

**UNIVERSITY OF CAMBRIDGE
INFORMATION SERVICES COMMITTEE
PROJECT AND PROGRAMME GOVERNANCE:
“DOCUMENTATION GUIDE: STAGE GATES”**

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1. PURPOSE

- 1.1 To provide a guide to the composition of the key documentation required to progress through the governance framework decision points¹:

Document	Decision Point(s)
Strategic Outline Case (SOC)	Strategic Justification
Outline Business Case (OBC)	Detailed Options Appraisal
Full Business Case (FBC)	Approach Validation
End Stage Report	Delivery + Acceptance
End Project/Programme Review	End Review

- 1.2 These documents will be required to enable Steering Groups to assess the status of a project or programme and decide whether to approve [further] investment to enable the work to progress to the next stage, or not.
- 1.3 The documents above are required for the staged decision points, as per Figure 1 - ISC Governance Decision Points. The 'Delivery' stage is repeatable and so multiple End Stage Reports may be required before progressing to Acceptance and on to the 'End Review':

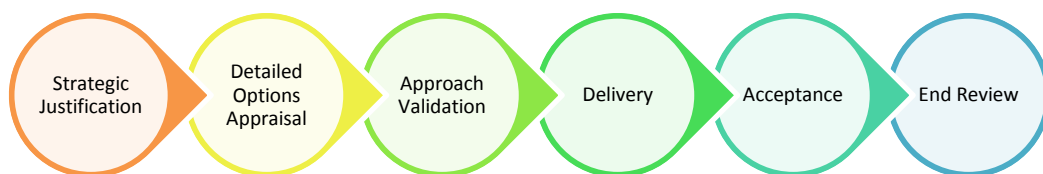


Figure 1 - ISC Governance Decision Points

- 1.4 For projects and programmes that do not need to be overseen by the ISC, a proportionately scaled process can be adopted. For example, decision making points ("Gates") 1-3 can be rolled into one through the development and consideration of a single business case, rather than a SOC, OBC and FBC in turn. In these circumstances, the level of detail and assessment required in the business case to inform a decision to invest will need to be proportionate to the scale of the investment proposed and the appetite for risk. The Senior Responsible Owner (SRO)² will decide upon the scale-back required accordingly for such projects.

¹ Decision Points: as set out in the document "ISC Projects and Programmes Governance: FRAMEWORK"

² A description of the SRO role can be found in the supporting paper entitled "ISC Project and Programme Governance: BOARDS"

2. BUSINESS CASE MODEL

- 2.1 The framework being based around utilising a business case model is important because programmes and projects will only achieve their objectives and deliver benefits if they have been scoped robustly, planned realistically from the outset, and the associated risks identified over the whole life of the system and their management or transfer plotted and monitored throughout. The business case, both as a product and a process, provides decision makers and stakeholders with a management tool for evidence based and transparent decision making and a framework for delivery.
- 2.2 The business case can generally be split into five areas (or ‘cases’): the strategic; economic; commercial; financial; and management cases. In support of a new programme or project, a business case must evidence that the proposal:
- a. is supported by a compelling case for change that provides holistic fit with other parts of the University and meets user needs – the “strategic case”;
 - b. represents value – the “economic case”;
 - c. is attractive to vendors, can be procured and is commercially viable for ventures requiring external development or provision – the “commercial case”;
 - d. is affordable – the “financial case”; and
 - e. is achievable – “the management case”.

3. BUSINESS CASE: THE FIVE CASES

- 3.1 The overall structure of a business case will remain the same for each of the Strategic Outline Case (SOC), the Outline Business Case (OBC) and the Full Business Case (FBC). As progress is made through the decision making process, so the expectation will grow for greater detail around options, cost and benefits (tangible and intangible). The following sections provide an overview of what should be contained within each of the five cases making up the business case.
- 3.2 The process is also iterative and may require earlier stages of the business case development to be re-visited depending on the outcome of work. The development of a business case appropriate for the project or programme at hand is also flexible and enables tailoring, as appropriate, to suit the scale and complexity of the proposal being made.
- 3.3 In cases where the proposed project or programme will not require oversight by the ISC, the process can be scaled down accordingly by the SRO (Senior Responsible Owner) which may entail, for example, the SOC, OBC and FBC being combined into the need for a just a single business case document. Such scaling should be proportionate to the level of investment being sought and risk appetite.

4. The Strategic Case

- 4.1 The Strategic Case demonstrates that the proposal provides strategic fit and is predicated upon a robust and evidence based case for change. This includes the rationale of why the proposal is required, as well as a clear definition of outcomes and the potential scope for what is to be achieved.
- 4.2 Recommended content and structure of the Strategic Case:
- a. Strategic Context:
 - i. Organisational Overview

- ii. Current Business Strategies
- b. The Case for Change:
 - i. Objectives
 - ii. Existing arrangements
 - iii. User need
 - iv. Potential scope
 - v. Benefits
 - vi. Risk constraints
 - vii. Dependencies

5. The Economic Case

- 5.1 The main purpose of the Economic Case is to demonstrate that the proposal optimises value to the University. It explains how this is achieved by identifying and appraising a wide range of realistic and achievable options (the “longlist”) in terms of how well they meet the agreed objectives and critical success factors; and subjecting a reduced number of options (the “shortlist”), to cost benefit analysis. The shortlist is likely to include “do nothing” and/or “do minimum” options to enable comparison. It is key to identify the right range of options in the first instance without unnecessary limitations.
- 5.2 Some benefits are not quantifiable but are clearly material to the decision making process and these qualitative costs, benefits and risks must be assessed and taken into consideration in identifying the “preferred option”. The cost benefit analysis of the shortlisted options should generate a future profile of costs and benefits over the anticipated life of the system (as a minimum the period in which the investment is to be depreciated in the University’s accounts), which are then netted off against each other to provide cost(-)/benefit(+) figures that are discounted and summed to produce a figure for the Net Present Value (NPV) of each option. This analysis enables the preferred option to be identified, which is generally the option with the best NPV; but may be another option where the qualitative costs and benefits are sufficient to justify the difference in the NPV.
- 5.3 The “preferred option” is then subjected to sensitivity analysis in order to test its robustness. The output of the economic case should never be a one number answer; rather it consists of an appraisal summary table which includes the preferred option NPV, risk analysis and sensitivity figures with switching values, information on qualitative costs and benefits which may be decisive and information of other viable alternative options. The ongoing costs post-implementation should also be included.
- 5.4 Recommended content and structure of the Economic Case:
- a. Identify
 - i. critical success factors
 - ii. longlisted options
 - iii. Shortlisted options (including do minimum/do nothing, three or four is the recommended number)
 - b. Whole life economic appraisals of costs and benefits (with cost benefit analysis)
 - c. Optimism bias adjustment
 - d. Risk assessment
 - e. Sensitivity analysis
 - f. Identification of the preferred option

6. The Commercial Case

- 6.1 The Commercial Case demonstrates that the “preferred option” will result in a viable procurement, where necessary. This section of the business case includes the planning and management of any required procurement. Where no procurement is required (normally because the solution is expected to be delivered or provided for ‘in-house’), a commercial case does not have to be made.
- 6.2 This case will set out how the “preferred option” will be procured competitively, in accordance with the guidelines set out by the Finance Division on ‘purchasing’³. Within this case, the institution responsible should also clearly specify the anticipated payment regime and the allocation of risk in each of the implementation phases e.g. discovery, design, build, deploy. The contractual arrangements should also be specified here.
- 6.3 Recommended content and structure of the Commercial Case:
- a. Procurement Strategy (approach to specification; agile, fit gap, or iterative waterfall; competition or dispensation; payment as a risk/control mechanism)
 - b. Service requirements
 - c. Charging mechanism
 - d. Risk transfer or management
 - e. Key contractual arrangements
 - f. Personnel (TUPE) implications, where relevant
 - g. Change management needs and plan

7. The Financial Case

- 7.1 The Financial Case demonstrates that the “preferred option” will result in a fundable and affordable outcome. This section of the business case requires the CAPEX and OPEX for the proposal over the expected life span of the service to be set out, together with an assessment of how the outcome will impact upon the balance sheet, income and expenditure account and pricing (if applicable) of the institution and/or University.
- 7.2 Recommended content and structure of the Financial Case:
- a. CAPEX and OPEX requirements (see Annex B)
 - b. Net effect on prices (if applicable)
 - c. Impact on balance sheet
 - d. Impact on income and expenditure account (if applicable)
 - e. Overall funding and affordability

8. The Management Case

- 8.1 The Management Case demonstrates that the “preferred option” is capable of being delivered successfully by the University. This section of the business case requires the originating institution to demonstrate that the proposal is being implemented in accordance with a recognised Programme and Project Management (PPM) methodology and that there are robust arrangements in place for change management and contract management, the delivery of benefits and the management and mitigation of risk.

³ <http://www.admin.cam.ac.uk/offices/purchasing/guides/>

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- 8.2 It should also specify the arrangements for monitoring progress during implementation and for post implementation evaluation, as well as for assurance reviews⁴ (if applicable), and the contingency plans for risk management of the deliverable.
- 8.3 Recommended content and structure of the Management Case:
- a. Programme and Project Management (PPM) methodology and structure
 - b. Programme and Project Management plans
 - c. Programme and Project Team structure
 - d. Use of specialist advisers or consultants
 - e. Change management arrangements
 - f. Contract management arrangements
 - g. Benefits realisation
 - h. Risk management monitoring during implementation
 - i. Post implementation evaluation arrangements (benefits)
 - j. Contingency arrangements

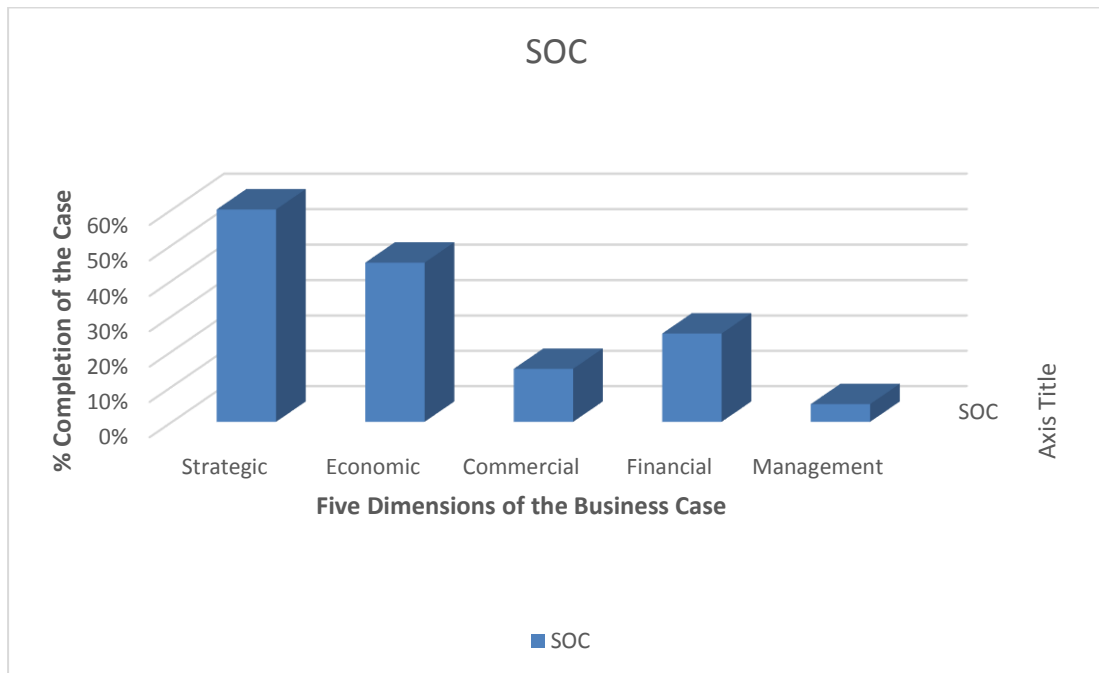
9. BUSINESS CASE: STAGES

- 9.1 The guidance above focuses on the general content of a business case; this section considers what level of detail is expected at the three stages of business case development required for the first three decision making points (“Gates”): Strategic Outline Case (SOC), Outline Business Case (OBC) and Full Business Case (FBC).

10. Strategic Outline Case (SOC)

- 10.1 The SOC supports the Strategic Justification stage of the decision making process. This represents the scoping stage for the proposal. The purpose of this stage is to confirm the strategic context of the proposal and to make a robust case for change, providing stakeholders and customers with an early indication of the “preferred way forward” (not the preferred option). Specific consideration should be given to the user need and the development of a user needs statement.
- 10.2 The SOC identifies and undertakes analysis, for example SWOT, on a wide range of available options, together where possible with an early analysis of the shortlist based on indicative costs and benefits and application of allowances for optimism bias.
- 10.3 At conclusion of the SOC the development of the business case across the five dimensions of the five case model will have been completed as illustrated by the following diagram. This reflects the nature of the SOC in determining the direction of travel. At this stage it is not possible to provide the detailed economic analysis, commercial, financial and management arrangements, hence these aspects are relatively under-developed at this stage

⁴ Assurance Reviews: See document “ISC Projects and Programmes Governance: Assurance Reviews”

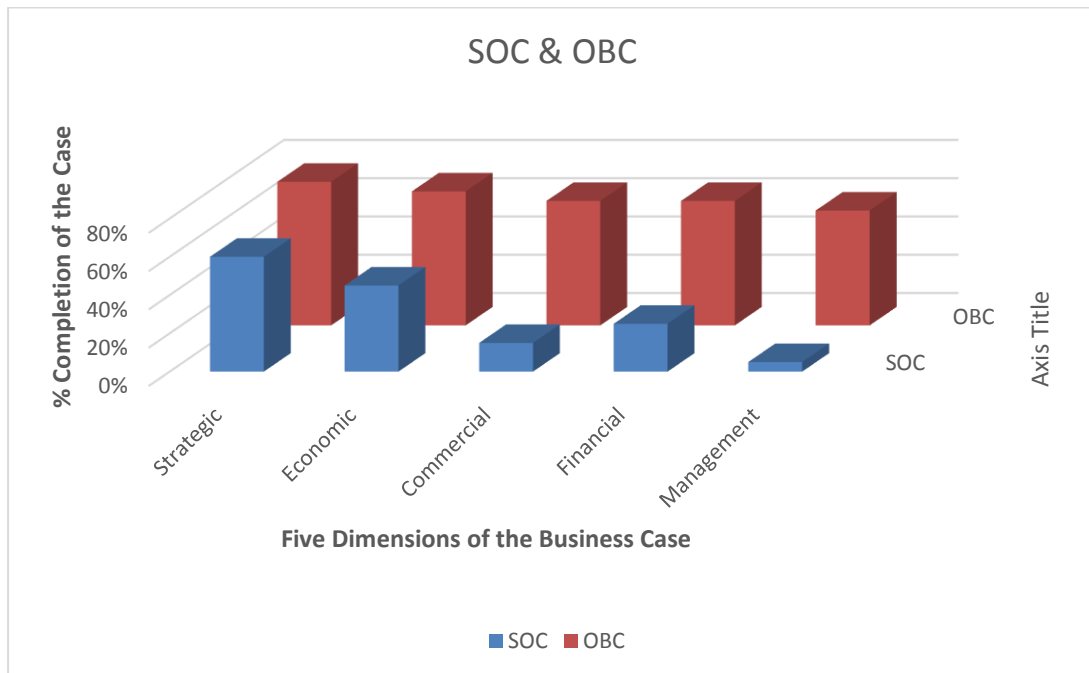


- 10.4 Where the cost of the project or programme is estimated to exceed £2m, a submission will need to be made, in parallel, to the Planning and Resource Committee through the Capital Projects Process. The Capital Projects Process comprises three stages; Registration -> Concept -> Full Case⁵.
- 10.5 The SOC will need to estimate the level of funding and make clear what costs will be incurred in the next stage of the process i.e. to undertake a detailed options appraisal. This will enable the Steering Group to make a decision on whether to approve the submission, or not.

11. Outline Business Case (OBC)

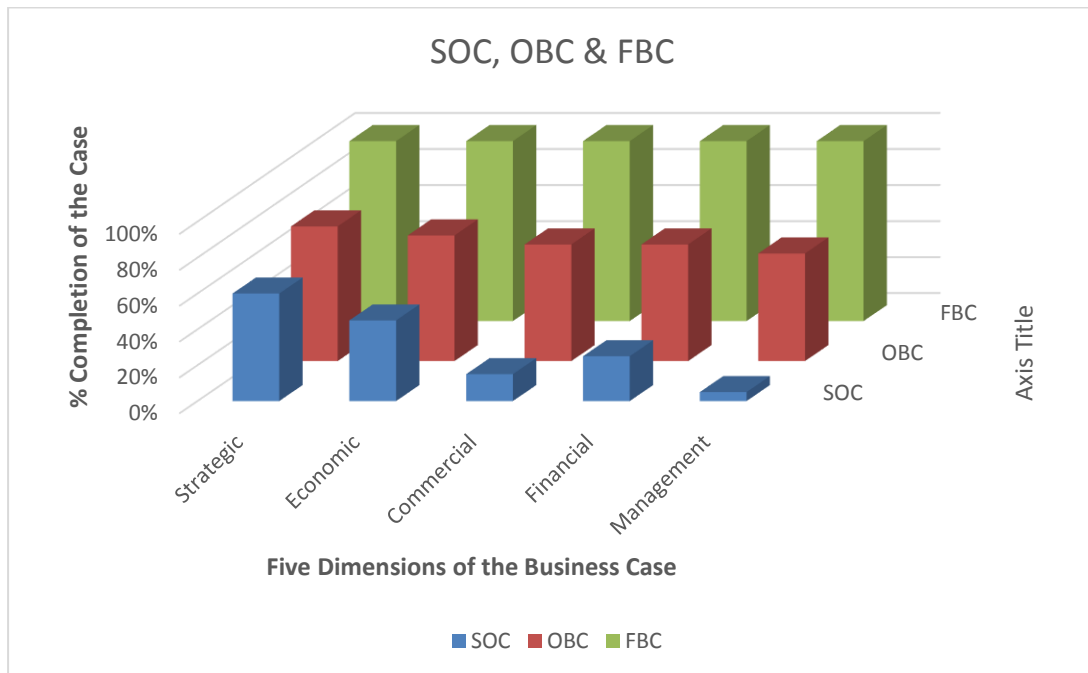
- 11.1 This is the detailed planning phase for the proposal which results in the production of the Outline Business Case (OBC). The purpose of this stage is to revisit earlier SOC assumptions and analysis in order to identify a “preferred option” which demonstrably optimises value for money. It also sets out the likely way forward by demonstrating its affordability, detailing the supporting procurement strategy (if required), together with management arrangements for the successful delivery of the proposal.
- 11.2 The OBC summarises the results so far and sets out the facts seeking approval to proceed. Where a procurement exercise is required, this approval will enable it to commence. At conclusion of the OBC, the development of the business case across the five dimensions of the Five Case model will have been completed as illustrated by the following diagram which also shows its development relative to the SOC:

⁵ http://www.admin.cam.ac.uk/offices/planning/cpp/PPP_guidance.pdf



12. Full Business Case

- 12.1 This is the procurement phase for the proposal (where required), following detailed negotiations with potential service providers/suppliers prior to the formal signing of contracts and the procurement of goods and services.
- 12.2 Where the solution is to be delivered or provided for 'in-house' the FBC must capture all costs associated with the approach. In such cases, there needs to be clarity and agreement as to specifically what is expected from the in-house effort (what, where and when) so that progress and expenditure can be monitored effectively during the delivery phase(s).
- 12.3 The purpose of the FBC is to revisit and, where required, rework the OBC analysis and assumptions building in and recording the findings of the formal procurement. This case at its conclusions recommends the "most economically advantageous offer", documents the contractual arrangements, confirms funding and affordability and sets out the detailed management arrangements and plans for successful delivery and post evaluation.
- 12.4 At conclusion of the FBC, the development of the business case across the five dimensions of the model is complete as illustrated by the following diagram which also shows its development relative to the SOC and OBC:



- 12.5 The FBC will then provide a baseline from which the project or programme will deliver. Any proposed diversion from the agreed scope will need to be formally managed through change control.
- 12.6 The management tools developed in accordance with the development framework for the business case – the implementation plan, benefits register and risk register etc. – should be used in the delivery stage and they provide the basis for reporting back regularly to the project or programme board.
- 12.7 The FBC and its supporting products should be used as the starting point for post implementation evaluation as part of the end review, both in terms of how well the project or programme was delivered and whether it has delivered its projected benefits as planned.

13. END STAGE AND END REVIEW DOCUMENTATION

13.1 End Stage Report

- 13.1.1 Once the project or programme has passed through the first three decision points by successfully developing a business case, it then progresses into delivery. The delivery stage can be split into multiple stages to enable the effective monitoring of progress. Each delivery stage requires an end stage report to provide an update on progress against agreed plans and the business case. An end stage report will also be used to recommend the deliverable transfers into business as usual (live service) – the ‘Acceptance’ gate. The end stage report(s) should be read alongside a plan for the next stage, except where the deliverable is being transitioned into live service.
- 13.1.2 Steering Groups will, in general, consider the following outcomes on receipt of an end stage report:
 - a. Authorise the next stage;
 - b. Amend the project scope;

- c. Stop the project; or
- d. In the case of recommendation being made to transition the deliverable into live service, authorising the formal acceptance of the deliverable.

13.2 End Stage Report: Composition

13.2.1 An end stage report being submitted during 'Delivery' should contain the following information:

- a. Project or programme manager's report on progress
- b. Review of the business case
- c. Review of project or programme objectives
- d. Review of team performance
- e. Lesson learnt report
- f. Issues and risks
- g. Forecast plan for the next stage
- h. Review of products

13.2.2 An end stage report being submitted seeking approval at the 'Acceptance' gate should contain the following:

- a. Project or programme manager's report on progress
- b. Review of the business case
- c. Review of project or programme objectives
- d. Review of team performance
- e. Lesson learnt report
- f. Issues and risks
- g. Review of products
- h. Recommendation to formally accept the deliverables
- i. Proposal regarding how the deliverables will transition into live service (cut-over plan)
- j. Review of training delivered in relation to the new deliverable as well as any training that may still be required post-acceptance
- k. Description of accepted workarounds
- l. Test reports that support the recommendation to accept

13.3 End Review

13.3.1 The end review report provides an assessment of the performance of the project or programme as a whole against the original planned cost, schedule and quality parameters. The report will enable the project or programme to be formally closed down and deliverables handed over to operational teams.

13.4 End Review Report: Composition

13.4.1 The content of the report will include:

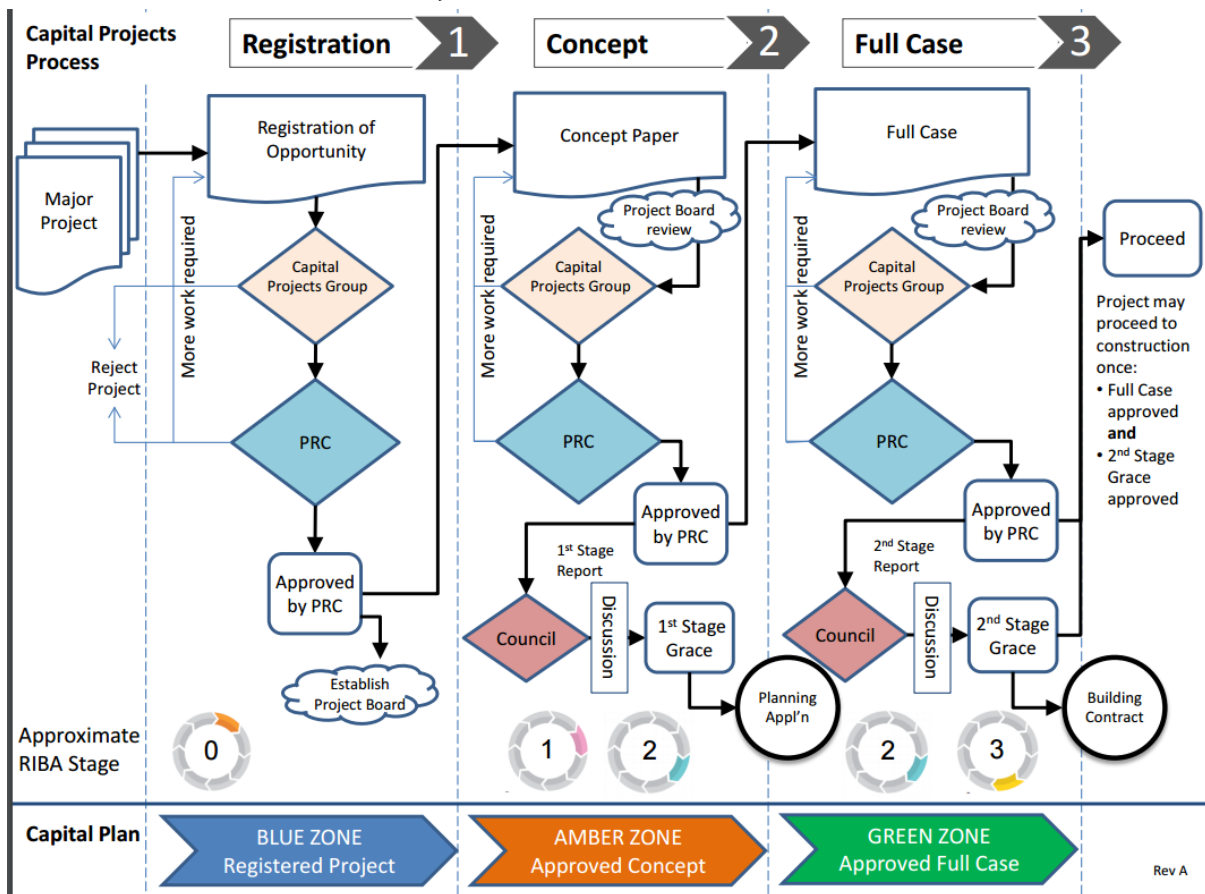
- a. Achievement of project or programme objectives
- b. Performance against planned time and cost parameters
- c. The effect on the original plan and business case of any approved changes
- d. A point in time assessment of benefits realised by the project or programme to date (these will normally continue to be realised post project closure and be monitored by operational teams)
- e. Lessons learnt

14. OTHER DOCUMENTATION

- 14.1 The documentation required by the Steering Group to progress through the decision making process has been set out above, however there will a range of further documentation required to successfully manage significant projects and programmes. A brief description of them is provided below, for reference.

Document	Description
Project Brief	Provides a full and firm foundation for the initiation of the project by describing at a high level the purpose of the project, its objectives and any constraints.
Project Initiation Documentation	Defines the project in order to form the basis for its management. The Project Initiation Documentation gives the direction and scope of the project and forms the 'contract' between the Project Manager and the Project Board.
Benefits Review Plan (or Benefits Management Plan)	Defines how and when a measurement of the achievement of the project's benefits, expected by the Senior User, can be made.
Communications Management Plan	Contains a description of the means and frequency of communication to parties both internal and external to the project.
Quality Management Plan	Defines the quality techniques and standards to be applied, and the various responsibilities for achieving the required quality levels, during the project.
Risk Log	Provides a record of identified risks relating to the project, including their status, management plan and history.
Issue Log	To capture and maintain information on all of the issues that are being formally managed.
Highlight Report	A status report to provide Boards with a summary of progress including significant risks and issues.
Request For Change	Used to consider whether to accept a change to the agreed project scope based on an appropriate assessment of impact.
Project Plan	A representation of what will delivered, and when. These can range from being detailed (task based) plans to very high level (milestone based) overviews.

ANNEX A – CAPITAL PROJECTS PROCESS



ANNEX B – EXAMPLE OF COSTS

A non-exhaustive list of costs that should be considered when compiling a business case in relation to an IT project or programme:

- a. project/programme resource, including:
 - i. project/programme manager(s);
 - ii. business analyst(s);
 - iii. user experience professionals;
 - iv. developers;
 - v. testers;
 - vi. database administrators;
 - vii. network engineers;
 - viii. trainers;
 - ix. communication professionals;
- b. staff/team training
- c. travel and subsistence
- d. assurance reviews
- e. other overheads
- f. software licences (initial costs and ongoing annual cost);
- g. escrow agreements;
- h. penetration testing;
- i. contingency;
- j. supplier implementation effort;
- k. new equipment;
- l. organisational change costs; and
- m. hardware (implementation and ongoing maintenance/upgrade)