

Messages from Accelerating Change – for occasional clients

Sebastian Macmillan, Eclipse Research Consultants, final version, 1 July 2004

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Accelerating Change – what does it mean for you?

Setting an agenda for change

When the Strategic Forum was established in 2001 to bring together a number of rethinking construction initiatives it set out in *Accelerating Change* a new vision for the production of the built environment:

Our vision is for the UK construction industry to realise maximum value for all clients, end users and stakeholders and exceed their expectations through the consistent delivery of world class products and services. In order to achieve this the UK construction industry must:

- add value for its customers, whether occasional or experienced, large or small;
- exploit the economic and social value of good design to improve both the functionality and enjoyment for its end users of the environments it creates (for example, hospitals where patients recover more quickly, schools and work places which are more productive and more enjoyable to work in, and housing which raises the spirits and enhances the sense of self worth).

Accelerating Change endorsed the earlier report of the Construction Task Force *Rethinking Construction*, including its series of recommendations captured in the widely-publicised 5-4-7 diagram (figure 1). The diagram summarises the radical changes in the processes through which the industry delivers its projects that were called for in *Rethinking Construction*. The report drew inspiration from developments in other sectors, particularly the automotive industry, where innovation had driven up quality and reduced production costs. It also drew on international comparisons. It identified that the industry as a whole was underachieving, that it invests too little in capital, research & development, and training, and that it was leaving too many of its clients dissatisfied with its overall performance. *Rethinking Construction* recommended the creation of an integrated project process for the industry linking greater use of standard components and pre-assembly with improved project management and closer long-term relationships within the supply side. The five drivers for change included better leadership, greater focus on customers’ needs and the delivery of quality by all members of the team, together with committed leadership and greater respect for all those responsible for creating value in the construction process. Finally, target setting and regular measurement were identified as means to drive up standards of performance, efficiency, and safety.

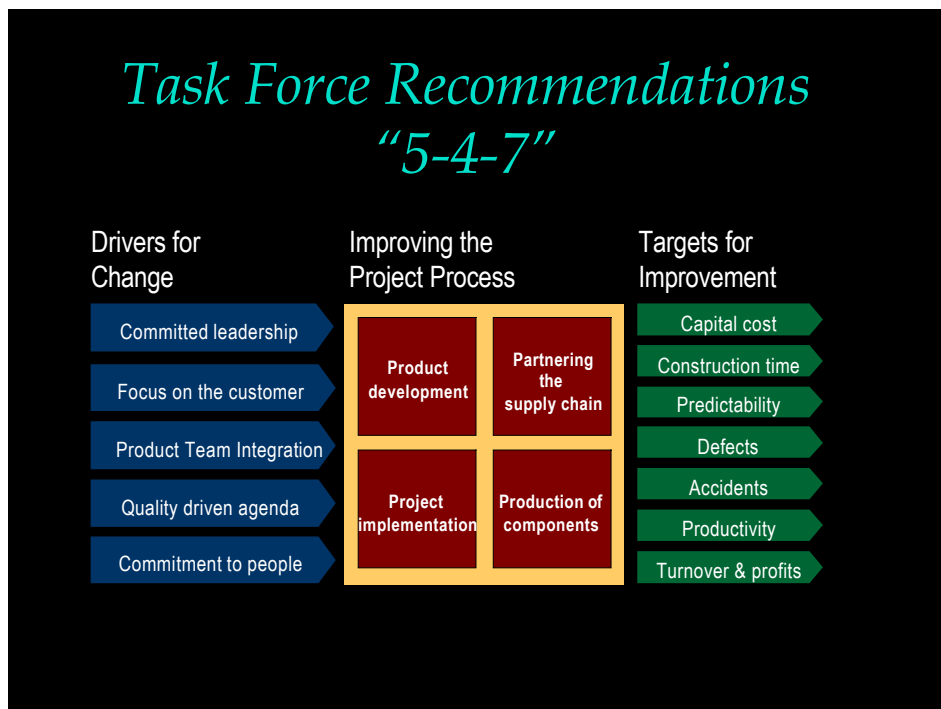


Figure 1 The 5-4-7 diagram from Rethinking Construction

Accelerating Change calls for radical improvements in the construction industry and proposes a series of headline targets to help the industry improve its performance. But the industry cannot meet these targets unaided – it needs the support of its clients, even those who build only occasionally. In return, you can expect a better service and better delivered projects.

Helping the industry improve training, competence and reputation

Clients – even occasional clients - set the context in which the construction industry operates, and so have a vital role to play in building a professional industry, improving construction's image, changing how the workforce views itself, and promoting the new ways of working. Through your selection procedures and working practices, you can encourage take up of new improvement initiatives and help the industry move towards a culture of continuous improvement based on regular performance measurement. You can contribute by selecting designers and contractors who honour recognized working rule agreements, who have excellent health and safety records, and who train their workforce. The resulting benefits include timely delivery, consistent quality, greater predictability, and no unpleasant surprises.

To help occasional clients select the best contractors, tools such as "Constructionline" and "Quality Mark" have been devised, and the Strategic Forum is developing a code of good working practices to be adopted by clients, employers, employees and trade unions. An important element of the Quality Mark scheme is the quality standard being developed through expansion of, and affiliation to, the Construction Skills Certification Scheme (CSCS). The Considerate Constructors Scheme already helps contractors to maintain tidy, safe sites, which cause minimum disruption to the local community.

The Strategic Forum's third, fourth and fifth headline targets relate to training and competence:

- ***By 2006, 300,000 qualified people recruited and retained in the industry.***
- ***By 2007, a 50% increase in applications to built environment higher and further education courses.***
- ***By 2010, a fully trained, qualified and competent workforce on all projects.***

Developing the business case, and identifying whether a project is required

According to *Creating Excellent Buildings: a guide for clients*, published by the Commission for Architecture and the Built Environment, decisions taken at the outset of a project create a high proportion of the value. Whatever the building type and however large or small it is, for a successful outcome it is vital to start the construction process with a clear understanding of business needs and the functionality required from the finished product. Without clarity at the outset there are likely to be changes throughout the delivery process resulting in waste, duplication, poor design and dissatisfaction for everyone involved. Projects where clients understand what value means for them, where this is effectively conveyed to the project team, and where the team focuses on its delivery, are most likely to lead to a successful outcome for all concerned.

If you believe you lack the requisite knowledge or skills to complete all the steps required for the successful identification and delivery of a business solution, you should seek independent, expert advice on any or all of the tasks you do not feel confident to undertake yourself. You may need help for the entire process or at specific stages; for the identification of available options; or for reviews at critical points. Independent advice means that obtained from one or more client mentors who have a non-executive role and are free from vested interests in the solution proposed so avoiding conflicts of interest. Independent client advisers should be experienced professionals with substantial business and/or technical expertise in construction, property, procurement or other relevant fields.

If the review concludes that a construction project is the best solution, you should seek advice about the full range of available options for procurement since there are many ways to procure a building, each of which has advantages and disadvantages in terms of design, delivery and how risk is allocated.

The costs and benefits of a building are in its occupation, and you should begin to seek information about environmental performance, operating costs and whole life value rather than limiting your concerns to initial capital cost.

Early in the process you should decide on an appropriate in-house project management structure. For a small project this might be one person acting as a project leader while, for larger projects, the leader will need to be supported by a formal project management structure. The project leader should be chosen as someone with appropriate experience and expertise and, as the focus for communication between the client and the delivery team, be able to ensure decisions are made in a timely fashion.

CABE’s detailed briefing guide for clients *Creating Excellent Buildings* is available on the CABE website www.cabe.org.uk. It draws on the experience of a wide range of clients and is intended to help both occasional and frequent clients avoid the pitfalls associated with construction and achieve an excellent outcome. The Constructing Excellence has a client zone specifically to support construction clients, and its Resource Centre contains a fact sheet on briefing available at www.constructingexcellence.org.uk/pdf/Briefing_Team.pdf.

In order to help occasional clients with the procurement process, the Strategic Forum has prepared a ‘process map’ (figure 1) illustrating the key stages through which a project is carried out. Annex 2 of Accelerating Change contains a set of key steps to consider when faced with a business need (figure 2).

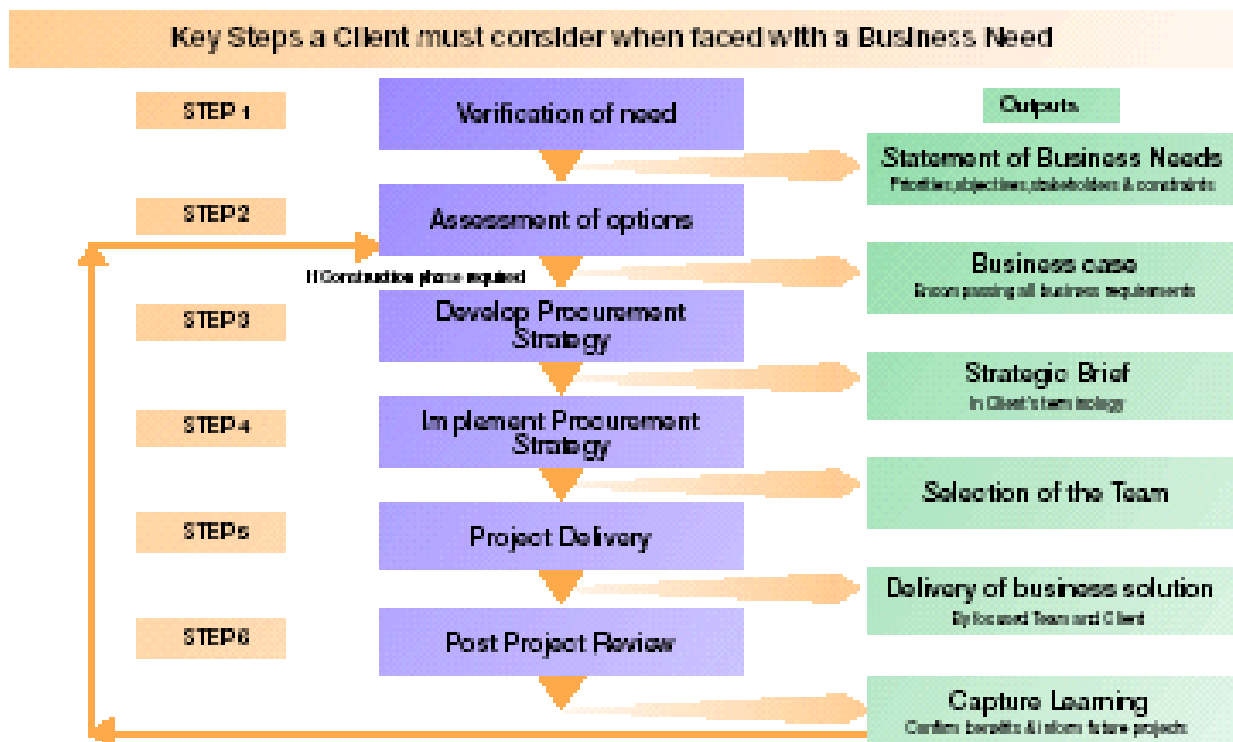


Figure 1

Step 1 - Verification of need

1. Accurately identify and articulate the need.
2. Identify the key objectives and outcomes that the business wants to achieve.
3. Prioritise the objectives.
4. Identify the stakeholders.
5. Identify business attitude to risk.
6. Identify and prioritise significant constraints e.g. financial, legal, time, technology, and business change.

7. Identify internal project structure and ownership.

Outcome:

Clear statement of the business needs embracing priorities, objectives, stakeholders and constraints.

Step 2 - Assessment of options

1. Develop and appraise all the options.
2. Research the learning from past experience (both your own and others experience).
3. Review the preferred option with the business stakeholders and confirm that it will deliver the business needs and objectives, is realistic and meets the requirements in relation to risk and constraints.

Outcome:

A robust business case that meets all the business requirements. If the preferred option requires a construction phase:

Step 3 - Develop Procurement strategy

1. Research the options for procuring the project and determine the strategy.
2. Research the learning from past experience (both your own and others experience).
3. Confirm project performance criteria.
4. Review business plan, financial requirements and risks, and controls.
5. Confirm stakeholder commitment.
6. Confirm that the procurement approach will support and encourage good client/supplier relations.

Outcome:

Strategic Brief articulating, in the client's terminology, the project objectives, needs, priorities, constraints, budget, programme, decision making framework, measures of success and method of selection for the most appropriate delivery of the required business solution.

Step 4 - Implement Procurement strategy

Implement the procurement strategy and select the team best placed to delivery the required business solution. (Throughout this process the Client, by his actions, will set the tone by which he expects the project to be delivered.)

Step 5 - Project delivery

1. Validate and improve the Strategic Brief.
2. Brief the team regarding all aspects of the project (Needs, objectives, risks, constraints and stakeholders.)
3. Implement appropriate and agreed performance measurements.
4. Ensure new members brought into the team are inducted with regard to the business needs, objectives and method of delivery.
5. Make appropriate and timely decisions always referring back to and validating the project objectives.
6. Advise the business on steps to be taken for regarding the implementation and operation of the new asset.

Outcome:

Project team fully focused on delivering the most appropriate solution to meet the client's business needs within the agreed parameters and a business prepared to embrace the new asset within its operations.

Step 6 - Post Project Review

1. Undertake assessment of new asset
2. Measure final delivery performance against the targets set.
3. Review project history.

Outcome:

Capture project learning to confirm benefits and to inform future projects.

Figure 2

CABE, the Commission for Architecture and the Built Environment, has published a briefing guide for clients called Creating Excellent Buildings, available on their website www.cabe.org.uk.

Adopting the principles of the Clients' Charter

The Clients' Charter sets out a series of general principles whose adoption can assist both clients and the supply side to work effectively together. At their simplest, these principles call for clients to:

- Be clear about what is wanted from a project
- Understand the connection between cost and quality
- Recognise and define risk
- Encourage the elimination of waste
- Promote co-operation and non-adversarial attitudes including early involvement of the whole supply chain where appropriate.
- Select team members on the basis of their competence and measured performance, and who will ensure fair treatment of members of the supply chain.

In return, clients may expect the supply side to:

- Inform them of the options for meeting their needs
- Shorten and competently manage the design and construction supply chain
- Keep them informed of project progress, including delays and cost over-runs
- Design projects that can be built on time and to a quality that meets the client's needs
- Help to find solutions to problems that are fair to all parties
- Solve interface problems in the supply side.

The Strategic Forum's second Headline Target is for 20% of construction projects by value to be procured by clients who embrace the principles of the Clients' Charter by the end of 2004, rising to 50% by 2007.

Details of the Clients' Charter may be obtained from Achilles Information Ltd, telephone 01235 820813, website: www.clientsuccess.org.

Achieving design quality in the finished product

Accelerating Change makes it clear that clients are the starting point in the delivery of design quality and encourages them to procure buildings on the principle of best value not lowest price. This will enable the industry to deliver projects that exploit the economic and social value of good design to improve both the functionality and enjoyment of the built environment – for example, attractive work places which promote staff well-being, reduce absenteeism and raise productivity, and that contribute to corporate identity or encourage customer loyalty. Design has a crucial role to play in delivering buildings and structures that eliminate risks to the health and safety of all those who construct, maintain, refurbish, operate and use them, and that are more efficient, have fewer defects and lower whole life costs. The Strategic Forum is encouraging use of the Design Quality Indicator (DQI) tool developed by the Construction Industry Council, the Commission for Architecture and the Built Environment, and others. The DQI is intended to be used by all stakeholders in a project, to help them negotiate and clarify design priorities at key stages in the process – from initial briefing and outline design, right through to occupation of the completed project.

'The DQI is a welcome innovation as it takes the guess work out of the whole design process. It focuses the team on the needs of the end user, involves all the stakeholders throughout the process and helps develop a more sustainable building. The overall result is an improved product and importantly we can learn from the process because the DQI allows us to measure how the improvements are made.' Peter Rogers, Chairman, Strategic Forum for Construction

The Strategic Forum's sixth Headline Target is for Design Quality Indicators to be used by:

- ***500 projects by the end of 2004***
- ***60% of all publicly funded/PFI projects (having a value in excess of £1m) by the end of 2007***
- ***20% of all projects (having a value in excess of £1m) by the end of 2007.***

Details of the Design Quality Indicator tool can be found at www.dqi.org.uk.

Enabling the team to work in an integrated way

Accelerating Change recommends that clients actively participate in bringing together all those involved in the delivery process – in asset development, designing, manufacturing, assembling and constructing, and operating and maintaining – so they can unite together as an integrated team focusing on common objectives and the creation of maximum value based around your vision for the project. Integrated teams are characterised by mutual trust and openness between members of the client organisation and those of the supply team. Working in this way offers a series of benefits including improved quality, better predictability of project times, reduced cost and the minimisation of risk.

Partnering is the process of working together as a team to improve performance through agreeing mutual objectives, devising a way to resolve any disputes, collaborating to achieve continuous improvement, and sharing risks and rewards equitably. *Strategic partnering* involves the integrated supply team and the client organisation working together on a series of construction projects in which knowledge and expertise can be transferred from one project to the next. But even for the occasional client, *project partnering* can offer many of the benefits. The key principles are to:

- involve key members of the project team early on
- select on the basis of value not lowest price
- adopt common processes such as shared IT
- agree to measure performance and seek continuous improvement
- use participants who have long-term supply chain relationships, and
- use a modern commercial arrangement based on target cost or target price with all parties being incentivised by sharing in efficiency gains.

Integrated teams need to devise means for managing risks and sharing rewards in ways which are equitable to all parties. Payment practices should facilitate and enhance collaborative working. Lengthy payment periods and delays in payments severely damage construction businesses, especially small and medium sized firms. In a relationship of collective responsibility, responsible behaviour and mutual interest – as characterised by stable teams – clients may find there is no need to impose financial retentions.

The Strategic Forum's first headline target is that by 2004, 20% of projects are undertaken by integrated teams, increasing to 50% by 2007.

The Strategic Forum's Integration Toolkit contains workbooks for both Integrated Project Teams and Integrated Supply Chains, each containing practical step by step advice to help achieve integration. It is available from www.strategicforum.org.uk/sfctoolkit2/home/home.html.

Empowering the team to involve the supply chain early on

As well as working with integrated teams, you should ensure they harness the potential of their suppliers further down the chain. While key manufacturers should be part of the main team, you should appoint to the team only those who work closely and regularly with their suppliers, since the expertise of suppliers will be drawn upon in offering solutions. The supply chain should reach right through to manufacturers who would not otherwise be part of the team.

Stable teams made up of participants who work together closely from one project to the next offer a number of demonstrable business, efficiency and safety benefits. They use their experience of working together to drive out waste at all stages; they raise productivity and reduce project times; they help to reduce costs by 'getting it right first time'; and they provide added value through ensuring that people work within a process protocol, not least so that health and safety risks are 'designed out' at source. They also help to minimise risks to health and safety of all those who construct, maintain, operate and refurbish the construction product.

The principles of supply chain management are explained in the *Prime Contracting Handbook of Supply Chain Management*, parts of which are available on the web at www.mod.uk/linked_files/sc-handbook.pdf. The full book is published by CIRIA under the title *Building Down Barriers: The Handbook of Supply Chain Management*.

Encouraging the team to use standard solutions

Accelerating Change recommends that clients take every opportunity to benefit from the expertise of product manufacturers, suppliers and specialists, all of whom can develop solutions that involve less site processing, that reduce health and safety risks, that improve quality and reliability, and that increase standardisation, pre-assembly and pre-fabrication,. Manufacturers, suppliers and specialists can also advise on the availability of new products, and of innovative solutions which - when linked closely to design and installation - can bring real benefits. By engaging them in integrated teams, you can unlock their research and development expertise so it is deployed to deliver value and enhance the finished product.

Exploiting information technology by getting wired up

Exploiting information technology effectively to collaborate with members of the integrated team can lead to improved quality of communication from by reducing errors and omissions, efficiency savings from less repetitive processing of information, and overall reductions in the costs of transactions between the parties.

Three levels at which information technology can be exploited in increasing degrees of sophistication are:

1. exchanging paper for electronic data exchange to increase speed of information delivery and reduce data re-keying
2. integrating electronic data within existing systems enabling you to omit redundant work activities
3. more comprehensively, re-engineering business processes around electronic data exchange with the integrated team.

The level at which you should participate will depend on the nature of the project, the capabilities of the parties, and an assessment of the scale of the resulting benefits. Regular clients have more to gain from the comprehensive alignment of business processes around IT systems at level three, though occasional clients should consider this level if the size or complexity of the project demands it. Ideally, an IT strategy for a project will be negotiated by the integrated team at the beginning of each project to establish agreed protocols for exchanging information electronically.

More information is available on the IT Construction Best Practice website (www.itcbp.org.uk) including an introductory guide called *E-building for clients*.

Procuring sustainable buildings

Construction industry clients of all kinds have environmental and social responsibilities. Increasingly, you can expect to be judged by your customers and financial analysts on your ethical stance in relation not only to safety, but also to environmental performance and sustainability. Such issues have an important impact on corporate image and on how local communities and stakeholders see you. They can also affect planning permission, and the long term asset value of your building.

Sustainable construction requires a step change in the culture of the industry, characterised by clients procuring and specifying sustainable construction projects, products and services. Key actions include encouraging the supply side of your team to minimise waste during construction, conserve scarce resources, and protect wildlife habitat and bio-diversity. The completed building should meet best practice levels of energy and water consumption targets, helping to reduce environmental pollution and tackling climate change. Costing methods should take into account future running and maintenance costs, rather than focusing purely on initial capital cost. And, rather than asking your

supply team to minimise the initial capital investment, you should encourage them to advise you about the expected performance of the facility over its lifetime. Taking a long term view will help ensure your project enhances the built environment in a sustainable way and improves the quality of life.

Constructing Excellence has produced an introductory guide specifically for clients about sustainability. It is available at: www.constructingexcellence.org.uk/pdf/sus_clients.pdf.

Co-ordination of the supply side, waste minimisation and the use of logistics

As well as supporting integrated teams, you should encourage each member of the delivery team to work with their supply chain to analyse every aspect of the supply chain process – acquisition, delivery and transport, storage, and the flow of materials and components to their point of use. Careful planning of these activities by the team will help to minimise waste, reduce the likelihood of products and components being lost in transit or damaged on site, and prevent defective work.

Promoting practices that support the ‘Respect for People’ agenda

All too often the construction industry is perceived as offering a low-skilled, unsafe working environment and in consequence has failed to attract the best people. The Strategic Forum is determined to reverse a long-term decline in the industry’s ability to recruit and retain a quality workforce. Here too, you can help the industry. Most client organisations compete to recruit and retain good quality people so the issue will be familiar. And businesses of all kinds are increasingly recognising their corporate social responsibility, including the value to their business of proper attention to all the people who work for them.

Rethinking Construction identified ‘respect for people’ as one of its five drivers for change. A follow up report *Respect for People – a framework for action* puts forward a strong business case for action, and recommends that construction firms of all kinds and sizes should achieve the standard of *Investors in People*. Respect for People Toolkits focus on equality and diversity in the workplace, quality of working environment, career development, lifelong learning and worker satisfaction. A guide to help clients incorporate ‘respect for people’ in their procurement, contract and management approaches is under development by the Strategic Forum. Your actions to support this initiative will help construction become an industry whose workforce is appropriately skilled and qualified, benefits from a systematic programme of continuing personal and professional development, and is properly valued in the workplace.

The Toolkits and other resources are available from the Constructing Excellence Resource Centre: www.constructingexcellence.org.uk/resourcecentre/peoplezone/respect.jsp.

Setting requirements that protect health and safety

Accelerating Change reminds clients - as well as contractors and all those associated with construction - that the high levels of accidents and fatalities identified with the industry is no longer acceptable. Accidents on site may involve you in liability and lead to delays. Any organisation that procures construction or maintenance work can play an important part in driving up the health and safety performance of others as well as themselves. All clients should attempt some evaluation of the competence and commitment of designers and contractors to health and safety.

Health and safety issues are not confined to the construction phase of a project but occur throughout the life of a facility. In commissioning a construction project, you should make health and safety of your customers, staff, and stakeholders a business priority at the forefront of your construction agenda. You and your advisers should set requirements for healthy, safe working, and for creating an environment throughout all stages of the project which delivers excellence in health and safety performance. To minimise risk, at each stage you should require the integrated team to certify that they have - as a team - considered all foreseeable health and safety risks in order to ensure that the facilities currently developed will be safe to build and safe to maintain and operate. Delivering

excellence in health and safety performance will enhance your corporate reputation, and that of other stakeholders.

Learning from successful projects

If, as an occasional client, you have limited experience of construction, you will almost certainly find it valuable to review what others have been able to achieve. This may involve visiting buildings that are similar to your own project, reviewing published examples, and speaking to clients and project teams members about their experiences. By examining what happened and why it happened you will become better informed about the strengths and weaknesses of the approaches taken, the procedures followed, and the project out-turns. Your examination should include the procurement route adopted, the briefing process, the appointment of team members, the conduct of the project, and positive and negative aspects of the outcome. Post-project reviews of your own past projects are also helpful to ensure you make the most of your own organisation's experience.