

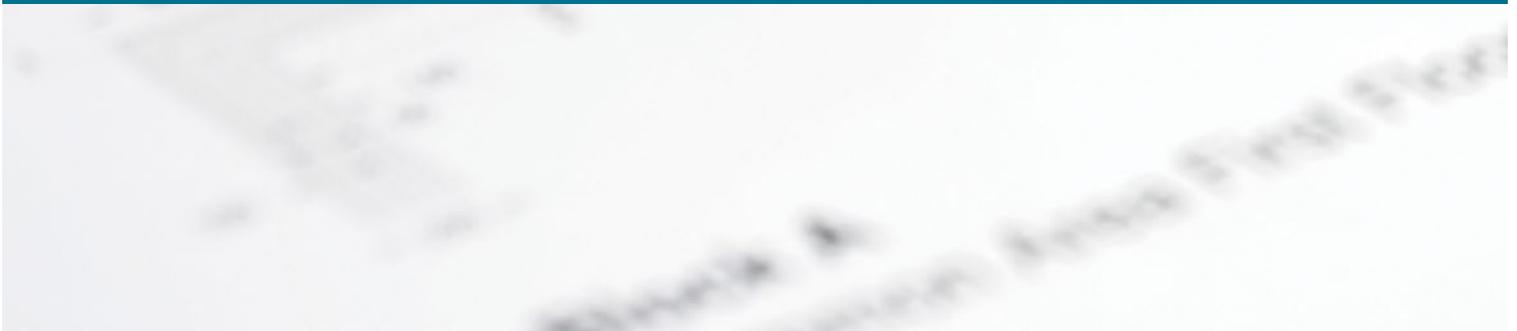
Major project and procurement lessons

A summary of findings from the Auditor General for Scotland and Accounts Commission reports



 AUDIT SCOTLAND

Prepared by Audit Scotland
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Audit Scotland is a statutory body set up in April 2000 under the Public Finance and Accountability (Scotland) Act 2000. We help the Auditor General for Scotland and the Accounts Commission check that organisations spending public money use it properly, efficiently and effectively.

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Key project stages



Project management

- ✓ Governance arrangements
- ✓ Leadership, culture and working relationships
- ✓ Project objectives, scope and planning



Pre-procurement stage

- ✓ Up-to-date procurement strategy in place
- ✓ Identifying the skills required for the team and maintaining continuity
- ✓ Making time to develop a clear strategy



Procurement stage

- ✓ Identifying the most appropriate procurement approach
- ✓ Being an attractive and intelligent client and promoting a shared understanding
- ✓ Keeping a competitive tension and maximising value for money
- ✓ Evaluating bids



Programme and project monitoring

- ✓ Project monitoring and reporting



Evaluating projects and demonstrating benefits

- ✓ Post-project evaluation
- ↻ Demonstrating benefits

Introduction



What is this report?

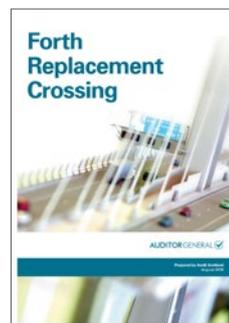
In this report we highlight good practice from our recently published report on the [Forth Replacement Crossing](#) . We have also summarised relevant findings and recommendations about major projects and procurement approaches from other performance audit reports to identify important lessons in managing projects.

Transport Scotland's approach to procurement and management of the Forth Replacement Crossing (FRC) project followed advanced practice set out in the [Model of good project management practice \(page 7\)](#). The model can be found in [Appendix 3](#) of the 2008 report [Review of major capital projects in Scotland](#) . The public sector can learn a lot from the way Transport Scotland managed the project.



Transport Scotland is a Scottish Government agency. It is responsible for national transport services and infrastructure.

“ Transport Scotland's management of the FRC project delivered value for money, although some of the wider benefits of the project have still to be demonstrated. Transport Scotland's procurement of the construction contracts was competitive and helped to deliver the project under budget.



”

Why is it important?

The public sector in Scotland spends millions of pounds each year on capital investment. This includes a wide range of infrastructure projects in areas such as economic development, NHS and schools. However, as we have found in our audit work, the public sector does not always do this well. There are also recent well-documented publicly funded projects with serious failings, for example, DG One leisure centre in Dumfries and the Edinburgh Schools projects.

We have reported on projects being over time and budget in previous reviews of capital investment programmes and key transport infrastructure projects. Analysis of major projects around the world has found that only one in ten large-scale projects are delivered to time and budget.¹ Some key findings from our reports include:

In our 2011 review of the [Management of the Scottish Government's capital investment programme](#) , we reviewed 55 recently completed projects with a combined cost of £2 billion. The most common reasons reported for cost and time overruns in higher education projects were: unforeseen delays or extra costs from third party action; changes in project scope; weak competition; and insufficient allowance for risk or over-optimistic estimates. Most projects took longer to complete compared to the time estimated at the pre-contract stage. Delays did not necessarily result in higher project costs. For example, four out of ten roads projects had time overruns between 25 per cent (nine months) and 67 per cent (ten months), yet three came in within the initial cost estimate. **Exhibit 12 on page 21** summarises the reasons for cost and time increases of more than 25 per cent from initial estimate in education projects.



In our 2013 [Major capital investment in councils](#) , we highlighted increasing costs and delays in major projects that were in progress. We reviewed 15 projects with a combined value of £919 million, which represented 18 per cent of the total value (£5.1 billion) of 203 projects in progress. Seven projects had cost estimates above the initial estimate. The estimated completion date for nine projects had slipped (**Exhibit 8 on page 18**).



The [Edinburgh trams](#)  project was considerably over budget and time. Reasons include:

- poor planning
- underestimating costs and utilities work
- disputes with contractors about the contract terms
- overly complex governance arrangements
- lack of clear leadership and a unified commitment to the project by the council.



Model of good project management practice

Project area: Vision & direction		
<ul style="list-style-type: none"> • Strategic alignment & business case • Sponsor commitment 		
Basic practices	Adequate – improving practices	Advanced practices
<ul style="list-style-type: none"> • A simple business case exists with limited benefits appraisal • No clear linkage between the project and overall strategy of the business • There is an absence of sponsorship or no clear lead/direction to the programme from senior management 	<ul style="list-style-type: none"> • Business case exists – with a compelling vision for the programme • Objectives linked to strategy – and regularly updated • Sponsor of appropriate experience, seniority and influence in place to support the project 	<ul style="list-style-type: none"> • A clear and compelling vision for the programme is defined and translated into statements of programme mission and objectives • There is a balanced scorecard of Critical Success Factors and Key Performance Indicators, reflecting the mission and objectives • There is strong top management support and commitment to sponsor
Project area: Planning		
<ul style="list-style-type: none"> • Governance • Risk management • Procurement strategy 		
Basic practices	Adequate – improving practices	Advanced practices
<ul style="list-style-type: none"> • No clear organisational structure • Roles and responsibilities are not defined or are unclear • Basic risk assessments and treatment provision across businesses • Insufficient or weak procurement analysis, does not consider market interest or appetite for the project 	<ul style="list-style-type: none"> • Organogram is in place, complete and complied with • Roles and responsibilities have been defined and documented • Risk management integrated into core processes – and with some modelling capability • Documented procurement strategy – awareness of market appetite for the project 	<ul style="list-style-type: none"> • Dedicated roles allocated, including a board panel, steering/working group and project management team linked to KPIs and scorecards • Clear linkage between financial performance and risk management performance • Overall risk and treatment portfolio approach • Procurement strategy well matched to project risk profile and market appetite

Cont.

Project area: Execution

- Project management
- Resources & people
- Procurement

Basic practices	Adequate – improving practices	Advanced practices
<ul style="list-style-type: none"> • No project baseline, scope changes incorporated without review/control or amendments to budget and schedule • There is a lack of team spirit or staff in silos • Insufficient resources to deliver the project: quantity and capability • Weak supplier interest in the project 	<ul style="list-style-type: none"> • Change control is present – and is dynamic and reviewed/linked to strategy, opportunities and risk appetite • Resources brought in to deliver programme – and based on an assessment of capability and skill mix • External resource used to backfill business as usual • Effective competition among capable suppliers 	<ul style="list-style-type: none"> • There are effective controls over any proposed changes to the business requirements • The team possess complementary skills in order to support high performance • There is an open and constructive management culture • Strong constructive relationships with key suppliers

Project area: Measuring & monitoring

- Benefits management
- Reporting

Basic practices	Adequate – improving practices	Advanced practices
<ul style="list-style-type: none"> • Projects have poorly defined deliverables • Benefits are qualitative or are based on spurious assessments • Reporting is viewed as an administrative activity that adds no value 	<ul style="list-style-type: none"> • Statements of deliverables exist at project and workstream level • Benefits are defined and quantified at least at a basic level • Reports to senior managers are available – and produced within days not weeks 	<ul style="list-style-type: none"> • Benefits are clearly quantified in terms related to improved business performance • Benefits defined at workstream, project and business level • Performance information is highly accessible, available at any time and is easy to interpret via a 'dashboard'

Project area: Business acceptance

- Change management
- Stakeholder management

Basic practices	Adequate – improving practices	Advanced practices
<ul style="list-style-type: none"> • There is no clear change management strategy or plan in place • The case for change is questionable and has not been clearly articulated • A rudimentary analysis and assessment of stakeholders' needs has been undertaken 	<ul style="list-style-type: none"> • The consequences of basic resistance to change are exposed and understood – and plans exist to manage this risk • A stakeholder engagement plan is in place – and senior managers realistically estimate the necessary time commitment 	<ul style="list-style-type: none"> • There is a clear change strategy and approach with sufficient involvement of stakeholders to make change happen • Change is seen as not imposed but an opportunity • All stakeholders are identified and expectations are classified and understood

Major project and procurement lessons



Project management

Getting the right building blocks in place at the start of a project is fundamental for success. This includes understanding the need for the project and clearly defining the benefits that you want the project to deliver. This should all be set out in a comprehensive business case. Other important aspects are setting out clear roles and responsibilities, having a positive culture and an open and transparent approach. We set a lot of this out in our report [Principles for a digital future: Lessons learned from public sector ICT projects](#)  (summary of principles below).



In our 2016 follow-up audit *Major capital investment in councils* , we compared councils' capital investment strategies and plans against relevant good practice guide (Exhibit 7 on page 25 and Exhibit 8 on page 26). We found that capital investment strategies of the 12 councils that had them displayed some features of good practice although councils needed to improve them further. Capital investment plans complied with some elements of good practice, but councils needed to develop them further. We also provided good practice examples from eight councils in managing capital investment (Appendix 2).



Governance arrangements

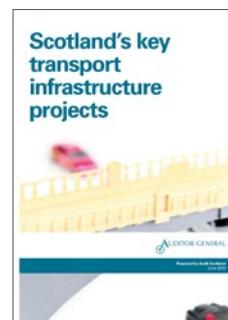


Transport Scotland put in place sound **governance arrangements**  for the FRC project. These included clear roles and responsibilities, terms of reference and lines of accountability.



Governance arrangements are the complex processes of management, decision-making and control that are required to progress a major project.

In our 2013 review *Scotland's key transport infrastructure projects* , we found that governance, monitoring and reporting could be better for some major transport projects.



A gateway review is a short, focused review of a project carried out at key decision points in its life cycle by a team of independent experienced practitioners.

In our 2017 review of *Transport Scotland's ferry services* , we found there were weaknesses in the management and governance of the Clyde and Hebrides Ferry Service project – a joint procurement exercise for a single bidder to operate the provision of ferry services in the Clyde and Hebrides and the operation of harbours. Roles and responsibilities and decision-making processes were not fully established at the outset of the project and there were delays in appointing important members of the project team. **Gateway reviews**  were not carried out at all key stages, partly due to the absence of business cases.



The City of Edinburgh Council's (CEC) governance arrangements for the [Edinburgh trams](#) project were overly complex and some members of the project's main governance body were also members of Transport Initiatives Edinburgh's (tie) own board. tie was the company originally established by CEC in May 2002 with responsibility for delivering the project. CEC's Director of Finance and Director of City Development also exercised several different oversight roles in the project. The commercially confidential nature of some of the issues meant that there were restrictions on details provided to council members surrounding the dispute with the contractor and the level of financial information included within council papers.



Leadership, culture and working relationships



On the FRC project, Transport Scotland provided strong and consistent leadership, had an open and transparent approach, and positive working relationships with the contractors.

In our [Scotland's key transport infrastructure projects](#) report we highlighted that the Scottish Government needed to improve transparency and public reporting of project costs. We recommended that the Scottish Government improved the content and presentation of information about major projects to the Parliament's Public Audit Committee in its [six-monthly updates](#) by December 2013.



A key factor that contributed to the tensions surrounding the [Edinburgh trams](#) project was different views about the need and value of the trams system between the Labour Party majority administration that approved the project and the subsequent Scottish Liberal Democrat/Scottish National Party coalition that oversaw the project. This made it more difficult for CEC to present a unified commitment to the project.



Project objectives, scope and planning



Transport Scotland put in place robust project planning from the beginning of the FRC project. The business case was comprehensive, followed relevant guidance, and clearly set out the need for the project and the scope. The FRC project team was clear about the purpose and objectives of the project, and the risks and budget.

In our review of [Scotland's key transport infrastructure projects](#) , we found that business cases were not complete and up to date at all stages for all projects. Consequently, at certain decision points, the viability, value for money and affordability of the projects had not been fully demonstrated. **Exhibit 6 on page 27** sets out Transport Scotland's process for how business cases for major projects should be developed, approved and receive assurance.



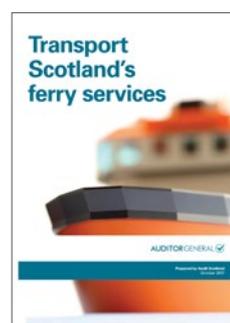
In our 2013 audit [Major capital investment in councils](#) , we found that many councils do not have established processes for developing and maintaining business cases. Where they were available, business cases were short and highly summarised or were not updated, and therefore did not reflect good practice. Some only included an options appraisal with associated costs, but did not consider other important aspects such as an assessment of risk, a procurement strategy or details of stakeholder consultation plans.



In our 2016 follow-up audit [Major capital investment in councils](#) , we found that councils had clear procedures for preparing outline and full business cases, but they did not routinely revisit and review business cases throughout the life of projects. Based on a detailed review of eight councils, about a third of them did not routinely report cumulative spending on a project-by-project basis.



Our review of [Transport Scotland's ferry services](#) , found that the Clyde and Hebrides Ferry Service project outline business case and full business case were not presented to the investment decision-making board when important decisions were being made. We recommended that Transport Scotland needs to build in sufficient time to prepare important project documentation for ferry services, such as business cases and detailed project plans from the outset, with risks well documented.



Pre-procurement stage

The National Audit Office's (NAO) 2016 review of contract management and emerging best practice emphasises the importance of extensive planning before the procurement options are put together (a year or more for more complex contracts).² The NAO has also highlighted that the quality of project initiation is highly predictive of project success.³ Public bodies should have a clear and up-to-date procurement strategy setting out national policies, legislation and tools.

Up-to-date procurement strategy in place

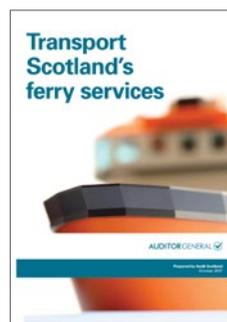


Transport Scotland had an up-to-date procurement strategy in place. This includes: considering community benefits at procurement preparation stage; consulting and engaging with key stakeholders affected by procurement activity; paying the living wage to persons involved in procurements; and promoting compliance by contractors with the Health and Safety at Work etc. Act.

In our 2013 audit of [Major capital investment in councils](#) , we recommended that councils should improve procurement strategies. We found that there was scope for councils to work together more on joint and collaborative procurement activities and to share good practice. In our [2016 follow-up audit](#) , we found there had been limited progress in these areas.



In our review of [Transport Scotland's ferry services](#) , we reported that Transport Scotland has previously treated ferry procurement exercises as individual projects rather than a programme. It is now developing a more strategic approach for future procurements which should help improve planning, the use of resources and knowledge transfer.



Our 2012 review of [Commissioning social care](#) , found that councils and NHS boards had been slow to develop strategic commissioning. Despite a range of initiatives aimed at improving commissioning, councils and NHS boards needed more help to improve. Guidance had been produced on commissioning and procurement, but the lack of commissioning strategies in place highlighted that many councils and NHS boards had not yet fully implemented the guidance.



Identifying the skills required for the team and maintaining continuity

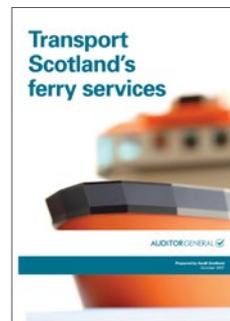


Transport Scotland put in place a team for the FRC project with the right skills and experience at the start of the project. There was also consistency in key personnel and appropriate external challenge. Transport Scotland recognised where external expertise was required and procured this early, including global engineering consultants and advisers for insurance, land valuation, contract and legal issues.

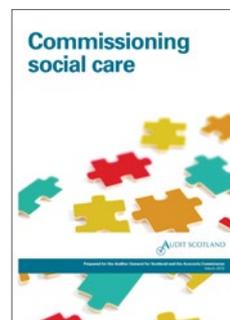
In 2017, we published a [*Principles for a digital future*](#)  report based on lessons learned from public sector ICT projects. We highlighted that entering a procurement process with less than complete knowledge of what you are trying to achieve could lead to an organisation being tied into a system or service that cannot ever meet those needs. Having the right skills to translate user and business needs into technical requirements, and to understand and challenge the supplier's solutions and ways of working is important.



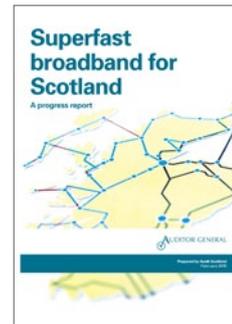
In our review of [*Transport Scotland's ferry services*](#)  we recommended that Transport Scotland should improve its approach to procuring ferry services, including ensuring that procurement teams include staff with procurement qualifications and experience of the ferry sector and applying lessons from previous procurement exercises. It should also involve the contract management team in ferry procurement exercises to inform its understanding of contract requirements.



Our [*Commissioning social care*](#)  review found that skills and capacity in commissioning and procurement need to develop further. When procuring social care from external providers, councils have found it difficult to implement formal procurement processes while also ensuring that the services best meet users' needs. Staff need to be trained so they understand procurement regulations, legal requirements and the sensitivities of procuring personal care for local people. **Exhibit 10** within the report summarises challenges and what works well for providers.



In our 2015 progress report on [*Superfast broadband for Scotland*](#) , we outlined the range of support and advice that **Broadband Delivery UK (BDUK)**  is providing to public bodies across the UK procuring superfast broadband, including the Scottish Government and Highlands and Islands Enterprise. For example, it has established a framework agreement, including standard contract conditions, to speed up the procurement process by identifying and assessing the suitability of companies interested in tendering for the work. BDUK helps public bodies assess the competitiveness of the tenders they have received, reviews projects and advises on the use of contract monitoring processes once infrastructure installation starts. It also ensures that projects meet state aid requirements.



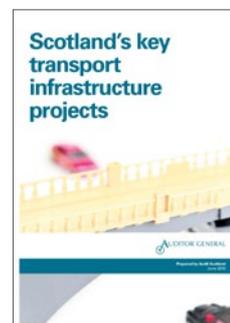
The UK government set up Broadband Delivery UK to manage its programme to bring superfast broadband to rural areas across the UK and provide funding to local bodies to develop a superfast broadband infrastructure.

Making time to develop a clear strategy



For the FRC project, Transport Scotland carried out market research to assess the risk appetite of market participants, the preferred procurement route, and most appropriate form of contract. Detailed planning was carried out before procurement started to gain a thorough understanding of the project scope, including whole-life costs, design, contract specification, risks. Transport Scotland used a good cost-estimating approach for projecting the initial FRC budget and tightly managed costs.

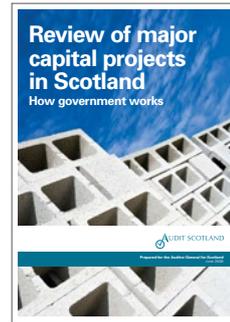
In our 2013 review of [*Scotland's key transport infrastructure projects*](#) , we found there were gaps in analysis of long-term costs of financing and maintaining infrastructure and that cost estimates in some projects were incomplete and inconsistent.



In our 2011 review of [*Management of the Scottish Government's capital investment programme*](#) , we found a lack of comprehensive information available on whole-life costs for traditionally financed capital projects. This included annual running costs, such as depreciation charges, general maintenance and facilities costs. This meant we were unable to assess the impact of capital projects on future revenue budgets.



We also found in our 2008 [Review of major capital projects in Scotland](#) , that at project approval stage, the early estimates of cost and time were too optimistic for many major projects. Performance against cost and time estimates was better after contracts were awarded, as plans were more certain and risks clearer. The quality of project appraisals could be improved. Initial cost estimates also needed to better reflect risk and uncertainty, consider a range of inflation scenarios, and build in whole-life costs ([Exhibit 13 on page 29](#) demonstrates differences between general and construction inflation that need to be considered). We recommended that public bodies should make use of benchmarking and cost-comparison of similar types of projects.



Our [Principles for a digital future](#)  report highlights the need for comprehensive planning setting out what you want to achieve and how you will do it. This includes: clearly define the need and benefits; understand and appreciate the likely complexity; identify people with the right skills and experience; break the project down into manageable stages; be aware of **optimism bias** ; and consider the procurement options early.



In our 2016 progress update on [Superfast broadband for Scotland](#) , we reported that the Scottish Government had still to finalise plans to extend coverage outside the current contracts for superfast broadband. It had been unable to take forward further procurement, partly due to BT still modelling how the funding available from lower than expected costs and higher than expected take-up can be used to extend coverage.



We reported that delays in the completion of design work and the movement of utility pipes and cables in the [Edinburgh trams](#)  project created an unplanned overlap with infrastructure construction work. There were further delays to the project from a contractual dispute between Transport Initiatives Edinburgh (tie) and the contractor. tie had to significantly extend the scope of work once the physical conditions underground became clear as it had underestimated the complexity of utilities along the tram route, congestion of pipes, cables in key locations and unforeseen obstructions. In addition, records held by utility companies and CEC were far from comprehensive.



Optimism bias is the tendency for appraisers to be over-optimistic about projects' estimates of costs, timescales and benefits. It is good practice to build in allowances for unforeseen problems that increase costs and time.

Procurement stage

Choosing the correct procurement strategy for a project is essential for good competition, minimising costs and maximising quality and value for money. The aim is to get the optimum balance of risk between client and contractor, in accordance with the principle that each risk should be assigned to whichever party is best placed to manage it. There is no single right answer when deciding how to procure a project due to the individual nature and requirements of projects.

Identifying the most appropriate procurement approach

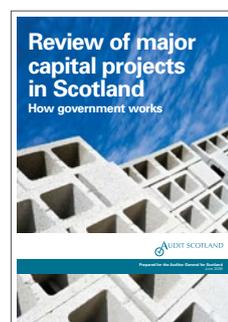


Transport Scotland identified the procurement approach early, which was in line with recommended practice – a fixed-price design and build contract.

Our [Principles for a digital future](#)  emphasises the need to consider the procurement options early. There are different procurement options available and organisations should consider which is most appropriate as they develop the need and idea. The procurement route must be consistent with how the project is to be managed and how the service is to be delivered.



In our 2008 [Review of major capital projects in Scotland](#)  we highlighted that because of the importance of integration and cost certainty within projects, HM Treasury guidance states that design and build contracts should be considered for every project. **Exhibit 14 (page 30)** sets out advantages and disadvantages of different procurement routes, control and management of contractors, and choice of construction method, fixtures, fittings and services. This exhibit can be viewed on page 17.



Procurement routes – advantages and disadvantages

Procurement route	Advantages	Disadvantages
Design and build (client engages contractor who then employs designers)	<ul style="list-style-type: none"> • Single point of responsibility • Early contractor involvement • Relative cost certainty, if there is a straightforward design and specification (and if the client does not introduce changes to requirements post-contract) 	<ul style="list-style-type: none"> • Less control over quality of specification and works – especially limiting if a one-off, design-intensive project • Client has less direct involvement of the design – risk therefore to fitness of purpose • Late changes by the client result in heavy penalties • Contractor builds in risk premium • Complex legal issues with novation of design teams (novation is the transfer of the contract between the client and the design team to the contractor)
Prime contracts or framework agreements (template contract agreed for series of projects)	<ul style="list-style-type: none"> • Only need to negotiate once for a series of projects • Prospect of repeat business attractive to consultants and contractors 	<ul style="list-style-type: none"> • May not always be best value for money • Public procurement regulations may impact
Two-stage tender (contractor selected for first stage on basis of limited scope, eg preliminaries, overhead and profit. In second stage, full price is negotiated through open book tendering of subcontracts)	<ul style="list-style-type: none"> • Early contractor involvement in design and building issues, allowing for increased scope for innovation from tenderers • Can start on site earlier • Design team can develop the design in more detail prior to going to tender for second stage 	<ul style="list-style-type: none"> • Level of detail available for first-stage tender may be limited, with large percentage of provisional sums – reducing cost certainty • Once the contractor is selected, competition is lost and this may impact on the cost • Client must take steps to strengthen its commercial position for second-stage tender
Management contracting (contractor appointed to employ and manage works' contractors, which carry out the works)	<ul style="list-style-type: none"> • Management contractor involved early and manages works' contractors • Can appoint early 	<ul style="list-style-type: none"> • No single point responsibility for design and construction • Management contractor only held responsible for workmanship to extent that works' contractor is responsible and able to pay
Construction management (construction manager appointed to arrange and monitor trade contracts but client employs all contractors)	<ul style="list-style-type: none"> • Can help accelerate timetable • Construction manager can exercise cost and quality control 	<ul style="list-style-type: none"> • No direct contract between construction manager and the trade contractors • Difficult to control cost increases and therefore little cost certainty • Should not be attempted without good previous experience of the method
Traditional procurement (client engages design team and contractor direct)	<ul style="list-style-type: none"> • Control over design process • Direct reporting of design team ensuring quality of specification • Relative cost certainty if well controlled as a detailed Bill of Quantities is required 	<ul style="list-style-type: none"> • No one person is responsible for design and construction • Design needs to be developed as fully as possible prior to tendering • Longer timescale for delivery required • Can be less attractive to contractors when there is high market demand

Being an attractive and intelligent client and promoting a shared understanding



Transport Scotland kept bidders up to date with procurement and the project, provided detailed information about the contract specification, proposed risk-sharing and carried out investigation of grounds conditions.

Transport Scotland provided sufficient notice of the contract and advertised through Public Contracts Scotland and Official Journal of the European Union.

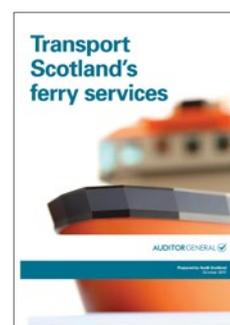
The principal contract for the FRC project was clear and easy to understand.

Transport Scotland built up good relationships with the contractors for the FRC project.

Our [Principles for a digital future](#)  report emphasises that it is important to develop a relationship with the supplier that is trusting but promotes constructive challenge.



Our review of [Transport Scotland's ferry services](#)  found weaknesses in project management, delays in providing data and other external factors that all contributed to delays in the procurement process for the Clyde and Hebrides Ferry Service project. The most significant was in issuing the invitations to tender. Transport Scotland delayed the submission date for interim bids to allow bidders more time to prepare. This subsequently reduced the time they were given to prepare their final bids.



In the same report, we reported that the chosen procurement method for the Clyde and Hebrides Ferry Service project was new and the two bidders were not clear on what was expected of them. The bidders submitted over 800 queries during the tender process and there were delays in providing them with important information. Transport Scotland failed to provide a clear financial baseline – bidders were provided with a range of financial information from different periods and had to reconcile the data. These issues made it difficult for bidders to make fully informed bids. Bidders told us that, in their opinion, there was also a lack of clarity in the contract specification and on the level of detail that they were expected to provide in their bids.

A difficulty with progressing the infrastructure construction work for the [Edinburgh trams](#)  project was Transport Initiatives Edinburgh's (tie) and the contractor's different interpretation of certain contract clauses. Poor relationships between tie and the contractor, and contractual disputes over infrastructure construction, also contributed to significant delays to the project.



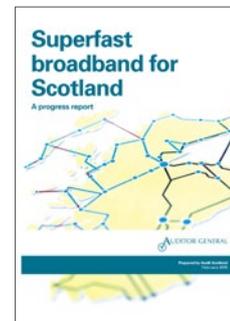
Keeping a competitive tension and maximising value for money



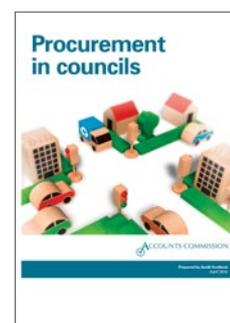
Transport Scotland set a fixed price contract, informed by a detailed costing of the project. It set certain specifications for the design of the new crossing to minimise costs, but allowed contractors to suggest changes to the design that would bring benefits and savings. Transport Scotland also built in key performance indicators into the principal contract, linked to payments.

For the FRC project there were multiple bidders across three main contracts. Transport Scotland agreed to pay a proportion of bidders' reasonable costs for the principal contract.

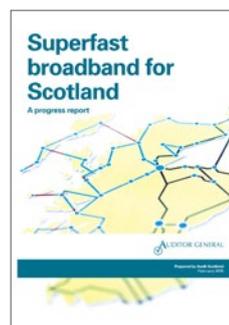
In our 2015 progress report on [Superfast broadband for Scotland](#) , we highlighted a number of measures included in the contracts that intended to provide additional assurance on value for money. For example, there was a cap of £1,700 on how much BT can spend to connect each premise. This provided assurance that project teams knew how their money was being used and allowed them to assess if the connection represents value for money.



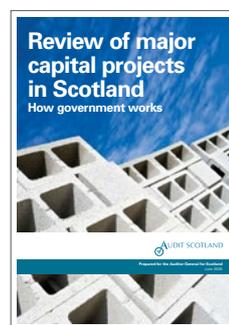
In our 2014 review of [Procurement in councils](#) , we reported that councils' spending through collaborative contracts set up by the Scottish Government and Scotland Excel had increased by over 80 per cent over the past three years to £503 million, but accounted for only 9.3 per cent of their total procurement spend. Councils can also use procurement to improve service quality and achieve benefits for the community. We found that councils were systematically using procurement spending to support local economic development. Councils had recently begun to make community benefits, such as apprenticeships and environmental improvements, an integral part of contracts.



In our 2015 progress report on [Superfast broadband for Scotland](#) , we reported that although BT was the only final bidder for the two superfast broadband contracts, both the Scottish Government's and Highland and Islands Enterprise's project teams worked hard to make sure that BT's modelled costs were reasonable. At the project design stage, both teams employed consultants to advise on the technicalities of the projects and to offer specialist legal, financial and procurement advice. Broadband Delivery UK helped project teams to assess the reasonableness of BT's tenders through comparison with other UK superfast broadband contracts.



In our 2008 [Review of major capital projects in Scotland](#) , we emphasised the need for public bodies to take into account wider market conditions, such as competition increasing costs, and international demand affecting the number of suppliers bidding for contracts. Weak competition increases the risk of poorer value for money.

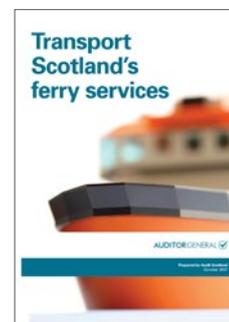


Evaluating bids



Transport Scotland properly evaluated the bids for the FRC project, taking into account quality and costs.

In our review of [Transport Scotland's ferry services](#) , we reported that Transport Scotland only received one compliant bid for the Clyde and Hebrides Ferry Service project and it only checked the bid for compliance and completeness. It did not formally evaluate and score the quality aspect of the single bid, which included a total of 350 commitments, across the different quality categories specified by Transport Scotland. Without analysing these commitments, Transport Scotland was not able to demonstrate the additionality or added value that it expected the new contract to provide.





Programme and project monitoring

Our [Principles for a digital future](#)  report sets out the importance of honest and accurate project monitoring. Monitoring project progress and providing the right information to the right level of the governance framework is crucial to recognising problems and reacting quickly. This means identifying key indicators of progress and reporting consistently and honestly to everyone involved in governance. All levels of governance need to recognise the risks of over-exaggerating problems, or diluting problems, and ensure that mechanisms are in place to ensure accurate reporting to account for any bias. This includes reporting from any suppliers. Clear and accurate reporting about difficulties can help support bold decisions about the future direction.

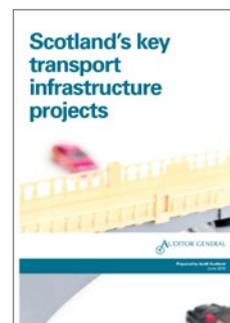


Project monitoring and reporting



Transport Scotland's project plan for the FRC provided an effective framework for managing the project. There was clear and consistent reporting of key information. The budget was comprehensive and regularly reviewed and revised throughout the project. The Project Board monitored costs, risks, quality and timescales regularly and the governance arrangements allowed quick decision-making at the right levels.

In our review of [Scotland's key transport infrastructure projects](#) , we reported that the Scottish Government's Infrastructure and Investment Board (IIB) received quarterly, high-level progress and financial reports on all projects costing more than £50 million, including the five transport projects. These reports provided only brief, summarised information intended to highlight anything unusual or unexpected and do not provide the basis for the IIB to make any in-depth assessment of progress independently of project management. We recommended that it would be appropriate for the IIB to define what it should achieve from its monitoring remit and whether the information it receives is enough to do this.



In the same report, we found that Transport Scotland had established project boards, or their equivalent, with clear responsibilities for decision-making and monitoring. The financial monitoring and reporting were good for the FRC and M8 bundle projects, but needed to be further developed for the other three projects (Aberdeen Western Peripheral Route and Balmedie, Borders Railway, and Edinburgh-Glasgow Improvement Programme).

In our 2013 [Major capital investment in councils](#)  audit, we found that councils had improved governance structures for investment planning in recent years. But councils did not have enough monitoring information to scrutinise effectively. All levels of the governance structure, from working groups to committee level, needed to be supplied with reliable, accurate, realistic and publicly available information for arrangements to be effective. In our [follow-up report](#)  in 2016, we found that elected members were not receiving adequate information on cumulative capital spending and project risks, and overall capital programme risks. (Example of a good-quality capital monitoring report provided to elected members by East Ayrshire Council on page 35)



Evaluating projects and demonstrating benefits

At the beginning of any project, the benefits you want to achieve should be clearly defined in the business case. It should be clear how and when the project is expected to deliver these benefits and how this will be measured and reported. Research of major projects around the world shows that planners commonly deliberately underestimate costs and overestimate benefits to get a project approved. Promised benefits such as new jobs and other local economic development often do not materialise or are limited to the period of the project.⁴

Post-project evaluation



Transport Scotland has developed a plan for evaluating progress towards achieving the FRC project's objectives. In line with guidance for major transport projects, Transport Scotland plans to carry out detailed evaluation of the project at one year, three years and five years after the managed crossing scheme became fully operational.

In our 2016 [Major capital investment in councils](#)  follow-up audit, we found that most councils were not carrying out formal mid-term reviews of projects, or post-project evaluations. Those that did were not doing so regularly or in a consistent manner (councils are more likely to formally evaluate projects that run into significant difficulties). This limits councils' ability to identify areas of good practice, share lessons learned and identify the benefits that individual projects have realised.



Demonstrating benefits



Transport Scotland needs to be clearer about how it will measure progress in achieving the benefits of the FRC project. There are specific proposals for how performance relating to journey times and traffic flow will be measured, but more detail is required about how it intends to evaluate the progress of several of the project's other objectives.

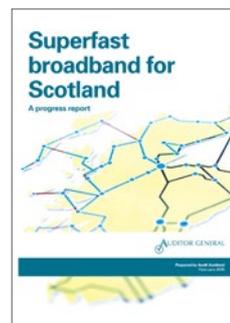
In our 2011 review of the [*Management of the Scottish Government's capital investment programme*](#) , we found that most completed projects have been evaluated to assess whether they have delivered the benefits intended. This compared favourably to the findings from our 2008 report where few projects had been evaluated. We recommended that the Scottish Government improved its reporting to Parliament on the progress and performance of its investment programme, including a summary of the benefits achieved from completed projects.



In our 2013 [*Major capital investment in councils*](#)  audit, we found that councils were clear about the broad goals for their investment projects. However, where councils outlined intended benefits, they were often high-level and measurable benefits were rarely specified. Councils had evaluated about half of recently completed projects to assess if they had delivered the intended benefits. In our [*follow-up report*](#)  in 2016, we found that business cases identified intended benefits but monitoring reports did not outline benefits that individual projects have realised.



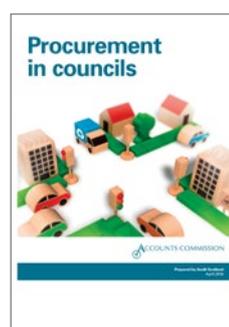
In our 2015 progress report on [*Superfast broadband for Scotland*](#) , we reported that the Scottish Government and HIE need to fully develop their plans on how best to measure the wider economic and social benefits of their broadband investment. We recommended that they encourage take-up of superfast broadband to maximise the benefits of their investments and identify what further work is needed to realise these benefits.



In our 2017 review of [Transport Scotland's ferry services](#)  we recommended that as part of its Strategic Transport Projects Review, Transport Scotland should develop a Scotland-wide, long-term strategy for its network of subsidised ferries. This should set out its intended benefits of subsidised ferry services, how these contribute to National Outcomes and how these will be measured, monitored and reported. It should then consider how this information could be used to inform operational and financial decisions and to demonstrate that ferry services are value for money.



In our 2014 review of [Procurement in councils](#)  we reported that councils were systematically using procurement spending to support local economic development. However, we recommended that councils need to develop a systematic approach to collecting information on non-financial benefits including economic, community and environmental benefits, and report the benefits to the relevant council committee on a regular basis. **Exhibit 3 on page 20** provides good practice examples of councils using procurement to achieve community, economic and environmental benefits.



Endnotes



- 1 Survival of the unfittest: why the worst infrastructure gets built – and what we can do about it, Bent Flyvbjerg, Oxford Review of Economic Policy, 2009.
- 2 Commercial and contract management: insights and emerging best practice, National Audit Office, November 2016.
- 3 Guide: Initiating successful projects, National Audit Office, December 2011.
- 4 Design by Deception: The politics of megaproject approval, Bent Flyvbjerg, Harvard Design Magazine, Spring/Summer, no. 22, pp. 50-59, March 2013.

Major project and procurement lessons

A summary of findings from the Auditor General for Scotland and Accounts Commission reports

This report is available in PDF and RTF formats, along with a podcast summary at:
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