

**UNIVERSITY OF CAMBRIDGE
INFORMATION SERVICES COMMITTEE
PROJECT AND PROGRAMME GOVERNANCE:
“USER NEEDS”**

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1. PURPOSE

- 1.1 To consider user needs in the context of making investment decisions on future solutions with a focus on project and programme initiation and delivery.

2. INTRODUCTION

- 2.1 Though many of the principles and techniques associated with the analysis and delivery of user needs have been around for many years, for example business analysis, their widespread adoption and prominence throughout the IT service delivery community is relatively recent. As such, there is no accepted 'standardised' definition and there is little evidence of a codified method for placing user needs front-and-centre of the IT Services delivery process¹.
- 2.2 As such, the manner in which user needs are considered and incorporated into effective project and programme delivery should be reviewed in the course of the next 12-24 months by the User Needs Committee.

3. USER COMMUNITIES

- 3.1 There are two distinct user communities within the University, administrators and academics/researchers (students can be considered as a third group, but share many characteristics with academics/researchers). Although each community has a critical role to play in sustaining the University's global reputation, typically, they each have distinct needs and characteristics in their requirements for IT services.
- 3.2 The University's administrative functions are heavily reliant upon IT services that are specifically designed to support well defined day-to-day operational roles and processes, for example HR, Payroll and Finance. These roles and processes are relatively static in nature, changing slowly and incrementally over time. The typical characteristic of such services are based upon high-frequency of use and a high level of familiarity and expertise with the associated information system. In some situations, expertise in the systems becomes the core-skill, rather than an understanding of the underlying processes and services themselves. Without access to these core information systems, delivery of the administration function becomes very difficult for any extended period of time.
- 3.3 The academic and research communities have a higher reliance on information systems that can be considered to be tools used to aid the ongoing delivery of fluid, wide ranging and rapidly changing subject areas. The nature of such information systems, means that usage may be infrequent, (in some cases, once per year), placing much higher emphasis on information systems that require minimal familiarity and are simple to use.
- 3.4 In an ideal world, the distinction between each of these communities would adhere to clear rules of demarcation, however, in reality, many existing information systems jointly service both communities, resulting in any number of hybrid user groups. Typically, such hybrid groups will be comprised of primary users (the majority) and secondary users (the minority). In such circumstances, the needs of the primary users tend to take priority, which can lead to feelings of dissatisfaction and alienation for the secondary users. Any future emphasis on user needs must give appropriate levels of consideration to all impacted user groups.

¹ Agile methods are often cited as user needs-centric approaches but, historically, such methods are predicated upon user engagement and involvement, not necessarily user needs.

4. USER NEEDS STATEMENTS

- 4.1 User needs will be relevant in the majority of significant projects and programmes² and capturing that need, or those needs, at an early point is crucial. Doing so will enable due consideration to be given to the options considered and the resultant solution that is implemented in due course. Developing a user needs statement at the outset is the recommended approach. Such a statement should form part of the Strategic Outline Case and carry through to future ISC decision making points within the project or programme's lifecycle. To support the consistent and effective development of user needs statements across the University, the User Needs Committee will provide oversight and guidance in relation to their adequacy in support of projects, programmes, committees and boards.
- 4.2 Irrespective of which definition of user needs is adopted, there are clear principles that should be followed when creating user needs statements for any given situation:
- i. a user need must describe a real-world problem for a set of users and identify the set of users concerned;
 - ii. user needs must be described using the language of the user and describe the problem to be solved and not a solution to the problem;
 - iii. the problem must relate to the role undertaken by the user group;
 - iv. it must demonstrate a clear understanding of why there is a need for a solution to the problem;
 - v. It must identify the specific circumstances that trigger the problem;
 - vi. reference should be made to any constraints associated with the user need.
- 4.3 A comprehensive and unambiguous statement of user needs not only provides justification for investment, it can also act as a readily accessible and testable reality check that helps to ensure more detailed delivery activity retains the correct focus. One approach to developing a user needs statement is to use "As a [role] I need [...] so that [...]".
- 4.4 Within the context of the IT services delivery processes, it is important that user requirements are not mistaken for user needs. Requirements definition is dependent upon there being a clear understanding of the user needs and they describe the specific characteristics that are desirable when defining a solution to them.

5. WHEN TO CONSIDER USER NEEDS

- 5.1 For any project or programme concerned with delivering IT Services, a clear, unambiguous user needs statement is essential in providing an insight into what users of the service will value for any resulting solution. User needs should be defined before any project or programme activity begins, forming an essential part of the initial concept and feasibility studies. Subsequently, they should be continually re-evaluated, at each stage of the project or programme delivery life cycle, in order to ensure that the final deliverable will be responsive to such needs and results in a service that is valued by its users. For this reason, it is important that there is an appropriate level of user representation and validation

² Definition of 'Significant' can be found in the "Decision Making Process" document in this framework

throughout the end-to-end project delivery life cycle, helping to ensure that detailed solution decisions remain consistent with the overall user needs.

5.2 Having user representation throughout the project delivery lifecycle may be considered to be an overhead, but the payback is a much higher probability of delivering services that are right-first-time. Ensuring user needs are understood appropriately and used for the basis of design requires significant effort beyond the development and upkeep of appropriate a user needs statement. This work will normally be led by the project or programme team. The effective consideration of user need delivers a range of benefits to the user and, more generally, the University:

- i. user benefits are delivered earlier, resulting in quicker return on investment;
- ii. a reduction in the amount of rework that needs to be done enables skilled resources to be directed to more productive activities;
- iii. higher availability of skilled resources enables the demand backlog to be reduced faster;
- iv. a compelling user experience based on a user centric design approach, paying particular attention to the user interface (UI). and
- v. improved morale for administrative, academic and IT staff.

5.3 At a detailed level, responsibility for user needs can be dictated by the approach used to deliver an IT service (strategic, tactical, traditional, agile, commercial software selection, etc.). In an effort to cut-through the complexity of mapping out each approach, the following sections outline major stages at which the definition, transfer and ownership of user needs takes place.

6. CONSIDERATION OF USER NEEDS AT DECISION POINTS

6.1 The Steering Group should assess user needs in relation to each significant project or programme through its lifecycle, from concept through to closure. Following the decision points described in the supporting paper “ISC Projects and Programmes Governance: DECISION POINTS”, the Steering Group should validate, where required, that a compelling investment proposition exists and that it continues to exist throughout the project or programme’s lifecycle.

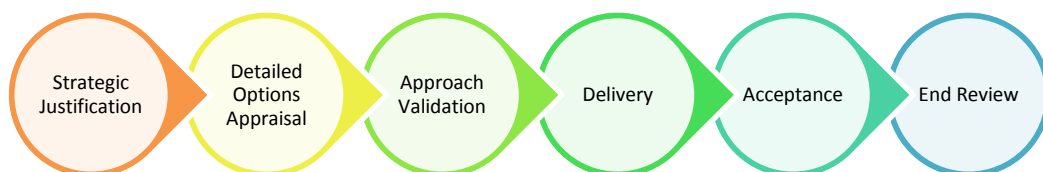


Figure 1 - ISC Governance Decision Points

- 6.2 Responsibility for defining the user needs will normally rest with the requesting institution initially and may then pass more specifically to the project or programme SRO and project or programme manager once in-flight.
- 6.3 The appropriate consideration of user needs is important at all stages of the project or programme lifecycle and the table below (based on a similar table in the supporting paper “ISC Projects and Programme Governance: DECISION MAKING PROCESS”) highlights key information to be considered in this regards:

Decision Making Point		Purpose	Required Documentation
1.	Strategic Justification	Consideration of whether there is likely to be a compelling case for investment based on identified user needs.	Strategic Case (SOC) Outline
2.	Detailed Options Appraisal	Consideration of user needs in relation to any planned procurement activity to ensure they are appropriately taken account of when going to market.	Outline Business Case (OBC)
3.	Approach Validation	Assessment of whether user needs are likely to be met through the preferred option put forward following a procurement exercise.	Full Business Case (FBC)
4.	Delivery	Ongoing consideration of the continued ability of the project or programme to deliver in line with expectations around user need.	End Stage Report
5.	End Review	Assessment of whether the project or programme met user needs expectations in the implementation of its deliverables.	End of Project / Programme Review

- 6.4 Requesting institutions should also consider seeking input and advice from the User Needs Committee when making submissions to the Steering Group.

7. USER PERSONAS³

- 7.1 The use of user personas can also be used in relation to designing the right solution. The purpose of personas is to create reliable and realistic representations of key audience segments for reference. Personas are only as good as the research behind them and should:
- Represent a major user group.
 - Express and focus on the major needs and expectations of the most important user groups
 - Give a clear picture of the user's expectations and how they're likely to use the site
 - Aid in uncovering universal features and functionality
 - Describe real people with backgrounds, goals, and values

³ Information on user personas drawn from: <https://www.usability.gov/how-to-and-tools/methods/personas.html>

- 7.2 User personas support the design process by enabling features to be assessed and considered against tangible (albeit hypothetical) user needs. Generic personas are currently in development within UIS.

8. CONSIDERATION OF USER NEEDS POST IMPLEMENTATION

- 8.1 The real measure of how successful a deployment or implementation has been can only come from 'real life' experience once it has been used in earnest. Once a project or programme has delivered a new system or service to operational teams and it has bedded-in, the opinions of each of the impacted user groups should be sought and a true user satisfaction rating allocated to the service. As this is likely to be some time after any project or programme activity has completed, the SRO would be well placed to take responsibility for such activity against the user needs statement as well as the benefits that were expected to be realised.

9. RELATION OF USER NEEDS TO SPECIFICATION

- 9.1 As a discipline to ensure that user needs are considered from a user perspective, it may be helpful to draw a distinction between 'user needs' and 'user requirements'. But the real distinction is requirements which have insufficient focus on usability and those which reflect/spring from user needs in the way requirements are defined. The distinction then is between user requirements which are, and those which are not, scrutinised fully and aligned with user experience (UX).
- 9.2 Ensuring a compelling user experience is one of the key success factors for a project hence, this means adopting a user centric design approach to ensure the end-user needs are met.
- 9.3 This requires paying attention to the user interface (UI). The key is that the application must be consistent, simple and easy to use, and deliver value to the user.