

# University of Cambridge

## Information Strategy and Services Syndicate

### Governance of ISSS Projects

#### 1. Introduction

This paper defines the Project Governance Roles and Responsibilities and the Terms of Reference for the effective set-up and control of Projects coming within the remit of the Information Strategy and Services Syndicate (ISSS). In formal PRINCE2 project management terminology there are several levels of project control and management: the highest level of control is Programme Management which is primarily concerned with the strategic direction and management of many projects which are interlinked, or with the overall control of a large IT Development budget. For example: the introduction of an Identity Management programme of work would involve the co-operation and development of many systems and interfaces in many projects across the University.

Only those aspects of programme/project governance which directly involve the ISSS are covered in detail here and, whilst these will tend in PRINCE2 terms to be at a programme rather than project level, the term project will be used in this paper (in accordance with current ISSS terminology) to cover both programmes and projects. It is proposed that the lower level aspects of project governance should be the responsibility of a Project Office and of individual Project Boards supported by the Project Office, with both reporting directly to the ISSS.

This paper focuses primarily on large projects but smaller projects will have scaled down versions of similar governance structures in place. Comment is made on the form that this scaling down should take and detailed advice will be obtained from the Project Office when each project is set up.

This paper draws substantially on the work on Project Governance done by Michelle Finnegan, the Assistant Director of MISD, whose help, advice and text from planning documents are gratefully acknowledged.

#### 2. Project Office

##### 2.1 Background

The Shattock and Finkelstein Report (Reporter, No. 5861, Friday 2 November 2001) recommended setting up a Project Office: “[iv] The University establish, within the unified Computing Service, a project office that can monitor major IT projects. That this office is responsible for setting processes methods and standards for such projects, for ensuring compliance to these standards and for quality assurance. The office can act as an independent advisor to committees set up for the purpose of oversight”.

Much has happened since then, for example the University has decided not to follow Prof Finkelstein's recommendation to merge MISD and the UCS (into the “unified Computing Service” referred to above), but the recommendation to create a Project Office has remained live and is referred to as a work in progress in “University of Cambridge Information Systems, Governance Self Assessment” (Section 3, “Planning Improvements”), originally an Information Strategy Group paper dated 15 January 2007 but since reproduced as ISSS BC 22.05.2008 Paper 06/08a when the ISSS discussion of Project Governance started. Work to set up project governance structures within MISD is now being actively pursued by the Assistant Director and an internal Project Governance Officer role has been created to support the governance of their projects.

##### 2.2 Role and Composition

The Project Office will be responsible to the ISSS for setting processes, methods and standards to ensure adequate control for projects coming within the remit of the ISSS, for ensuring compliance to these standards, for quality assurance and for audit. It will also provide an important repository for project management expertise and for experience of the successes and failures of each project to inform the development of subsequent projects. The Project Office will develop and maintain templates for all the

key documents and provide advice on the level of documentation appropriate to each project.

The Project Office will act as advisor to the ISSS on Project Management, Governance and Assurance issues. The ISSS may request reports from the Project Office where it has concerns in these areas; and the Project Office may escalate issues to the ISSS where it feels that these are not being adequately addressed by a Project Board.

The setting up of a Project Office to provide Governance for those Projects within the remit of the ISSS requires further detailed planning. It seems likely that the Project Office will require between a half and one FTE member of staff and that this may be best split into two roles: one senior to attend Project Boards and pro-actively monitor projects; the other more junior dealing with the associated paperwork, maintaining document templates, etc.

## **2.3 Methodology**

The project methodology employed will remain heavily based on PRINCE2 with whatever local customisation is required for the Cambridge University environment. It is the responsibility of the Project Office to document and maintain these localisations, seeking guidance and approval from the ISSS where required. Key areas of control include: financial; documentation; clarity of objectives and requirements; avoiding scope creep; progress against plan; risk management; and ensuring that the expected benefits will be delivered.

PRINCE2 methodology advocates the use of a large number of documents in order to maintain tight control during the project life-cycle. It is necessary to view this methodology pragmatically and use the minimum number of documents to maintain control and keep a balance between completing the paperwork and work required to complete the project, e.g. resource usage on paperwork should not exceed 20%. Certain documents remain 'Live' throughout the life of the project and need updating as the project progresses; these are the Risk Log, the Lessons Learnt and the Project Initiation Document (PID). Others remain fixed throughout the life of the project as there is otherwise a risk of loss of control of the project as a whole and a significant rise in the risk of failure; these are the Scope and the Benefits. The Benefits are especially important as this is how we measure the success of a project: there may be additional unforeseen benefits of a project but benefits should never diminish; if at any stage there is a risk that the benefits may not be delivered, the project should be stopped and re-evaluated.

## **3. Key Committees and Personnel**

Fundamental to the successful governance of Projects is a coherent strategy and a structure to provide a context for the work. The ISSS is the top level Committee which ensures that the Strategy is maintained and authorises the start-up of any new projects based on documentation from the Project Office. The ISSS will report on its activities to Council and work closely with the Planning and Resources Committee (PRC) on project finance.

### **3.1 Project Board**

The ISSS shall establish Project Boards which shall be accountable for the good governance and risk management of major projects. Members of Project Boards will be appointed by the ISSS having sought and considered nominations from other bodies with an interest in the direction and successful outcome of the project. A Project Board will remain in existence until the Project phase is completed and the system becomes a running service at which point the ISSS will replace it with a Management Committee or other appropriate governance arrangements.

The Project Board will consist of people who have the authority and will be able to lead a project of its size, complexity and significance. Together they will provide the initial mandate for the programme and provide visible leadership and commitment to the project. The Project Board will normally be chaired by a senior academic appointed by the ISSS; and will have, as a minimum, members who perform the following roles:

- Chairman
- Senior Responsible Officer
- Project Manager/Director

- Supplier Representative(s) (where appropriate)
- Senior User Representative(s) (where appropriate)
- Governance Representative (from the Project Office)
- Change Manager

The Senior Responsible Officer (SRO) is a key role and must be filled by a single individual. They will be ultimately accountable for the success (delivery of the Benefits), or failure (none or only partial delivery of the Benefits), of the project and must lead from the front. They may be called to account on behalf of the Board by the Project Board Chair who will refer the matter to the SRO's line manager if there is not a satisfactory resolution. Their responsibilities will include: providing overall direction and leadership for the delivery and implementation of the project; being accountable for the governance arrangements of the project; securing the funding for the project; managing the strategic risks facing the project; and managing and supporting the project manager. The SRO will need to devote significant time to the project particularly during its definition phase. Good working relationships between the SRO and stakeholders is essential to the success of a project.

In a large project (see 4.1 below) the Supplier and Senior User Representative roles may be filled by more than one Board Member. Conversely, in a smaller project, a Board Member may fill more than one role but the SRO and Governance Representative roles must remain distinct and, if the Chairman and SRO roles are combined, there must be at least one Board Member filling just the Senior User Representative role.

The Director (or deputy) of the institution responsible for implementing the project, typically MISD or the UCS, will normally be a Board Member, either as Project Manager/Director or as a Supplier Representative. If the system is substantially based on a commercial product, the supplier of this should be represented. The Senior Supplier role must have the authority to commit or acquire supplier resources as required.

The Senior User Representative role represents the interests of all those who will use the final product(s) of the project, those for whom the product will achieve an objective or those who will use the product to deliver benefits. The role commits user resources and monitors products against requirements. The role may require more than one person to cover all the user interests but for the sake of effectiveness the role should not be split between too many people. If the system being developed is for use by the colleges as well as the University, representatives of both must be included on the Board. The Senior User Representative is responsible for: specifying the needs of those who will use the final product(s); user liaison with the project team; and monitoring that the solution will meet those needs within the constraints of the Business Case in terms of quality, functionality and ease of use.

The Project Board will have terms of reference as follows:

- exercise financial and governance control of the Project on behalf of the ISSS
- advise the ISSS (and hence PRC) on budgetary requirements for each project stage
- report to the ISSS and the PRC (through the ISSS) on Project issues and risks as appropriate
- authorise each phase of the Life Cycle up until introduction to service
- approve progress of the project against its strategic objectives
- monitor progress of the project against the specified benefits
- approve the Communication and Marketing Strategy/Plan
- provide Project Assurance via Project Office guidance and an Audit or Checkpoint Review Committee
- authorise the signing of supplier contracts
- assist the Project Manager with major risk and problem management
- approve the membership of subsidiary committees and liaise with these

### **3.2 Subsidiary Committees**

In all but small projects (see 4.1 below), the Project Board will need to devolve some aspects of its work to subsidiary committees and working groups, e.g. a Steering Committee, User Group(s) and Special Interest Group(s). Such groups are typically necessary to assist with defining users' requirements and the business change process and to ensure that users and potential users of the system at all levels are sufficiently represented and that their views and concerns are visible to the Project Team and the Project Board in a timely fashion. The SRO, assisted by the Project Office, is responsible for the forming, terms of reference and membership of these subsidiary bodies; subject to the approval of the Project Board.

A typical Steering Committee might have the following roles represented:

- Chairman (SRO)
- Senior user representatives for each functional area
- Development and implementation representative(s) from the Project Team
- Operation and support representative(s) from the Project Team

In a large project, as for the Project Board, roles may be filled by more than one Member. The Steering Committee may in turn be assisted by a number of User or Special Interest Groups chaired by Steering Committee Members.

### **3.3 Project Team**

In some cases, a Project may be of such a scale and/or risk that it merits the appointment by the Project Board of a Project Director who is directly responsible to the Board. Otherwise the Project Team is led by a Project Manager who is accountable to the Senior Responsible Officer and thence to the Project Board for the delivery of the Project. A Project Team will typically include key stakeholders, users, technical and functional leads and will have the following senior roles reporting to the Project Manager:

- Project Administrator
- Development Manager
- System Test and Validation Manager
- Operations and Support Manager
- Change Manager
- Training Manager
- Supplier Manager
- Planning Manager

Note that in all but the largest Projects, individuals are likely to fulfil more than one of these roles. The Project Office will hold and maintain Job Description templates for each of these roles.

### **3.4 Checkpoint Review Committee**

The Project Board should arrange for a Checkpoint Review to take place at each major landmark in the project lifecycle, typically at the end of Project Initiation and each subsequent Phase. The aim of the review is to provide an independent expert assessment of progress on the project: the likelihood that the benefits will be successfully delivered; progress against the project plan; and expenditure against budget. The committee members should be independent of the project, e.g. not members of the Project Team or Project Board, and able to report any concerns they have directly to the Board. The Project Office will provide support to the Checkpoint Review.

## 4. Project Lifecycle

The full lifecycle of a project will comprise the following phases:

Phase	Deliverables	Funding Requirements	Responsible Body
Scoping	Scoping Study Brief Options Appraisal & Recommendations Report	Seed Funding	ISSS
Start-up	Project Mandate Project Brief Business Case including Benefits	Set-up Funding	ISSS & PRC
Initiation	Project Initiation Document Requirements Specification Risk/Issues Log Project Plan Other docs as required eg Communications Plan	Project Funding	Project Board & ISSS
Stage Control e.g. Procurement and Implementation	Stage Plan End Stage Plan Risk/Issues Log Financial Reports against Budget Lessons Learnt Exception Report	Project Funding	Project Board & ISSS
Close	Project Close Report Benefits Realisation Lessons Learnt Update	Operational Funding	ISSS & Management Committee

### 4.1 Effect of Project Scale on the Process

The scope and cost of a project and its potential impact on users have particular bearing on the level of control which must be exercised over a project. Whilst explicit consent must be sought from the ISSS and PRC to progress between the phases in the life of a large project, it may be sufficient for smaller projects simply to report progress. Advice should be sought from the Project Office on the level of control required for a particular project but the following guidelines will apply:

**Large projects / Programmes** - a project will be considered large if: the total cost of ownership over the development period or the first three years exceeds £2M; or the direct or indirect financial risk to the University in the event of project failure exceeds £2M; or the annual running costs will exceed £400k. The full project governance structures and measures described in this paper are required in the case of a large project.

**Medium sized projects** – projects intermediate in scope and cost will require careful consideration by the Project Office who should report on this to the ISSS. The magnitude of the overall risk to the University (including reputational risk) will be a significant factor in judging the level of control required.

**Small projects** - a project will be considered small if: no special funding needs to be obtained for the project, e.g. capital and running costs can be funded from existing annual budgets; the impact is local to a single School or smaller sized organisational unit. The ISSS should be kept informed where appropriate, especially if the project may or should subsequently expand in scope and become a medium or large project.

### 4.2 Early Stages: Scoping and Start-Up

The goal initially is to ensure that all projects are properly justified as bringing tangible benefits to the work of the University and that the projects are then managed throughout their life so that the expected benefits are realised. It is particularly important to ensure that a development project is not undertaken without regard to the cost of ownership of the complete system after the implementation has been completed and it is in live service. Whole life costs of a new system must be considered before a commitment to significant expenditure is made.

The direct involvement of the ISSS will normally be greatest in the early stages of a project since, inter alia: the ISSS must approve the initial concept for large and most medium sized projects prior to them

progressing further; and the ISSS provides and controls the pre-project development budget (the seed and set-up funding).

When seeking to initiate a project, a Project Brief (available from the Project Office) should be completed and sent to the Project Office who will advise on project scale, as above, based on this. They will then provide templates for the further documents that need to be completed, appropriate to the scale of the project, in order to support the project through the approval process. In considering whether to grant approval, the ISSS must take into account the context of the project within its overall five year planning as well as the individual merits of the project in terms of benefits, value for money and risks.

Once the necessary approvals have been granted, the Project Office will convene a Project kick-off meeting to establish the document set required to support the project throughout its lifecycle, the role of the Project Office for the Project, confirm the Project Board structure and the roles, responsibilities and identities of all the key players noted above in section 3. This meeting will also set out how control will be achieved, especially the Board's modus operandi.

Once the Project Board is in place they will take responsibility for the Project, including approval to pass on to the next phases, advised and supported by the Project Manager and the Project Office.

### **4.3 Project Initiation**

A key component of project initiation is the establishment of the various components of project governance. These are:

- Stakeholder management
- Identification of risks and risk management
- Issues management and resolution
- Benefits management
- Quality management
- Resource management
- Project planning and control
- Communications Management

The Project Board will report on progress with these and the other deliverables from this phase to the ISSS.

### **4.4 Subsequent Stages**

The Project Board will remain in existence and accountable to the ISSS for the Project until the Project phase is completed and the system becomes a stable running service. At this point the ISSS will replace the Project Board with a Management Committee or other appropriate governance arrangements. The timing of this may sometimes be difficult to judge, especially where a large programme is not divided into a number of smaller projects, but the following are primary indicators:

- the introduction of new software and business practices is complete and the service is operational;
- all the benefits which are likely to be achieved have been achieved; and
- the funding is on a stable recurrent basis (rather than an annual implementation budget).

Significant new development of an otherwise completed project may be better governed as a new smaller scale project working alongside the operational system.

Following the end of the Project phase, the system enters its live running phase and the Management Committee or other appropriate governance arrangements will monitor in-service operation, maintenance and enhancements, and will report regularly to the ISSS. Through these reports, and where appropriate periodic independent review, the ISSS will determine when and if the system should be withdrawn from service, replaced, or requires enhancements at a sufficient level to justify the setting up of a new project.

## 5. Usability

The international standard, ISO9241-11, provides guidance on usability and defines it as: The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.

New developments or purchases of IT capabilities should consider as a priority the usability of the system. Design processes should engage regularly with people recruited from outside the project, including multiple representatives of different classes of intended user (e.g. undergraduate student, department administrator, research associate). This engagement should aim to understand the context of use, goals and task structures as perceived by different users. It should also provide the opportunity for representative users to comment on early user interface prototypes (if possible, in sketch form before commitment to functional design). Test and evaluation of both interim development prototypes and system releases should include usability tests, in which representative users unfamiliar with previous design assumptions are recruited to use the system under controlled conditions, and resulting usability problems are logged as system defects for potential future rectification.

ISSS

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