, it was well placed to run a competition in a way that attracts new suppliers by, for example, breaking the current contract into multiple contracts.

IKEA

3.1 This case study illustrates how supplier information can be used for assurance that suppliers' processes follow legal and ethical standards. IKEA considers that this approach works because it:

- builds sustainability into its culture and values;
- helps suppliers meet environmental and social standards that IKEA sets; and
- uses audit to ensure standards are met, with business consequences for suppliers that do not meet its standards.

Background

3.2 IKEA is a privately-owned international retail group selling home-furnishing. It sells some 9,500 products through 361 stores around the world. It contracts out the manufacturing of all of its products. IKEA products are made by 1,002 suppliers in 51 countries, with two thirds of the production taking place in Europe. IKEA aims to create affordable prices by building long-term supplier relations (lasting 11 years on average), investing in automated production and producing large volumes.

3.3 IKEA faces the challenge of producing the highest quality products at the lowest price possible. It told us that it does this by sourcing materials from around the world, where it faces differing local legal and ethical standards. IKEA uses supply-chain assurance to ensure that all of its suppliers uphold IKEA's values.

Building sustainability into culture and values

3.4 IKEA uses a code of conduct to ensure manufacturing follows the group's ethical standards. This mandatory code of conduct, known as the "IWAY Standard", defines the minimum requirements for environmental and social conduct when purchasing products, materials and services. It prohibits unethical or illegal actions including the use of child or forced labour, and requires, for example, that suppliers pay the minimum wage and enforce legal requirements on working hours.⁴ IKEA regards IWAY as necessary to ensure that its production is sustainable over the long term, and it aims to achieve this without charging a premium to customers.

⁴ IKEA, *IWAY Standard*, available at www.ikea.com

3.5 IKEA continues to gradually extend the scope of IWAY. Each business unit sets its own rules for what is in scope, based on a risk analysis, and all suppliers in scope must then apply the full IWAY code without exception. The earliest unit to adopt the code – home furnishings – has the broadest scope. This unit applies IWAY to all parts of a supplier site that manufactures IKEA products, for example the IWAY requirements on employee conditions apply to all employees working on that site. In this business unit, IKEA are beginning to require their suppliers to ensure significant subcontractors also follow IWAY.

Working with suppliers to help them meet the requirements

3.6 IKEA told us that it works with suppliers to help them meet the requirements without a negative impact on the take-home pay of the workforce. For example, in China there is a legal limit on working hours of 49 hours per week. IKEA told us that other companies that engage with suppliers in China frequently ignore this legal limit, and that employees were regularly working over 80-hour weeks. IKEA has actively been working with the suppliers to reduce working hours to meet the legal limit, without a reduction in the pay to workers. It is working with suppliers to help them make efficiency gains and is aiming to achieve the 49-hour maximum during 2015.

3.7 Suppliers have generally reacted positively to IWAY. IKEA said that although the initial introduction phase requires careful communication and management, it has a low turnover of suppliers. For example, it estimates that 75% of suppliers in home furnishings have worked with IKEA for more than nine years.

Using audit to ensure standards are met

3.8 Once in scope, suppliers are required to comply with IWAY and non-compliance will result in a loss of business. A new supplier is given 12 months to implement the IWAY requirements. All suppliers are audited every two years by inspections that are often unannounced. A violation of certain requirements will lead to the immediate halting of all deliveries until the situation is rectified. A supplier failing any requirements twice within 12 months will have their IKEA work gradually terminated ('phasing out'). For five years after being phased out, any supplier that wants to regain work must comply with all IWAY requirements from the start of the new business relationship.

3.9 IKEA's audits often look at the financial and human resources records of pay and hours worked and include measures to ensure that that these formal records are accurate.

3.10 To enforce IWAY, IKEA told us that it allocates significant resources to support and check compliance of suppliers. It employs 85 auditors and buys in extra support to create a pool of trained auditors. It also has six employees who provide quality assurance for the IWAY audits, and a committee of senior managers that provide rulings on difficult cases. IKEA is currently considering how it might make the audit process more efficient as the group continues to grow.

Jaguar Land Rover

4.1 This case study illustrates how supplier information can be used for assurance that suppliers meet predefined standards. It shows that:

- supplier information can be used to ensure quality standards are met; and
- monitoring the financial health of suppliers can help manage the risk of supplier failure.

Background

4.2 Jaguar Land Rover ('JLR') is a UK-based manufacturer of premium vehicles. It is owned by an Indian conglomerate, Tata, but has a high degree of operational freedom. It employs 34,000 people, primarily in the UK but it is also expanding into China and Brazil. It owns the British brands Jaguar and Land Rover and is the largest UK vehicle manufacturer. JLR buys components manufactured at around 1,000 supplier sites. In 2014, it spent some £13 billion on these components.

4.3 JLR told us that it faces the challenge that it is growing very quickly and needs suppliers to keep pace with demand without compromising quality. Alongside this, it carefully monitors the threat of supplier failure, which would impact the entire supply chain. JLR uses a range of skills to manage its suppliers. Each main supplier is allocated a team with skills in cost accounting, commercial skills, product development, and quality.

Using supplier information to ensure quality standards are met

4.4 JLR regards quality as very important for its premium range of vehicles. A vehicle comprises many parts, and JLR requires these to meet quality standards throughout the life of a model – some seven to ten years of active production, followed by perhaps another 15 years when there will be an active market for replacement parts. JLR works with suppliers to design both the parts themselves and the specialised tooling that make them. It often retains ownership of the resulting intellectual property, and generally owns the tooling that the suppliers use to construct the parts.

4.5 JLR told us that it has teams of technical engineers inspecting the quality of parts. Its engineers, based at the supplier sites, provide a JLR 'kitemark' (known as 'JLRQ') as parts are produced to the required quality standards. The engineers act as JLR's technical voice within the supplier and have extensive access to suppliers' processes and systems. Payment is only made for tooling if suppliers meet the required volume and quality standard as documented through a formal process known as 'Parts Supply Warrant'.

4.6 JLR told us that to monitor quality, it uses experienced engineers with a thorough knowledge of the product and its manufacturing process. When designing a new model these engineers are involved from the start of design through to the parts going into production. To manage the scale of the monitoring activity as JLR grows, it has reduced the number of directly contracted suppliers that it works with and increased the sharing of parts between different models.

Monitoring the financial health of suppliers

4.7 Since the financial crisis in 2008, JLR has spent more time monitoring the financial health of its suppliers. It currently uses financial information, quality information, and knowledge gathered by its technical engineers. JLR has six employees monitoring both internally generated and publicly available information across around 1,000 supplier sites and report monthly to senior management on this.

4.8 JLR told us that it is considering broadening the scope of its monitoring of suppliers. For example, they are looking to gather more information on business continuity, health and safety, working practices, and performance against environmental targets. US legislation now requires the industry to know the source of some raw materials, known as 'conflict materials'.⁵ Instead of developing a system on its own, JLR is working collaboratively with other automotive manufacturers to gather the required information.

Understanding the impact of supplier failure

4.9 JLR described how it needs its supply chain to expand to help it grow. In the past three years, JLR has increased revenue by some 10% a year, ahead of the industry which is growing at about 3% a year. It plans to introduce 50 new product variants, including two entirely new models within the next five years. This growth contributes to the Tata group's overall aim of becoming one of the top 25 global companies by market capitalisation.

4.10 JLR believes that supplier capacity is the biggest constraint on growth. The industry is still recovering from recession and JLR is competing with other manufacturers for the supplier capacity that remains within the UK. JLR is not large enough to diversify across several suppliers, so any supplier failure could cause significant problems. JLR estimates that a permanent loss of capacity, through supplier failure, could cost up to £30,000 in lost profit for each minute of stoppage.

4.11 JLR said it often plays an advocacy role with those who might lend to its suppliers to support investment in capacity. Before a new model is launched, it may take two years of investment before suppliers have the tools to design a part, yet they do not get the bulk of their payment from JLR until the first car is finished. Once production begins, the industry standard is for a 60-day payment period (increased since the recent recession in return for a price increase).

5 The Dodd-Frank Act 2010.

Laing O'Rourke

5.1 This case study illustrates how supplier information can be used to manage delivery to time and budget. It shows how different types of information can be useful when:

- selecting suppliers to work with; and
- using shared data to manage overall progress.

Background

5.2 Laing O'Rourke ('LOR') is a UK-based international construction company. LOR runs large infrastructure and construction projects and works both as a prime supplier and as a subcontractor to other construction firms. It typically completes some 70% of a project itself, using suppliers with specialist skills to provide the rest. It retains control of most of the design where possible – for example if it subcontracts an element, it generally produces an outline of requirements for the supplier to complete.

5.3 LOR told us that it faces the challenge of delivering its construction projects on time, budget, and to a high quality standard. To find suppliers, LOR told us it implements a rigorous selection process, which includes using open-book to assess suppliers' financial information. During contract delivery, it uses a shared IT system with suppliers to monitor the evolution of the project.

Selecting suppliers to work with

5.4 LOR told us that it only allows approved suppliers to bid for subcontracts. Suppliers are required to meet standards similar to those required of its in-house services. Before approval, a supplier must provide LOR with details of its insurance; policies on health and safety; anti-corruption and bribery policies; and evidence of accreditation against industry standards on quality.

5.5 The central procurement team verifies information and maintains a list of approved suppliers. To reduce the burden on suppliers, they remain approved for two years. Some 1,000 suppliers are currently approved. LOR considered contracting out some of the accreditation process, but concluded that it would prefer to manage the risk itself, due to the potential impact on its own ability to win business.

5.6 LOR develops a detailed understanding of some 350 of its suppliers. It regularly meets these suppliers to maintain relationships, understand changes in the industry and discuss upcoming projects and plans. LOR maintains the relationship at multiple levels including project management, finance and design.

5.7 LOR assigns a mix of people to manage its supplier relationships. It has some 150 people in its central procurement team and extra staff within the teams managing each project. It assigns a team of at least five people to manage each supplier bringing together skills from its operations, design, commercial, project management and purchasing functions.

5.8 Once a company is placed on LOR's list of approved suppliers, it may bid for a contract. To do this, it must provide financial information using an open-book arrangement with LOR, which is checked against the tender requirements. After the contract is awarded, if the project is high risk or if the supplier is new, LOR stations engineers with the supplier to check that their processes are capable of producing work to the right standard and to deadline.

Using shared data to manage progress

5.9 LOR shares information with its suppliers to ensure components are delivered on time. A detailed project plan is created that breaks the work down into detailed packages, which are fed into an IT system that LOR runs. For example, different parts may need to be delivered in a specific order to facilitate the construction of a building. All suppliers involved in a project can access the system to receive updates on timetable and requirements. On large projects, the supply chain may comprise several thousand suppliers, each contributing small pieces to the overall project. The data are updated regularly to make progress visible to the entire internal supply chain, and to ensure everyone knows the current requirements and project plan. The data mostly relate to quality and timeliness rather than cost.

Ministry of Defence

6.1 This case study illustrates how open-book accounting can be used to ensure that the price of a contract properly reflects the specific costs and deliverables attributable to the contract. It shows that:

- the Ministry of Defence ('the MoD') has a specialist team that uses the open-book access rights; and
- significant levels of skills and resources are needed to understand suppliers' material, labour and overhead costs.

Background

6.2 The MoD spends some £14 billion per annum on large contracts for the design, construction, maintenance and support of defence equipment. The contracts can be difficult to price. The equipment built tends to be complex, bespoke, and each may take many years to build. Where fixed price contracts are not appropriate, the MoD will let its high-value construction contracts on an 'incentive' basis with an agreed target cost and profit, and a sharing mechanism for cost under- and overruns.

6.3 Over half of the MoD's procurement spend is on contracts which are let without competition. It uses non-competitive contracts for various reasons including national security concerns, a lack of market participants in some defence markets and policy reasons, such as awarding contracts to UK firms to preserve capacity in the UK defence market.

6.4 Open-book accounting is used to mitigate this lack of competition. The MoD has a division, the Cost Assurance and Analysis Service ('CAAS'), to use its open-book access rights to scrutinise the costs of non-competitive contracts. CAAS is the civilian centre of expertise for defence cost accounting and providing cost engineering, cost accounting, cost forecasting and portfolio analysis advice to senior acquisition staff in the MoD.

The MoD has a specialist team that uses and enforces open-book

6.5 Each contract has a project team, separate to CAAS, who manage the contract and the relationship with the industry supplier and military. CAAS support the team managing the project by:

- **Estimating the cost of contracts**

When project teams are deciding requirements for single-source contracts, CAAS benchmarks the expected costs using their own 'should cost' estimates. CAAS told us that it uses these estimates to test bids against requirements, where they provide a check of the project team's own cost estimate, and to provide a negotiation brief for commercial teams to help improve value for money.

- **Reviewing costs using open-book clauses**

CAAS told us that it audits actual project costs against what the contract permits. It also scrutinises the suppliers' forecast cost and suggests ways to reduce it. It told us about one example where it suggested the supplier should re-profile work for later in a contract when labour rates would be lower (the supplier had guaranteed a reduction). CAAS told us that, in 2014-15, it provided advice and recommendations which, when implemented, would reduce whole life costs of equipment by £541 million as well as further potential savings opportunities valued at £592 million.

- **Understanding a supplier's accounting systems**

Each year CAAS confirm, through detailed audit, how suppliers account for costs and allocates overheads, for example how unit prices such as labour rates are calculated.

Significant levels of skills and resources are needed to obtain a detailed understanding of suppliers' overheads

6.6 In 2014, CAAS employed 420 staff, reduced from 700 in 2000. Resources have grown since 2010 following a review which recommended that the MoD increase its commercial capacity.⁶

6 B Gray, *Review of Acquisition for the Secretary of State for Defence*, HM Government, October 2009.

6.7 New legislation is intended to further broaden CAAS's ability to use open-book accounting.⁷ Currently the MoD must negotiate its standard templates for open-book clauses into each contract on a case-by-case basis. The Defence Reform Act 2014 will change this:

- Open-book clauses will be legally required in single-source contracts valued at over £5 million and subcontracts valued at over £25 million.
- Suppliers will have to give information on each contract in a standardised format.
- Suppliers will have to prove that costs are allowable in line with the Act before the MoD will pay. They will have to show that the MoD receives value for all costs and must submit a series of contract reports to attest to their accuracy. The MoD will have the legal right to check costs and impose penalties for inaccurate data.
- A new regulatory body, the Single Source Regulations Office, has been established with the power to adjudicate in any disputes.
- Suppliers will be required to provide details of their future business plans.

⁷ The Defence Reform Act 2014 received Royal Assent in May 2014, but some parts will not come into force for three years. See <http://services.parliament.uk/bills/2013-14/defencereform.html>

National Grid

7.1 This case study illustrates how open-book accounting can be used to maintain control of a significant risk. It illustrates that:

- there can be good reasons for choosing a transactional rather than a strategic approach to major procurements; and
- it is important to procure in a way that provides an appropriate balance between the cost and benefit of transferring uncertainty and risk to a supplier.

Background

7.2 National Grid is an international electricity and gas company that operates in the UK and north-eastern USA. In Great Britain, National Grid owns and operates the entire transmission network for electricity and around half of the regional gas distribution network. It is regulated by Ofgem, the electricity and gas regulator, and subject to EU procurement legislation.

7.3 National Grid adopted a new approach after the 2008 financial crisis, when it had to cut cost. National Grid found that by offloading risk on to suppliers, it was able to deliver certain projects cheaper. In other cases, it was advantageous to keep control of risk in-house and manage costs using open-book.

Transactional or strategic approaches to procurement

7.4 In 2005, National Grid introduced a strategic approach, which it called 'alliances', to significant contracts for upgrading the electricity network. This saw it split its work into regions and procure from one strategic supplier in each region. It then worked with suppliers to develop integrated teams in each region. Suppliers were paid on a cost-plus basis where allowable costs were derived from open-book data. This was expected to reduce both the timescale for implementing new projects and duplication in management overhead costs.

7.5 National Grid experienced two main problems with this strategic approach. First, it was not sufficiently flexible to cope with the 2008 financial crisis which led to significantly lower volumes of work than anticipated. This reduced staff utilisation within both National Grid and its suppliers, and created higher, rather than lower, management overheads. Second, while this approach achieved many of National Grid's objectives in areas such as resource planning; workbook management and solution development, it was felt to be suboptimal when it came to responding to an increasingly challenging commercial environment.

7.6 From 2012, National Grid started to dismantle this strategic approach. It now does most of the design work itself, letting a construction contract through a competitive process towards the end of the design phase. Occasionally, it uses design consultants for specialist expertise. It told us that it either chooses consultants fully independent of the construction suppliers or, at a minimum, requires 'Chinese-walls' to prevent designers and construction engineers in the same supplier sharing information.

Balancing the costs and benefits of risk transfer

7.7 Under the new approach, National Grid told us that construction suppliers may be procured on either a fixed-price or a cost-plus basis. The decision depends on the extent of uncertainty remaining in the design at the end of the design phase. When there is still high uncertainty, National Grid considers that the cost of transferring that risk through a fixed-price contract is likely to be too high and it will instead use cost-plus pricing. Reasons for this happening include short timelines and unknown or unusual geological conditions.

7.8 When National Grid uses cost-plus pricing, it defines allowable costs as part of the contract. This means that the treatment of costs requiring judgement, such as how to allocate the cost of equipment shared across multiple projects, is agreed in advance. These allowable costs are assessed through open-book accounting and an agreed extra percentage is paid on top to cover profit and any non-allowable costs.

Surrey County Council

8.1 This case study illustrates how supplier information, used in the context of collaborative working, can lead to step-change innovation, generating significant savings and performance improvements. It shows how success can depend on:

- changing the culture of the buying organisation; and
- retaining a strong understanding of how a contract is being fulfilled.

Background

8.2 Surrey County Council ('Surrey') is a local authority. In 2012-13, it spent £1.5 billion including around £80 million on maintaining highways. Surrey is responsible for the maintenance and renewal of approximately 4,500 kilometres of roads. This does not include trunk roads that run through the county which are the responsibility of Highways England (formerly the Highways Agency).

8.3 Since 2010, Surrey has faced substantial reductions in central government funding. This motivated the need for a 'step-change' in the way it managed contracts. Surrey was also promised additional funding if it achieved stretching savings targets on its road renewal contract. To do this, it adopted a collaborative approach with suppliers, characterised by greater sharing of information.

8.4 In 2010, Surrey appointed a strategic partner for managing and improving its road network. It adopted a collaborative approach, including integrated teams, with a high level of subcontracting by the strategic partner. Two areas have been early adopters of this new approach.

- **Highway renewal**

A £100 million highway renewal programme, known as Project Horizon, will replace around 10% of Surrey's road network over five years. By committing to the overall volume of work and, early in the process, consulting subcontractors on design innovations and efficiencies, Surrey told us that it saved around 30% compared to 2010. It also achieved a higher quality than before – for example, suppliers are now willing to guarantee new roads for ten years, longer than the two years previously guaranteed.⁸

⁸ A review of this project is available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/325947/Project_Horizon_Surrey_Trial_Projects_Case_Study_130614.pdf

- **Pothole repair**

The new contract assumed around 40,000 pothole repairs per annum but severe cold and wet weather in recent years led to the number of potholes more than doubling. Because the contract transferred the risk of higher volumes of potholes to the supplier, the relationship became severely strained. Surrey told us that by working together, the parties found ways to substantially reduce the supplier's costs while improving the quality of repairs. This set the relationship on a more sustainable footing.

Changing own culture

8.5 Surrey had previously tried and failed to introduce consultation with its suppliers. It said that previous attempts failed because its staff were not willing to listen to suppliers' ideas and innovations. It said that they had previously expected the contract to function on a more traditional 'do what I tell you' basis, where its engineers would design solutions and prescribe ways of working which they expected the suppliers to follow.

8.6 Part of the role of the new contract has been to change Surrey's own culture so that the value of early supplier engagement in developing improved designs and better ways of working is understood.

8.7 The new contract also includes a 'partnership timetable', which allows annual strategic objectives to be agreed. This is intended to counterbalance the focus on day-to-day performance issues. This created, for example, a forum for resolving the issues with pothole repair and to discuss ways of bringing new ICT into the highways department.

Managing suppliers

8.8 Despite the culture change meaning engineers now look to the supply chain for ideas on innovation and efficiency, Surrey told us that it has retained control of what its suppliers are doing. On highway renewal, for example, Surrey has retained the expertise and responsibility for developing and approving designs. For pothole repair, Surrey continues to have an internal team that assures the quality and completion of repairs. This approach may enable Surrey to avoid a problem we often see with collaborative contracts: insufficient internal expertise to manage the supplier effectively.

Anonymous: A large high-street retailer

9.1 This case study illustrates how supplier information can be used to continuously reduce cost while retaining control of risk. It shows that:

- open-book accounting can be used to help retain visibility and control of risk; and
- focusing on an important metric can create a shared understanding of cost.

Background

9.2 This case study organisation is a publicly listed high-street retailer. It operates in a sector where customers' demands and expectations are ever-changing. To be able to respond to this, it needs a degree of flexibility in its contracts with suppliers. Open-book accounting enables it to monitor the delivery stage, for example ensuring that quality does not diminish when volume changes and that the efficiency of the service is improving.

Third-party logistics contracts

9.3 This example covers the use of open-book accounting in our case study organisation's 'third-party logistics' contracts. The logistics suppliers collect goods from the producers and deliver them to a number of warehouses. The suppliers run most warehouses, including some which are owned by our case study organisation. For example they pick up goods from the warehouses and deliver them to stores. Our case study organisation retains responsibility for forecasting how many of each item are needed at each store because volumes are critical to success and hard to predict. Each contract typically lasts up to 5 years, but can be renewed.

9.4 The case study organisation has both open- and closed-book logistics contracts. The price of items under the closed-book contracts is fixed, so the overall price depends on the 'volume' (amount) of goods delivered; its open-book contracts are based on the actual cost to the supplier plus a margin. In both cases, the amount paid therefore depends on the volume, but its open-book contracts are more flexible because the price per item ('unit cost') can change over the life of the contract.

Using open-book accounting to retain visibility and control of risk

9.5 The case study organisation told us that it uses more resources to manage their open-book contracts, but considers this justified by the extra flexibility. They told us that open-book allows it to take a more active approach to contract management, treating the supplier as if it were an internal division, with regular challenging of the unit cost and service performance. It also considers that it can better incentivise innovation through agreements to share cost savings (using mechanisms such as 'gain-share') and it uses open-book accounting to confirm the cost reduction. By contrast, it finds that its fixed-price contracts are managed in a more 'mechanistic' way.

9.6 The organisation believes the open-book approach gives it more control over the delivery process as well as improving the supplier relationship. This control is important to it for the following reasons:

- It is difficult to identify the best price at the start of a long contract, even when there is good competitive pressure. Costs do not always vary proportionally to volume and, regardless of which side gets a better deal, the buyer can lose over time – for example, there might be a reduction in quality if the supplier did not make a reasonable profit.
- Open-book accounting can ensure the contract is flexible. Our case study believes that using this approach helps it react to industry changes, such as online shopping and in-store collection, that may significantly change delivery patterns.
- It wants to reduce costs through improving efficiency and innovation. By using open-book to allow the free flow of information between the organisation and its suppliers, it believes it is more likely to achieve this.

Focusing on important metrics based on shared information

9.7 The case study organisation believes that good commercial skills are needed to manage open-book contracts well. It aims to use the suppliers as sources of expertise and adopts a 'hands-on' approach to managing its suppliers.

9.8 The organisation uses financial information to review the suppliers' operations. Each year it examines and approves each supplier's cost base and agrees how the service will be delivered, and the costs are jointly reviewed and updated quarterly. The review covers, for example, the mix of permanent and casual staff, and any expected productivity gains. The total cost is combined with the volume forecast produced by the case study to calculate an expected unit cost for each item. This is the principal method for measuring performance.

9.9 As well as receiving information, the case study organisation regularly shares volume forecasts with its suppliers as part of the open-book process. The volume forecast and expected unit-cost are updated daily using sales data from the stores, and these are shared weekly with the suppliers. This helps the suppliers manage their workload and enables more open discussion of problems.

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