Project Initiation and Contracts Handbook

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Chapter 1

The Client and the Project Environment
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Overview

1.1. Project initiation is a key stage of any project and the success of outputs and outcomes flowing from project delivery will be determined by what happens during it. It is the responsibility of the client, that is the organisation which buys the goods, services or works which are the focus of the project. The client must take an overview of the whole project and, whilst attention to detail in specific phases is important, their eye must follow all the way through to the strategic benefits sought from construction of the asset. The client will be assisted throughout by appropriately qualified persons including where required externally appointed consultants, this is particularly important where the client is not experienced in the planning or delivery of construction projects.

The Built Environment Asset Whole Lifecycle

2.1. Built assets are always built to deliver an outcome and their lifecycle broadly follows the stages described below:

- **Planning** – identify the need for an asset, assess the options and plan the delivery. This is critical and enough resource and intellectual effort must be applied to fully identify the impact the asset is intended to have.

- **Development** – develop the design, procure the work and carry out pre-construction activity.

- **Implementation** – complete the detailed design, construct and commission the asset.

- **Operation** – use and maintain the asset.

- **Decommissioning** – conversion to other purpose, mothballing or deconstruction.

2.2. The client must be closely involved in all stages of the lifecycle of the asset and ensure each stage is not treated in isolation of the others and, as noted above, a focus is maintained on how the operation of the asset is intended to benefit the business.

What are the Client Responsibilities?

3.1. A successful project relies on mutual integrity, cooperation, communication, fairness, objectivity, courtesy and professionalism. The Client is the pivotal figure in the project and is in a position to lead by example through the right approach to the project and a commitment to team working and Value for Money (VFM), so must therefore:

- allow sufficient time (before and during construction) to fully plan the project and get all elements of the construction and delivery sequence right;

- develop the business case and benefits realisation plan;

- clearly and fully define the needs and expectations in the brief, since late changes of mind can prove expensive in terms of timescale, cost and quality;
• ensure that the appropriate team is appointed (either collectively or individually) to provide advice and to represent the Client’s interests — they must be suitably resourced, qualified, experienced and able to work together as a team;

• analyse the risks attached to the project, quantify them, ensure they are managed and make appropriate financial and time provision for them;

• define the parameters of time, cost and quality before the construction phase commences;

• ensure appropriate measures are in place to assure the delivery of quality output and project processes;

• take account of project cost over its whole life and not on the basis of initial (construction and professional fee) costs;

• ensure that the necessary financial and other resources are available when required;

• meet all statutory obligations, including health and safety and EC legislation requirements;

• regularly monitor the entire development process throughout all of its stages, including responding to recommendations of assurance reviews carried out at key approval points in the process and carrying out post project evaluations of the process and end product on completion; and

• display the leadership and management skills of a best practice Client.

**What Comprises the Construction Procurement Process?**

4.1. **Generic Procurement Processes**, such as those used in the procurement of goods and services, do not directly translate to construction procurement situations, but are broadly comparable. In construction procurement, once the decision to proceed with the project has been made, the client will then embark on the procurement process. The following paragraphs provide a general description of these.

4.2. **Setting up the project.** This includes:

- Appraisal of all of the options available to the Client (including ‘do nothing’ or ‘do minimum’) and identification of those which will best serve the business aim.

- Nomination of members of the client body to fulfil the specific Client roles;

- Determination of the method of funding.
• Obtaining external professional advice and support if this is not available in-house. This may involve the appointment of a client adviser who will give guidance on the preparation of the economic appraisal and options to meet the client’s needs including the possibility of a non-build option (i.e. business reorganisation rather than a new or upgraded facility);

• Confirmation of the business case by setting out those essential components which will subsequently form part of the strategic brief (for example, initial budget, outline programme, benefits and risks) and by establishing time, cost and quality benchmarks against which the project can be monitored as it proceeds.

• Development of the Client’s brief into a full project brief including consultation with end users;

• Identification of the most appropriate strategy to procure and construct the building.

• Appointment of the project manager, who will be responsible for taking the project forward to its conclusion. The role of the client adviser may change following this appointment; and

• Review of the procurement route on appointment of the project manager. This may be required due to changes in the Client’s requirements or on the advice of the project manager.

4.3. **Defining the project.** This includes:

• Formal agreement of the strategic brief, including functions to be provided, cost parameters, quality of design and phasing of programme if required;

• Establishment of project control and management procedures, including arrangements to meet the requirements of funders in the case of jointly-funded projects;

• Preparation of a project execution plan by the Project Manager, and agreement of key aspects of that plan and timetable; roles, responsibilities and delegated authority; and

• Ensuring that risk management are employed and that robust capital and whole life cost control procedures are in place.

4.4. **Assembling the team.** This includes:

• Drawing up a list of suitable consultants both in terms of technical and project specific expertise, and using data and sources as appropriate (such as framework agreements) to check the market capacity;
• Selecting and appointing the project team as per the guidance contained in Handbook 2, the *Construction Procurement Handbook*, and;

• Drawing up contracts between the client and design team defining the scope of service and obligations. Where possible, standard unamended contract forms, issued by recognised bodies, should be used. Bespoke or amended forms may be required in certain circumstances; however, it will be necessary to ensure that they are both legally and technically sound. Provision should be made in the contracts for design team members to participate in assurance reviews throughout the whole life cycle of the project and requirements noted to contribute to the compilation of lessons learned reports.

4.5. **Design.** The following refers to a traditional form of procurement (i.e. completion of design by specialists prior to tendering) and may need to be adapted for other forms of procurement. This includes:

• Clarification of issues within the design brief;

• Development of the concept design to detailed design by the design team in collaboration with the project sponsor and client body;

• Ensuring that the statutory consents and legal, financial, insurance and health and safety matters have been resolved and site access is available prior to commencing construction;

• Choice of the most appropriate procurement route;

• Establishment of change control procedures to regulate project cost;

• Taking account of the Scottish Government’s Policy Statement on Architecture and Place, *Creating Places*;

• Consideration of sustainability issues (the materials chosen for the scheme and the overall impact of the building);

• Taking the health and safety implications of construction and operation into consideration; and

• Full consideration of life cycle and whole life costs.

4.6. **The Procurement Reform (Scotland) Act 2014 and The Public Contracts (Scotland) Regulations 2015.** These are the two key pieces of legislation which impact on procurement in Scotland. Further information and guidance on the tendering process and the legislation can be found in Handbook 2, the *Construction Procurement Handbook*.
4.7. **Construction.** This includes:

- Management of the project during the contract period to control costs and avoid disputes. This necessitates the clear definition of responsibilities and sound leadership to drive the team.

- Regular monitoring and reporting, to analyse all aspects of the project as construction progresses including contractor payment performance and quality assurance;

- The use of early intervention techniques as conflict avoidance procedures can resolve differences of opinion before they escalate into full blown disputes;

- Ensuring an appropriate three level assurance process is in place; and

- Taking corrective action (if required) including following assurance reviews, carried out at key stages of the project (whether in-house or by independent scrutiny).

4.8. **Completion.** This includes:

- Oversight of testing and commissioning procedures;

- Coordination of the reporting and remedying of defects;

- Receipt of the health and safety file from the Construction Design and Maintenance (CDM) Co-ordinator; and

- The agreement of final accounts in line with contractual requirements.

4.9. **Post project evaluation and post occupancy evaluation.** This includes:

- Completion of a formal post project evaluation in order to review the project performance, its delivery of objectives and VFM, and to identify lessons to be learned from the procurement process. These lessons should be used to influence the approach to the procurement of future schemes; and

- Completion of a post occupancy evaluation (possibly by an independent consultant) which focuses on whether the building is meeting user needs and identifies lessons to be learned. This review should be carried out within twelve to eighteen months of occupation and repeated to provide ongoing monitoring of the facility.

**Summary**

5.1. The client is essential to the project and must be visible, take ownership and provide leadership throughout the whole construction project and beyond into the asset’s use and decommissioning.
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Chapter 2

Project Governance
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Overview

1.1. Governance provides the over-arching structure and strategy that provides accountability and direction for a project, programme or organisation. Robust and appropriate governance influences behaviours and cultures and is essential to the successful delivery of any project. It comprises authorising, directing, empowering and overseeing management. The governance of portfolios, programmes and projects should be an integrated part of the organisation’s overall governance and all projects and programmes should have an appropriately resourced governance structure. *The Scottish Public Finance Manual* provides general guidance on procuring, managing and monitoring the delivery of major investment projects.

Guidance

2.1. Section 4.1 of the *Infrastructure Projects Authority Project Delivery Functional Standard* provides a helpful overview of the Governance Framework which may be followed. Note that the Standard is applicable guidance in England only and whilst we view it as good practice, the conventions set out on page two of the standard are advisory only in application to Scotland. Reference to HM Treasury spending team for inclusion on the Government Major Project Portfolio (GMPP) does not apply in Scotland.

2.2. Further Guidance is also available through the *Scottish Government Good Governance Guide*.

Governance Structure

3.1. A possible project governance structure is shown below:

*Figure 1: A possible governance structure*
3.2. This structure is not absolute and should be adapted accordingly to ensure an appropriate and proportionate structure which is most relevant for the project.

Documentation

4.1. Proportionate to the scale and complexity of the project, an appropriate documentation suite should be developed. This documentation will determine the rules for delivery of the project and outcomes and will assist in providing and maintaining direction for the project. This suite may include the following:

- Business Case and Options Appraisal.
- Project Execution Plan.
- Risk Management Plan and Register.
- Programme and Project Board remits.
- Change Control Plan.
- Comms plan.
- Project Programme.

Summary

5.1. A robust and efficient governance system is essential to support decision making and communications to any project, it ensures that timely decisions can be made and lines of responsibility are clear.
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Client Team Roles and Responsibilities
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- Annex A: Project Owner
- Annex B: Project Sponsor
Overview

1.1. Project initiation is a critical time in the project lifecycle and in order to afford the project every chance of success, it, and the whole project cycle, must be appropriately resourced by the client. The key resources are human; these will vary dependent on the size, complexity and subject of the project as well as on the stage the project is at. This chapter discusses and provides guidance on the roles and responsibilities of the client.

Guidance

2.1. All major works projects should have an investment decision maker, project owner, and project sponsor. The following paragraphs explain their roles and responsibilities and those of the project manager and client adviser. There will be other roles in addition to these and which will be dependent on the specific nature of the project. Careful consideration of what those specific skills are will be necessary in order to deliver the client side of the project.

2.2. Some projects involve more than one source of funding, in which case each funder, preferably in consultation, must ensure that there are clear written arrangements for the management of the project including:

- how the contribution of each funder is to be calculated;
- the monitoring information to be given to funders;
- what approvals are required from individual funders at particular stages;
- change control procedures;
- the arrangements for the apportionment of costs in the event of the project being curtailed, abandoned or increasing in cost;
- the arrangements in the event of any of the funders failing to meet its obligations;
- the ownership of the assets and arrangements for repayment of grant in the event of the asset not being used for the purpose intended or having been disposed of; and
- a procedure for the resolution of disputes.

2.3. In some client organisations and for some projects, the roles of investment decision maker and project owner, or project owner and project sponsor, may be combined. If this should happen:

- the allocation of the three roles should be made clear;
- the three roles must not be combined and allocated to one person; and
2.4. The following chart sets out a possible governance structure with each of these roles and their relationships.

![Figure 1: A possible governance structure](image)

**Specific Roles**

3.1. The following sections will consider each of the specific roles of Investment Decision Maker, Project Owner, Project Sponsor, Project Manager and The Client Adviser.

**Investment Decision Maker**

4.1. **What do they do?** This is the person/committee in the client organisation that decides whether or not the proposed investment in a project should be made, then maintains the visible and sustained senior management commitment to its delivery. The role may be at ministerial, board or senior official level, depending on the size and complexity of the project. Key responsibilities are to give approval, where appropriate, for key project stages e.g. business case approval, major changes to risk profiles, investments proposals, assurance gates etc. Any risks or proposed changes to the project which may vary the original approval should be referred to the investment decision maker, seeking guidance or re-approval as appropriate.
4.2. **Who takes on the role?** It may be taken on by an individual or a committee. In practice, on a major project significantly affecting the client organisation’s budget, reputation or operation, the task could well fall to an Accountable Officer. When the possible need for a project is raised, the investment decision maker should appoint a project owner.

4.3. **What happens if things change?** If an alteration in the scope or direction of a project is suggested, the investment decision maker must consider the impact on the client organisation in terms of time, cost, performance and risk. Should a decision then be made to change the scope or direction of a project, the brief and the project sponsor’s terms of appointment must be amended to reflect the change. All changes must be transparent, properly reasoned, recorded and authorised. The earlier a change is implemented the less the impact on the project cost; as the project progresses change becomes more difficult and costly to implement. Changes during construction are likely to have a disproportionately large cost and time impact (see illustration, Figure 2, below). They should therefore be avoided as far as possible and where this is not possible, the consequences and benefits must be evaluated prior to the change being implemented.

![Figure 2: Change cost and time](image)

**Project Owner**

5.1. **Who are they?** Also known as the Senior Responsible Owner, this is the named individual who should be appointed by, and is accountable to, the investment decision maker for the project and its budget. The project owner should be a senior officer in the business unit commissioning the project, with the status and authority to provide the necessary leadership. They must have clear accountability for delivering the project requirements in accordance with the approvals given.

5.2. **What do they do?** The project owner’s responsibilities are given at Annex A.
5.3. **Who do they work with?** They should be accessible to senior users and, in order to reinforce the commitment to the project, should also be visible to the senior management of the firms working on it. Such contact should provide an opportunity to promote the project and the benefits that it will bring, and should help to avoid any misunderstandings or potential disputes. These activities should not, however, cut across the daily management responsibilities of the project sponsor.

5.4. The project owner may be assisted by a project board to ensure that other stakeholders are committed to the project, though this board should not have any powers which cut across the project owner’s accountability and authority. Project boards should be advisory only, addressing strategic issues and major points of difficulty. If a major issue cannot be resolved with the project owner, board members should have recourse to the investment decision maker. The project owner must form part of a clear reporting line from senior management to the project sponsor. See Annex A to this chapter for further detail.

**Project Sponsor**

6.1. **Who are they?** This named individual, responsible to the project owner, is also known as ‘the client’s representative’. Likely to be the person best placed to manage the client’s duties, the project sponsor is a single focal point for the daily management of the client organisation’s interest in a project.

6.2. **What do they do?** The project sponsor is responsible for the day-to-day management of the project and delivery of its outputs and outcomes. A list of the tasks associated with the project sponsor is provided at Annex B.

6.3. **Who does the project sponsor work with?** There may be occasions where the project is being delivered collaboratively by more than one body. In these circumstances it may be necessary for sponsorship to be shared between these organisations. In cases where the sponsorship role is shared, the respective roles should be defined and agreed at the outset to avoid any possibility of ambiguity, and the project sponsor within the project owner’s organisation should ensure that an effective monitoring and reporting system is established.

6.4. In some instances, it may be appropriate for the one of these bodies to carry out the full range of project sponsorship duties on behalf of both (all).

6.5. Where the project sponsor is not a technical expert, and such expertise is not available in-house, they should involve a client adviser as soon as possible. This person should have substantial technical and professional expertise in the field of construction, and will act as a consultant providing advice on all construction matters, particularly those which must be carried out before the appointment of the project manager.

6.6. The project sponsor has personal responsibility to the project owner for the entire project and should expect to stay until its completion. Maintaining continuity in this role is essential.

6.7. It may be appropriate for a project manager to be appointed to the internal project team, if this is not the case then the project sponsor will assume the duties and role of the project manager.
**Project Manager**

7.1. **Who are they?** This is the named individual responsible for the day-to-day detailed management of the project and who provides the interface between the project sponsor and the supply side of the project team. Good project management is crucial to the success of a project.

7.2. **Are they always required?** For most projects an external or in-house project manager should be appointed. However, it needn’t be an automatic requirement and should take account of the individual and the circumstances. For example, with the appropriate support, the project could be managed by a suitably competent project sponsor providing they are construction professionals with abilities and experience appropriate to the project.

7.3. **Who decides which contractors/consultants to employ?** Where the role of project manager (or any other role in the management structure) is filled by personnel who are not part of the client organisation, decisions about which other contractors, consultants or service providers should be appointed must be taken by a more senior permanent employee in the client chain of command; this will usually be the project sponsor or project owner).

**The Client Adviser**

8.1. **Who are they?** An appropriately qualified client adviser should be involved as soon as possible after project inception to assist non-technical project sponsors. If a consultant is appointed to provide this role, it should not be combined with that of the project manager or any delivery role but should remain totally independent.

8.2. **What do they do?** The need for such specialist technical advice is very much demand led. A client adviser may be required by a project sponsor due to a number of inter-related factors including the stage, size, complexity and duration of the project; the experience of the project sponsor; and the extent to which a project runs smoothly. The client adviser, then, should be used on a call-off basis, allowing a varying degree of input during the project life cycle. The client adviser does not become responsible for delivering the project: this remains the responsibility of the project sponsor.

8.3. **When are they required?** With regard to project stage, for example, it is likely that input from a client adviser will be required at inception/feasibility, prior to the appointment of a project manager. They should then be retained to give further advice, as needed, during the later stages of the project. There is generally little correlation between the project size and duration, and the need to appoint a client adviser; more relevant is the complexity of issues faced and the experience of the project sponsor.

8.4. **Can there be more than one client adviser on any project?** Occasionally advice is sought from more than one individual during the course of the same project. For example, a complicated contractual claim may require an experienced Quantity Surveyor for legal or financial advice or, additionally, advice from a planning specialist who is expert at compiling and interpreting critical path programmes. Client adviser input is particularly valuable where an impartial assessment is required concerning the performance or professional liability of the project manager and design team members.
Further Guidance

9.1. As part of the work on the implementation of the Review of Scottish Public Sector Procurement in Construction the Scottish Futures Trust produced a Baseline skillset guidance this provides an online tool to help procuring authorities to determine whether their internal team has the appropriate skills and experience to manage a construction project.

Summary

10.1. Getting the right team with the right skills together at the right time is an essential part of achieving success in projects. The core team that owns and drives the project will have a key impact and careful attention must be paid to the detail of forming and maintaining it throughout the lifecycle of the project and indeed for the future management of the asset.
Annex A

Project Owner

1. The main responsibilities of the Project Owner include the following:

- Oversee the preparation of the business case and budget for the project:
  - ensuring the proposals are realistic, meet the business needs and objectives, and that private sector options have been properly considered; and
  - submit them to the investment decision maker for approval. Account should be taken of any asset management plans and estate strategies which should be in place

- Establish an appropriate organisational structure and the necessary communication processes;

- Ensure that users and other stakeholders are involved in, and committed to, the project;

- Appoint a project sponsor and provide the terms of reference, adequate staff and financial resources, and any necessary support. This might include the appointment of a client adviser and ensuring that appropriate support is available;

- Ensure that a brief is developed which clearly reflects the project objectives and is agreed by the users;

- Establish a progress and reporting procedure, ensuring that any changes in circumstances, particularly the exposure to risk, affecting the project are evaluated and appropriate action taken. This includes reporting to Accountable Officers and the responsible Minister where there are serious concerns about the viability of a project;

- Act as mediator or arbiter on any disputes which occur on the client’s side;

- Approve any changes to the scope of the project, ensuring those which impact on time, costs or objectives are assessed and reported to the investment decision maker as appropriate;

- Ensure that Gateway Reviews, in-project reviews and post project completion reports are carried out and shared with all stakeholders in the project. The outcome of Gateway Reviews of high risk or mission critical projects should be reported to Accountable Officers and, if the review identifies serious deficiencies, difficulties or budget concerns, to the responsible Minister by the Accountable Officer; and

- Maintain an official record of how Gateway Review recommendations have been implemented (or setting out reasons for not implementing any recommendation).
The project owner should draw up the terms of appointment for the project sponsor, setting out the following:

- the user needs to be addressed by the project;
- the resources available to the project sponsor both internally and externally;
- the authority transferred to the project sponsor; and
- the project sponsor’s responsibilities in relation to health and safety.

The project owner should ensure that the terms of appointment are amended promptly in line with any decisions taken by the investment decision maker. The business case and investment proposals, normally prepared by the project sponsor, are then the project owner’s responsibility to ensure that they are reviewed and that:

- the recommended option meets the users’ needs whilst providing best value for money (VFM);
- all of the viable options have been properly evaluated; and
- risks associated with each option are clearly identified together with their impact on the project in terms of time, cost and performance.

2. The project owner should be committed to encouraging good team working practices within the client organisation and, wherever possible, within the other organisations involved with the project. In particular, the project owner should give clear, decisive support where the client organisation enters into partnering or team working arrangements with consultants and contractors during the life of the project. Such visible support could include commitment to any partnering agreement that may have been established and attendance at the inaugural partnering workshop.

3. Along with senior personnel from the other parties involved, the project owner should attend project reviews at regular intervals, appropriate to the stage and nature of the project, to consider major issues, identify achievements and enable potential disputes to be resolved promptly. In addition, the project owner should lead the review of the findings from post project evaluations.
Project Sponsor

The main tasks of the project sponsor include the following:

- Agree a statement of need and project objectives with the project owner. Co-ordinate and rationalise the requirements of all the end-users in developing the project definition, design brief, owner objectives and success criteria for the project;

- Contact Property Division to check if the requirement can be met from existing UK Government or Scottish Government estates;

- Put in place a clear written agreement for the management of a jointly funded project in consultation with legal, technical and finance advisers;

- Ensure a proper appraisal of the project. This will involve the commissioning of option appraisals, analysis of outcomes, and choice of the best option to ensure best value for money is obtained. It will include deciding on a strategy to transfer to the private sector those risks that it is better able to manage;

- Determine the procurement route. Ensure that the risks and benefits associated with different routes are fully identified, considered and evaluated and, in the case of mission critical or high risk projects, the evaluation and recommendations are presented to the responsible Minister for decision;

- Secure the appropriate authority for expenditure. This will involve developing the project with all necessary financial and other justification to that stage where it can be confidently submitted for approval. In a timely manner co-ordinate the necessary documentation and present for approval. Secure joint agreements with other funders;

- Undertake, with appropriate professional advice, the commissioning of those professional services required to implement the chosen procurement route. This may include obtaining tenders for professional design team services and the appointment of the selected consultants. In conjunction with the project manager ensure that these various groups are welded into a team motivated to meeting the success criteria of the project. Ensure that the roles, responsibilities and delegated financial (and other) authorities for each key member of the project team are clearly defined;

- In conjunction with the appointed project manager, ensure compliance with all relevant legislation and good practice, covering the procurement of supplies, services and construction works. Ensure compliance with all relevant legislation and guidance as set out in the Scottish Public Finance Manual, the Construction Manual and Health & Safety and other relevant legislation;
• With the assistance of the project manager prepare, and obtain approval from the project owner for a detailed, on-going project execution plan for the project;

• Ensure the installation and operation of a communication, control and monitoring system to inform management decisions throughout the life of the project. Ensure stringent costs, content and change control procedures are utilised during project execution (particularly by the project manager). This includes maintaining records for audit purposes, quality control, etc. If it becomes apparent that the project budget will require to be increased then authority should be obtained in good time;

• Be aware of tools available to improve cost-effectiveness of projects, such as risk assessment, in-project reviews, value engineering and life cycle/whole life costing and sustainability issues, and ensure that these tools are applied by the project manager;

• Monitor carefully through progress reports and review pro-actively project progress with the project manager, intervening as necessary through him whenever the project is perceived to deviate from the established plans (such as on cost, content, time and quality);

• Make promptly, or obtain, those decisions necessary to ensure that the project success criteria are attained. In particular, exert stringent, formal control over all decisions involving material variations and changes in scope to the currently approved project. Where such decisions affect project costs, standards, programme or content, ensure adequate justification is provided, and approval obtained from the project owner, or investment decision maker, where the effect of such changes exceeds his or her delegated authority. In the event that changes are approved, then ensure project budgets and programmes are adjusted accordingly;

• Where delegated power is given to the project manager and Design Team then the limits of such authority should be established and effective change control and monitoring procedures put in place to ensure adequate cost control is exercised;

• Ensure that satisfactory arrangements are established for financing the project to ensure that money is always available to meet timeously the demands of the project. Ensure systems are in place to enable all monies to be paid on due dates according to the terms of contract and in compliance with the policy on prompt payment;

• Ensure that any technical and financial audits of the project are implemented at the pre-planned strategic stages of project execution. Take any necessary corrective action resultant upon the findings of such audits;

• Plan the organisation and resources needed to execute both the pre-start up testing and the commissioning of the completed project. This may include participation in the selection and training of permanent operating staff and, in
close liaison with the project manager and end users, ensuring appropriate commissioning of facilities;

- With the project manager, review the handover documentation and operating instructions requirements of the client organisation and ensure these are prepared and delivered on schedule;

- Ensure the production of all post completion reports analysing the procurement process and the end product, noting whether the project has met the brief and all users’ requirements. All lessons learnt should be shared among interested parties in order to inform future project planning; and

- In the light of experience with the project, draw the attention of senior management to any weaknesses in policies, procedures and methods in respect of capital projects. Define where they need modification to better permit utilisation of efficient project execution techniques, justify these modifications to senior management and, on approval, implement where appropriate.
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Business Case and Appraisal
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Overview

1.1. All projects need a business case and approval system to allow them to proceed. Construction projects are no different, it is likely that a construction project will be a constituent part of a programme and consequently part of the delivery of wider outcomes and impacts.

1.2. Business cases examine the purpose of the project and consider the best means of delivery of that purpose and are essential for the successful delivery of projects and programmes. They should be proportionate to the scale of the project. It would be unrealistic to create a business case for a very small and simple project which was of the same scale and detail as one for a very large and complex project. Whatever the size, a process of setting out the case for the project and obtaining formal approval should be carried out for all projects.

Guidance

2.1. All programmes and projects should be appraised following *The Green Book, Appraisal and Evaluation in Central Government* published by HM Treasury. The process should follow the ‘Five Case Model’ set out in the Green Book. This model has been described as a ‘framework for thinking’ about how interventions (projects) can be delivered and, in essence, asks three questions:

- *Where are we now?*
  - This requires an understanding of the existing arrangements in terms of agreed services and policy outcomes, taking account of existing policy, strategy and programmes

- *Where do we want to be?*
  - Understand what the goals are in terms of agreed services and policy outcomes

- *How are we going to get there?*
  - What the potential options are in terms of potential scope, solution, delivery, implementation and funding
  - How to deliver the project
  - What the short, medium and long terms costs are
  - Whether the resources are available to deliver the project

2.2. The Five Case Model comprises the following five key components:

- The Strategic Case – identify a robust case for change that provides strategic justification for undertaking the project
• The Economic Case – optimise value for money, not simply the financial consequences of an investment decision but wider economic consequences. e.g. - How does the project meet the [Scottish Government’s National Performance Framework](#)?

• The Commercial Case – is the project commercially viable – how will it be procured?

• The Financial Case – is the project financially affordable?

• The Management Case – is the project achievable?

2.3. Business areas within the core SG, Crown Office and Procurator Fiscal Service, SG Executive Agencies and non-ministerial departments must seek advice from the Scottish Government’s Property Division at the earliest opportunity when an acquisition or disposal of property or interest in a property is being considered and when drafting a property business case including for construction of a property. Other organisations to which the Scottish Public Finance Manual is directly applicable[1] may seek advice from Property Division on a voluntary basis or, in the case of bodies sponsored by the Scottish Government, where required to do so under the terms of their framework document. The Property Division can be contacted at [propertydivision@gov.scot](mailto:propertydivision@gov.scot).

**Summary**

3.1. Business cases provide a process of assessing the costs, benefits and risks of alternative ways to meet objectives. They help decision makers understand the potential effects, trade-offs and overall impact of options by providing an objective evidence base for decision making and are essential to successful delivery of projects.

---

[1] Organisations to whom the Scottish Public Finance Manual (SPFM) is directly applicable are described in Paragraph 8 of the SPFM chapter [Background and Applicability](#).
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Chapter 5

Project Initiation Routemap
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Overview

1.1. The initiation of any project is a critical stage and the actions undertaken during the first few months can mean the difference between success and failure. It is therefore essential that projects get off to a good start. Sufficient resource must be allocated at the appropriate time and there should be a clear understanding of what requires to be done in order to increase the likelihood of project success. Robust processes and the application of the latest thinking and learned lessons can contribute to that.

Guidance

2.1. The Infrastructure and Projects Authority has developed a Project Initiation Routemap which aims to achieve more efficient outcomes and address the high cost of delivering infrastructure in the UK.

2.2. The Routemap is designed for major projects and while its full application on smaller projects may not be entirely appropriate there are clear parallels which mean that some aspects of it will still be helpful. It walks clients through the key considerations for initiating a major project and looks at complexity, client capability, the implications of strategic decisions and how to apply best practice from other projects. Note that complexity in the context of the Routemap is relative to the experience of the client organisation.
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</table>
Introduction

1.1. People are at the heart of every project and successful delivery of projects depends on the effectiveness of the engagement with them. It is often the case that project complexity derives from the complexity of the stakeholder environment rather than from the complexity of the construction of the physical asset itself, therefore time spent understanding the needs of stakeholders will be an investment in successful delivery. This requires the project sponsor and the project team to ensure that the stakeholder landscape is fully understood and engaged early on during project initiation.

Overview

2.1. Stakeholders are all those people and organisations which have some form of relationship with the project, the asset and the benefits delivered as a consequence of it. The nature of the relationships will be as diverse as the nature of the stakeholders themselves and understanding that diversity is central to being able to properly engage with them.

2.2. Engaging stakeholders serves a number of purposes including to:

- Define the purpose
- Develop the design
- Inform interested parties
- Influence debate
- Manage messages and people
- Promote inclusion

2.3. There are five steps to improving stakeholder relationships:

- Plan - think about what you want to achieve and whose views you want to consider.
- Build understanding – understand what motivates stakeholders, what they are thinking and what expertise they have.
- Engage – talk and listen to your stakeholders.
- Build trust – maintain relationships by taking on board stakeholders’ suggestions and concerns.
- Evaluate – consider whether the engagement has been successful and what it means for the project and the next steps of engagement.
Tools

3.1. Tools are provided at Annex A and Annex B which will help clients understand the stakeholder environment as it relates to their projects.

Summary

4.1. Engaging with stakeholders is essential to project success and should be an ongoing activity from project inception and throughout the project period.
Consider the questions below to identify the stakeholders and their proximity to the project (categories shown in the circles are examples only)

<table>
<thead>
<tr>
<th>Questions</th>
<th>Example stakeholder groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is interested in your work? Why?</td>
<td>Academics</td>
</tr>
<tr>
<td>Who are you interested in? Why?</td>
<td>Businesses</td>
</tr>
<tr>
<td>Who should you work with now and in the future? Why?</td>
<td>Client team</td>
</tr>
<tr>
<td>Who can help you deliver our outcomes?</td>
<td>Community leaders</td>
</tr>
<tr>
<td>Who has good ideas, even if they are challenging?</td>
<td>Community-based organisations like</td>
</tr>
<tr>
<td>Who will potentially be impacted by the outcomes?</td>
<td>Consultants</td>
</tr>
<tr>
<td>Who will contribute resources?</td>
<td>Contractors (main and sub)</td>
</tr>
<tr>
<td>Who can slow or stop the project?</td>
<td>Education and training organisations</td>
</tr>
<tr>
<td>Have you considered marginalised or harder to reach stakeholders?</td>
<td>End users (inc. staff, the public and other customers)</td>
</tr>
<tr>
<td></td>
<td>Environmental groups</td>
</tr>
<tr>
<td></td>
<td>Equality organisations</td>
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<tr>
<td></td>
<td>Faith groups</td>
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<tr>
<td></td>
<td>Health authorities</td>
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<td></td>
<td>Local Authorities</td>
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<td></td>
<td>Local residents</td>
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<td></td>
<td>Media representatives</td>
</tr>
<tr>
<td></td>
<td>Members of the general public</td>
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<td></td>
<td>Non-governmental organisations</td>
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<tr>
<td></td>
<td>Other governments</td>
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<td></td>
<td>Other policy interests</td>
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<td></td>
<td>Pressure groups</td>
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<td></td>
<td>Professional bodies</td>
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<td></td>
<td>Project team</td>
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<td></td>
<td>Public bodies</td>
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<td></td>
<td>Scottish Ministers</td>
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<td></td>
<td>Senior Officials</td>
</tr>
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<td></td>
<td>Suppliers</td>
</tr>
<tr>
<td></td>
<td>the Scottish Parliament</td>
</tr>
<tr>
<td></td>
<td>Trade unions and trade associations</td>
</tr>
<tr>
<td></td>
<td>UK government departments</td>
</tr>
<tr>
<td></td>
<td>Voluntary or welfare organisations</td>
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<tr>
<td></td>
<td>Youth groups and women’s groups</td>
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</table>
Influence and Interest Matrix

1. The influence/interest matrix is a useful tool for prioritising stakeholders once your initial mapping exercise is complete. It analyses:

   • how interested the stakeholder is in impressing its views and expectations on what you are trying to achieve.

   • whether the stakeholder has sufficient power to influence what you are trying to achieve.

2. This provides valuable information on how to work with particular stakeholders, and helps determine which stakeholders you need to prioritise.

Using the matrix

**Influence:** Score the level of influence each stakeholder can exert using the following assessment criteria (each criteria should have a maximum of five points, and a minimum of zero):

   • How capable are they of influencing others?

   • What’s the risk posed by challenge from this stakeholder?

   • Can they contribute to successful delivery?

**Interest:** Score each stakeholder’s level of interest in your work using the following assessment criteria (each criteria should have a maximum of five points, minimum zero):

   • How well established is the relationship?

   • How active has the stakeholder been on this particular policy area?

   • How keen is the stakeholder to express their views on the work you are doing?
Use the scores for each stakeholder to plot them on the template below:

Use the scores for each stakeholder to plot them on the template below:

<table>
<thead>
<tr>
<th>STAKEHOLDER</th>
<th>INFLUENCE</th>
<th>INTEREST</th>
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<tbody>
<tr>
<td></td>
<td>Capacity</td>
<td>Risk</td>
</tr>
<tr>
<td></td>
<td>to influence others</td>
<td>from challenge</td>
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</tbody>
</table>

[insert name]  
[insert name]  
[insert name]  
[insert name]  
[insert name]  
[insert name]  
[insert name]  

Stakeholders in **sector A** have neither a high interest in the project nor the power to exert significant impact. You should keep these stakeholders informed as necessary, without investing too much effort into relationships with them.

Stakeholders in **sector B** have a high interest in specific areas of the project, but limited means of influence. Nonetheless, they could be valuable allies. It is therefore useful to keep them informed about the issues they are interested in.

Relationships with stakeholders in **sector C** could be difficult. They behave passively most of the time and show a low interest in the work you are doing. Despite this, they can exert an enormous impact if they see fit. It is therefore important to analyse the
potential intentions and reactions of these stakeholders in all major developments, and involve them according to their interests.

The most important stakeholders are those with high interest and high influence in sector D. They must be involved in all relevant developments.
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Chapter 7

Risk
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Introduction

1.1. The Scottish Government Risk Management Guide defines risk as:

“anything that can impede or enhance our ability to meet our current or future objectives ....”

1.2. All projects contain risks that may affect their cost and quality and the time taken to complete them. Risk is present through the whole life of an asset from inception through to deconstruction and must be actively and effectively managed throughout. Analysis allows us to identify risks and opportunities and use both to ensure project success and maximise the potential of the asset.

Overview

2.1. Risk stages. Risk management is the process of identification and assessment of risk and opportunity followed by the production, and implementation, of an action plan to manage it. The Scottish Government Risk Management Guide sets out five key steps to effective risk management:

- Identify risks
- Assess risks
- Address risks
- Review and report risks
- Communicating and learning.

2.2. Risk appetite. It is important to understand the risk appetite, that is the levels of risk the organisation is prepared to accept or not accept in delivering its objectives. As stated in the Scottish Public Finance Manual, the concept may be looked at in different ways depending on whether the risk being considered is a threat or an opportunity:

- When considering threats, the concept of risk appetite embraces the level of exposure which is considered tolerable and justifiable should it be realised. In this sense it is about comparing the cost (financial or otherwise) of constraining the risk with the cost of the exposure should the exposure become a reality and finding an acceptable balance;

- When considering opportunities, the concept embraces consideration of how much one is prepared to actively put at risk in order to obtain the benefits of the opportunity. In this sense it is about comparing the value (financial or otherwise) of potential benefits with the losses which might be incurred (some losses may be incurred with or without realising the benefits).

2.3. **Lifecycle stages.** The phases of a built asset, which are set out in Chapter 1, are: Planning – Development – Implementation – Operation – Decommissioning. Operation and Decommissioning, although not normally part of the project period, should still be included for the purposes of the project risk assessment and management. All risks must be identified and managed at the earliest possible point and this will usually mean doing so at the very start of the project period including for the operations and decommissioning phases. Each phase should be assessed and managed for risk individually and as part of the overall lifecycle; this will be an ongoing process throughout the project life and beyond.

2.4. **Risk factors.** PESTLES (Political, Economic, Social, technological, Legal, Environmental and Security) provides a useful breakdown of risk areas for assessment.

2.5. **Stakeholders.** All stakeholders are different and risks will have different impacts on each. For example, a specific factor is likely to impact differently on a political stakeholder than it would on a contractor even though the phase and the circumstances which cause the risk are the same. Similarly, consideration of the political heading for a political stakeholder, for example, will be likely to result in different risks being identified during each of the lifecycle phases.

2.6. Whilst risk can be managed, minimised, shared or accepted, it cannot and must not be ignored. It is unrealistic to expect that systematic risk management will remove all uncertainties, but pro-active risk management which is fully integrated into the day–to–day management of the project and the asset can reduce the impact of uncertainties and improve the likelihood of a successful project outcome and asset life cycle management. It must though, be actively managed and reviewed regularly to ensure that the plan remains valid.

**Guidance**

3.1. As noted above, the Scottish Government Risk Management Guide provides guidance on managing risk generically across any situation, whether in the project setting or in core operations. This guidance is, however, only accessible through Scottish Government intranet pages. For contracting authorities that would benefit from an introduction to the range of considerations which apply in risk management, the [HM Treasury Orange Book Management of Risk – Principles and Concepts](#) may be a useful source of guidance.

**Summary**

4.1. Effective and proactive risk management is essential to the successful delivery of projects, it informs the conduct of all outputs, outcomes and phases of the planning, delivery and operation and must be afforded appropriate resource and priority.
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Overview

1.1. Under the Procurement Reform (Scotland) Act 2014 all public sector contracting authorities are required to consider including community benefit requirements for all regulated procurements where the estimated value of the contract is at least £4 million.

Guidance

2.1. The Scottish Government community benefits in procurement webpage provides general guidance and a number of tools to assist contracting authorities. The Scottish Futures Trust developed a Community Benefits Toolkit to assist contracting authorities in delivering community benefits through construction contracts and projects.
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Chapter 9

Fair Payment
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Introduction

1.1. Short and delayed payment put significant and unsustainable pressures on the industry in particular on sub-contractors which can cause insolvencies and damage to the economy as a whole. Unfair payment can also have an impact on quality and consequently on the outputs and outcomes of projects. It is therefore in the interest of contracting authorities and the industry to bring an end to these practices.

Overview

2.1. The Scottish Government is committed to paying all suppliers promptly and encourages all public contracting authorities to follow suit. Scottish Procurement Policy Note 8/2009 sets out a clause to be used in Scottish Government contracts requiring payment of valid contractor and sub-contractor invoices within 30 days throughout the supply chain of public contracts. This policy note also asked all public bodies not using Scottish Government’s standard terms to amend their own standard terms to include the clause. It also required contracting authorities to name a point of contact for sub-contractors to report any difficulties they are having regarding payments by a main contractor. While payment within 30 days is Scottish Government’s policy, it also aspires to paying Scottish businesses within 10 days.

2.2. Section 15(5)(d) of the Procurement Reform (Scotland) Act 2014 requires contracting authorities to:

\[
\text{(d) set out (in their procurement strategy) how the authority intends to ensure that, so far as reasonably practicable, the following payments are made no later than 30 days after the invoice (or similar claim) relating to the payment is presented—}
\]

\[
\text{(i) payments due by the authority to a contractor,}
\]

\[
\text{(ii) payments due by a contractor to a sub-contractor,}
\]

\[
\text{(iii) payments due by a sub-contractor to a sub-contractor,}
\]

2.3. Section 18 requires contracting authorities to prepare a report on its regulated procurement activities including whether those procurements complied with its procurement strategy. The Scottish Government annual report on procurement activity: 2019 was published on 4 April 2019.
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Overview

1.1. Project Bank Accounts (PBAs) are ring-fenced accounts from which payments are made directly and simultaneously by a public sector client to members of a construction contract supply chain. Scottish Government bodies must include a PBA in tender documents for public works contracts commencing procurement procedures from 19 March 2019 whose estimated value is at least:

- £2,000,000 for building projects
- £5,000,000 for civil engineering projects

Guidance

2.1. Detailed technical guidance through which public bodies can implement and operate a PBA in a construction contract is published here. The guidance also enables bodies outside Scottish Government which deliver public contracts to do the same. Construction Policy Note 1/2019 also provides further information and direction on project bank accounts.
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Whole Life Cost
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1.1. Public sector focus should always be on the costs of constructing, owning, operating, maintaining and disposing of an asset. This focus supports the concept of Value for Money (VFM) which is defined at a project level as the ‘optimum combination of whole life cost and quality to meet the end users requirement’.

Guidance

2.1. The Scottish Futures Trust developed a Whole Life Appraisal Tool to assist contracting authorities to “…make informed decisions to optimise a built asset’s whole life performance.”. The tool consists of an online excel workbook which can be accessed by email request to mailbox@scottishfuturestrust.org.uk. The output of this tool is a dashboard which summarises and compares whole life outcomes for different options or for a preferred solution.
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Building Information Modelling (BIM)
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Overview

1.1. Building Information Modelling uses digital technology to improve the sharing and analysis of data during the construction and operational phases of projects.

1.2. Scottish Procurement Policy Note 1/2017 set out the requirement for public authorities within the scope of the Scottish Public Finance Manual to assess their projects for BIM via the BIM Grading Tool for projects above £2m in value.

1.3. Full guidance is provided via the BIM Portal which also provides case studies, descriptions of the BIM standards and other resources to assist project teams in their use of BIM.
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Project Assurance
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Introduction

1.1. Organisations must have a defined and consistent approach to project assurance as part of their assurance framework (such as an integrated assurance strategy) to provide confidence to Ministers, Accountable Officers and Senior Responsible Owners that the work is controlled, on track to deliver and, in terms of Scottish Government funded projects, aligned with Scottish Government policy and industry best practice.

1.2. Assurance reviews deliver this, but must be planned, costed and take place before significant decisions (such as approval gates). Clients must include in the appointment agreements of project team members a requirement to participate fully in reviews to test whether or not objectives and value for money have been achieved. Following the completion of reviews, assessments must be made of the lessons learned and a lessons learned report produced.

1.3. Approaches to assurance must comprise at least three lines, including:

- **First line**: carried out by, or on behalf of, the operational management that own and manage risk to ensure appropriate standards are being used.

- **Second line**: undertaken by, or on behalf of, those who have no first line responsibilities, to ensure the first line defence is properly designed, in place and operating as intended.

- **Third line**: carried out by an independent audit or independent body to provide senior management with an objective opinion on the effectiveness of governance, risk management and internal controls, including the effectiveness of the first and second lines of defence.

1.4. The Scottish Public Finance Manual (SPFM) mandates core Scottish Government, SG Executive Agencies, non-ministerial departments and SG sponsored bodies responsible for the delivery of major investment projects to put arrangements in place to identify and evaluate benefits and capture lessons from project delivery. Other organisations to which SPFM is directly applicable should follow procedures consistent with the guidance.

1.5. Senior Responsible Owners of major investment projects must ensure that:

- the Scottish Government’s SG’s Risk Potential Assessment (RPA) Form(s) are completed to determine the type of assurance support the project should have;

- those projects assessed as potentially high risk are considered for SG Gateway Review support; and

- those projects assessed as potentially low or medium risk are supported with appropriate peer or in-project reviews (which may vary from sector to sector), undertaken at regular intervals as part of on-going monitoring arrangements.
1.6. In addition, high risk or mission critical projects not defined as major investment should also be considered for formal Gateway Review.

1.7. Delivery bodies should be aware that some sectors have specific requirements for evaluating and assuring the delivery of programmes and projects. Information on these requirements for health sector projects and programmes is set out in the NHS Scotland Scottish Capital Investment Manual (SCIM). Certain major investment projects may require Key Stage Reviews, these are undertaken by the Scottish Futures Trust

Scottish Government's Independent Assurance Framework

2.1. The Scottish Government’s Programme and Project Management – Centre of Expertise manages and supports the delivery of the independent programme and project assurance framework. Independent assurance aims to increase the likelihood that change initiatives delivered by policy, programmes or projects achieve the intended results and outcomes. It involves people who are not directly associated with the initiative or delivery area. This brings a fresh perspective and constructive challenge for teams tasked with delivering in complex but strategically important environments.

Key Stage Reviews

3.1. It is a condition of Scottish Government funding support that all projects in the revenue funded programme are, in addition to any existing project approval processes, externally validated by the Scottish Futures Trust. This validation approach includes Key Stage Reviews of projects at key stages of the procurement process by providing an assessment of the readiness and application of best practice of projects before they move onto the next stage of the procurement process. Each review is an assessment of whether the project is suitably developed in terms of: project readiness, affordability, value for money and commercial robustness.

Post Project Evaluation and Post Occupancy Evaluation

4.1. Project reviews include:

- Completion of a formal post project evaluation in order to review the project performance, its delivery of objective and value for money, and to identify lessons to be learned from the procurement process. These lessons should be used to influence the approach to the procurement of future schemes; and

- Completion of a post occupancy evaluation (possibly by an independent consultant) which focuses on whether the building is meeting users’ needs and identifies lessons to be learned. These reviews are usually carried out within twelve to eighteen months of occupation and repeated at regular interviews.
Summary

5.1. Assurance provides confidence to all stakeholders including the client that projects will achieve their scope, time, cost and quality objectives, and realise their benefits. It is essential and must be as integral a part of projects as good design and risk and cost management are.
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Chapter 14

Quality Assurance
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<td><strong>Annex A: Quality assurance Roles and responsibilities</strong></td>
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Introduction

1.1. Public sector clients, responsible for major investment projects, must protect the safety of the communities they serve and put in place appropriate project wide quality assurance processes to confirm the safety of all users of their facilities.

1.2. This chapter provides contracting authorities with guidance on the planning and key activities required to establish the structures which will set a project up for success. It also reminds clients of the importance of embedding whole life-cycle quality assurance systems within their project delivery plan to provide confidence to senior leaders and stakeholders that their project will deliver its agreed objectives, achieve value for money and will be well designed and well-constructed.

1.3. Further detail on quality assurance is contained in Chapter 3 of the Construction Phase Handbook. This provides detail on the conduct of quality assurance and the systems to assist clients.

Overview

2.1. The role of the client is pivotal in determining the quality of a project both in terms of establishing and managing an effective project delivery process and ensuring the end product achieves the agreed design and ‘as built’ standards. Recommendation 1.1 of the Report of the Independent Inquiry into the Construction of Edinburgh Schools, February 2017, emphasised that public sector bodies engaged in the procurement of facilities should maintain, or have assured access to the requisite level of expertise and (time and funding) resources that allows that body to act as an “intelligent customer” in undertaking transactions with Private Sector Construction Companies. The role of the “intelligent customer” is set out in Annex A.

2.2. To help contracting authorities assess their capability to deliver investment projects, the Scottish Futures Trust has developed the Baseline Skillset for Construction Procurement. In addition, the Scottish Government has launched a Construction Procurement Capability Assessment tool, which enables clients to identify any skills and experience gaps which inhibit their ability to act as an “intelligent customer”.

2.3. Construction Policy Note, CPN 1-2017 Site inspection and assurance states “Regardless of the procurement strategy it is incumbent upon public sector clients to implement project appropriate site inspection and assurance processes that mitigate resultant risk from the construction phase”. Guidance to support clients to determine the appropriate level and scope of independent site inspection and monitoring required, based on a risk assessment of the complexity, scale and nature of the project and an understanding of the level of assurance the inspection will provide, is included at Annex A.

2.4. Further advice on how to procure the requirements of the project brief, including guidance on procurement strategies, models and procedures and how to score and maximise value for money are set out in Handbook 2, Construction Procurement. Handbook 3, Construction Delivery will cover all aspects of managing the delivery of the construction contract, including the management and delivery of assurance of quality standards and specifications of the building.
Annex A

Quality assurance roles and responsibilities

1. As an “intelligent customer”, public bodies must have the capability or assured access to knowledge and skills to:

   - Identify the appropriate level and scope of independent inspection and monitoring required based on a risk assessment of the complexity, scale of and nature of the project.

   - Put in place and manage appropriate governance arrangements and quality assurance as described in Chapter 3 of the Construction Phase Handbook.

   - Consider how they will satisfy themselves that the construction works will be carried out in accordance with the contract and to the required design and built quality standards. They must clearly set out the assurance requirements in the contractual arrangements of the relevant design and project team members to ensure all parties understand the scope of the service required and the level of comfort this will provide that the quality of the design and construction will be fully compliant with the Project Requirement.

   - Set an appropriate budget for the project, which includes the relevant allowance to manage quality at all stages throughout the whole project lifecycle. This is particularly important at the earliest project delivery stage and during the development of the brief in order to establish and clearly define the quality objectives and approaches to ensure quality will be achieved.

   - Identify the appropriate procurement arrangements to ensure they will provide the level of communication between themselves and members of the design team and that they will benefit to the fullest extent from the professional advice and expertise of the design team.

Independent assurance

2. Contracting authorities are responsible for determining and engaging the appropriate level and frequency of independent assurance required, which reflect the risks associated with delivering the project. The allocation of time must be sufficient for the party engaged to deliver this assurance to inspect the key aspects of construction and to sign off areas of work before they are covered up or enclosed. To secure this independent assurance clients may engage a clerk of works, inspector and/or technical adviser. Not all projects will merit, or justify, a full time clerk of works. Whilst larger, more complex projects may do so, smaller, less complicated projects will not.

3. Clients have a number of options as to how to discharge this obligation, including:

   - In-house resource with the appropriate availability, experience and capability.
• From a partner or associated organisation which has the requisite resource.

• The requirements in the remit for the Technical Adviser to the Authority.

• Appointing an independent external organisation with the required experience and capability.

• Extending the remit of the Independent Certifier (on revenue funded projects) to include the required presence to inspect on an ongoing basis.
Project Initiation and Business Cases Handbook

Chapter 15

Design in Construction
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The Role of Design

1.1. Public construction projects are significant investments and can have profound impacts on communities and the environment. It is therefore essential to ensure that the potential opportunities of a project are properly understood and harnessed to maximise positive outcomes and return on investment. Good design processes are central to achieving this.

1.2. Design costs often account for a fraction of the long-term project costs, but design can often have the biggest impact on efficiency, sustainability and overall success.

1.3. Design fees for skilled designers should be viewed as an investment, rather than as a cost. Good design can deliver real efficiencies and is the primary tool to deliver longer-term savings through initial preventative spend in construction projects.

1.4. It is vitally important that all parties involved in the commissioning and creation of projects understand at the outset that a stated requirement for good design is not a matter of style but one that is focussed on achieving the best outcome for public good. Information on the benefits of design can be found in Creating Places, the Scottish Government policy statement on architecture and place.

Design Process and Design Outputs

2.1. There are two important elements to consider in relation to design: the design output and the design process.

2.2. The design process is a creative and iterative method of interpreting and responding to a challenge. If the design process is to be effective, there needs to be a commitment to and investment in the quality of the process and the relevant skills.

2.3. The quality of the design output is a product of the quality of the design process. Design quality can be understood in terms of how well it delivers each of 3 main components:

- physical quality (such as appearance, robustness and build quality);
- functionality (such as performance, accessibility, security, health and safety, flexibility and whole-life value); and
- impact (how well the facility relates to its environment and how it addresses cultural, social, economic and environmental needs).

Design Leadership

3.1. Delivering quality outcomes requires a commitment to good design at a strategic level and, consequently, design leadership is crucial throughout the project lifetime.

3.2. This may be achieved through the early appointment of client Design Advisor or Design Champion roles. These are independent advisors with relevant specialist
know ledge, appointed to interpret and represent the client's business needs and project objectives. Typically, a Design Champion may occupy a senior role, such as on a project board, with Client Design Advisor involved in more detailed issues. However, what is most important is that the process puts in place appropriate advice on design issues, and that decision-making power is informed by this advice. Both roles report directly to the client, i.e. not through the design team.