

**AN INVESTIGATION INTO THE  
DEVELOPMENT OF AN EFFECTIVE  
BENEFITS REALISATION PROCESS FOR  
HEALTHCARE INFRASTRUCTURE PROJECTS**

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*To Claudia, Stavros and Stefanos*

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*'If you don't know where you're going, any path is as good as another ... but you won't realise you're lost, you won't know what time you'll get there, you might unknowingly be going in circles, and others won't understand how they can help. And, since you could pass right by without knowing it, you won't get the satisfaction of having arrived'*

*Lewis Carroll: Alice in the Wonderland, 1865*

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## Abstract

Traditionally, healthcare infrastructure programmes and projects determine their level of success mainly against cost, quality and time of delivery, and not on the degree to which benefits or impacts are delivered. Too often people have assumed that a programme or project will achieve certain benefits, without carrying out analysis to find out what users, partners and other stakeholders really value or how these benefits are to be achieved. They concentrate their efforts on achieving outputs, such as a new building, an Information Technology (IT) system, or a change to a service. By the time these goals are delivered, there is limited understanding of the specific anticipated benefits and limited ability to influence, or even track, their achievements.

Targeting clarification of impacts and benefits is emerging as a method to assist healthcare organisations to manage whole life cycle of programmes from development, construction to operations and facilities management. This was presented as an opportunity to investigate into the development of a Benefits Realisation (BeReal) process.

A constructive and case study research strategy was deployed for the investigation, development and validation of the BeReal process. A number of research methods such as workshops, observations and questionnaires were used to collect data for the research. A relevant literature review was conducted and included reviews into benefits management and realisation approaches and its satellite subjects, including programme and project management, stakeholder management, evaluation techniques etc. The literature review findings, discussions with healthcare practitioners and experts in the subject area as well as the author's personal experiences were integrated with a number of case study findings to inform, develop and validate the BeReal process. The process consists of five phases, which consider the identification and use of benefits as the main driver for the delivery of healthcare infrastructure projects with a more predictable success outcome.

The main contribution of this research is in terms of presenting a methodology of investigating and developing a process that embraces a benefits realisation approach. The process is built upon integrating project management best practices and continuous improvement methods. It promotes knowledge flow down and sharing by managing stakeholders' expectations throughout the change lifecycle, when planning and delivering infrastructure programmes.

# 1 Chapter One - Introduction

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This chapter is an introduction to the subject area of the research undertaken for this thesis. It focuses on the research problem and the need for the development of a process to address the gap as it was identified in the literature. It illustrates the need from the industry and academia for a new process that will enable practitioners to implement a benefits realisation thinking and approach, when planning and delivering healthcare infrastructures. An outline research methodology is presented along with the roadmap towards achieving the research aims and objectives. The structure of the thesis is illustrated here, phase by phase to demonstrate problem awareness, and the actions taken to develop, and evaluate and conclude the researcher's contribution to knowledge.

## 1.1 Background

In general programmes and projects are driven by a need to satisfy a set of benefits for different groups of stakeholders (Winter et al., 2006). Such initiatives can only be regarded as successful if the intended benefits are realised (McCartney, 2000). However, it has been argued that, frequently, projects and programmes are delivered in time and within budget, but the expected benefits are not always perceived (Thorp, 1998).

Thorp (1998) suggests that the current managerial practices are the main reason for failure. In fact, Koskela and Howell (2001) argue that the underlying theories of project management have been subjected to criticism since the 1980's. It has been argued that such traditional approaches are too narrowly focused on managing cost, time and quality (Thorp, 1998), and are based on simplistic models that are insufficient to deal with practical problems (Koskela and Howell, 2001).

In addition, Thiry (2002) criticises the current paradigm of programme management, which is based on project management theory. According to this author, programmes are subjected to ambiguity and need to be managed

differently than projects. The same author argues that current practices lack in considering more soft issues, such as stakeholder management, communication and benefits. The need to better consider soft issues in project management is also discussed in a special issue of the International Journal of Project Management published in 2006, e.g. Winter et al. (2006) and Atkinson et al. (2006), where main findings from the Rethinking Project Management research network are discussed.

### **1.1.1 The importance of a benefits realisation approach**

Since the 1980s there has been huge investment programme into the UK's education, housing, community regeneration and in particular healthcare systems. These complex public-private organisations and programmes are driven by the need to realise benefits throughout their lifecycle. Benefits realisation was originally developed to justify spending within the IT (Information Technology) sector in the late 1980s and early 1990s (Farbey et al., 1999), but has become increasingly used within healthcare and other sectors (OGC, 2007a, Bradley, 2006).

The main issue is that not identifying or defining benefits during the development stages of an initiative makes managing and monitoring them more challenging, which may lead to poor performance and ultimately to the breakdown of an organisation, programme or project (Bartlett, 2006; Reiss et al., 2006; Payne, 2007). Benefits realisation has emerged as a method that can be used to help steer organisations away from this potentially uncontrolled/unsuccessful approach. In some of the literature it is argued that actively managing, monitoring and realising (Glynne, 2007) benefits within the healthcare system, may result in a better equilibrium between resource utilisation and services.

In this context, benefit management and realisation has risen as an alternative approach to current practices, with a wider focus on the strategic benefits of investments. This approach suggests a continuous process of envisioning results,

implementing, checking intermediate results and dynamically adjusting the path leading from investment to results (Thorp, 1998).

Such an approach should aim to tackle major reasons for failing to achieve successful programmes, such as:

- a. The vagueness with which the expected benefits are defined and further difficulties to maintain focus when subsequent problems occur (Reiss et al., 2006) as well as a consequent uncertainty in allocating responsibility for managing and delivering benefits (Lin and Pervan, 2001);
- b. The non-consideration of some stakeholders and how they can influence projects' results (Ward & Daniel, 2006);
- c. The long periods of a project's life cycle, leading to a disconnection between benefits planning and delivery due to changes in personnel (Reiss et al., 2006);
- d. The non-consideration of necessary interconnected issues that might influence the project's success (Thorp, 1998); and
- e. Poor identification of necessary means to achieve benefits and poor ability to manage change (Truax, 1997).

Nowadays, managing benefits has become a topic of discussion in different areas, including the healthcare sector (NHS, 2005) and debated in major OGC's (Office of Government Commerce) publications regarding project and programme management.

### **1.1.2 Benefits realisation and healthcare infrastructure programmes**

Healthcare programmes are complex systems developed within multi-stakeholder environments (Carruthers et al., 2006; Sweeney and Griffiths, 2002). Such programmes typically have a long lifespan, with many phases including policy setting, planning, development, construction, commissioning of healthcare service operations, facilities management (e.g. maintenance), refurbishments and demolition.



The complexity induced by stakeholder diversity and the long lifespan of programmes may induce failure in delivering aims set out in its initial stages i.e. stakeholders are not realising what has been planned. Disparity or lack of correspondence between the *ex-ante* and *ex-post* stages (Farbey et al., 1999) can be related to poor (or lack of) benefits management. Benefits realisation supports that such disparity between lifecycle stages is managed through a process that involves eliciting, managing, monitoring/controlling, realising and measuring benefits.

Benefits realisation is thought of as particularly important within healthcare environments as it 'helps to ensure a clear sign posting of who is responsible for the delivery of those benefits' (NHS, 2007). Furthermore, the continuous changes in the structure and governance of the National Health Service (NHS) make it difficult to evaluate services; benefits realisation would enable these important evaluations to occur under a unique and progressively optimised approach (NHS, 2007).

Changes that have occurred and will continue to occur in the NHS its structure, governance, roles etc. have had and will continue to have a huge impact on the ability to evaluate the service. Farbey et al. (1999) explain that the shift in responsibility and power between workers due to organisational structure changes, has led to confusion over priorities, with groups now competing with one another for the authority and control over the organisation, its strategy and value system. With this competition within trusts and between them evaluation has become more focused on the cost effectiveness and efficiency.

There are several initiatives within the Department of Health in the UK attempting to address benefits realisation. Back in 2005 was the first attempt to bring all such attempts under one umbrella. The Integrated Service Improvement Programme (ISIP) road map for 'Transformation Change' was then introduced to the NHS, its five aims were:

- Delivering a patient-led NHS;
- Delivering quality and value;

- Local action; national voice;
- Spreading best practice;
- Integration.

In March 2006 all Local Health Councils (LHC) had to prepare and submit to the Department of Health and the Strategic Health Authorities (SHA), a benefits realisation plan (BRP) for all of the ‘integrated change programmes proposed in their ISI Plan’. The benefits realisation plan needed to be aligned with the Office of Government Commerce (OGC), Managing Successful Programmes (MSP) and the PRINCE2 project management methodology. The aim of this was to ensure that the LHC are working towards the key aims of the UK government in providing a healthcare system that is patient led. Additionally it aimed to integrate and align all policy drivers as they are delivered through different programmes and projects to produce the desired benefits as illustrated in Figure 1.

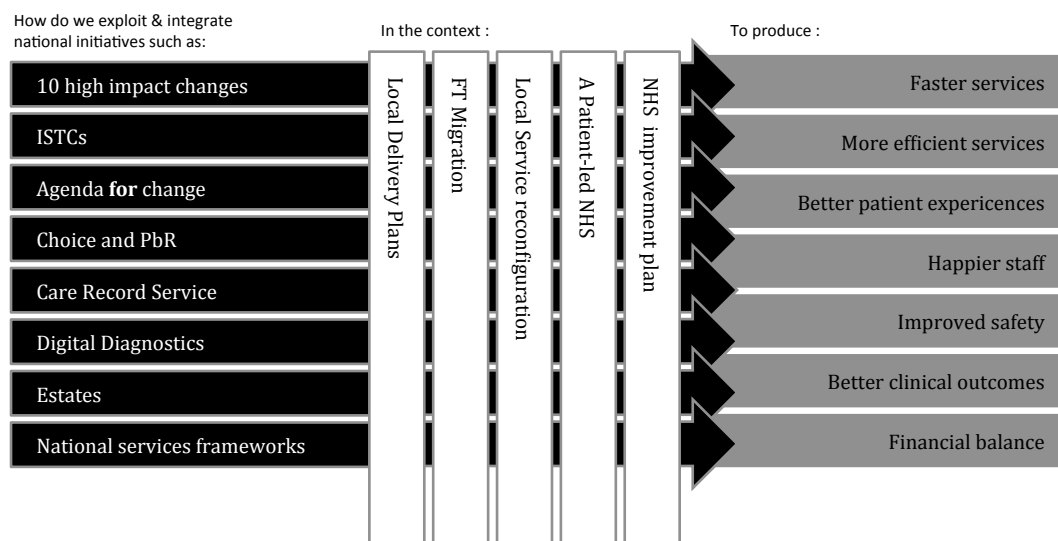


Figure 1: Integrating change in the NHS (NHS ISIP, 2007)

## 1.2 Research need

As a result of the interim report of the ‘*NHS Next Stage Review*’ prepared by Professor Lord Ara Darzi and issued in October 2007, the Department of Health mandated the OGC Gateway<sup>®</sup> Review process when undertaking major change

programmes or projects in the healthcare sector (Department of Health, 2008). A summary of the results of 111 reviews was published three years later highlighting that: *'...for many years, there has been increasing awareness of the need to focus on identifying and delivering benefits. Evidence from Gateway, however, shows that there is a gap between aspirations and the reality in the use of benefits management in the public sector. Many programme and project teams struggle because there are few benefits realisation methodologies and tools available and benefits realisation is "difficult" (Department of Health 2011, pp. 3).*

Activities to identify and realise expected benefits of healthcare infrastructure projects have often, been carried out in a perfunctory way. There has been little systematic follow through to drive forward delivery of these benefits and to measure what is actually achieved. It is also rare for any unanticipated benefits or disbenefits to be captured in a systematic way. Cultural and management issues, often leading to inadequate attention to the operational stage of programmes and projects, are partly responsible. In part the problem is also because of systems and processes which focus on the procurement stages, lack of knowledge about how to undertake benefits realisation, and difficulty in establishing effective benefits realisation and management processes in the absence of detailed guidance and tools. Scrutiny and evaluation of healthcare infrastructure projects is usually focussed on factors that are easier to understand and measure such as delivery to time, quality and cost. But an on-going focus on achieving desired services and outcomes is needed if the expected value for money is to be achieved over the life of a project or programme (Leahy, 2009).

Traditionally, investment programmes (and projects) determine their level of success mainly against cost, quality and time of delivery, and not on a full characterisation of benefits or impacts delivered. Targeting clarification of impacts and benefits, known as Benefits Realisation, is emerging as a method to assist organisations to manage whole life cycle of programmes (Glynne, 2007), from development, construction and facilities management, to operations management and back-office services delivery.

Concluding on the arguments presented previously the research need can be summarised in the following points:

- The need from the UK healthcare sector to demonstrate value for money from public and private sector investments;
- Change programmes and initiatives usually do not deliver all they could and should;
- Decisions on investment and operational management are not usually driven by rigorous analysis of benefits;
- There is little systematic follow through to deliver benefits and measure achievement in the public and private sector projects and programmes;
- During the planning and delivery phases stakeholders' involvement is fragmented causing communication and knowledge flow breakdown; and
- Delivery teams lack techniques and tools to support the identification and realisation of benefits.

### **1.3 Research focus and aim**

The focus of the research presented here is to investigate best practices in the area of benefits management; how these are applied in the UK healthcare sector and in particular it aims to develop a robust process for benefits realisation.

With the above aim as driver, this thesis seeks to address the following research question:

- What is the process for benefits realisation that would help address the project success issues within the UK's healthcare infrastructure development sector and goes beyond current best practice?

### **1.4 Research objectives**

Based on the research aim and the research question raised the following objectives are set:

- Undertake a literature review to identify ‘best practice’ and issues on benefits realisation, management and related disciplines. In particular aiming to identify:
  - What are the current practices and approaches related to benefits management and realisation?
  - What are the current processes for planning and delivering healthcare infrastructure programs?
- Devise a methodology for investigating significant insights into how ‘benefits realisation’ is understood currently and link all relevant issues to help develop and promote the adoption of a ‘benefit driven’ approach;
- Develop and propose a benefits realisation process suitable for implementation within the healthcare infrastructure sector that includes:
  - Methods and techniques for defining and monitoring benefits;
  - Implementation and validation evidence from real cases aiming to assess its utility and usefulness;
- Recommend further work based on the outcomes of this research.

## **1.5 Contributions to knowledge**

The benefits realisation process developed from this research aspired to be the appropriate method to justify, drive and control change initiatives based on benefits.

The main contribution of this research is in terms of presenting a methodology for the investigation and development of a process that embraces a benefits realisation approach by integrating project management best practices, continuous improvement methods, knowledge flow down and sharing. The process focuses on managing stakeholders’ expectations throughout the change lifecycle, when planning and delivering healthcare infrastructure programmes.

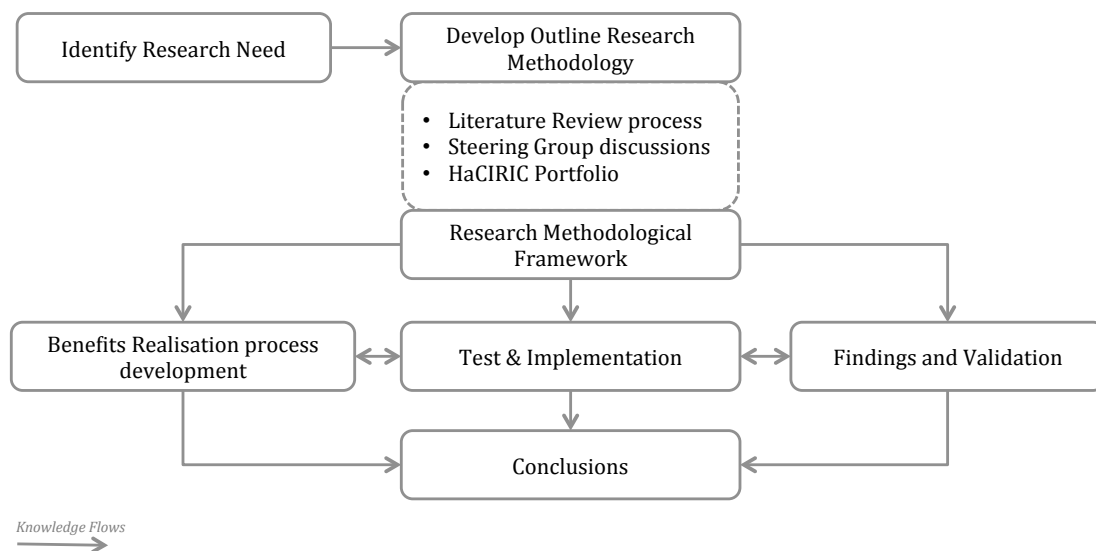
The author demonstrates how benefits realisation can be applied in a healthcare infrastructure project development cycle by developing a process that has been

informed by and implemented in practice through case studies and consultation with industry practitioners.

The result is a collaborative process that can help those involved in different roles to identify and manage benefits and disbenefits throughout the life of a programme or project, despite the likelihood of changes over time in its external or internal environments.

## 1.6 Outline research methodology

In the course of the development of the research proposal the **need** was identified as presented in the previous section. The outline methodology that would seek answers to the research question and would help to meet the research objectives was then developed as illustrated in Figure 2. A high level of activities required according to the author to successfully undertake this research showing how the knowledge acquired from stage to stage flows through into reaching a research conclusion.



**Figure 2: The outline research methodology**

The relevant literature was identified and included reviews into benefits management and realisation and its satellite subjects such as programme and project management, stakeholder management, evaluation techniques etc.

Elementary discussions with healthcare practitioners and researchers in the subject area as well the author's personal experiences were also integrated and considered in this outline. Influential to development of the research methodology was the placement of the author within the Health and Care Infrastructure Research and Innovation (HaCIRIC) where the research project themed '*Supporting Decision- Making in Healthcare*' was being investigated. The wider HaCIRIC research project investigated the complex nature of decision making in healthcare as the number of variables are high and the players in the decision are numerous. There were several projects that contributed to the better understanding of that issue, such as (i) a study looking at the way different stakeholders collaborate within organisations and how they perceive 'value', (ii) an investigation into 'evidence based design', (iii) a study in lean service delivery and (iv) the development and investigation of a benefits realisation process developed by the author and is presented in detail in this thesis.

The author's involvement with the wider HaCIRIC research project enabled the interaction with the project's steering group. The steering group was constituted by practitioners from the healthcare and other sectors as well as leading academics within the School of Built Environment at the University of Salford. That group evolved to the Benefits realisation project 'Advisory group', as it is explained later in this thesis (in chapter 4).

The **literature review process** and the **discussions** with the HaCIRIC steering group members identified the historical development of benefits realisation, its links with other management disciplines as well as its relevance and importance when developing and delivering healthcare infrastructures. This was the first step into developing and proposing a high level benefits realisation process. In addition to the literature review a number of case studies within the UK healthcare sector were conducted aiming to further inform the **development** and subsequently **test and validate** its applicability. The findings from the literature review, the arguments discussed with academic and industry experts and the findings from the case studies would contribute to the author reaching the **conclusion** of this research as presented in this thesis.

The detailed research methodology in chapter 3 provides a clear and comprehensive justification of the methodological choices made by the author in undertaking and completing this research. The validity of the process developed and the methodology would be examined through the different research strategies adopted. The choice of the case studies was based on their relevance to the research aims and objectives and their respective organisations positioning within the UK healthcare sector as explained in chapter 4.

The making of the thesis and its interpretation aims to demonstrate the author's understanding of the research area, the academic rigour and the development stages of the benefits realisation process.

## **1.7 Structure of the thesis**

This thesis is organised in 6 chapters and appendices as summarised below:

The **first chapter** presents a general introduction, outlining the need for the research project, its relevance and originality contribution. It frames the main aim and objectives and research questions. The research methodology employed in the research is also outlined.

**Chapter two** details the literature review findings. It starts with an overview of disciplines that are closely related with benefits realisation and management, and have to be carefully considered during the process development. Subsequently introduces the concept of benefits realisation and management. It goes further into outlining the key benefits realisation approaches used to date. This chapter also presents a synthesis of the literature review and compares the existing approaches. It provides background information of the main investment appraisal and procurement processes used in healthcare infrastructure development. The first conceptual proposed process and its benefits controlling structure and phases are finally introduced.

**Chapter three** describes in detail the research philosophy, research strategy and research methodological framework employed throughout this research. An



overview of the research methods used to collect and validate data is also included in this chapter.

**Chapter four** contains the case studies rationale, activity and main outputs. Presents the role of the advisory group workshops and concludes with discussion based on findings acquired throughout the development and investigation.

**Chapter five** describes the final artefact as the result of the research detailed in this thesis; the author describes and discusses how the emerged process phases are constructed, and the key process steps within each phase. The key tools and techniques that are deployed in the process phases, as they have been refined following analysis of the field research outcomes are presented. The interpretation of the new knowledge acquired by the author is also presented in terms of the paradigm shift needed, the process integration principles and the key aspects considered.

**Chapter six** presents the final conclusions on the research on benefits realisation it summarises the main findings from the literature review and the investigation of the case studies and the advisory group workshops undertaken by the author. The chapter discusses the fulfilment of the objectives and research questions that set at the beginning of this quest. Finally it highlights the main outcomes and recommendations for future research needed in the field.

The **appendices** attached provide detailed information related to the research. They are sectioned in six parts to detail findings and methods of the BeReal research project presented in this thesis. The six appendices sections are (i) techniques that embrace benefits realisation; (ii) case studies data; (iii) BeReal process templates; (iv) BeReal process deliverables flowchart; (v) BeReal information technology platform; and (vi) publications and activity related to this research. This material is presented in the appendices, as its inclusion to the main text of the thesis would have disrupted the flow of information.

## **2 Chapter Two – Benefits realisation and management a literature review and conceptual process model**

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In this chapter the author details the literature review findings. The literature review starts with an overview of disciplines that are closely related with benefits realisation and management, and have to be carefully considered during the process development. Subsequently introduces the concept of benefits realisation and management. It goes further into outlining the key benefits realisation approaches used to date. This chapter also presents a synthesis of the literature review and compares the existing approaches. It provides background information of the main investment appraisal and procurement processes used in UK healthcare infrastructure development. The author introduces here the conceptual process and phases as these have been informed by the literature review conducted and advisory group discussions.

### **2.1 Introduction**

Since 1980, there is a vast literature in benefits realisation being applied to different programmes and projects. For this reason, the aim of the literature review was to identify and understand the literature on benefits realisation and benefits management, as an attempt to investigate the different perspectives to benefits realisation and identify the main considerations when developing a process of benefits management and realisation.

In addition and prior to presenting what is described above the relations of benefits management with programme and project management, change management, performance management and measurement, and finally the role and importance of stakeholder involvement and management are reviewed.

## **2.2 Programme, project and operations management**

The UK government defines programme management as the coordinated management of a portfolio of projects that change organisations to achieve benefits that are for strategic importance (OGC, 2003). Another simple definition of programme management is the orchestration of organisational change (Reiss et al., 2006) and he considers a programme as a beneficial mix of projects that deliver benefits (Reiss, 2000).

Programme management is a widely used approach for bringing about planned change (Pellegrinelli et al., 2007). The approach is used to implement strategy (Partington, 2000, Pellegrinelli and Bowman, 1994) to develop and maintain new capabilities (Pellegrinelli, 1997), to manage complex information systems implementations (Ribbers, 2002) and many other business changes. In 1991, Ferns offered a definition of programme management centred on the notion of the programme as a coordinating mechanism for projects that enabled otherwise unrealisable benefits to be extracted (Ferns, 1991).

In this thesis the terms programme and project are used interchangeably, although it is recognised that project represents the overall scope of work being performed to complete a specific job, typically under a temporary endeavour and to create a unique product or service (Phillips, 2003); whilst programme is understood as a portfolio of projects selected, planned and managed in a coordinated way (OGC, 2003).

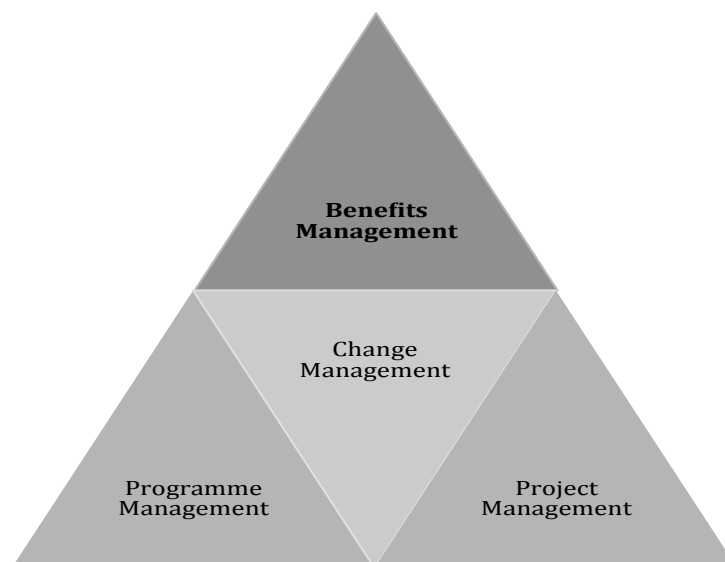
According to Reiss et al. (2006) benefit management is a process for the optimisation or maximisation of benefits from change programmes. The process involves defining, agreeing, measuring and reporting on the expected benefits. The relationship between projects programmes and benefit management is frequently quite complex. Reiss et al. (2006) describe that:

- Projects do not deliver benefits, but create deliverables;

- Programmes themselves rarely deliver benefits directly, but by combining projects and their deliverables they create the capabilities that will enable the desired benefits to be achieved;
- The benefit management processes ensure that the capabilities created by programmes are used to deliver the anticipated business benefits

Programme, project and change management are essential techniques to support and deliver benefits through change initiatives (Reiss et al., 2006) as Figure 3 illustrates.

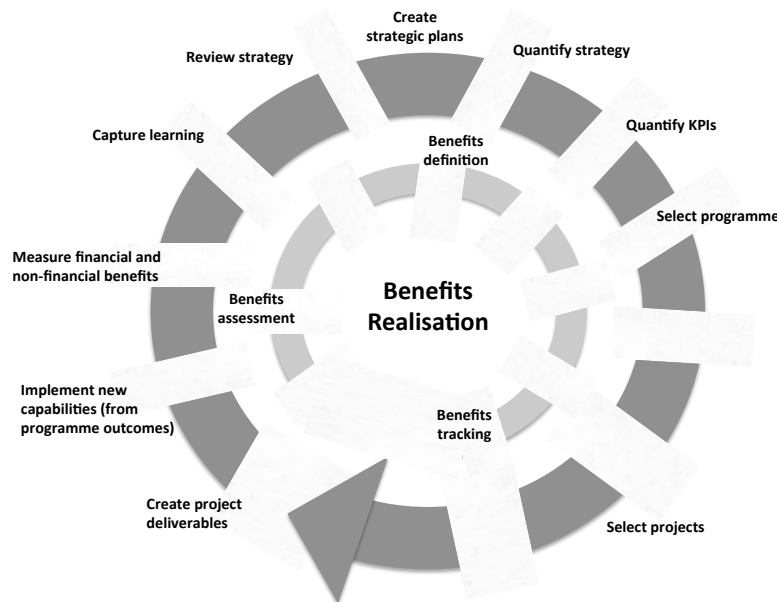
The ultimate success for each programme should be measured in terms of whether or not it delivers the planned benefits.



**Figure 3: Benefit, change, and programme and project management (Reiss et al., 2006)**

Reiss et al (2006) explain that a benefits management cycle is initiated through the development of a programme. The way that ‘programme management teams’ can identify and initiate projects will deliver the required outcomes. The projects then create deliverables. Subsequently the programme creates a capability within the organisation that combines these deliverables. Then the business uses the new capabilities and therefore delivers the associated benefits (Figure 4). The logic followed in that figure is:

- Benefits are measured and where expected benefits are no longer expected or reduced, for any reason, the programme management team reports the issue;
- As benefits are actually achieved the organisation changes. Measurement of these improvements leads the organisation to a revised strategy and the continuation of the cycle;
- The inner cycle shows how the programme management team starts with benefit definition, moves onto tracking the benefits as the team move towards benefit delivery and ends each cycle assessing the benefits actually delivered.



**Figure 4: High-level benefits management process model (Reiss et al., 2006)**

There is also close link between benefits and a programme's project portfolio (Reiss et al., 2006). The benefits of each project need to be aligned with the strategic criteria for evaluating the whole portfolio. Benefits should be a key decision enabler used to decide whether or not to invest in a project or programme as part of the portfolio (Glynne, 2007). Parr and Williams in 2007 position benefits management as the method that "...helps to ensure that the best portfolio of projects to meet the strategic objectives of the business can be selected

*and maintained. Structured benefits management is thus a vital navigational aid on the journey to achieving strategic objectives”.*

Cooke-Davies, 2002 in Nogeste, 2006 link project management and operations management and highlight the need that these two disciplines need *‘to work together to ensure that the organisation receives the benefits that are expected from any project’.*

Accepting that operations management is responsible for delivering benefits from project deliverables, it is important for project managers to ensure that operations management stakeholders are engaged and share the common understanding (Nogeste and Walker, 2005). They are responsible for planning and managing the work required deriving the anticipated benefits from project deliverables (Nogeste and Walker, 2005). Project managers should identify that project work involves a larger community of stakeholders over a longer period of time; well after the project has been completed (Cooke-Davies, 2002). OGC also supports that programme and project teams being involved in projects to deliver business change, and business users and managers being responsible for managing and realising benefits (OGC, 2003). Cooke-Davies (2002) believes that benefits management needs to be integrated into existing project management practices rather than simply “bolted on”. Ward et al (2006) describe that benefits management is a management process applicable to a wide range of investments that is able to be integrated into management practices ‘throughout the business change lifecycle- from strategic business planning through to eventual disposal of a the service or asset’ (OGC, 2003 in Nogeste, 2006). Which when coordinated with other business management processes provides an organisation with the opportunity to transform itself into a high performance organisation (Simon, 2003 in Nogeste 2006).

Reiss (2000) states that benefits have normally an indirect relationship with each project. The benefits of each project can only be derived when combined with the outcome of other projects (Reiss, 2000). According to the same author projects can be classified in terms of their ability to deliver benefits as follows:

- Direct: projects with direct benefits;
- Enabling: projects that deliver no direct benefit but which are vital to the delivery of a whole range of benefits from other projects;
- Passenger: Projects that can only add benefits expected from other projects;
- Synergistic: a group of projects each of which makes no (or only a small) contribution unless combined into a programme.

The definition of project success criteria related to project outcomes is dependent on the clear identification and definition of both tangible and intangible project outcomes, with an increasing need to focus upon intangible outcomes, (Nogeste and Walker, 2005). Garcia-Ayuso, 2003 in Nogeste and Walker, 2005 also argues that:

- Intangibles are fundamental sources of competitive advantages that must be identified, measured and controlled in order to ensure the efficient management of corporations;
- There is a consistent relationship between most intangible investments and subsequent earnings and value creation in business corporations;
- There is a lack of relevant and reliable information on the intangible determinants of the value of companies that actually results in significant damages for business firms and their stakeholders;
- Intangibles are nowadays the main drivers of growth and competitiveness in our societies and their measurement is essential for the design and implementation of public policies.

### **2.3 Change management**

Thorp (1998) summarises change management as the holistic and proactive approach to managing the transition from current to desired organisational state, focusing specifically on the critical human or 'soft' elements of change. It includes activities such as culture change (values, beliefs and attitudes), developing reward systems (measures and appropriate incentives), organisational design, stakeholder management, human resource policies and

procedures, executive coaching, change leadership training, team building and communication planning and execution. Reiss et al. (2006) define change management simply as the management of change but it distinguishes in two levels:

- Micro level, where change management involves a set of techniques used to implant new technology and processes;
- Macro level, where change management contains ideas about what interventions to make, making them and then reviewing how these are working.

Thorp (1998) states that organisations will only realise benefits through change, and equally, change will only be sustained if benefits are realised or ‘seen to be realised’. The Benefits Realisation Approach (BRA) introduced by Thorp, (1998) requires people to change how they think, manage and act. This will be difficult and often-painful changes will not happen by themselves and explains that after people got the awareness of the need of change they must understand the full extent of the planned change. (Thorp, 1998) means that only by understanding of and commitment to the planned change people then have got the capability to take the right actions. When people have the understanding necessary to build commitment, to fully understand the scope of what they are committing to, then, and only then, they can act with any reasonable chance of success. Many organisations are looking for simple models for change, but there are no simple solutions and with the silver bullet thinking organisations will continue to fail (Thorp, 1998).

The literature shows that every year in the United Kingdom alone approximately £100 billion is spent on change programmes. It can be assumed that organisations are hoping that this investment in change will improve their performance, thus resulting long-term in more profits and benefits. However there is a big problem, the organisations making these investments are unsure of the impact the change is having on their performance (Bradley, 2006). This can be partly blamed on the fact that performance goals are not often made explicit



or at all, making it hard to measure ones performance against anything (Bradley, 2006). The same author points out that although these organisations are investing in change and are willing to change internally, change externally is a continuum and will forever have an effect on the organisation. It can therefore be argued that for an organisation to ensure that continuous improvement is achieved it should be able to adapt to internal and external change effectively. *'...The challenge is to develop an effective and timely method of determining the next set of changes, and to manage them, so that defined performance goals are achieved'* (Bradley, 2006). It is not the system that is implemented into an organisation that results in a benefit, but rather the change culture that the organisation has to adopt due to the system (Ward and Daniel, 2006).

As benefits are actually achieved the organisation changes. Measurement of these improvements leads the organisation to a revised strategy (Bradley, 2006, Ward and Daniel, 2006).

An interesting connection between benefits and change is introduced by Reiss (2000) and is the term 'Benefits Creep' is explained as the phenomenon that degrades benefits. During the life of a programme, changes modify each project's ability to deliver benefits. These changes can come from within (changes to the programmes themselves) or from the environment changes in the outside world that affect the value of the benefits (Reiss, 2000).

## **2.4 Complexity and management blind spots**

In the introduction the issue of complexity was presented when considering together benefits management change and healthcare infrastructure programmes. Healthcare programmes typically have a long lifespan, with many phases including policy setting, planning, development, construction, commissioning of healthcare service operations, facilities management (e.g. maintenance), refurbishments and demolition (Carruthers et al., 2006; Sweeney and Griffiths, 2002). Thorp (1998) supports that disparity between lifecycle stages and complexity added by the stakeholders different perceptions could be managed through a process that involves identifying, managing,

monitoring/controlling, realising and measuring benefits. However in doing that it is important to pay attention to management blind spots that in turn they form the four critical dimensions of complexity (Thorp, 1998). These blind spots are: linkage; reach; people; and time.

- *Linkage* is the necessary links that need to be made between the expected results from a project or programme and the overall strategy of the organisation;
- *Reach* refers to the breadth and depth of change required within the organisation for the benefits to be realised as well as understanding the areas of impact and to what extent stakeholders will be affected;
- *People*, a large number of people must be motivated and prepared to change. A clear understanding is needed as to which people are involved at what stage, what interventions will be required to effect the change how these interventions will be managed for people with different starting points, attitudes and motivations;
- *Time*, in any transformation process time is always of the essence. One needs to ask –and ask again and again- what the realistic length of time is for all the necessary changes to occur and for the full benefits to be realised. Estimations of time must be based on understanding the three previous dimensions. There must also be recognition that the other three dimensions will change themselves over time.

## **2.5 Continuous improvement**

One of the drivers behind a benefit driven approach is the willingness to constantly improve and do things better as the organisation absorbs the lessons learnt from project to project (Thorp, 1998).

This willingness is embraced and promoted by a Continuous Improvement (CI) approach. CI is a philosophy of on-going improvement which originated in Japan where it is known as kaizen, involving everyone in an organisation on a day-to-day basis in a constant quest for continuous, incremental improvement in all fronts (Thorp, 1998).

Most, if not all, definitions of CI include statements about what CI activities seek to accomplish. The most frequently stated intentions include “organisational effectiveness and competitiveness” (Schroeder and Robinson, 1991) and ‘enhanced customer satisfaction’ (Jha et al., 1996). Outcome criteria of greater specificity, such as cost reduction, flexibility, and reduced cycle time (Caudron, 1993) are also considered. CI as a collection of activities that constitute a process intended to achieve improvement. In manufacturing, these activities primarily involve simplification of production processes, chiefly through the elimination of waste (Jha et al., 1996). In service industries and the public sector, the focus is on simplification and improved customer service through greater empowerment of individual employees and correspondingly less bureaucracy (McLaughlin and Kaluzny, 1990). Acquisition and use of skills for process analysis and problem solving are seen as fundamental to CI in the private and public sectors (Mulvany, 1999).

A synopsis of the major elements of CI follows (Jha et al., 1996).

A. Understand and document the process:

- Identify value-added versus non-value-added activities (doing the right things);
- Analyse cost, quality, and other relevant measures for equipment (doing things right);
- Labour, and material inputs.

B. Simplify and improve:

- Reduce, combine or eliminate activities;
- Improve the performance of equipment, labour and material inputs with respect to cost, quality and other relevant criteria;
- Implement low grade (incremental) automation;
- Revise business rules as needed.

C. Standardise and integrate:

- Reintegrate remaining activities;
- Stabilise the process at its new level.

D. Monitor performance:

- Measure and monitor;
- Set new targets.

There is a clear resemblance between the CI synopsis mentioned above and the “plan-do-check-act” cycle (P-D-C-A) or Shewhart cycle (Deming, 1986).

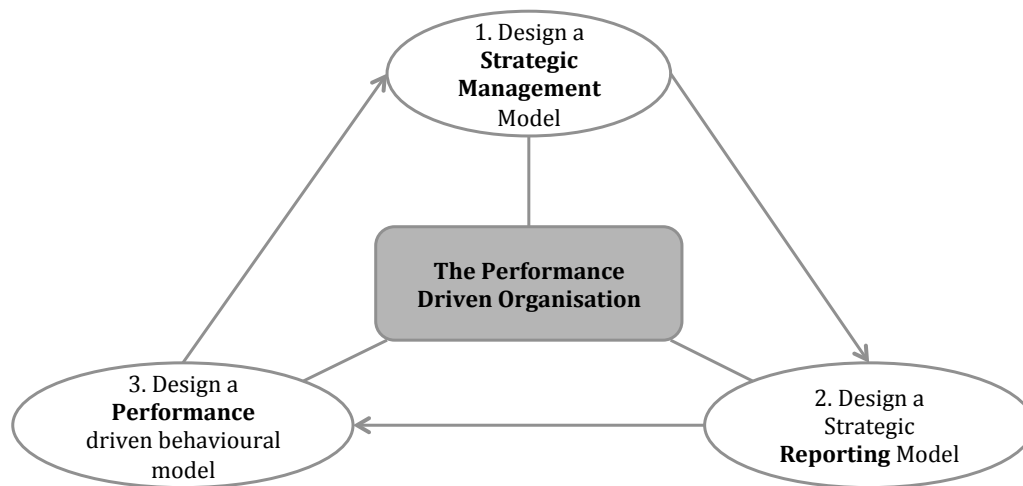
CI seeks to improve performance in a variety of dimensions for the customer, such as cost, quality, promptness and timeliness, by improving functional and cross-functional processes. To do this, CI builds a knowledge base within the organization by documenting processes, so that future improvements can build on past accomplishments. CI consists of planned change, followed by stabilisation of the system at its new level, followed by more planned change. Thus, control and stability are very much part of the CI process (Jha et al., 1996).

The author believes at this stage that benefits driven process, should follow the same logic as the continuous improvement cycle. To do so and to identify if such a process will contribute towards a better performance there is a need to review related literature in performance management and measurement.

## **2.6 Performance management**

Performance management began to be of interest for study in the late 1980's (Busi and Bititci, 2006) this was emulated in practice in the field. It is now a preferred use of management and the performance of an organisation is improved through the use of it (Sandt et al., 2001, Waal, 2006). However although there is evidence of increased performance with the use of performance management (Waal and Counet, 2006) state that 56% of the implementations are unsuccessful, they argue that this could be due to the performance management systems that have been put in place being used appropriately, by all or at all times. A number of writers (Franco and Bourne, 2003, Waal, 2006) believe that the systems fail due to behavioural aspects of performance management being overlooked. They all agree that for performance management to be successful within an organisation, behavioural factors must be taken in to

consideration as well as the more instrumental aspects. The behaviour of the organisation and its members has to become performance driven, resulting in drive for continuous improvement and better results. Waal, 2006 has developed a model which helps to demonstrate this process, see Figure 5.



**Figure 5: The strategic performance management development cycle (Waal, 2006)**

Performance management and continuous improvement are very closely related to benefits realisation. Performance management implies that performance measurement methods can be used to ‘help to identify, plan and implement a benefit realisation strategy within an organisation’ (Sedera et al., 2001).

## 2.7 Performance measurement

Performance measurement can also be linked to benefits management and benefits realisation. Performance measurement is seen as an essential element in the life cycle of a project whether it is for an education, housing, community regeneration or healthcare project. The tools and measurements are seen as ‘a route for better management and accountability’ and provide information required for process control, enabling the establishment of real but challenging targets that could be translated into benefits (Townley, 2002).

Performance measurement, as with benefits realisation, began to receive a rise interest both in theory and practice around the late 1980s. Although as (Neely et

al., 2002) point out it has been studied for some time. Organisations in the 1980s focused their performance measurement predominantly on income and productivity. Bradley (2006) and (Ghalayni et al., 1997) believe the reason for this was because at the time huge investments were going into forever advancing technology. Sedera et al (2001) argue that although it is the norm to measure performance on ROI (Return on Investment) and ROC (Return on Capital) that the figures can very often be confusing and deceptive as the intangible assets of a business can often be worth more than those which are tangible, up to 80% according to Bartholomew (1999) in (Sedera et al., 2001) intangible assets result in lasting benefits whilst the tangible benefits are more short term, also tangible assets measure the past performance of an organisation. Therefore when measuring performance it would be advisable for an organisation to look at both tangible and intangible assets. However intangible benefits are hard to measure not only because they can take a long time to be realised but also because it involves measurement of behaviour such as one's feeling of recognition, significance, status and reputation (Otley, 1999).

From the recognition that both tangible and intangible assets were important for performance measurement came the development of a number of models that considered a balanced set of measures to evaluate the overall performance of an organisation (Kaplan and Norton, 1996, Neely et al., 2002). Some of these models are listed below (Sedera et al., 2001):

- Process performance measurement model;
- Workflow based measurement model;
- Statistical control method;
- The performance pyramid;
- Self-assessment method;
- Performance measurement matrix; and
- Balanced Scorecard method.

All these models involve evaluation, performance management and measurement. They are the ways to examine how value is generated as a result

of implementing change. This is at the centre of benefits realisation and management as the literature indicates.

## **2.8 Evaluation and value generation**

Benefit evaluation and value generation has been one of the latest additions to benefits management (Bradley, 2006, Ward and Daniel, 2006). Value has several meanings and interpretations, Wikipedia summarise value definitions as:

- The quality (positive or negative) that renders something desirable or valuable;
- The degree of importance you give to something;
- The amount (of money or goods or services) that is considered to be a fair equivalent for something else;
- Numerical quantity measured or assigned or computed.

In Oxford dictionary: Value is the numerical measure of a quantity or a number denoting magnitude on some conventional scale. Adopting this definition Bradley (2006) defines value of benefit as the magnitude improvement associated with the benefit, and argues that in most organisations there is a powerful drive to value benefits financially irrespective of whether their achievement will actually generate cash, and that is because this is the simplest most common currency for comparing and ranking benefits. Financial benefits are also the most useful for providing a justification.

According to Thorp (1998) value is the relative worth or importance of an investment for an organisation or its key stakeholders. Its expression may take various forms, including monetary or material, substitution equivalence, subjective judgement, etc.

Rooke et al. (2010) summarised that value in project terms can be categorised as external or internal. Where external customer value is the ultimate objective of the project, it can be categorised as either:

- Process value, derived from the customer's experience of the project's design and delivery process; or
- Product value, deriving from the characteristics of the finished infrastructure itself.

Internal value is the value created for participants in the project delivery team. Emmitt et al. (2005) have in Rooke et al. (2010) also suggested that value is subjective and it changes over time. They go on to also observe that the customer in any particular case may represent a complex of stakeholders and that interests from the wider neighbourhood may also impact on our conception of value. Thyssen, et al. (2010) add:

- That 'value' can be distinguished from 'values', which refers to principles and ideals;
- Notwithstanding its subjective nature, value can sometimes be subject to objective measurement, though this measurement often depends on context;
- The durability of a valuation depends upon the number of people who agree on it and the correctness of their assumptions.

Finally, they note that mathematical definitions of value, such as those suggested by Thomson et al. (2003), are simplistic and nonsensical.

Delivering value begins with defining the expected high-level outcomes before a programme is approved and continues through the identification, profiling, tracking and embedding of benefits. This also involves assessing risk against the proposed outcome to confirm how value can best be achieved (OGC, 2003).

Thorp (1998) introduces in his Benefits Realisation Approach (BRA) (described in 2.13.4) in Figure 6 a value assessment technique that can assist in gauging the odds of success for specific investments programs. The technique is based in the 'four Ares' as in:



1. Are we doing the right things? – Addressing the definition of business and business direction;
2. Are we doing them the right way? – Addressing the organisational structure and the process;
3. Are we getting them done well? – Addressing capability resource and infrastructure;
4. Are we getting the benefits? – Addressing proactive management of the BR process as a whole.

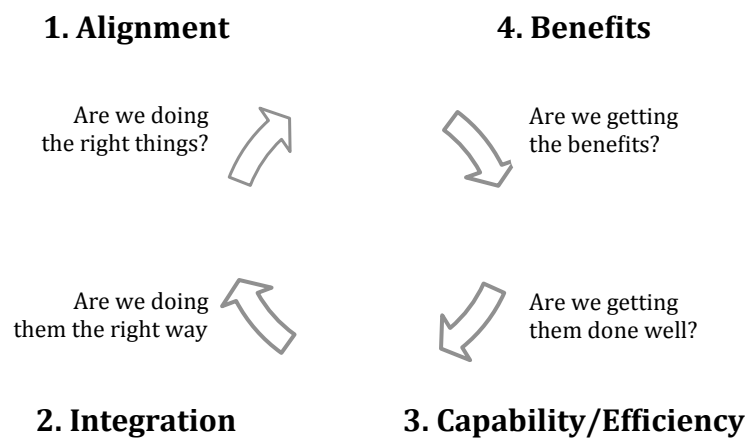


Figure 6: The four AREs in value assessment (Thorp, 1998)

When assessing value there are two main types of evaluation identified in the literature. These are (1) summative and (2) formative evaluation.

### 2.8.1 Summative evaluation

Benefits realisation and evaluation are processes that assist organisations to spend money wisely and then to account for the amounts spent. In this aspect they are essentially summative activities, examining and calling people to account. Farbey et al. (1999) have argued that for 'benefits management planning for benefits ex ante, and evaluating them ex post are two sides of the same coin', in so far as a coherent benefits evaluation plan before the development of the system enables the identified benefits to be managed after

(Farbey et al., 1993). Summative evaluation or evaluation for accountability, is a view of evaluation that presumes a stable environment. In an environment where structures and values are changing what is required is a process that includes a proactive search for unexpected benefits (Farbey et al., 1999). The problem is that summative methods fail when circumstances are radically changed (Farbey et al., 1999). There is little point in holding people to account for a situation beyond their control and which may no longer be relevant.

### **2.8.2 Formative evaluation**

Formative evaluation or evaluation for informing the present and learning from the past, is the other evaluation approach presented here. Evaluation leads to organisational learning because it helps people to a mutual understanding of what makes a benefit (and costs and risks) (Kaplan and Norton, 1996, Symons, 1990) the results of benefits management help organisations to learn not to make the same mistakes over and over again. Formative evaluation is therefore a beneficial activity in its own right, regardless of the effect on control or accountability (Farbey et al., 1999). Formative evaluation also helps to get buy-in and attract much needed management attention and support. This view clearly presumes a great deal about organisations and organisational behaviour, for example it assumes that the culture and reward systems are such that people are not afraid to “learn”, that blame will not be assigned to anyone who points out difficulties (Farbey et al., 1999).

Formative evaluation is fundamentally different from acts of evaluation in that each activity in the process cannot be viewed in isolation, i.e. as a single snapshot to be seen as an end in itself, but each activity is rather viewed as one in a series of activities which in totality make a holistic learning picture (Remenyi and Sherwood-Smith, 1998). Furthermore, formative evaluation also involves concepts such as multiple stakeholder participation thus allowing for the co-evolution of thinking amongst these stakeholders. This co-evolution promotes an environment of learning and development (Remenyi and Sherwood-Smith, 1998).

Formative evaluation facilitates recognition of unexpected/emergent benefits (Farbey et al., 1999). In practice many of the most spectacular benefits obtained from the introduction of new information systems were unplanned (Farbey et al., 1999).

Kumar (1990) argues that in order to ensure the independence of evaluation and a more global set of criteria than those conceived by the developers, evaluation should be managed and performed by people other than the members of the development team. The mechanism for performing post-implementation evaluation may either be an independent quality assurance group or a multi-stakeholder evaluation team led by the users (Kumar, 1990).

Remenyi and Sherwood-Smith (1999) also suggest that a group of individuals should be established who will be responsible for conducting the work to ensure the success of a formative evaluation. A team comprising representatives of the ultimate users, the management and the information systems developers best conducts this work. According to Remenyi and Sherwood-Smith (1999) it is better if a user who will accept responsibility for the development chairs this group. It is important to understand that the evaluators are primarily communications agents facilitating a constructive dialogue between the various stakeholders and therefore considerable care needs to be given to ensuring that everyone understands each other.

This means that issues need to be fully aired and that firm positions should not be taken until all aspects of the information systems have been debated in full (Remenyi and Sherwood-Smith, 1998).

### **2.8.3 Post Occupancy Evaluation (POE)**

POE has been defined (Zimring and Reizenstein, 1980) in (Turpin-Brooks and Viccars, 2006) as ‘examinations of the effectiveness for human users of occupied design environments’. POE assesses how well buildings match users’ needs and it also identifies ways to improve building design, performance and fitness for purpose (Turpin-Brooks and Viccars, 2006). It involves the systematic evaluation

of opinion about buildings in use, from the perspective of the people who use them (Zimmerman and Martin, 2001).

POE is not a new concept; its development in the UK was encouraged in the early 1960s through architectural practice research which led to the publication of Part M: feedback, of the RIBA (Royal Institute of British Architects) plan of works (Turpin-Brooks and Viccars, 2006).

One of the reasons POE has re-emerged in the UK is due to the report ‘Rethinking Construction’ proposing that the construction industry should “focus on the customer” (Egan, 1998). POE can provide an objective measure of client satisfaction for development. POE has recognised value within the facilities sector as a technique employed to aid benchmarking of the quality of services ranging from maintenance and cleaning to the provision of office furnishings (Wauters, 2005). Wauters confirms the value of “user satisfaction surveys” as a precursor to service level benchmarking and subsequent recommendations for improving facilities services (Turpin-Brooks and Viccars, 2006).

Preiser (2001) identifies three levels of efforts in POE. The level undertaken depends on the availability of finance, time, manpower and the required outcome (Turpin-Brooks and Viccars, 2006). The general approach to each level will involve planning the process, conducting the study and an interpretation of the results. The three levels are as identified and summarised (Preiser, 2001) in Table 1.

**Table 1: Choosing the right level of POE (Turpin-Brooks and Viccars, 2006)**

Level of POE	Aims	Methods	Timescale
Indicative	Assembly by experienced personnel to highlight POE issues	Walk through evaluation, Structured Interviews? Group meetings with end users? General inspection of building performance? Archival document evaluations?	Short inspection period
Investigative	In-depth study of the buildings performance and solutions to problems	Survey questionnaire and interviews. Results are compared with similar facilities. Report appropriate solutions to problems	From one week to several months

Level of POE	Aims	Methods	Timescale
Diagnostic	Show up any deficiencies (to rectify) and collect data for future design or similar facilities	Sophisticated data gathering and analysis techniques. Questionnaires, surveys, interviews and physical measurements	From several months to several years

Three different questionnaires are currently widely available for POE; they are the NHS toolkit, the design quality indicators (DQI), and building use studies (BUS) questionnaire (available on licence). (Turpin-Brooks and Viccars, 2006) present the main headings of the three POE questionnaires in Table 2.

**Table 2: Three main POE toolkits - (Remenyi and Sherwood-Smith, 1998, Turpin-Brooks and Viccars, 2006)**

NHS Toolkit (NEAT)	Design Quality Index	BUS
1. Use	1. Use	1. Background
2. Access	2. Access	2. The building overall
3. Use	3. Space	3. Personal control
4. Access	4. Performance	4. Quickness of response
5. Space	5. Engineering	5. Response to problems
6. Character and innovation	6. Construction	6. Comfort
7. Citizen satisfaction	7. Character and innovation	7. Noise
8. Internal environment	8. Form and materials	8. Lighting
9. Urban and social integration	9. Internal environment	9. Overall comfort
10. Performance	10. Urban and social integration	10. Productivity at work
11. Engineering		11. Health
12. Construction		12. Your desk or work area
		13. Travel to work (optional)

The NHS Toolkit when used in hospital environments is proved to be very useful, in spite of its lengthy approach (Rhodes, 2004). The DQI form of POE was found to be relevant for the educational sector, allowing consistency in evaluation (Collyer, 2005). DQI can also be used for stakeholder analysis due to its non-technical format with direct application to the education sector (Turpin-Brooks and Viccars, 2006). The BUS questionnaire seeks to provide a compromise between the needs of the respondent, data management, data analysis, statistical validity and question answering validity. It uses a relatively small set of key performance indicators that can be easily compared with other buildings that have been studied. It is based on what experience and statistical analysis has shown to be the most significant questions. It was developed along with the Building Research Establishment (BRE) (Cohen et al., 2000).

POE tools are varied in nature, size, level of interactivity and hence suitability for different building conditions and organisations; it is clear that “one size does not fit all”, particularly in respect of the “psychosocial” aspects of occupation (Chigot, 2005) or organisational/individual cultural influences on workplace settings/satisfaction (CABE, 2005) in (Turpin-Brooks and Viccars, 2006).

In design terms one of the problems of POE is ownership (Turpin-Brooks and Viccars, 2006). There are benefits for both the client and designer but ‘who should pay for it’? Because POE is not part of the standard procurement procedure there is little incentive for the designer (or the planner) to add to the standard approach (Turpin-Brooks and Viccars, 2006). There is a question of liability as a result of an evaluation (Turpin-Brooks and Viccars, 2006). The POE may uncover problems that may label the building as “under performing” and reduce the value of the building for the client (Turpin-Brooks and Viccars, 2006). (Jaunzens et al., 2003) examine the benefits of POE at different stages of occupancy, from initial occupation, to an annual review, or prior to a move; for stakeholder groups such as: clients, end-users, facilities managers and project team. Unless POE becomes part of the standard process of procurement then the barriers may not be overcome to enable a full realisation of the potential benefits. It is likely that many clients, members of a design or a planning team and end-users have not heard of POE (Zimmerman and Martin, 2001).

## **2.9 Stakeholder management**

Benefits management is all about the management of different benefits that may be assigned to different stakeholders (Bradley, 2006). Therefore it is also essential to understand about stakeholder requirements capture and management. It is vital in ensuring a project or programme delivers benefits for all throughout its lifecycle. Stakeholding has been recognised within construction projects as far back as 1963, as identified by research undertaken by Cyert and March (1963). They found that one such project could involve multiple clients or actors, all of whom could have different levels of power, in terms of influence whether it is financial or political. This idea of stakeholders existing within a

construction project has since been further supported by numerous authors as pointed out by (Newcombe, 2003). There are a number of varied definitions for the term stakeholder from (Carroll and Buchholtz, 2006, Kakabadse et al., 2004, Kagioglou et al., 1998, Post et al., 1995, Wheeler and Sillanpää, 1997) and many more. A blend of some of these definitions is used and a stakeholder is defined here as: *'An individual or group that has an affect on or is affected by an organisation and its actions at any time and in any way'*. The literature indicates that stakeholders can be grouped into different types, a number of writers have defined these different groups (Calvert, 1995, Carroll and Buchholtz, 2006, Post et al., 1995, Wheeler and Sillanpää, 1997) as illustrated in Table 3.

**Table 3: Stakeholder types (Harris, 2008)**

Author	Stakeholder group	Attributes	Stakeholder group	Attributes
Carroll and Buchholtz, (2006)	Internal	Project partners who have a direct relationship based on a commitment and contract	External	On the margins of the project /organisation, not connected directly but will still be affected by actions and has influence especially where the organisation's reputation is concerned
Wheeler, and Sillanpää, (1997)	Primary	who provide financial assistance. They are affected and can affect the organisation and its projects	Secondary	
Post et al., (1995)	Voluntary		Involuntary	
Carroll and Buchholtz, (2006)	Strategic	Vital to organisation and the risks and opportunities at a specific	Environmental	All other stakeholders that are neither strategic or core
	Core	A subset of the strategic stakeholders		
Wheeler, and Sillanpää, (1997)	Social	Individuals /groups affected by the organisation and its project	Non-social	These are non-human or yet conceived stakeholders affected by the organisation and its actions

It must be remembered that it is easy for stakeholders to jump from one stakeholder group to another. For example an individual or group could be heavily involved during a particular point of the project at which time their stakeholder status could be seen to be vital and therefore

internal/primary/voluntary/strategic or core; however once their participation and direct involvement had finished they could quite easily move into the external/secondary/involuntary or environmental group. This is where benefits management comes into effect keeping the stakeholder engaged throughout the lifecycle of the project.

Stakeholders offer to an organisation an array of resources and assets they include (Post et al., 1995):

- Capital;
- Knowledge;
- Social acceptance;
- License to operate; and
- Revenue.

Each stakeholder has their own important role, identifying these as well as their responsibilities and benefits are extremely important. It is especially important when changes within the group occur.

The use of stakeholder management has become part of the daily responsibility of a company. The increased use of stakeholder management and its tools has been a direct result of growing competition caused by globalisation (Scharioth and Huber, 2006).

For stakeholder management to occur effectively it is necessary for all stakeholder groups and individuals to be considered. There are a number of things that should be considered during stakeholder management as pointed out by Post et al. (1995) in Harris (2008):

- Benefit flows – this goes to and from between the stakeholder and organisation;
- Multiple linkages – all stakeholders can be involved with the organisation at the same time, which may result in links between the stakeholders themselves;



- Simultaneous roles – stakeholders can play more than one role at the same time e.g. an employee can also be a shareholder or consumer;
- Issue variance – factors change during a project e.g. trust is only built over time, or an issue may mean more to one stakeholder than to another.

It would be advisable for a communication strategy to be set up for this to be achieved (Hynds and Martin, 1995). As well as effective communication, a high level of trust between the organisation and stakeholder is necessary and this needs to remain through out the project. Thomas and Thomas (2005) would support this; they believe that having all stakeholders involved from the outset helps the team to become integrated with a common understanding and shared knowledge. The same authors also suggest the following are vital in establishing effective stakeholder communication:

- Summary and clear roles of an integrated team working as it applies to the project;
- The issue resolution process;
- The clients value criteria;
- KPIs and improvement targets;
- Explanations of project acronyms and jargon;
- Executive summaries of value and risk management and partnering workshops;
- Up-to-date partnering and/or project timetables;
- Schedule of all core group and partnering team meetings, workshops and social events;
- Information on where or from who further information can be obtained.

Having this knowledge means that everybody is aware of all stakeholders involved, their role within the company and requirements, this means that communication between them should be easier, which will lead to the stakeholder groups more readily to trust each other. These methods would have to be underpinned by an effective change management strategy, when considering the introduction of a new process (Bradley, 2006).

The techniques illustrate the importance of shared knowledge, good communication and trust between stakeholders within an organisation, as well as the importance of an effective change management strategy all of which have been discussed as important parts of benefits management. If all can be adapted Thomas and Thomas (2005) believe that a smooth cross over between personnel can occur and ultimately a reduction in the volume of post-completion user problems and complaints, rework and increased user satisfaction.

### **2.9.1 Stakeholders' requirements and benefits management**

One of the main difficulties of having a number of stakeholders involved is the different objectives and demands each of the groups/individuals holds that are at times conflicting (Ayuso et al., 2006), this frequently occurs in the case of construction projects and healthcare organisations (Carruthers et al., 2006, Olander and Landin, 2005) An example of this within the healthcare organisation would be the procurement of a primary health care building, the builders will be working to a particular design, location, cost and time, however the community may be unhappy with the location of this building. This kind of conflict between the two stakeholders can cause disruption to the whole project and could potentially lead to the end of it. Complexities at a stakeholder level also lead to complexities in requirements capture/management processes (Tzortzopoulos et al., 2006). However this kind of situation can be resolved with the help of other stakeholders becoming more involved to try and appease the situation tightening their relationships, and the project manager communicating fluently and effectively to the stakeholders recognising their concerns with an attempt to reconcile them (Olander and Landin, 2005). Being aware of the different requirements held by the stakeholders is vital to ensuring the smooth process of benefits management.

Other tensions that can exist between stakeholders, especially those within construction projects are due to (Newcombe, 2003):

- Long term versus short-term objectives;

- Quantity versus quality;
- Cost efficiency versus jobs;
- Control versus independence.

These tensions and predicaments show that the relationship between the stakeholders and organisation is two way, both can have an impact on the other; they can be affected by the behaviour, decisions, policies, objectives and practices of the other. Due to this and the recognition of the stakeholders' role in successful businesses, different methods are being used to manage the stakeholder relationship, any change that may occur and the project lifecycle (Bradley, 2006) these include:

- Developing at the early phase of a project an effective communications strategy;
- Development of a stakeholder management strategy for the whole life cycle of the project;
- The early development of a benefits management framework would help in this situation.

Ayuso et al. (2006) believe that the requirements, needs and aims of customer and employee stakeholder groups can be identified and achieved through the simultaneous use of the following capabilities:

- Stakeholder dialogue – allows continuous two way communication between stakeholder groups and company, concentrating on listening with understanding allowing hidden beliefs and ideas to be expressed leading to transparency and building trust. This ultimately allows the group to identify and focus on common interests;
- Stakeholder knowledge integration – from the stakeholder dialogue stakeholders are able to gain both practical and creative knowledge from one another. From this knowledge ideas/products/services/innovations aimed at meeting the requirements and expectations of the stakeholders are realised.

These capabilities would be important in identifying and realising the benefits for the stakeholders throughout a benefits management process.

Stakeholder dialogue can occur passively through call centres, letters or emails or active through methods such as meetings and organisational structure (Ayuso et al., 2006). For any of the tools of stakeholder dialogue to be effective all people involved have to ensure they are honest and present both transparent and precise information. Although systems and procedures can be put in place to attempt to ensure these processes occur, these are based on intangible assets which are possessed by the individuals within the stakeholder and company groups, therefore it could be hard for a project manager to ensure that all processes were being undertaken in the correct manner. Ayuso et al., (2006) believe that this problem can at times be resolved with structures and systems that are based on what the stakeholder value and therefore requirement, if a system is based on something that the stakeholder believes will benefit them they are more willing to adhere to them.

Achieving successful change is much easier if all stakeholders are committed, the earlier this commitment is accomplished, the smoother the path to a successful outcome (Bradley, 2006). In order to engage and involve stakeholders they first need to be identified. At the early stages of a programme, project or a change process the stakeholder population maybe a little fluid. The process therefore of identifying them needs to be iterative. To ensure that all stakeholders become committed it is important to engage them effectively, throughout the complete change lifecycle.

The concept of managing benefits in order to ensure their delivery is usually new within a sector or organisation. The various stakeholders will need educating in how benefits are to be identified, modelled and subsequently delivered (Reiss et al., 2006). It would be risky to assume that all stakeholders will understand the implications of benefits identification and planning. Kagioglou et al., (2000) highlight that project success relies on the right people having the right information at the right time stating that the active involvement of all

participants, especially in the early phase of a project, may subsequently help to foster a team environment and encourage appropriate communication and decision-making.

## **2.10 Introduction to benefits realisation approach**

The McCartney report, *Modernising Government in Action* (2000) states that: 'Projects and programmes can only be regarded as successful if the intended benefits are realised' which influenced the initiation of this research as introduced in chapter 1. A common characteristic of many unsuccessful programmes is the vagueness with which the expected benefits are defined (Reiss, 2006). Without clearly defined objectives it is difficult to maintain focus when subsequent problems occur.

Projects and programmes are generally driven by a need to realise specific benefits through structured change. More recently, benefits realisation (and management) has been raised as the "new" practice for private and public sector programmes in a diversity of sectors, including healthcare infrastructure, housing developments and education. Benefits realisation is the evolution from a general investment programme appraisal approach (usually based on cost, quality and time), to an active planning approach supported by benefits planned, delivered and realised (or not) by stakeholders (Glynne, 2007).

Truax (1997) in Lin & Pervan (2003) suggest a number of reasons for organisations not getting the benefits they expected:

- Immediate results of an investment are rarely the expected benefits;
- Necessary means for benefits realisation are not identified;
- Benefits do not occur where and when they are planned;
- The "right" benefits are difficult to identify up front;
- Projects are too narrowly defined for effective delivery of benefits;
- Organisations often have a limited ability to manage change.

Benefits management is defined as the process for the optimisation of benefits from a programme's change perspective (Reiss et al., 2006). Nevertheless, the concept of benefits realisation is not new (Simon, 2003, in Nogeste, 2006) and neither is the awareness of the links between project and benefits management as evidenced by a survey dating from 1990 that found the 'number one' cause of information system/information technology (IS/IT) project failure to be "the vague statement of benefits, leading to an uncertain allocation of responsibility for managing their delivery (Lin and Pervan, 2001).

The existent literature on benefits realisation consists mainly of practical guides and frameworks around information technology / information systems (IT/IS) project investment justification within the private sector.

Benefits Management and realising the benefits from investments made especially by those in IT systems became an important area in the late 1980s and early 1990s (Farbey et al., 1999).

The increase of interest in benefits realisation has coincided with the increasing use and complexity of IT (Ashurst and Doherty, 2003, Ward and Elvin, 1999, Bradley, 2006). It has been recognised that, if an organisation is investing a lot of money into a new system they want to ensure and see the benefits that they get from the investment. This they define as 'the process of organising and managing, such that the potential benefits arising from the use of IT are actually realised'.

As competition due to globalisation increases it is ever more important that an organisation performs to its best capabilities (Ashurst and Doherty, 2003). Profit making organisations making investments need to know that these are worthwhile, that they are improving the performance of the organisation and ultimately leading to increased profits. The latter does not necessarily apply in the public sector where benefits are measured in terms of value for money and service quality. This is where benefits realisation becomes more important as this method can be used to realise the benefits from the changes the organisation is making.

Thorp (1998) introduced the term ‘Silver bullet thinking’ explaining it as the naive belief that ‘business solutions’ come neatly packaged and stamped ‘benefits inside’, reinforcing the idea that all you have to do is plug in the technology or handover the infrastructure and magically benefits will flow.

According to Truax (1997), see Lin and Pervan (2001), there has been a paradigm shift in the view of benefits and it is therefore needed to change the management from passively managing the benefits to a proactive management of benefits (Table 4).

**Table 4: Paradigm shift for benefits realisation (Truax, 1997)**

<b>Traditional benefits realisation principles</b>	<b>New benefits realisation principles</b>
Benefits are stable over time	The potential benefits from an investment change over time
The investment determines the nature and scope of benefits	The organisation and its business context determine the benefits
Financial returns represent the most valid justification for an investment	All the outcomes of an investment represent potential sources of value
It is sufficient to manage the investment to generate the benefits	The organisation must be proactive in realising benefits

In many large organisations and complex public interest sector programmes and projects failure to identify and achieve planned benefits through change initiatives appears to be common (Bartlett, 2006). In general the question is one of the difficulty of managing highly complex programmes, portfolios or projects rather than lack of performance of infrastructures. Lack of benefits management is often a root cause of programme failure, but equally damaging is poor benefits management, that attempts to manage benefits, without recognition of the contributors to success. The task is, therefore, complex, and demands a wide span of control (Bartlett, 2006).

Costs and benefits cannot be viewed in isolation and the benefits management process and the overall investment appraisal should be planned together. The

ongoing costs and risks will usually be monitored, but the anticipated benefits are not so easy to define and quantify (OGC, 2003). Benefits management ensures that business change achieves the expected results by translating business objectives into identifiable measurable benefits that can be systematically tracked (OGC, 2003, Payne, 2007, Reiss et al., 2006). Benefits management comprises of a range of management activities design to ensure that an organisation realises the benefits from an investment (Farbey et al., 1999) such activities are built on the underlying rationale that the cost of an investment needs to be related to the benefits. One of the problems with this is that the costs tend to be incurred immediately, whereas benefits occur in the future (Love et al., 2004).

## **2.11 Benefits terminology**

Although the word 'benefit' is used widely in everyday life it is very poorly defined. It can simply be introduced as 'a measurable improvement'. A benefit 'is an outcome whose nature and value are considered advantageous by an organisation.'(OGC, 2007b, Thorp, 1998, Ward et al., 1995).

Bradley (2006) defines it as an outcome of change which is perceived as positive by a stakeholder and following the same thought Ward and Daniel (2006) define it as 'an advantage on a behalf of a particular stakeholder or group of stakeholders' The important point in the two later definitions is that benefits are owned by individuals or groups who want to obtain value from an investment (Glynne, 2007).

Payne (2007) argues that most people's understanding of benefits management is closer to what is described as project financial value appraisal. Therefore he introduces definitions and differentiates between terms 'outcome', 'benefit' and financial impact.

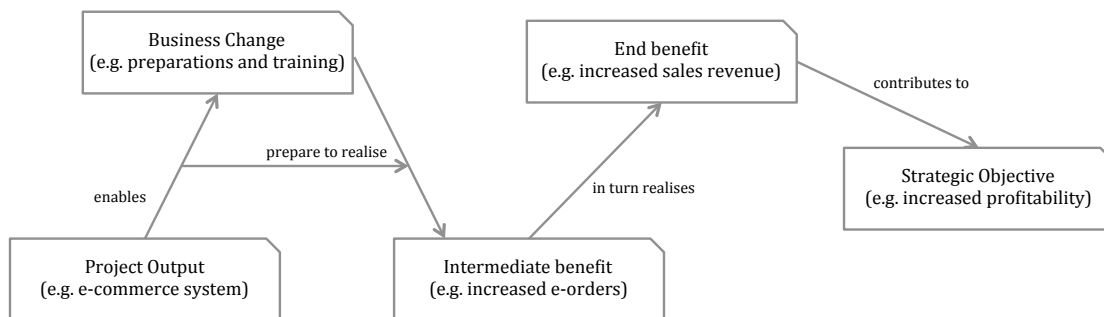
- Outcome has two meanings depending on its context. At macro level, desired outcomes are the strategic changes that a programme is designed to fulfil. At



micro level, outcomes are the changes to day-to –day operations that project outputs cause;

- Benefits are measurable improvements resulting from outcomes;
- Financial impact is the improvement in business financial performance that results directly or indirectly, from achievement of one or more benefits.

Figure 7 below illustrates a relationship between benefits and outcomes and the chain of how one will influence or derive to the other in programme or project setting.



**Figure 7: Chain of benefits from output to objective (OGC, 2007)**

Outcomes are not always expected and positive, they may also be negative and unexpected (Ward & Murray, 1997), with the combination of these two factors potentially leading to disbenefits (Nogeste, 2006).

The term ‘disbenefit’ is a key element of many benefits realisation/ management approaches and it was first introduced in the context of an IT/IS implementation as the adverse effect that a new IT programme could have in the organisation's information flow stability. The word, ‘disbenefit’, has a number of definitions. These include:

- A disadvantage (Soanes and Hawker, 2005);
- Something disadvantageous or objectionable (Merriam-Webster, 2005); something that makes a situation disadvantageous or unfavourable (Encarta®, 2005);
- Undesirable effects of an investment (Bannister et al., 2001);

The word, disbenefit, has been used in connection with technology for some years (Mulvany, 1999).

Ward et al. (1996) highlight that potential disbenefits of an investment should always be considered, defining those as adverse impacts on a business and/or organisation. An organisation or investors need to agree that negative outcomes or disbenefits are the potential 'price worth paying to obtain positive benefits' (Ward et al., 2004). Some outcomes maybe favourable for the organisation as a whole but unfavourable for parts of it, so any such disbenefits must be identified and tracked so their impact can be minimised (CCTA, 1999).

The occurrence of disbenefits in many sectors indicates their prevalence. The incorporation of disbenefits would introduce greater balance into investment evaluation techniques that currently focus upon benefits and ignore disbenefits (Fox, 2008).

## **2.12 Benefits classification**

Many authors according to a variety of different criteria attempt classification of benefits; this will increase the understanding of the nature of benefits, and will assist analysis and communication (Bradley, 2006).

### **2.12.1 Benefits classification by value type**

The most common and initial distinction for benefits is between tangible and intangible. Nogeste and Walker, 2005 consider a tangible outcome to be one that has been operationalised and can be measured, monitored and controlled; and intangible outcomes, such as "satisfaction" as being operationalised on high to low perception scales. The key attribute of an intangible outcome as described by the same authors is that rather than being assumed and undeclared, it is operationalised (often through a facilitation process) with an agreed measure of success or failure. Typically, these intangibles include, but are not limited to, relationships, knowledge, processes and systems, leadership and communication, culture and values, reputation and trust, skills and competencies

(Future and Innovation Unit, 2001). Ward & Daniel (2006) also differentiate benefits, as tangible and intangible, where tangible benefits are those that can be measured by an objective, quantitative and often financial measure. In some cases it may be that a benefit has a quantitative measure but is not financial. Intangible benefits are those that can only be judged subjectively and tend to employ qualitative measures, many organisations recognise the importance of intangible benefits even though they cannot put a financial value on them and they are recorded in the business case for new investments were they are viewed as important as tangible benefits (Ward and Daniel, 2006). This classification is used by many authors (Bradley, 2006, Bartlett, 2006, Farbey et al., 1999, Lin and Pervan, 2001, Nogeste and Walker, 2005, Reiss et al., 2006) and practitioners, and is mainly because is related to the value type of the benefit as summarised in Table 5.

**Table 5: Benefit value types (Bradley, 2006)**

Value Type		Definition	Example	
			Cashable	Non-cashable
Tangible	Definite	Value may be predicted with certainty	Reduced Costs	Fewer Steps in a process
	Expected	Value may be predicted on the basis of historic trends and high levels of confidence	Increased Sales	Quicker performance of tasks
	Anticipated	The benefit is anticipated but its value is not reliably predictable	Lower insurance premiums	Greater Customer Satisfaction
Intangible		Maybe anticipated but difficult to substantiate. Proxy measurement of other casually-related benefits may give evidence of realisation	Improved image (proxy: increased number of positive testimonials)	

In recent years (Fox, 2008), the assessment of intangible benefits has become an explicit requirement of investment evaluation techniques (Gerwin, 1988, Lillrank

et al., 2001, Murphy and Simon, 2002, Slagmulder et al., 1995, Whiting et al., 1996). Intangible benefits may sometimes have been identified as being important prior to investment evaluation when exploratory methods such as scenario analysis (Linneman and Kennell, 1977) were used.

The same differentiation between ‘tangible’ and ‘intangible’ is by using the terms ‘hard’ and ‘soft’. When the expected benefits cannot be expressed in terms of the likely impact on the balance sheet or the profit and loss account are defined as ‘soft benefits’ (or intangible) (Phillips, 2003). Those that can be so expressed, or those that have a tangible financial outcome are usually referred to as hard (or tangible) (Phillips, 2003).

Soft benefits are those that are less easy to express and to measure in terms of cash or objective numbers. Phillips (2003) defines hard benefits as representing the output, quality, cost and time of work related processes. They are characterised by being objective, relatively easy to measure and easy to convert to money values. By contrast, he characterises soft benefits as subjective, often difficult to measure, almost always difficult to convert to monetary values and frequently behaviourally oriented (Phillips, 2003).

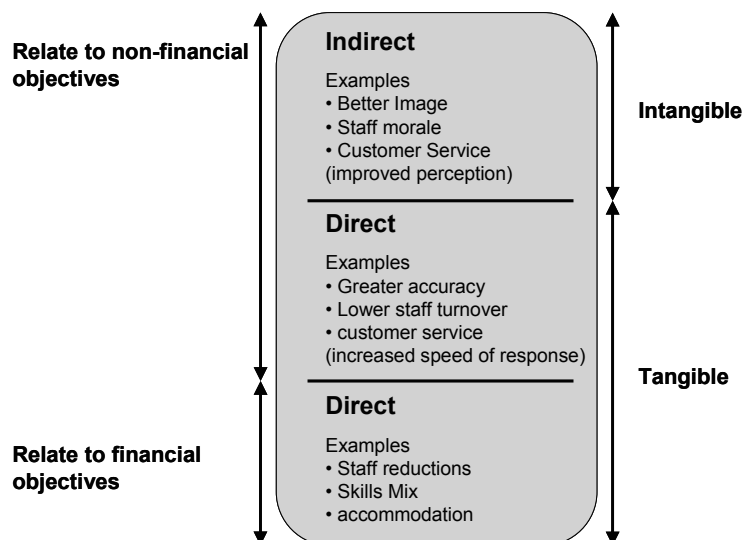


Figure 8: Examples of direct and indirect benefits (CCTA, 2000)

The same benefits can also be classified as ‘direct or ‘indirect’ in terms of their financial impact. Figure 8 presented in ‘the Antidote’ in 2000 gives examples of such benefits and makes the parallelisms between these different terms (Kippenberger, 2000).

### 2.12.2 Benefits classification by organisational or business impact

Another way of classifying generic benefits is to align them with the main elements of an organisation; this is usually in the case of hard or tangible benefits and is facilitating the way that benefits can be categorised and better understood by business streams (Farbey et al., 1993). These business streams are: Strategic; management; operational; functional; and support.

Examples of such categorisation are given in Figure 9: Generic form of benefits (Farbey et al., 1993).

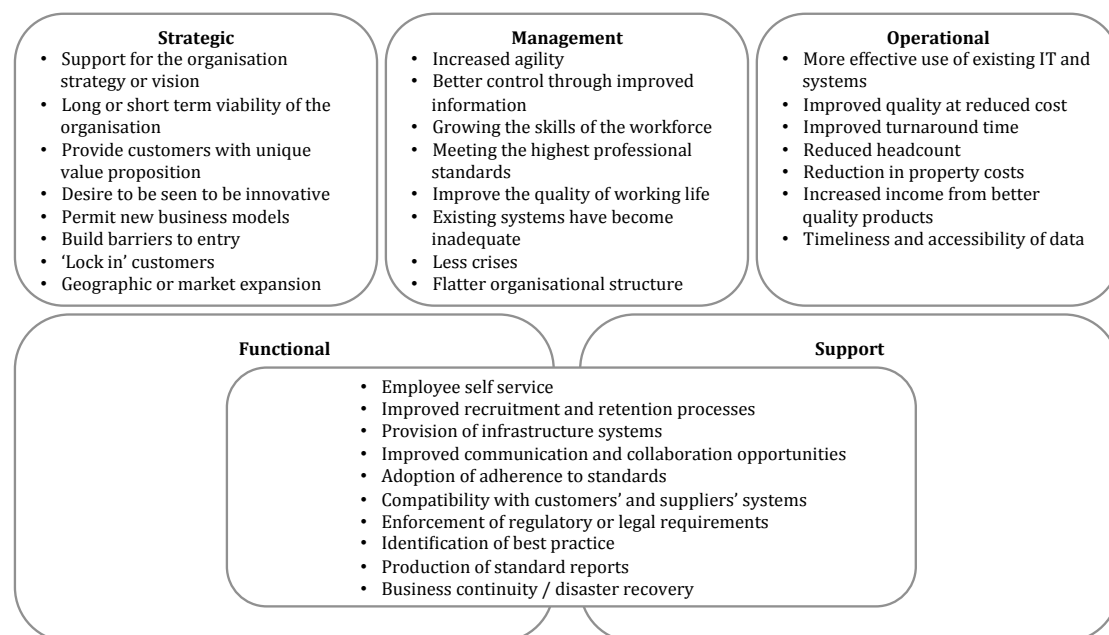
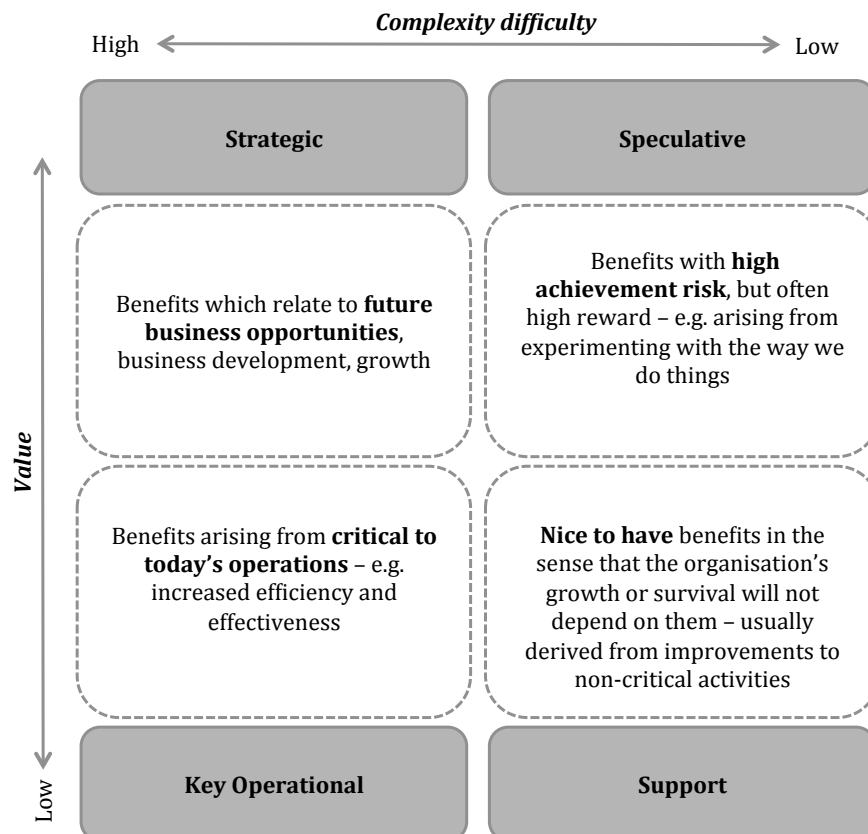


Figure 9: Generic form of benefits (Farbey et al., 1993)

Classifying benefits by business or organisational impact is helpful when checking strategy alignment and balance and when comparing the relative significance of benefits (Bradley, 2006). Further more he explains that benefits in this type of classification should be in accordance to the main three strategic

improvement areas of productivity; risk minimisation and growth. A method used for this classification is by varying the 'Boston Matrix' or the 'Cranfield Grid' normally used in analysing the impact a portfolio of investments has. This has been adapted by Bradley (2006) in the Benefits Realisation Management (BRM) approach and classifies benefits by business impact (see Figure 10).



**Figure 10: Benefits classification by business impact using the Cranfield Grid / Boston Matrix (Bradley, 2006 in OGC, 2007a)**

Bradley (2006) and Ward (1996) classify benefits in four more categories by:

- Stakeholder classification of benefits and disbenefits according to the stakeholder who will feel or experience their impact;
- General benefit category for example in cost reduction; revenue generation; risk reduction; productivity; workforce satisfaction; customer service; company image;

- Particular type of activity for example team working, decision-making, skill acquisition;
- Change types by identifying if the benefit will be achieved by do new things; do things better or stop doing things.

Further more Ward and Daniel (2006) when classifying by change type, state that each benefit should be further identified by the explicitness of the contribution to it. These are:

- Observable by use of agreed criteria, specific individuals/groups will decide, based on their experience of judgement, to what extent the benefit has been realised;
- Measurable this aspect of performance is currently being measured or an appropriate measure could be implemented. But this is not possible to estimate by how much performance will improve when the changes are complete;
- Quantifiable sufficient evidence exists to forecast how much improvement should result form the changes;
- Financial by applying a cost/price or other valid financial formula to a quantifiable benefit a financial value can be calculated.

### **2.12.3 Unplanned or emergent benefits**

It must also be understood that as well as planned benefits often there are unplanned benefits. These are often a consequence of a change implemented or another benefit gained, and must be included during any kind of assessment of performance on an organisation. 'Incidental impacts should also be identified and proactively managed' (Ashurst and Doherty, 2003).

Farbey et al. (1993) identified that many of the projects they studied in addition to the anticipated benefits, gave rise to unplanned or emergent benefits. Many of these unplanned benefits appear to be 'second order' benefits that are they arose from achieving an initial or planned benefit (Farbey et al., 1999). Interestingly they found that unplanned benefits tended to be more intangible than the

planned benefits. This is largely to the fact that planned benefits are given ‘hard’ financial measures and they are documented in business cases as a result of a change or an investment. However, qualitative or intangible benefits are often associated with how individuals perceive the investment or the change resulting from it (Ward et al., 1996).

#### **2.12.4 Actor orientated classification**

An actor-oriented approach is employed for the classification of the benefits that are derived from the adoption of an innovative technology in the healthcare area. It was first used in 1993, in a National Health Service (NHS) published a report, in which this approach was used to classify benefits of the Electronic Health Care Records (EHCR) (Mantzana and Themistocleous, 2004). The term actor refers to all human and non-human users that interact with a system (Mantzana and Themistocleous, 2004). Using this approach an identification of the ‘worlds’ affected by the system is necessary. In the first introduction of this approach within the NHS they were three worlds identified (NHS, 1993):

- Patients’ world; patients, next of kin, carers;
- The clinicians’ world clinicians, non clinicians, responsible clinician, a health care facility and clinical students; and
- The third parties world; controller, technologist, administrator, legal professional, other third parties.

Adopting the NHS actor-approach is proposed that in an investment, project or programme the actors can be classified in four main categories (Mantzana and Themistocleous, 2004), these are: (1) providers; (2) acceptors; (3) supporters; and (4) controllers. Additional to the four proposed categories the same authors classify the actors in two different dimensions: (1) human; and (2) organisational.

An illustration of proposed taxonomy for the actors presented above is shown in Table 6.



**Table 6: Taxonomy of healthcare actors (Mantzana and Themistocleous, 2004)**

		ACTORS			
		Acceptors	Provider	Supporter	Controller
DIEMNSION	Human	Patients Next of kin	Clinicians Non- Clinicians Clinical students	Administrators Professionals Researchers	Managers
	Organisational		Hospitals Medical Depts Clinics	Suppliers Technologies Insurers	Government DoH Health authorities

The implications of this categorisation are that: (a) it improves the level and the depth of analysis (more detailed); (b) it can further facilitate the decision making process; and (c) it separates human actors from the organizational ones and it, therefore, allows different strategies to be applied when focusing on one or on the other dimension ((Irani, 1998) in (Mantzana and Themistocleous, 2004)).

#### 2.12.4.1 Summary of benefits classification

In summary, many authors approach classification and categorisation of benefits, considering different aspects or criteria; classification helps to increase the understanding of the nature of benefits, and assists analysis and communication (Bradley, 2006). Table 7 summarises examples of classification or categorisation types, with the most common distinction being made between tangible and intangible benefits.

**Table 7: Benefits classification summary**

Aspects	Comments
<b>Tangible, intangible</b>  (Ward and Daniel, 2006; Bradley, 2006)	Tangible are those judged <i>more</i> objectively, considering quantitative measures that are often but not always financial (i.e., in monetary values). Intangible are those judged <i>more</i> subjectively, most often measured employing qualitative measures (note: <i>intangible</i> benefits are generally difficult to convert to monetary values).
<b>Organisational impact, business impact</b>  (Farbey et al., 1999)	These benefits can come in 5 different business streams: (1) strategic; (2) management; (3) operational; (4) functional; and (5) support.
<b>Built environment lifecycle view</b>  (Yates et al., 2009)	The built environment lifecycle states that views might be segmented as follows: (1) development; (2) construction; and (3) facilities management.

Aspects	Comments
<b>Stakeholder, actor orientated</b>  (Mantzana and Themistocleous, 2004)	Classification according to the stakeholder (groups) who will feel or experience impacts. In an investment, project or programme the actors/stakeholders might be classified in four main categories, these are: (1) providers; (2) acceptors; (3) supporters; (4) controllers. All these four main categories might also be classified in two different dimensions: (1) human; and (2) organisational.
<b>Planned, unplanned/emergent</b>  (Ashurst and Doherty, 2003)	Unplanned benefits are often a complementary consequence of (other) planned benefit(s) and/or of an implemented change(s); due to the emergent nature of benefits, these are not usually documented in the business case, not being initially related with planned changes and/or investments detailed.
<b>Organisational view</b>  (Yates et al., 2009)	Organisational views are: (1) operations management; and (2) back-office; which encloses as main functions (2.1) information systems; (2.2) human resources; (2.3) legal; (2.4) purchasing and procurement; (2.5) finance and accounting; and (2.6) other office services.

### 2.13 Benefits realisation and management – approaches and models

Before looking into the term ‘benefits realisation’, it is necessary to understand the two words that make the term, benefit and realisation. Realisation in the Concise Oxford dictionary is described as being aware of something that is achieved.

Therefore benefits realisation could be defined as “one becoming fully aware of the positive impact as a result of a change”. By introducing the factor ‘management’ in benefits realisation Farbey et al. (1999) define it as “the process that realises the benefits that are achieved and manages the unexpected ones”, and Bradley (2006) defines it as “the process of organising and managing, so that potential benefits arising from investment in change, are actually achieved”. Reiss et al. (2006) define benefits management as “the process for the optimisation or maximisation of benefits from organisation change programmes”.

Benefits Management in an IT setting where the term was first introduced is often defined as the ‘process of organising and managing such that the potential benefits arising from the use of IS/IT are actually realised’ (Ward et al., 1996).

According to Lin and Pervan (2001), benefits management is the procedural approach of how to manage the benefits evaluation to realise the benefits of capital investments. Within a programme management setting (OGC, 2007b) benefits management complements and overlaps investment appraisal in the business case. While investment appraisal provides the justification for the investment, benefits management allows the organisation to plan for and achieve the benefits.

There are several ‘benefits management/realisation’ approaches that exist and they are presented in the next section in a chronological order and by briefly highlighting their main focus. What is evident from almost all benefits management and realisation approaches is that they comprise a cycle of Plan-Do-Check- Act (PDCA) continuous Improvement cycle described in 2.5 (Nogeste and Walker, 2005).

### 2.13.1 Active benefits management

Leyton’s (1995) active benefits management process sets the benefits management activity in the context of business change. The framework presented in Figure 11 made explicit the relationship between change and benefits, showing that there is a continuous flow between change and benefits.

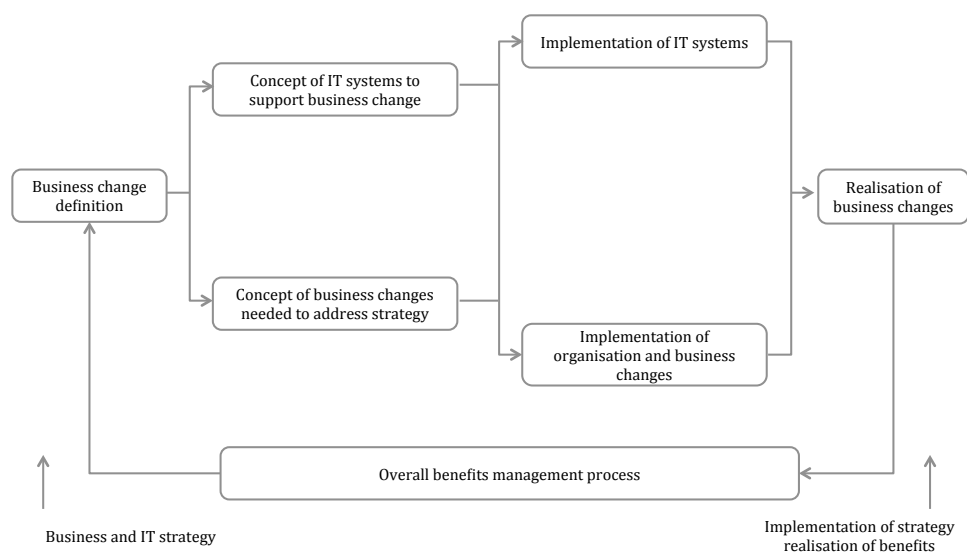


Figure 11: Active Benefits Management (Leyton, 1995)

### 2.13.2 The Cranfield model of benefits management

The Cranfield model of benefits management focuses specifically on benefits from IT/ IS investments. In this process the potential benefits are identified, a plan is devised for their realisation, the plan is executed and the results reviewed and evaluated (Ward et al., 1996).

The Cranfield model of benefits management has been used as the basis for guidelines on best practice in benefits management. Ward et al (1996) argue that by using this process model, it is possible to diagnose why some projects are successful in delivering benefits and others are not. (Ward and Murray, 1997) Figure 12 shows the key elements and relationships in this process model.

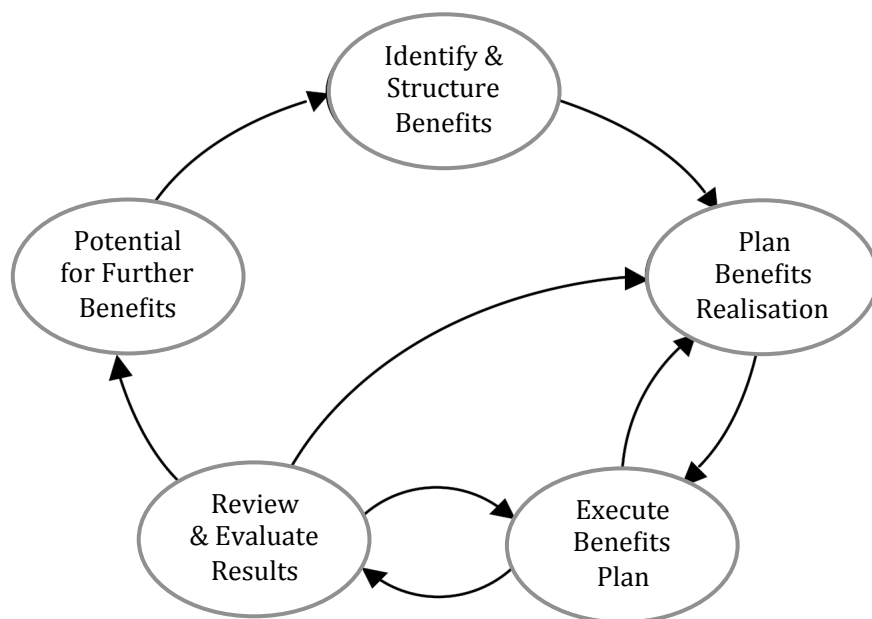


Figure 12: Cranfield Process Model of benefits management (Ward, 1996)

An important feature of this model is the outer loop, the one that recognises learning and feeds back into the process. The need for benefits realisation in IT when this process was introduced was “not to make good forecasts but to make them come true ... and IS/IT on its own does not deliver benefits.” (Ward et al., 1996). Another key feature of this Cranfield model is benefits monitoring.

Benefits monitoring compares project results with the benefits realisation plan during the project and assesses if any internal or external changes have occurred that will affect the delivery of planned benefits. It is necessary to monitor the benefits of IT projects because issues arise that may prevent the delivery of the benefits. It is also possible that, at this stage, further benefits are identified (Ward & Murray, 1997).

### 2.13.3 The benefits realisation approach

The “benefits realisation approach” (BRA) was introduced by Thorp in 1998; it provided a basis for using information technology to deliver business results more consistently and predictably. Thorp (1998) argues that the approach could be applied to any major investment in organisational change.

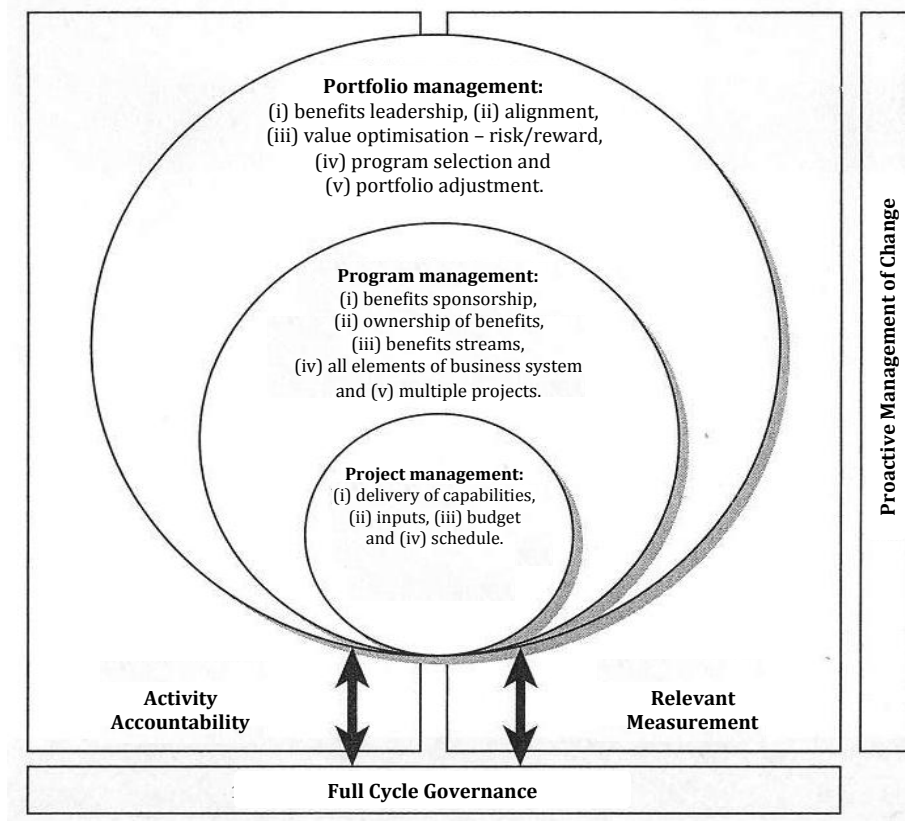


Figure 13: Cornerstones of Benefits Realisation Approach (Thorp, 1998)

The ‘benefits realisation approach’ is based on two cornerstones (Figure 13):

- A. The shift from stand alone project management to:
- Business programme management;
  - Disciplined portfolio management;
  - Full cycle governance.
- B. The three necessary conditions for the successful implementation of the 'benefits realisation approach':
- Accountability of activists;
  - Relevant measure as in measuring the things that really count;
  - Proactive management of change to give people ownership stakes in programs.

BRA is business oriented framework, supported by a set of processes, techniques and instruments which enable organisations to select and manage portfolio of programs such as the benefits are clearly defined, optimised and aligned with business strategy (Thorp, 1998).

#### **2.13.4 Active benefit realisation**

The active benefit realisation (ABR), developed by Remenyi and Sherwood-Smith (1998), is a process for managing information systems' development through a continuous evaluation approach. This process requires active participation during project development from the primary stakeholders including line managers and users, financial staff and information systems developers (Sakar and Widestadh, 2005). The ABR process requires a direct and continuous focus on business benefits realisation and is based on a contingency philosophy, which means that the actual information system outcomes as well as the development activities, tasks and participating roles of the stakeholders are dynamic throughout the duration of the project (Sakar and Widestadh, 2005). In this approach it is fundamental that the principle stakeholders of the information system are identified at the onset and that they accept and agree their continuous involvement. (Remenyi and Sherwood-Smith, 1998).

The ABR approach can be divided in three distinctive phases (Lin and Pervan, 2003):

- **Setting the course:** This involves the development of sets of precise requirements under the headings of a business picture, a financial picture, and a project picture (Remenyi and Sherwood-Smith, 1998). Once these three pictures have been produced, a decision is made and an agreement reached as to whether or not to launch the project;
- **Formative evaluation:** This involves assessing the progress of the project. All stakeholders are able to develop views as to how the project is progressing and to exchange these views in open and constructive discussion. There are three possible outcomes: (a) updating the three initial pictures; (b) reforming the project if there are not sufficient funds, time or skills available; and (c) terminating the project if the project has, for one or more reasons become irrelevant to the organization's business requirements;
- **Moving forward:** This provides a feedback loop that should be available, not only during development, but also throughout the entire life of the project.

ABR is a reiterative process based on the evaluation of progress, a review to ensure that the development is on course to realise business benefits and an agreement to proceed (Remenyi and Sherwood-Smith, 1998).

### **2.13.5 Towards best practice to benefits management**

Ashurst and Doherty (2003) undertook extensive research into best practice for benefits realisation and from this created a framework as illustrated in Figure 14.

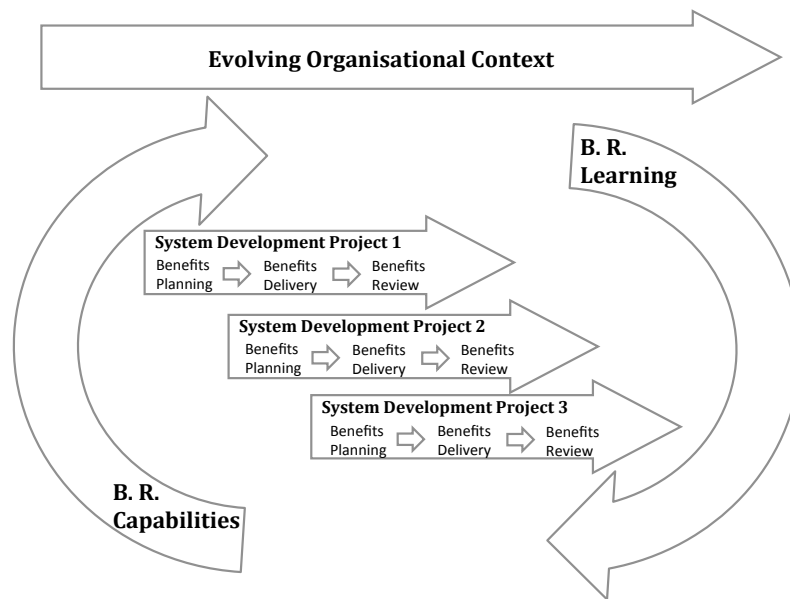


Figure 14: Conceptual model for BR development (Ashurst, 2003)

It can be seen from the figure above that for Ashurst and Doherty (2003) benefits realisation is a continuous process through an evolving organisational context. Although this framework is focusing again on IT projects it could be used for any kind of project (Ashurst and Doherty, 2003). However it does not illustrate the influences that external factors may have onto the project.

Ashurst and Doherty (2003) define the term benefits review as the “process by which: the success of the project in terms of benefit delivery is assessed; opportunities for the realisation of further benefits are identified; and lessons learned and opportunities for improvement in future projects are identified”.

### 2.13.6 Managing successful programmes guide

The Office of Government Commerce (OGC) is an independent Office of the UK Treasury. It works with public sector organisations to help them improve their efficiency, gain better value for money from their commercial activities and deliver improved success from programmes and projects (Pellegrinelli et al., 2007). The OGC’s publication *Managing Successful Programmes* (OGC, 2003) represents the UK Government’s view on the programme management principles and techniques that have been developed and applied for many years. In drafting



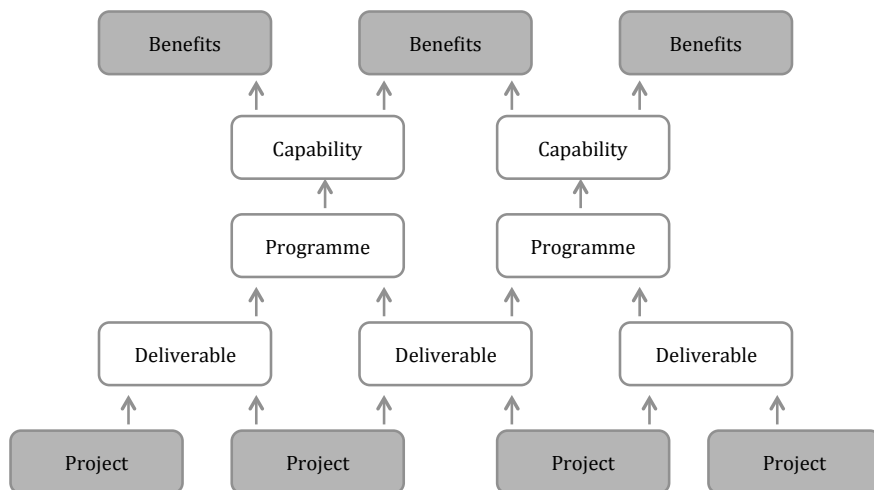
Managing Successful Programmes (OGC, 2003, OGC, 2007a), the OGC consulted widely for views, concerns and contributions from leading practitioners from within the public and private sectors, including professional bodies and leading consultancies. MSP is now the approved approach for managing programmes throughout the UK public sector (Pellegrinelli et al., 2007).

MSP identifies benefits management as “a core activity and a continuous ‘thread’ throughout the programme” (OGC, 2007a), and fundamental to the realisation of benefits from new capabilities delivered by projects within the programme. Emphasis is placed on identification, quantification, assignment of owners and tracking.

Benefits management ensures that business change achieves the expected results by translating business objectives into identifiable measurable benefits that can be systematically tracked (OGC, 2003). OGC through this process aims to make sure that desired business change or policy outcomes have been clearly defined, are measurable, and provide a compelling case for investment - and ultimately to ensure that the change or policy outcomes are actually achieved (OGC, 2003).

#### **2.13.7 Benefits view in the handbook of programme management**

Reiss (2003) like Ward et al. (1999) and (Cooke-Davies, 2002) focuses the benefits management model in the delivery of benefits by projects (Nogeste and Walker, 2005). Reiss (2000) define the scope of benefits management as “the management and monitoring of benefits during and after execution phase’ and depicts the “value path” relationship between benefits and projects as a Hierarchical Benefits structure (Nogeste and Walker, 2005) see Figure 15.



**Figure 15: Benefits breakdown hierarchy (adapted from Nogeste and Walker, 2005, Reiss et al., 2006)**

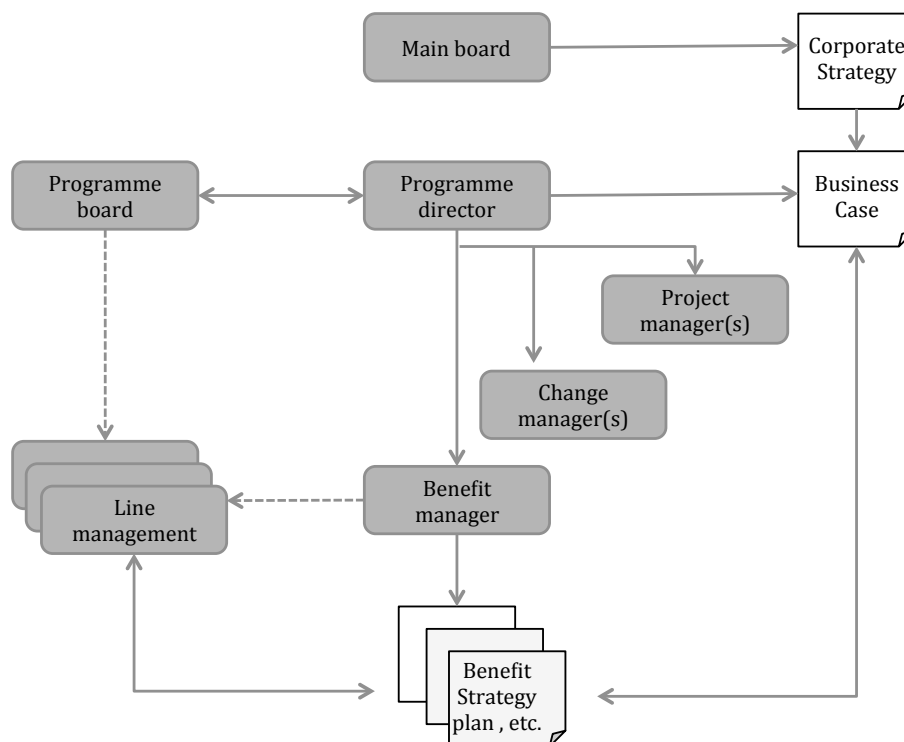
The hierarchy proposed by Reiss is not traditional hierarchy with each successive “leaf” corresponding to only a single branch (Nogeste and Walker, 2005). A project may create more than a single deliverable and also contribute to a single deliverable along with another project (Reiss et al., 2006); there is a ‘many to many relationships between deliverables and benefits (Reiss, 2000). The same author in (Nogeste and Walker, 2005) describes projects as creating deliverables that are combined by programmes to create capabilities to gain benefits. Simply ‘benefits are the reasons behind the initiation and execution of projects (Reiss, 2000).

## **2.14 Responsibility for benefits realisation**

### **2.14.1 Roles**

While program and project teams will be involved in projects that deliver business change, the ones that are responsible for managing and realising benefits, are the business users and the managers (OGC, 2003). The MSP guide states that the project owner is responsible for ensuring the management of the process and realisation of the benefits. Individual managers of business areas should be responsible for actual benefits delivery (OGC, 2003).

Reiss et al. (2006) however argue that the overall responsibility for the successful delivery and realisation of the programme and of its anticipated benefits is with the programme director. Thus is their responsibility to define the overall strategy for maximising benefits and for ensuring that appropriate staff and resources are allocated to their management and realisation. However other management roles have more direct responsibility and their inter-relation shown in Figure 16. The core of benefits management is about explanation presentation and negotiation of agreement. The various reports, documents, tools, and techniques can help but, in the end, successful benefits management relies on having experience, business focused staff, with excellent presentational and inter-personal skills and near endless patience, to make it all happen (Reiss et al., 2006).



**Figure 16: A typical organisational structure, showing how the various positions involved in benefits management inter-relate (Reiss, 2006)**

Reiss (2006) also argues that the people responsible for actually delivering the benefits are often different from those responsible for directing and managing the programme itself, meaning that the people responsible for realising the

benefits are normally the users and their line managers, not the programme team that created the capability. He also argues that benefits management should be separated from project management. Project managers tend to 'head down' and heading for the finish line, they do not have the mind set to consider the validity of their projects (Reiss, 2000).

According to Ward et al. (1996), specific responsibility for realising the benefits is allocated within the business for each benefit. When identifying roles the task should include the stakeholders affecting the delivery of each benefit, and the changes and tasks needed to ensure delivery (Sakar and Widestadh, 2005).

Responsibility for benefits management falls into four areas (CCTA, 1999):

- Identifying and defining - Business change manager;
- Planning and monitoring – Programme support officer / Programme manager;
- Realisation – Line managers;
- Assessment - Individual with good knowledge of the target business areas but not directly involved in the programme.

### **2.14.2 Governance**

It is common for some benefits not to be realised until many years beyond implementation. Often benefits are never realised or mismanaged because benefits management ends with closure of a project or programme (Glynne, 2007). Parr and Williams (2007) acknowledge that ambiguity can exist between project /programme and business operations responsibility: 'the need for clearly defined responsibilities and assignment of these to roles and individuals is heightened within benefits management because of the potential ambiguity between tasks for the delivery team, and tasks for the operational business'. It is common mistake for projects and programmes to own the benefits and not involve those directly tasked with managing change within the business organisation (Glynne, 2007). For a programme or project to be successful, there must be an agreed governance model that ensures ownership and accountability

until all benefits have been formally reviewed and measured (Bradley, 2006, Glynn, 2007, Ward and Daniel, 2006).

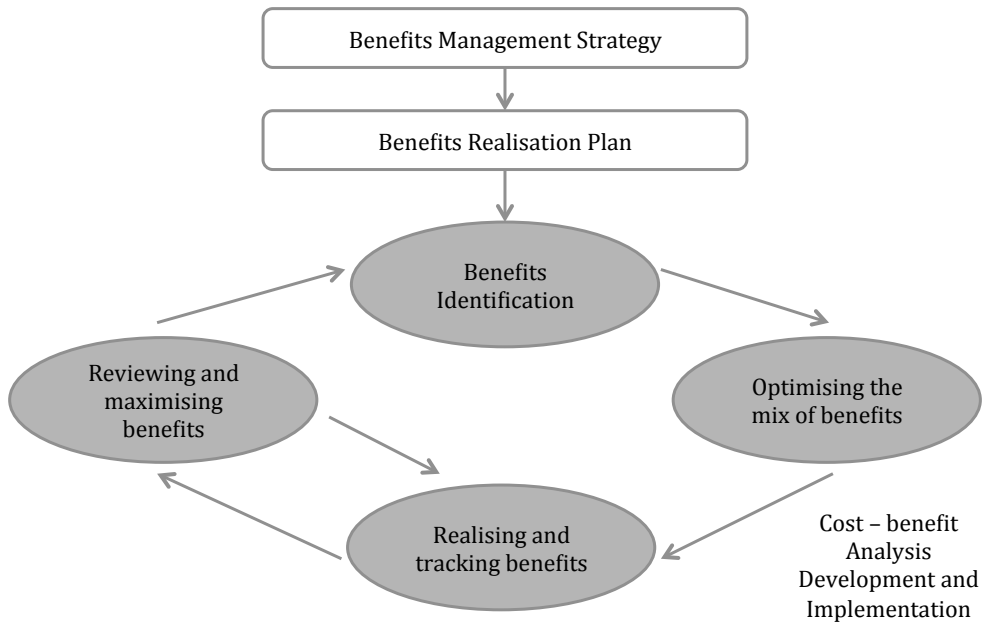
Cooke-Davies (2002) also highlights the importance of governance and proposes that the following three principles ‘underpin any effective benefits management system (Nogeste and Walker, 2005):

- Create project governance structures that involve both the project and the functional line organisation;
- Drive all governance decisions about the project through the business case;
- Redefine project management methods and frameworks so as to make benefits management an integral part.

## **2.15 Benefits management – key elements, tools and techniques**

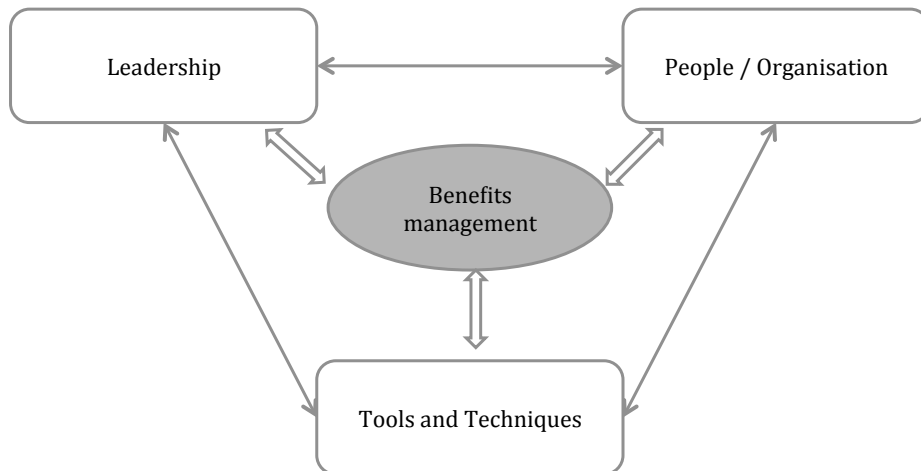
The following section introduces the main elements, tools and techniques that are used in the approaches mentioned before as they have been identified in the literature. The list of the tools and techniques has been compiled by identifying the common areas between all approaches and their importance in benefits management. Figure 17 illustrates those main ingredients in a generic approach to Benefits Management by OGC (2003), these are:

- Benefits management strategy and realisation plan;
- Benefits Identification, dependency, mapping;
- Benefits measurement;
- Benefits monitoring.



**Figure 17: Generic approach to benefits management (OGC, 2003)**

The understanding that benefits do not just happen just by delivering projects must be supported with tools and techniques to measure the benefits; and with procedures for monitoring, reporting and responding to their achievement or non-achievement (Reiss et al., 2006). Payne (2007) supports that view and highlights two more critical elements in a balanced benefits management environment, (i) Leadership and (ii) People/organisation as illustrated in Figure 18.



**Figure 18: Critical elements of a benefits management environment (Payne, 2007)**

A brief description of these main elements is given in the following sections and a more detailed one is included in Chapters 4 and 5 where the architecture of the BeReal process is fully specified.

### **2.15.1 Benefits management strategy and realisation plan**

In the Active Benefits Realisation approach by Remenyi and Sherwood-Smith (1998) underline the importance of aligning the business opportunity to the strategy of the organisation as expressed by its critical success factors.

OGC (2007) underlines the importance of doing a management plan that describes how the organisation wishes to manage and achieve benefits from any investment in business change. The Benefits Realisation Plan - including key assumptions and sensitivity and risk analysis of those benefits expected to contribute most to outcomes - should be seen as a major component of this decision-making process (OGC, 2007b). Ward et al (1996) argue that without a plan it is difficult to predict how an organisation might effectively realise business benefits.

### **2.15.2 Benefits identification, dependency and mapping**

This is the initiation stage of any benefits management cycle where all desired benefits should be identified and documented. Best practice is to involve key stakeholders to identify and agree desired benefits. This maximises the likelihood of commitment to realising those benefits across a range of levels in the business or the organisation (Glynne, 2007). Benefits at this stage should be structured in order to understand the linkages between technology effects, business changes and overall business effects (Sakar and Widestadh, 2005).

Developing benefits dependency network is an iterative process, as required changes are identified and a network of interrelating changes and benefits evolves and the feasibility of achieving some of the benefits originally identified will be questioned (Bradley, 2006, Payne, 2007, Ward and Elvin, 1999). Solutions which deliver benefits will have been designed from stakeholders view or vision

what constitutes a benefit (Nogeste and Walker, 2005). It can be argued that a stakeholder workshop provides a means of developing a benefits dependency network (Ward and Elvin, 1999). Bennington and Bacarrini (2004) also support the view that interviews and workshops with stakeholders is a strong technique of identifying project benefits (Nogeste, 2006). A benefits dependency network approach depicts that business changes enable organisational change (Reiss, 2000). A benefits dependency map could result into a stream flow of benefits over time resulting from a successful implementation and management of a business program (Thorp, 1998).

### **2.15.3 Benefits measurement, ranking and prioritisation**

Measurement is the key to effective benefits realisation according to Thorp (1998), i.e. 'if you can't measure it, you can't manage it', (Thorp, 1998). The same author in his Benefits Realisation Approach argues that measurement is important with relevant, accurate and consistent measures of the performance of each program, and of the projects within them. It must be determined what to measure and when to measure it (Farbey et al., 1993). The criteria for designing effective measurement systems are according to (Thorp, 1998):

- Make sure measures exist;
- Measure the right things;
- Measure things the right way; and
- Make sure measurement systems guide decisions and action.

It is often very difficult to convert a policy vision or a business strategy into detailed and measurable statements of expected benefits. It can be hard to realise and measure all benefits from an investment or change (Bradley, 2006). Because some of the benefits may be secondary, ones that were not expected and have resulted indirectly from the changes that have been made, (Farbey et al., 1999).



According to (Thorp, 1998) the fundamental concepts of benefits realisation help organisations deal effectively with the issue of measuring value in four important ways:

- Identify the outcomes to measure, and how to measure them;
- Show the reasoning about the linkages relating programs and projects to outcomes, making it easier to understand what's going on;
- Make measurement come alive by clearly tying accountability to measured results; and
- Take action based upon measurements through full cycle governance.

Reiss et al. (2006) describe that many organisations are often tempted to measure and evaluate the success of a programme or project based only on hard benefits. The drawbacks with this are:

- The most valuable benefits are often largely intangible;
- The easy-to-measure and financially oriented benefits are often the long term results of gaining more immediate soft benefits and
- While risks can be managed effectively within a programme, it is much more difficult to factor the impact of risk and uncertainty into long-term financial projection.

Also according to Bartholomew (1999) in Sedera et al. (2001) hard measures such as financial figures can very often be confusing and deceptive as the intangible assets of a business can often be worth more than those which are tangible, up to 80% (Bartholomew, 1999, Sedera et al., 2001).

Glynne (2006) argues that if a benefit cannot be measured numerically and base lined it should not be included in a benefits realisation plan, soft benefits can be difficult to measure and they may need to be left out of such plan.

Reiss et al. (2006) state that whether relying on hard or soft benefits to justify the success of a programme the analysis must be rigorous, comprehensive and agreed by all key stakeholders. Furthermore it should be possible to express all

benefits in such way that their ultimate achievement can be established. In practice successful programmes combine a range of hard and soft benefits. The difference between the two types of benefit becomes less important as hard benefits are tempered with provisions about risk and notions of human nature and soft benefits are defined in terms of meaningful targets, milestones and measures (Reiss et al., 2006).

Measuring business and organisational performance and setting targets for improvements is an increasingly important aspect of management (Ward and Daniel, 2006).

Bennington and Baccarini (2004) and Ward et al. (1996) suggest that Key Performance Indicators (KPI) are being allocated to project benefits, as benefits without KPIs are of little value and there should be no valid reason why measurement of benefits should be a problem.

#### **2.15.4 Benefits monitoring and review**

Benefits monitoring compares project results with the benefits realisation plan during the project and assesses if any internal or external changes have occurred that will affect the delivery of planned benefits (Ward et al., 1996).

Benefits monitoring is a long cycle. According to Bartlett (2006) it starts with benefits planning and ends with benefits realisation. The benefits stated in programme's business case are the result of an often-protracted period of benefits planning. By the time the business case has been signed of, the benefits as originally conceived may have been significantly diluted (Bartlett, 2006).

Bennington and Baccarini (2004) however argue that most organisations do not monitor the benefits for the following reasons:

- Lack of experience and/or business awareness;
- Focus on managing the deliverables rather than the benefits;
- Insulation from the benefits that come from when business management is responsible for users;

- Lack of focus on the people who will enjoy the benefits;
- Emotional commitment to the continuity of the project and so not open to changes to benefits that threaten project viability;
- Lack of tools to help ensure that benefits will be delivered.

According to Ward and Griffiths (1996) to be able to monitor benefits organisations have to actively overcome and handle the challenges with benefits monitoring. Ashurst and Doherty (2003) call the benefits monitoring stage for benefits delivery and define it as “the execution of the set of actions necessary to realize all of the benefits specified in the benefit plan”. Consequently the process of benefits delivery typically runs from project initiation, after approval of the business case or benefits realisation plan, through to completion of the project. Benefits delivery focuses upon the organisational change necessary to facilitate benefits realisation, rather than the delivery of the solution (Sakar and Widestadh, 2005).

## **2.16 Literature review summary and discussion**

The benefits realisation approach emerged in the sector of information systems and technology during the 1990’s. It was motivated by the low success of technology implementation on generating the expected business benefits to organisations (Thorp, 1998). Reiss et al. (2006) emphasise that there is a path from projects to benefits: projects have outputs and the combination of different outputs generates the capabilities that enable the desired benefits to be achieved. According to the same author, without the effective transition from outputs to outcomes, products and services remain only capabilities, or potential sources of benefits.

According to Thorp (1998) the need for managing benefits realisation is based on three premises: (a) benefits do not automatically appear when a project is delivered; (b) benefits rarely happen according to plan; and (c) realising benefits is a continuous process of envisioning results, implementing, checking

intermediate results and dynamically adjusting the path leading from investments to business results.

One fundamental aspect of the benefits realisation approach is to increase the predictability of benefits being realised through visualising the different possible paths from actions to results and to the generation of benefits, while constantly evaluating (Remenyi and Sherwood-Smith, 1998). Zwikael and Smyrk (2011) emphasise the importance of establishing a governance structure and carrying out evaluation cycles to maintain the focus of projects on achieving the expected outcomes.

In addition, stakeholder commitment in a benefits realisation approach is essential (Bradley, 2006). According to the same author, if change is imposed on people with no explanation of the reason why, then great resistance is generated. Success is much more likely when stakeholders are engaged in formulating the vision or at least influencing the shape of the change, and where they can see clear value, either for themselves, or for the whole organisation (Bradley, 2006). The importance of engaging different stakeholders to discuss project values has also been explored in construction through the adoption of a value-based approach to design management (Christoffersen and Emmitt, 2009).

Moreover, benefits realisation literature emphasises the understanding of projects as systems in which collectively identifying the many-to-many relationships between projects and benefits are essential (Reiss et al., 2006). Benefit mapping clarifies the route to benefits, the dependencies between projects, deliverables and benefits, as well as the distribution of budget and responsibilities. As a consequence, it provides basis for risk management, monitoring and budgetary control (Reiss et al., 2006). Continuous improvement is also emphasised, based on cyclic evaluations to enable learning and adaptation (Farbey et al., 1999). The importance of considering continuous re-evaluation of project means, ends and constraints is also discussed by Ballard (2008) and Howell et al. (1993).

Some challenges to overcome that have been identified in the benefits realisation literature are: (a) the ability of setting the adequate measurements to track benefits realisation, since it is difficult to convert a policy vision or a business strategy into detailed and measurable statements (Bradley, 2006); (b) the fact that some of the benefits may be secondary, non-expected and a result of changes that were made during implementation (Farbey et al., 1999); and (c) after the project has been delivered, generally the team is dispersed, representing a difficulty to set responsibility for the accountability of benefits (Zwikael and Smyrk, 2009).

Following the literature review and summarising the author presents his initial understanding in Rooke et al. (2010) that there is a need for a new more effective benefits realisation and management process that embodies and operationalises the concepts and issues presented in this chapter. The learning as generated at this stage can be summarised in the following points:

- Expectations must be managed. Since the process of achieving objective value judgments is inter-subjective, the supplier as well as the customer influences it. Project managers must be careful not to generate unrealistic expectations that will lead to the customer being disappointed. (Bartlett, 2006; Reiss et al., 2006);
- Project and product longevity are also a threat to benefits realisation, as perceptions may change over time, this needs to be addressed through expectations management (Bartlett, 2006);
- The link between strategic aims and project outcomes is vulnerable to breakdown and must be monitored (Thorp, 1998);
- A full analysis of potential stakeholders and the impact on them is necessary in order to resist the possibility of unintended outcomes (Thorp, 1998; Newcombe, 2003);
- Stakeholder interests will sometimes conflict, presenting difficulties for the determination of a value and requiring sensitivity to and proactive management of power relations (Newcombe, 2003; Kenrick, 2004; Sapountzis et al., 2008b);

- A full analysis of the personnel involved in benefit delivery is necessary, including time of involvement, activity and motivations (Thorp, 1998; Rooke et al., 2003);
- Timelines will be vulnerable to all the influences listed above (Thorp, 1998);
- Successful benefits realisation requires that suppliers actively build dialogue and partnership with their customers (Harrison & John, 1996; Ayuso et al., 2006).

### **2.17 Synthesis of the literature review and conceptual process development**

The literature review presented in this chapter shows that a benefits realisation approach suggests a continuous process of envisioning results, implementing, checking intermediate results and dynamically adjusting the path leading from investment to results (Thorp, 1998). The new benefits realisation process as developed and investigated by the author should aim to address the major reasons that programmes and projects are failing to achieve success as identified in the literature review and summarised below.

- (a) The vagueness with which the expected benefits are defined and further difficulties to maintain focus when subsequent problems occur (Reiss et al., 2006) as well as a consequent uncertainty in allocating responsibility for managing and delivering benefits (Lin and Pervan, 2001);
- (b) The non-consideration of some stakeholders and how they can influence projects' results (Ward & Daniel, 2006);
- (c) The long periods of a project's life cycle, leading to a disconnection between benefits planning and delivery due to changes in personnel (Reiss et al., 2006);
- (d) The non-consideration of necessary interconnected issues that might influence the project's success (Thorp, 1998); and

(e) Poor identification of necessary means to achieve benefits and poor ability to manage change (Truax, 1997).

The material reviewed in the literature review is grouped in this section by similarity, resulting in a matrix (Table 8) that presents different aspects mentioned by each author. This process allows the identification of three major dimensions in which the issues for considering a benefits realisation process is based.

These are:

- Proactive management and learning;
- Stakeholder engagement;
- Strategy deployment.

Using best practice identified both in literature and in industry through the advisory board discussions (presented in 4.8) the author uses these three dimensions to form the foundation of the benefits realisation process.

The literature on benefits realisation is wide, and covers different perspectives, e.g. change management (Bradley, 2006), business change (Bartlett, 2006), programme management (Reiss et al., 2006). There are at least eight different processes described in section 2.13 that aim to address benefits management and realisation. The aspects that should be considered in each step also vary among authors.

The eight dominant models for following a benefits realisation process were investigated and presented in the literature review chapter they are:

- Active Benefits Management by Leyton (1995);
- The Cranfield process model of Benefits Management by Ward et al. (1996);
- The Benefits Realisation Approach by Thorp (1998);
- The ABR approach by Lin and Pervan (2003);
- Towards best practice in Benefits Management by Ashurst and Doherty (2003);

- Benefits Realisation in Integrated Service Improvement – ISIP by NHS (2005);
- Benefits Realisation Management in Managing Successful Programmes by OGC (2007) and Bradley (2006);
- Benefits Management in the Handbook of Programme Management by Reiss et al. (2006).

The matrix in the next page is a synthesis of the different considerations identified in the literature including the eight dominant models. The matrix lists the key elements /considerations that address the three major dimension earlier identified and maps them across as they are being tackled by the literature. The matrix is compiled in such a way to give the author and the reader a clear visual understanding on where to focus the investigation and the development of the process.



<b>Considerations for benefits management and realisation</b>		Truax 1997	Leyton 1995	Ward et al. 1996	CCTA 1999	Ashurst and Doherty 2003	Ward et al. 2004	Mantzana and Themistocleous 2004	Lin and Pervan 2003	Farbey et al. 1999	Bradley 2006	Bartlett 2006	Ward and Daniel 2006	Glyne 2007	OGC 2004 & 2007	Fox 2008	Ward and Griffiths 1996	Thorp 1998	Sakar and Widedstadh 2005	Remenyi and Sherwood-Smith 1998	Payne 2007	Reiss et al. 2006	Bennington and Baccarini 2004	NHS ISIP 2005
<b>Proactive management and learning</b>																								
Ensure stakeholders will search for opportunities to maximise benefits																								
Track disbenefits in order to reduce their impact																								
Track and proactively manage the emergence of unplanned benefits																								
Proactively manage change		X	X		X	X				X														
Continuous evaluation if process is adequate to deliver benefits																								
Identify opportunities to realise further benefits																								
Review and evaluate results and feed-back into the process																								
Review and evaluate results and feed-forward into next projects																								
Identify how internal and external changes may affect the process																								
Continuously review the list of expected benefits to check strategic fit																								
<b>Stakeholder engagement</b>																								
Clearly define benefits at the outset																								
Ensure stakeholders are committed in realising benefits																								
Align programme benefits with stakeholder strategic objectives																								
Ensure that stakeholders are aware of and agree to face disbenefits																								
Engage stakeholders throughout the entire process																								
<b>Strategy deployment</b>																								
Ensure outcomes are related to strategic objectives																								
Drive the process based on measurements																								
Track and report realisation of benefits and other achievements																								
Use expected benefits as a roadmap for change																								
Identify the nature of benefits through classification																								
Include assessment of intangible benefits on investment evaluation																								
Translate objectives into measurable benefits that can be tracked																								
Measure things that really count																								
Ensure expected benefits of investment are achieved																								
The path from investment to benefit delivery must be effectively planned																								

Table 8: Comparative matrix of benefits management practices

## **2.18 Analysis of techniques that embrace benefits realisation and management**

Further to the eight main dominant models there are other approaches that were chosen and analysed by the author following discussions with industry experts and academics within the HaCIRIC environment. These approaches are regarded by the industry as popular existing practices that are based in similar principles to benefits realisation.

These approaches are:

- (a) Hoshing Kanri – HK by Iswikaawa in 1950s;
- (b) Logical Framework Approach – LFA by Rosenberg in 1969;
- (c) Design Quality Indicator – DQI, (Gann et al., 2003);
- (d) Quality Function Deployment – QFD by Akao in 1966;
- (e) Projects In Controlled Environments – PRINCE2, (CCTA, 1989).

The intent of informing the process under development from other approaches was to reach a better understanding of how the process will differ from the other approaches and how it could be improved based on existing good practices.

It is important to emphasise, that benefits realisation is focused primarily on the benefits, or outcomes perceived as positive and advantageous by different groups of stakeholders. The emphasis is on the advantages and benefits of a project rather than simply delivering a product within specifications, time and within budget. This broader focus is the major difference from benefits realisation to other approaches. These approaches are further described in appendix I; while a summary of the comparison is shown in Table 9.

**Table 9: Approaches similar to benefits realisation and their main principles**

Principles to be considered	Similar approaches to benefits realisation				
	HK	LFA	DQI	QFD	PRINCE 2
Engage stakeholders		X	X		
Create a shared vision of results	X	X	X	X	
Agree on both positive and negative impacts	X				
Deploy strategic objectives into operations	X	X		X	X
Monitor realisation of strategic objectives	X	X	X	X	X
Monitor the emergence of unexpected impacts	X				X
Improve the process continuously based on assessment	X	X			X
Dynamically adapt the process based on assessment	X		X		X

## 2.19 Considerations for developing the benefits realisation process

Following the first advisory group workshop (fully described in section 4.4) where the findings of the literature review were presented and discussed a number of issues were raised. The author describes here the issues raised and how they influenced the initial development of the process.

The first issue considered was the importance to understand that over the course of a benefits management lifecycle, organisations and government policy drivers especially within a healthcare setting are highly likely to change and this will impact upon agreed benefits. The alignment of a benefits realisation process with a robust change management approach able to accommodate and react to these changes was therefore considered essential. The impact of change should be monitored throughout programmes and projects development, and mechanisms should be in place ready to adverse any negative impact implications.

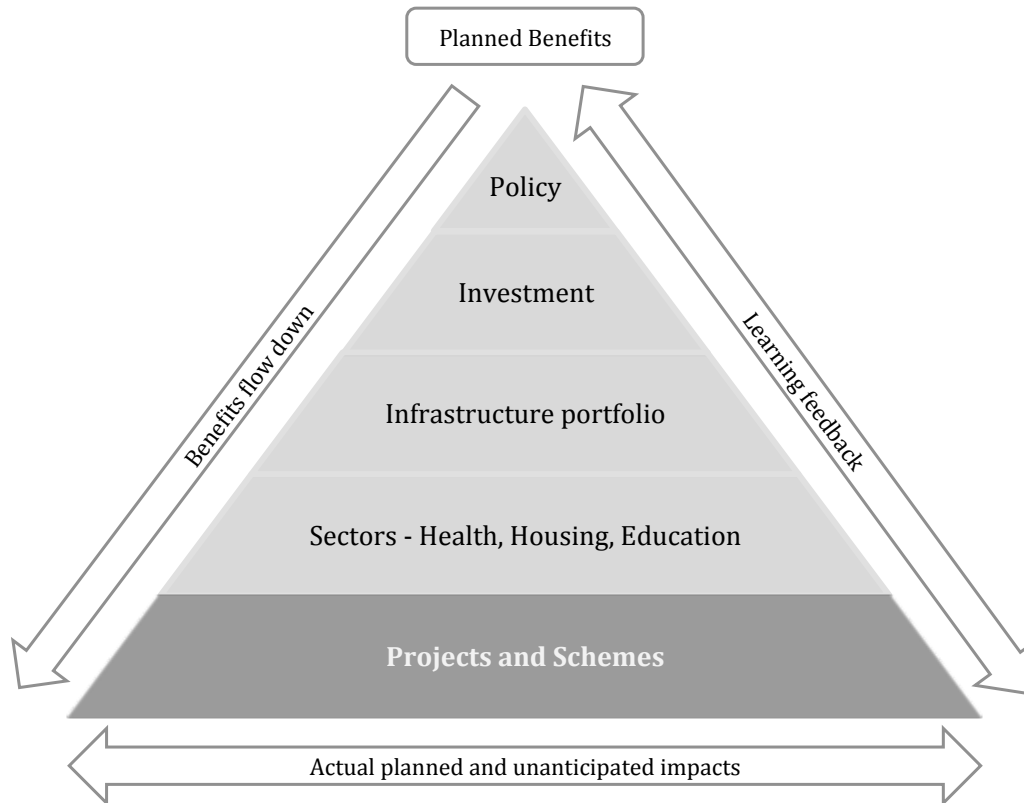
It was also highlighted that the key for successful implementation of a benefits realisation process is its integration within the organisation's strategy, business planning and culture, taking also into account external factors.

The findings from these initial studies suggest that a generic benefits realisation process should aim to be:

- Appropriate for those who operate it and those that use the information produced;
- Balanced in its assessment of all relevant aspects, including those that are hard to quantify;
- Cost effective by producing performance information that realises benefits in proportion to the investment required to collect it;
- Simple to implement.

There is a common understanding that when people plan to do things they already know where they want to get before they start that journey. This does not always seem to be the case within projects or programmes. Organisations usually try to justify the investment of a proposed project without thinking through what is really required to deliver the desired benefits. For example the delivery of a new healthcare facility could be the driver to bring change within a community, however prior to deciding if a new healthcare facility is required, the organisation need to consider what benefits would like to deliver to the community and subsequently decide if and what kind of a facility is needed to deliver these benefits. Figure 19 illustrates the primary thoughts of the author on how benefits should be used to enable flow down of information from policy level through to creating an investment portfolio and eventually delivering projects and schemes that will enhance the probability of them being successful and adhere to the policy as it was set out to be. The proposed process should also capture the knowledge generated while the development and flow down is progressing and feedback the lessons learnt in terms of planned and unanticipated benefits and disbenefits as they emerge from the projects. Although the flow down and feedback will loop from policy to project delivery

the proposed benefits realisation process itself will concentrate on the project's conception, planning, delivery and operation.



**Figure 19: Benefits driven information flow down and lessons learnt loop**

## 2.20 Benefits realisation (BeReal) conceptual process overview

Following these considerations and influenced by Thorp (1998) 'Four Ares' approach in BRA presented in section 2.13.3, the author based the conceptual aiming to answer four simple questions that anybody or any organisation is planning to invest should ask. These were fully discussed and endorsed during first workshop of the advisory group. The questions are:

- Do we know what we need?
- Are we sure we are going to get what we've asked for?
- Did we get what we have asked for?
- Was it all worth it?

Based on these four questions and in a simple attempt to find answers to these, the BeReal conceptual process presents four non-sequential phases, illustrated in Figure 20. The four main phases of the BeReal were conceptualised through an extensive literature review as presented in this thesis, informed by discussions and meetings of the author with the advisory group with the participation of diverse experience individuals from the industry and academia (the advisory group is fully described in section 4.4).

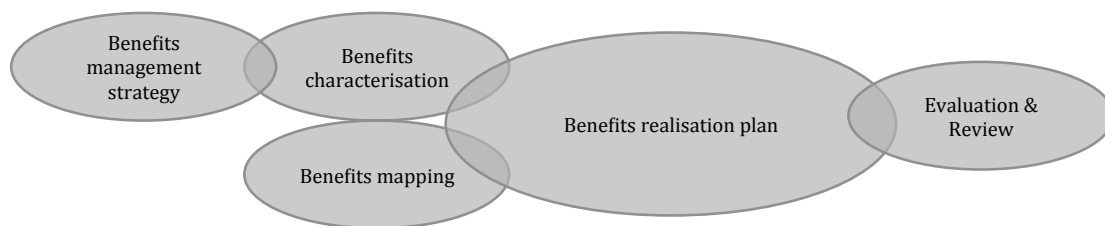


Figure 20: BeReal conceptual process

### 2.20.1 Phase I: Benefits management strategy

This phase is concerned with identifying and documenting desired strategic benefits and sub benefits and developing a benefits management strategy to share and communicate these to relevant stakeholders.

Bennington and Baccharini (2004) suggest that benefits elicitation should emerge from a combined approach of interviews and workshops involving key stakeholders. Remenyi and Smith (1998) argue that a key aspect of the benefits identification/elicitation process is that stakeholders better understand the investment, what is affordable and possible. The involvement of key stakeholders identifying and agreeing on desired benefits is essential as it enhances awareness and maximises the likelihood of commitment to deliver and realise those benefits across a range of levels in the business and in the organisation (Kagioglou et al., 2000; Glynne, 2007). Stakeholders will need to understand how benefits are to be identified, modelled and subsequently delivered (Reiss et al., 2006). Nevertheless, it would be risky to assume that all stakeholders will understand the implications of benefits identification and planning, involving the stakeholders along the process may help to foster a team

environment and encourage appropriate communication and enable better decision-making.

### **2.20.2 Phase II: Benefits characterisation and benefits mapping**

Profile and mapping are two major enabling tools. These are powerful as they hold core information of each individual benefit, and might support illustration of dependencies/interrelationships and overlaps between (dis-) benefits. Investing time at initial stages to establish robust and reliable benefit profiles and maps enables management of the benefits realisation lifecycle.

*Benefit profile* - Many authors (Bradley, 2006; Reiss et al., 2006; Bartlett, 2006; Bennington and Baccharini, 2004; CCTA, 1999, Farbey et al., 1999; Thorp, 1998; Ward and Daniel, 2006) recommend drawing up formalised benefit profiles so that they can be managed with a similar rigour as costs of projects. Nevertheless, along with other aspects profile, dependencies are not understood as static; for example, as the programme progresses, the benefits and the benefit profile information will suffer revisions (CCTA, 2000).

*Mapping* - The benefits dependency network (or benefits mapping) was first introduced by Ward and Elvin (1999) and aims to illustrate potential 'many to many' relationships, as e.g. between enabling changes, business changes, business benefits and investments' objectives. A benefits dependency network, targets to map all the cause and effect relationships, and to include stakeholders, changes and criteria for success (Bradley, 2006).

Elicitation of *strategic, sub benefits* and *end benefits*, development of benefits profiles and design of the benefits map form the basis of necessary on-going updates to the benefits realisation plan.

### **2.20.3 Phase III: Benefits realisation plan**

Focus is on the development and execution of a benefit realisation plan informed by the previous phases content/data, consisting of measuring and tracking the benefits previously identified and incorporating emerging benefits.

OGC (2007a) underlines the importance of doing a management plan that describes how the organisation wishes to manage and achieve benefits, from any investment in business change. The benefits realisation plan developed during phase 3 (that includes key assumptions, risk assessment and sensitivity analysis related to those outcomes that contribute most to expected benefits) should be seen as a major tool contributing to the decision-making process (OGC, 2007b). Without this plan it is difficult to predict how an organisation might effectively realise benefits (Ward et al., 1996).

### **2.20.4 Phase IV: Benefits evaluation and review**

This phase includes the evaluation and controlling of benefits. Benefits review is the process by which the success of the project is addressed, opportunities for the realisation of further benefits are identified, lessons are learned and opportunities for improvement in future projects are identified (Ashurst and Doherty, 2003).

Monitoring and controlling should be developed continuously, not only along the overall project lifecycle, but also covering operations management services. Indeed, the benefits stated in a programme's business case are the result of an often-protracted period of benefits planning. Furthermore, by the time the business case has been signed off, the benefits as originally conceived may have been significantly diluted (Bartlett, 2006).

A successful benefits management lifecycle needs to include periodic reviews to reconfirm the alignment of the programme with the organisations strategic priorities. These reviews should also assess whether or not the anticipated suite of benefits is sufficient to accomplish the organisations' strategic goals by also



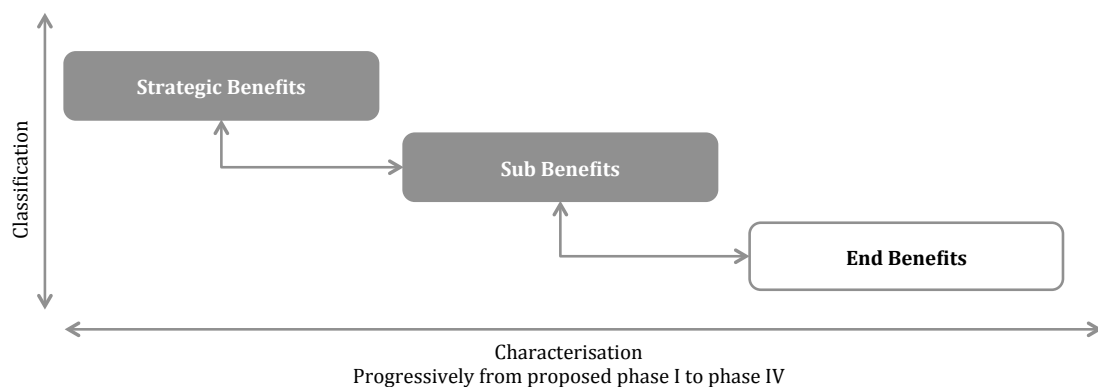
contacting benefits reviews at project stage gates (Cooke-Davies, 2002; Nogeste, 2006).

This phase could be initiated in parallel with the other phases; since dis-benefits (and benefits) might emerge during the implementation stage (e.g. construction). A typical disbenefit during refurbishment work or expansion of existing healthcare infrastructures is the temporary changes or disruption to healthcare services due to construction onsite works.

### 2.20.5 BeReal proposed benefits classification structure

In the literature review presented earlier in this chapter there was a description on how benefits can be classified and categorised. The author following the need for a simplified approach to benefits classification introduces here the three-tier classification structure that was further tested and acknowledged during the undertaking of the case studies. The thinking of this approach is to break down barriers that may be arising when people attach labels such as, financial, operational, organisational, to different benefits. The aim is to avoid silos and focus people's minds and attitudes towards delivering these benefits independent to where they belong in the stakeholder spectrum.

The BeReal conceptualises and organises benefits in three main categories, represented on Figure 21.



**Figure 21: BeReal conceptual benefits classification**

*Strategic benefits* are related with the purpose of characterising the programme, providing an overall direction of success throughout the life cycle;

*Sub benefits* characterise specific targets linked to strategic benefits and should drive design and preliminary evaluation of alternatives of investment (e.g. selection of building options);

*End benefits* are measures that characterise in detail (e.g. hard, soft, tangible, intangible, quantitative, qualitative) the targets and realisation of benefits.

Figure 22 illustrates how the interrelation of the ‘three-tier approach’ will drive the project development and introduces the benefits controlling structure in terms of benefits identified.

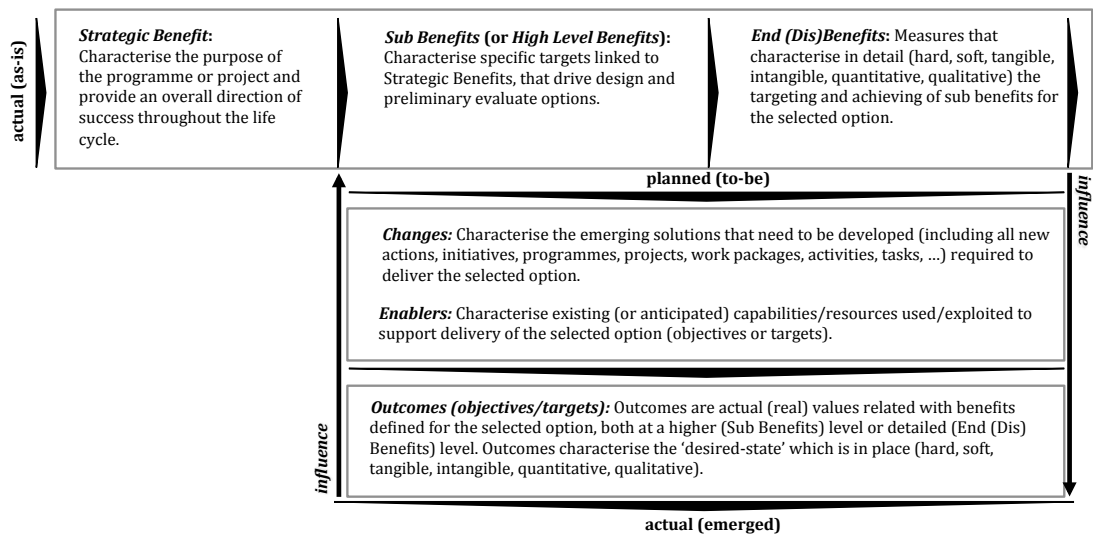


Figure 22: BeReal process - benefits controlling structure

The BeReal controlling structure is designed to cover the whole investment lifecycle including the project environment and organisational one, supporting:

- (1) Different measurement levels depending on the characterisation of benefits;
- (2) Providing consistent deviation control between ‘actual (as-is)’, ‘planned (to-be)’ and ‘actual (emergent)’ project lifecycle and decision making points.

The ‘actual (as-is)’ data is related with what is measured and is being actually realised (or not) on the current state, prior to the investment.

The ‘planned (to-be)’ emergent data is related with (what is being planned and) what is being estimated and should be realised in the future.

‘Actual (emergent)’ data relates with what is actually being measured and is being actually delivered or realised to/by the stakeholders.

In order to assure a controlling approach along the project lifecycle stages, consistency between stages and the different benefits organization levels (‘as-is’, ‘to-be’ and ‘emergent’) is understood as critical. Table 10 presents an overview of the BeReal controlling structure.

**Table 10: Conceptual BeReal phases and benefits classification**

BeReal phases		Benefits organisation		
Descriptions	Phases	Strategic	Sub	End
Benefits management strategy	I	✓		
Benefits profile	II	✓	✓	
High-level benefits map	II	✓	✓	
Benefits realisation plan	III	✓	✓	✓
Benefits evaluation and reviews (change and benefits)	IV	✓	✓	✓

Legend: ✓: Main focus.

## **2.21 Investment appraisal approaches in healthcare infrastructure development.**

Prior to selecting the case studies a literature review into the main stages of a healthcare infrastructure investment appraisal process was conducted as well as identifying their potential alignment with a typical project profile model. As previously described generally investment programmes determine their level of

success mainly against cost, quality and time of delivery, and not based on a full characterisation of benefits or impacts delivered. One of the leading general decision-making approaches for appraising major capital investment programmes used across different sectors and recommended by the UK government is the Gateway<sup>®</sup> Review by the Office of Government Commerce (OGC). The Gateway<sup>®</sup> Review highlights the need for a robust benefits realisation methodology when managing programmes.

The author also looked into two main investment appraisal approaches used in the healthcare sector such as the:

- Local Improvement Finance Trust (LIFT) – applied in smaller scale developments in the primary<sup>1</sup> care sector;
- Capital Investment Manual (CIM) (for Public, Private Finance Investment (PFI) and Public Private Partnership (PPP) investments) – applied mainly in large-scale infrastructure development in the secondary<sup>2</sup> or acute healthcare sector.

The CIM, LIFT and the Gateway<sup>®</sup> Review models are described in the following sections highlighting why a benefits realisation process needs to be embedded within them.

In 1994 the NHS executive launched the Capital Investment Manual (NHS executive, 1994). The purpose of this was to address the critical National Audit Office reports into the NHS major projects, where important differentiating factors between priority investment areas in the NHS needed to be considered

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<sup>1</sup> *Primary Care*- describes community based health services that are usually the first, and often the only, point of contact that patients make with the health service. It covers services provided by general (GPs), community nurses, community therapist, community pharmacist, optometrists, dentists and midwives (Binley's NHS Guide, 2008)

<sup>2</sup> *Secondary or Acute Care*- is provided through NHS hospitals treating conditions that cannot be dealt with by primary care specialists or which are brought in as an emergency. Types of hospitals also include District General hospitals, Tertiary and Trauma centres, and community hospitals (Binley's NHS Guide, 2008)

prior to their budget approval. Passman in 2009 discusses that the CIM was seen across government as mostly aligned with the available best practice at the time, and many of its principles hold true today. It follows the Business Cases approval route that is mandatory part of the planning, approval, procurement and delivery of investments within the public sector. This model is the Department of Health recommended approach for the preparation of service related procurements in the NHS England, and is also used extensively within central government departments and their agencies. The development of the business case takes place overtime and can be broken down into five different aspects. Distinctively each investment proposal should (Flanagan and Nicholls, 2007):

- Be supported by a robust case for change;
- Optimise value for money;
- Is commercially viable;
- Is financially affordable;
- Can be delivered successfully.

The business case develops overtime, usually in three distinct stages:

- Strategic Outline Case (SOC);
- Outline Business Case (OBC);
- Full Business Case (FBC).

The HM Treasury, in the Green Book guide (2003) describes these as:

SOC - is the scoping stage and its purpose is to confirm the strategic context of the proposal. It aims on making a robust case for change and to provide stakeholders with an early indication of the proposed way forward (but not yet the preferred option), having identified and undertaken SWOT<sup>3</sup> analysis on a wide range of available options together with indicative costs;

---

<sup>3</sup> Strengths Weaknesses Opportunities Threats

OBC – is the detailed planning phase. The purpose of the OBC is to revisit the SOC in more detail and to identify a preferred option, which demonstrates Value for Money. It should demonstrate affordability, details of the procurement strategy, together with management arrangements for the successful rollout of the project;

FBC – is the detailed final phase. It takes place within the procurement phase of the project, following detailed negotiations with service providers prior to formal signing of contracts. This is usually the stage at which final Treasury approval is required. The purpose of the FBC is to revisit the OBC and record the findings of the subsequent procurement activities, together with the recommendation of an affordable option that optimises value for money. It should include detailed arrangements for the successful delivery of the project and implementation of services from the chosen suppliers.

It is worth highlighting here that the Green book (2003) endorses the need for a robust process that has a stronger emphasis on the identification and realisation of benefits, focusing on the end sight right from the beginning. According to Flanagan and Nicholls (2007), too many strategies, programmes and projects in the public sector fail to achieve their objectives because the key phases of the investment have been inadequately scoped and planned, the associated risks have not been taken into account and anticipated benefits are not delivered due to their poor identification and management.

In 2000 the UK government launched the NHS Plan (DoH, 2000) where it manifested that the development of new acute hospital facilities would be delivered through a combination of traditional public capital funding and through the Private Finance Initiative.

The PFI meant that the private sector would design, build, finance and operate new hospital facilities. The ownership of the facilities would remain with the private sector and leased back to the NHS on a long-term basis lease. The main advantages of the PFI were considered to be:

- The accessibility to another source of finance;
- The mitigation to the private sector of the risk of ownership and delivering the asset to time and agreed cost; and
- The responsibility for facilities on going maintenance and management for the duration of the lease would fall in to the private sector.

The NHS Plan also manifested that the investment in primary and community care would come through a new public-private partnership known as the NHS Local Improvement Finance Trust (LIFT).

The LIFT model is a hybrid initiative that has drawn good practice from traditional PFIs and PPPs. The result was a form of PPP that provides long-term contracts for the refurbishment, construction and management of large bundles of GP and Primary Care facilities. The LIFT initiative was established pursuant to the Health and Social Care Act 2012 as a means to introduce new solutions to the investment needs of community based care services. It is a strategic PPP arrangement under which partners take shares in a joint venture known as the LIFT Co., which is set up to deliver primary health care property facilities. At the time of this research there were 43 LIFT Co.'s operating nationally. Each partnership is made up of the following key partners:

- Community Health Partnerships an independent company wholly owned by the Department of Health;
- Local health care providers such as Primary Care Trusts;
- Ambulance service;
- Social care providers such as local authorities; and
- A private sector partner.

LIFT has been designed to support the vision of the NHS Plan for an accessible health service designed around patients' needs, with enhanced integrated primary, community and social care services. LIFT schemes aim to contribute to local regeneration and neighbourhood renewal by ensuring the quality of life of local residents is improved through enhanced public services, and that broader

private investment is targeted towards areas of highest deprivation (House of Commons, 2006).

‘In addition a LIFT organisation will be encouraged to identify other potential occupants or users of facilities or other commercial opportunities that may help make a development financially viable or enhance profitability as well as offering flexibility to respond to changing requirements’ (Cartlidge, 2006). Co-location of many services means the integration of health and social care facilities, resulting in a much more accessible healthcare system. Through co-location of a range of healthcare services secondary care can occur within primary care facilities, “allowing faster and more convenient referrals, where the relevant specialists hold clinics in LIFT premises” (House of Commons, 2006).

The services that will be provided will be using a common approach developed by Partnerships for Health. This will result in a more equal delivery of health across the England and Wales. The LIFT companies will deliver buildings that are fully functional and able to deliver to the local community the care in terms of health and social that is needed over a period of 20 years (House of Commons, 2006).

Following ten years of development in the NHS (while this research was conducted) using the approaches described above there was a clear drive for delivering additional capacity for the healthcare sector. Lord Darzi in 2008 in the ‘High Quality Care for all’ report highlighted the need to also commit to deliver quality in terms of benefits primarily for the patients as well as to the medical and other dependant communities.

As it is highlighted in the research need section (1.2), during this past decade of heavy NHS infrastructure development, there has been little systematic follow through to drive forward delivery of the individual investment’s benefits and to measure what is actually achieved. It is also rare for any unanticipated benefits or disbenefits to be captured in a systematic way.



The UK government in 2003 through the Office of Government and Commerce (OGC) introduced the Gateway<sup>®</sup> review process to examine a project at critical stages in its lifecycle and to provide assurance that it can progress successfully to the next stage of its development. The Gateway<sup>®</sup> review process was designed for and applied to delivery programmes and procurement projects across all sectors including healthcare. In simple terms it is a review of a change programme or project carried out at key decision points by a team of experienced people not associated with the project under review.

The Gateway<sup>®</sup> review was the first systematic government initiative to highlight the need for benefits realisation in change programmes or projects. It promotes that any programme of change requires a constant focus on the intended benefits (measurable improvements) if it is to deliver value and remain aligned with business goals and the OGC Gateway<sup>®</sup> review process (Figure 23) reflects this focus at each stage.

The Gateway<sup>®</sup> review framework indicates, at a high level, dependencies between a typical benefits management process and the steps for managing a major delivery programme. It also maps the main benefits management steps onto the standard delivery stages described in both Managing Successful Programmes (MSP) and OGC Gateway<sup>®</sup> reviews, but the approach can be used for any type of more specialised change initiative, including introducing new policy, procurement projects or meeting e-delivery targets (OGC, 2003).

This process contains identification of potential benefits their planning, modelling and tracking, the assignment of responsibilities and authorities and their actual realisation and it has heavily been influenced by the Cranfield benefits management model that was introduced in the literature review section of this thesis. (Bradley, 2006, OGC, 2007a, Ward and Daniel, 2006).

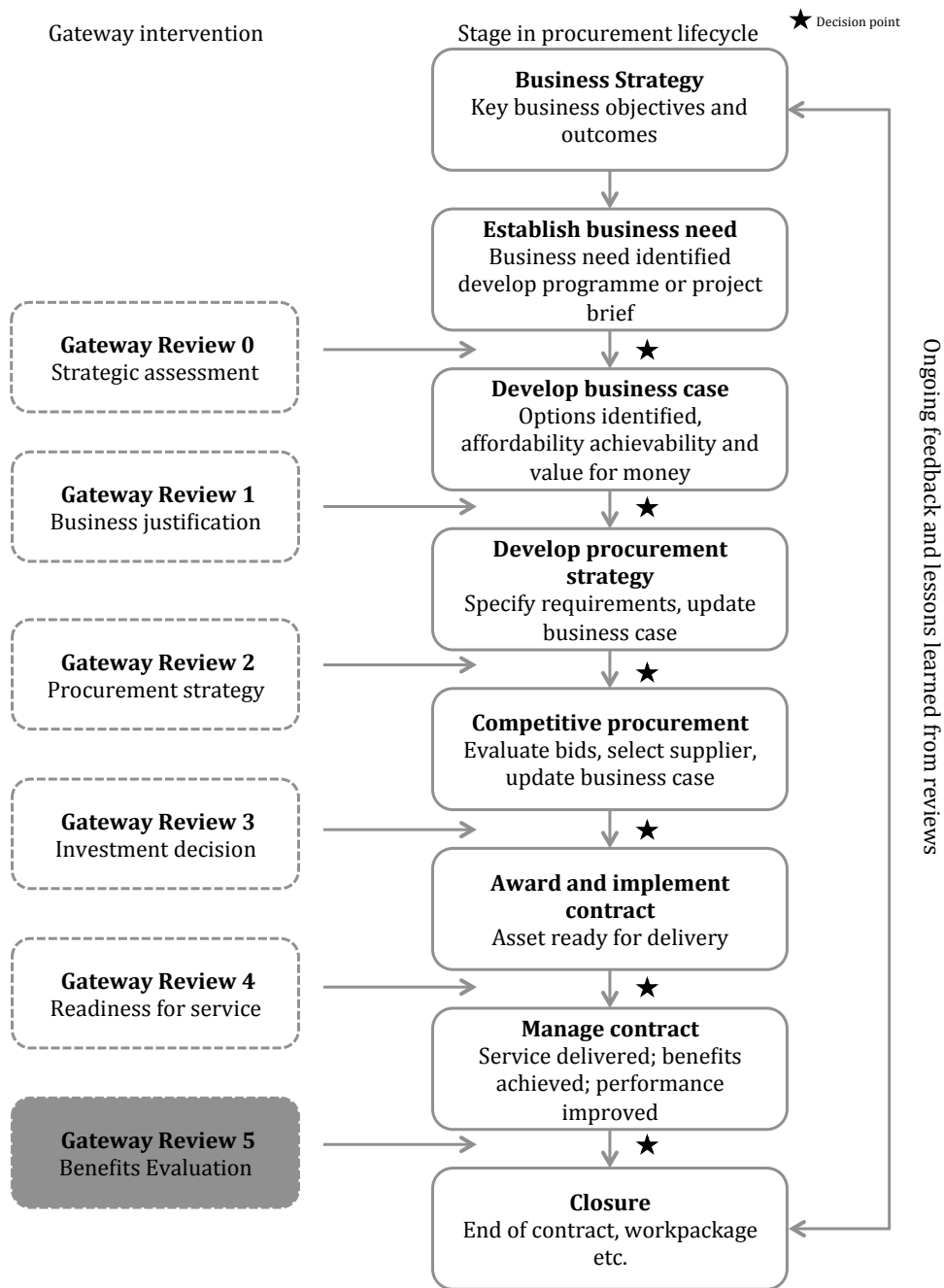
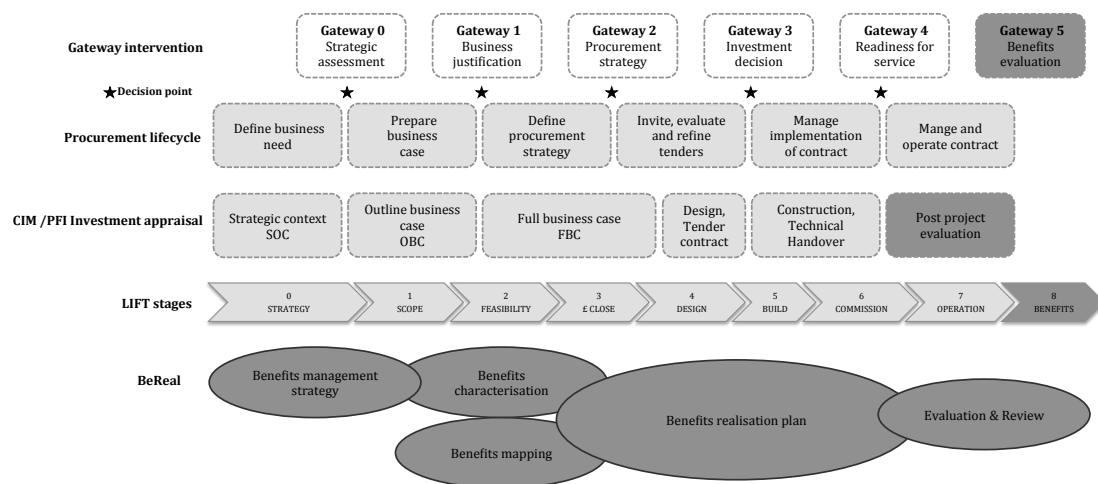


Figure 23: Gateway® review process (OGC, 2004)

### 2.21.1 Alignment of investment appraisal stages, Gateway® review gates and the BeReal conceptual process

The proposed BeReal process is to be investigated in the case studies as it is described in the next two chapters. BeReal does not intend to replace a healthcare organisation’s investment or project management process but to run

alongside and help those involved to understand how the focus on benefits can further assist the management of the project. Thus prior to further development and to help with the case study selection it was necessary to align the proposed process with the methods described in the previous section and currently used in the UK by the healthcare sector alongside OGCs Gateway<sup>®</sup> review process. The proposed BeReal process is also provisionally mapped and aligned against a typical procurement lifecycle (OGC, 2004) of a project (Figure 24).



**Figure 24: The first conceptual process, and its proposed alignment with the main healthcare investment appraisal processes**

It is important to highlight that all approaches introduce and attempt to focus on benefits realisation at the final stages of their progression. The author's view that is a foundation in the development of the proposed process is that benefits realisation should start at the conception stages and drive the development throughout its lifecycle. The case studies introduced in the research methodology in chapter 3 and fully described in chapter 4 have been selected aiming to test and validate the proposed BeReal process and to also highlight the relevance of the BeReal phases with the corresponding traditional investment process stages. This dual approach, that mixes an existing (and stakeholders' familiar) model with a new and emerging process, can further enable BeReal's use as a tool that brings individuals and teams together whilst breaking down organisational barriers by shifting people's thinking towards benefits and outcomes.

## 2.22 Conclusion

This chapter presented the literature review conducted by the author in the field of benefits realisation. The author explored here the relationship of benefits realisation with other related disciplines that need to be considered when investigating the development of such a process. The related disciplines were identified as programme and project management, change management, complexity, continuous improvement, performance management and measurement, evaluation and finally stakeholder management.

A synthesis of the literature review followed and was presented comparing the dominant benefit management approaches and other techniques that embrace the benefits realisation thinking. The above guided the author into identifying the need for a benefits realisation process applicable when developing healthcare infrastructures and the conceptual BeReal process was introduced. The conceptual process is phased as: (I) Benefits management strategy; (II) Benefits characterisation and mapping; (III) Benefits realisation plan; and (IV) Evaluation and review.

The applicability of the conceptual process is within the healthcare sector as such a description of the main healthcare infrastructure procurement and investment appraisal methods in the UK was made. These were identified as the Capital Investment Manual (CIM) for secondary care and the Local improvement Finance Trust (LIFT) for primary care. Further on the importance and relevance of the business case development process and the Gateway<sup>®</sup> review process were discussed. The author illustrated how these methods can be aligned with the conceptual BeReal process and its main phases, to ensure its relevance.

The findings of this chapter form the foundation for the further development of the BeReal process as presented in chapters 4 and 5, using the research methodological framework described in the next chapter as the platform to successfully conduct and conclude the research.

## 3 Chapter three – Research methodology

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This chapter describes the research methodological framework that guides this research. A nested research model is adopted consisting of the research philosophy, strategy, and methods used. It describes in detail the constructive research cycle steps taken and the reasoning behind the choices made.

### 3.1 Introduction

The basic purpose of research is theory, i.e. to understand and explain phenomena, gaining solutions to problems or answers to unsolved questions (Tzortzopoulos, 2004). A theory presents a systemic view of phenomena by specifying relations among variables, with the purpose of explaining or predicting (Kerlinger, 1979). Research methodology represents the logic of development of the research process used to generate theory (Kerlinger, 1979). Therefore, it refers to the procedural framework within which the research is conducted (Remenyi et al., 1998). Good quality research should be rigorous, systematic, integrated and focused (Peters and Howard, 2001). However there is no one universally accepted scientific methodology (Lee, 1989) but rather a combination of paradigms are used to form the methodology for the research undertaken. In such way, every methodology is unique and applicable only for its intended purpose (Kagioglou, 1999).

Process development and its implementation is a complex phenomenon very much shaped by the organisational context in which it takes place, as well as by the perspectives, beliefs and motivations of the individuals involved. (Tzortzopoulos, 2004) Thus, the research method applied should be appropriate to help understanding the complexities of the implementation process and the many factors that affect it.

Different methodologies can be used to design and execute research. Nonetheless, the method used should be suitable to develop and test theory within the area being studied (Kerlinger, 1979; Remenyi et al., 1998).

### 3.2 The research model

A 'nested' research methodology is adopted as described by Kagioglou et al. (1998) Figure 25. Such a methodology provides a holistic, integrated research method, generating a framework that provides the researcher with a research approach and techniques that benefit from epistemological level direction and cohesion. Understanding the elements that constitute a methodology can assist in reaching appropriate alignment between the method and the study area (Tzortzopoulos, 2004). The elements of the nested approach are summarised below and further described in the following sections.

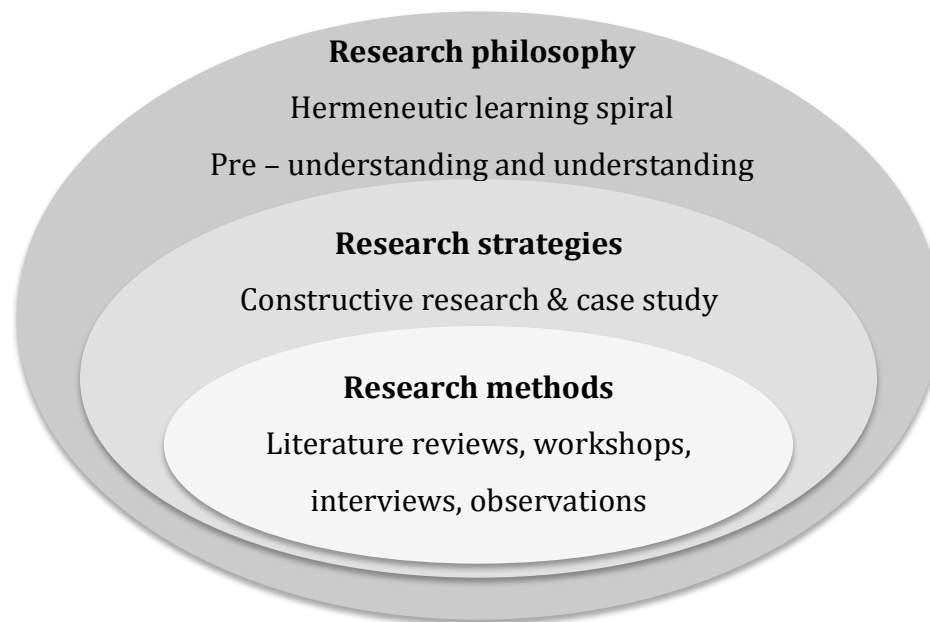


Figure 25: The 'Nested' research model (Kagioglou, 1999)

- Research philosophy guides and unifies the research strategy and techniques;
- Research approach consists of the dominant theory generation and testing methods;
- Research techniques comprise mainly data collection and analysis tools.

### 3.3 Research philosophy

Joining the epistemological debate on ‘how to best conduct research’ there are two schools of thought, positivism and phenomenology.

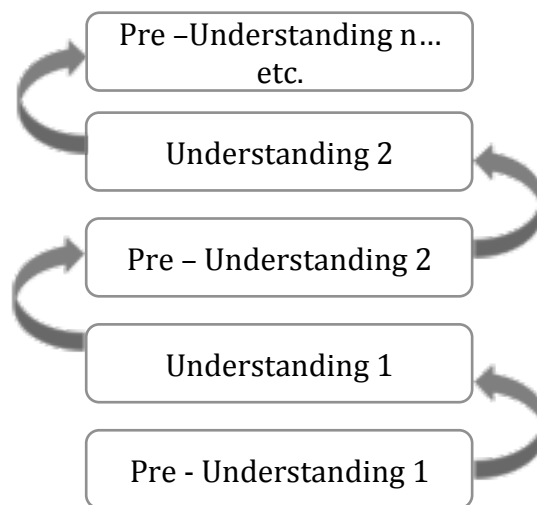
Positivism refers to “all approaches to science that consider scientific knowledge to be obtained only from sense data that can be directly experienced and verified between different observers” (Susman and Evered, 1978), including rigorous observations to generate scientific knowledge. In this way, it mainly uses quantitative and experimental methods to test hypothetical-deductive generalisations (Blaikie, 1993).

Phenomenology concerns phenomena, i.e. our experience of things. In this way, phenomenological methodology seeks to understand another’s experience (Cohen et al., 2000). Phenomenology uses mainly qualitative approaches to understand and explain a phenomenon (Easterby-Smith et al., 2002). It also recognises the individual viewpoints of practitioners and researchers involved in the process (Seymour, 1997).

In section 1.3 it was stated that the aim of this research to develop a robust process for benefits realisation and to investigate best practices in the area of benefits management in the healthcare sector. Thus the author has adopted the interpretative school of thought as the epistemological option for this research.

Within that school of epistemology that is also known as the interpretative philosophy (Silverman, 1998) this research is rooted on the Pre-understanding \_ Understanding spiral (Oldman, 1985).

The idea behind the hermeneutics spiral is that no knowledge is possible without presuppositions; i.e. the framing of any scientific question assumes some foreknowledge of what we want to know (Susman and Evered, 1978) and therefore research becomes an iterative process whereby a pre-understanding develops to an understanding of the various issues involved. An illustration of this approach is shown in Figure 26.



**Figure 26: The hermeneutic learning spiral (Oldman, 1985) in (Kagioglou, 2000)**

The pre-understanding stages relate to the prior knowledge of the author that forms the basis for the development of the understanding that is needed to develop the benefits realisation process methodology. This understanding, in turn, is the basis for the pre-understanding for the next stage of the development and so on. It provides a progressive understanding of the process development through different viewpoints and by an iterative process of looking to the whole and its parts (Bauman, 1978). It is therefore considered appropriate for this research.

This research was placed within a larger research project, looking at ‘Decision Making Support’ within the Health and Care Infrastructure Research and Innovation Centre (HaCIRIC) where an action research mode was adopted. In that context the main mechanism for moving from a pre-understanding state into an understanding one was the participation of the author in meetings, workshops and general discussion with the participants in the case studies. The author’s learning and understanding was used to inform the development of the BeReal process as it is described in chapter four and five, there was also collective learning for all participants facilitated by the author’s interventions in the action research case studies.



### 3.4 The research strategy

The research strategy is the methodological framework that is developed and used by the researcher in embodying a particular style and employing different research methods. The development of the research strategy is dependent upon (Yin, 2003):

- The type of the research question posed and the nature of the enquiry;
- The extent of control the researcher it has over actual behavioural events;
- The degree of focus on contemporary events.

Different issues have been considered in determining the most appropriate strategy to satisfy the research aims and objectives, as follows:

- The types of evidence and data (and their sources) that needs be collected to develop the process;
- The nature of the data required moving from a theoretical assumption into a practicable methodology;
- The development of the process (artefact) that will have theoretical contribution as well as giving answers to a practical relevant problem;
- The action research framework that the larger HaCIRIC project had already adopted;
- The time that was needed to develop the process and validate its impact, i.e. a shorter period of time was available for the research (3 years) than the lifecycle of a typical healthcare infrastructure programme (15-20 years);
- The author's personal experience and knowledge.

To address the above issues two different strategies were combined and deployed to form the methodological framework for this research. The methodological framework strategy combines a (1) constructive research approach by Lukka (2003) and Kasanen et al. (1993); and (2) case study approach (Yin, 2003). These two approaches are described in the subsequent sections, followed by the research methodological framework in Figure 28 that the research presented in this thesis has been based on.

### 3.4.1 Constructive research

The constructive research approach focuses on producing theory-based innovative solutions to relevant practical problems, summed to generation of new learning and knowledge, in the process of constructing the solution (Kasanen et al., 1993). The same authors explain that constructive research is used when the researcher is seeking solutions to clearly defined problems. Such an approach is recommended when looking into problem solving, innovation, developing models and methods or process and product improvements. The expected outcomes for a constructive research are: artefacts (e.g. constructs, models and methods), better theories, improvements and technological rules.

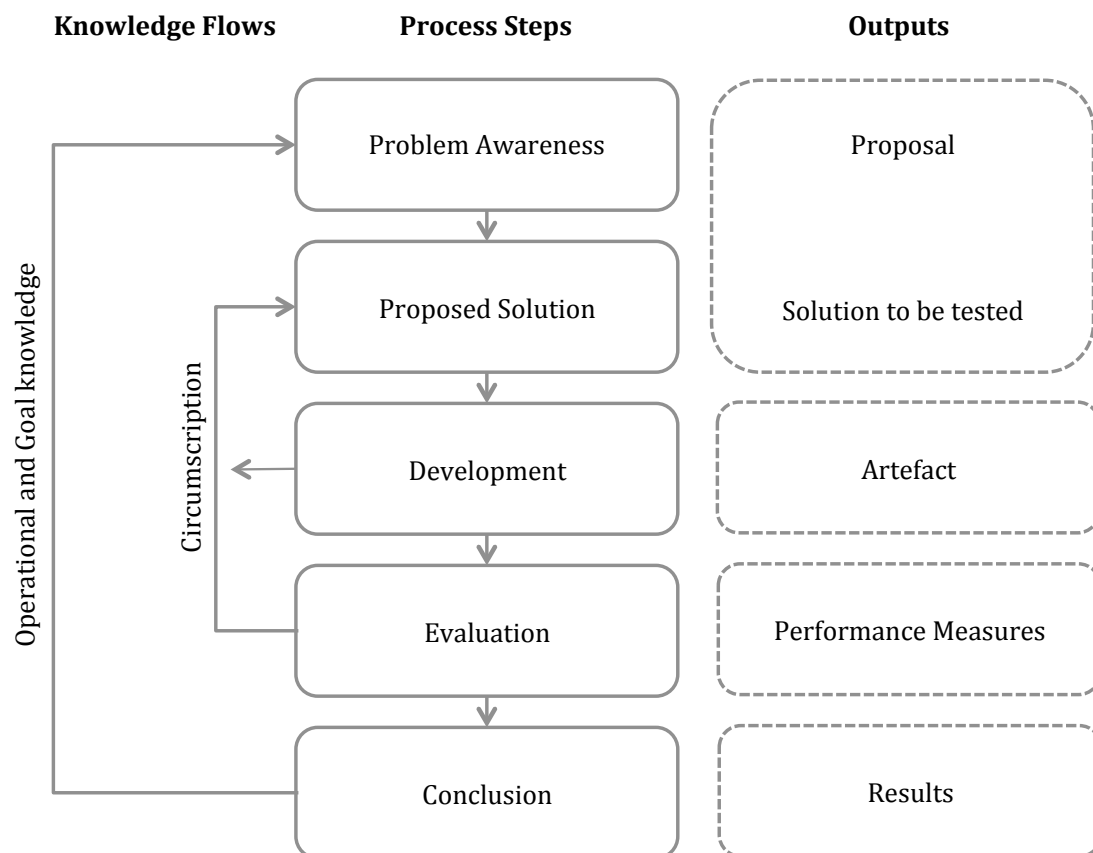
Constructive research assists in solving the application and relevance problems that happen in disciplines concerned with problem solving such as management, medicine, and information technology (Henrich, 2009, Rocha, 2011). As argued by Van Aken (2004) in these disciplines it is not sufficient to describe and understand the problem, it is also necessary to actually develop and test solutions.

The need for this research as presented in chapter one was born out providing answers to both the academic and practical world. Lukka (2003) argues that people usually ask: what do we really get from all these academic analyses? The constructive research approach is the one that gives emphasis to a two-way communication and combines in structured way both theoretical and empirical evidence and as such is inherently narrowing the gap between practice and research (Lukka, 2003).

The common steps in different sequences of construction research (Kasanen et al., 1993, Lukka, 2003, Vaishnavi and Kuechler, 2007) as investigated by Rocha (2011) can be grouped in: (a) solution development; (b) its evaluation; and (c) the fact that the research process is not linear but it involves loops. Vaishnavi and Kuechler (2007) define those loops as limitations, that can happen at the development and evaluation steps and lead to revision of the problem awareness, creating a new cycle of further constructing or developing a solution,

under a new understanding following the hermeneutic spiral presented in 3.3. They go on to define the sequence of the process steps that need to be taken as: Problem awareness → Suggestion of a solution → Development → Evaluation → Conclusion.

The author in this research pursues the development of a robust benefits realisation process, where as defined in construction research terms that process will be the main artefact constructed. Kasanen et al. (1993) suggest that a good quality artefact has to have the following characteristics: (a) practical relevance; (b) usefulness; (c) informed by theory; (d) theoretical novelty; (e) applicable in other environments. In more recent studies Vaishnavi and Kuechler (2004) based on Kasanen (1993) and Lukka (2003) recommend the following methodology of constructive research when focusing in developing an artefact as presented in Figure 27.



**Figure 27: Constructive research methodology flowchart (adapted from Vaishnavi and Kuechler, 2004)**

Henrich (2009) and Rocha (2011) describe the process steps as:

- **Problem awareness:** Is about finding a practically relevant problem, which also has potential for theoretical contribution. In this step there is the need to understand the problem and establish connection to prior theory;
- **Proposed Solution:** Identify and propose possible solutions or methods to that will address the problem identified. At this stage a draft of the artefact is presented and a definition of the methods that will be used for its development;
- **Development:** Develop and implement the solution to the problem. This where the solution is constructed;
- **Evaluation:** Test the proposed solution and collect data to evaluate its practical functioning. The artefact's performance is measured;
- **Conclusion:** Assess the artefacts practical and theoretical contribution and present final results. At this stage the theoretical connections and the contribution or the knowledge in the solution of the problem is concluded.

### **3.4.2 Action research**

HaCIRIC adopted an action research mode in the wider research project that aimed to develop tools and methods to facilitate decision-making in the healthcare sector. The participation of the author in the HaCIRIC activities enabled the author to observe, record and take part in identifying the problem and also enable the understanding of the issues involved.

The action research was (Cohen and Manion, 1994):

- **Collaborative:** it involved the bringing together of the author and other researchers and practitioners participating in both the HaCIRIC and the BeReal project;
- **Participatory:** The author was taking part in all activities and was directly or indirectly defining and implementing the research;

- Evaluative: Assumptions, findings and modifications were continuously evaluated within the environment of the case studies, with the ultimate objective being to improve practice one way or another.

Action research allows researchers to work actively with industry so that the needs of both groups are addressed through the research; and if needed cause a change within a social system (Lewin, 1946). In this research, action research follows the ‘regulative cycle’ of: research question, diagnosis, plan, intervention and evaluation (Strien, 1975) through interaction between the researcher and industry. Through this interaction and continued discourse between the two entities, a user community (advisory group) of BeReal was developed, this community provided direction and advice to the researcher, whilst the researcher provided interventions (research outcomes), for the problem diagnosed by the group and in the literature. The advisory group also acted as one of the main validation mechanisms for the process constructed and presented in this thesis.

### **3.5 The research methodological framework**

The integration of the two research approaches (constructive and case study) with the research philosophy described in the previous sections provides the research methodological framework presented here (Figure 28). The framework consists of activities undertaken throughout the research project progression.

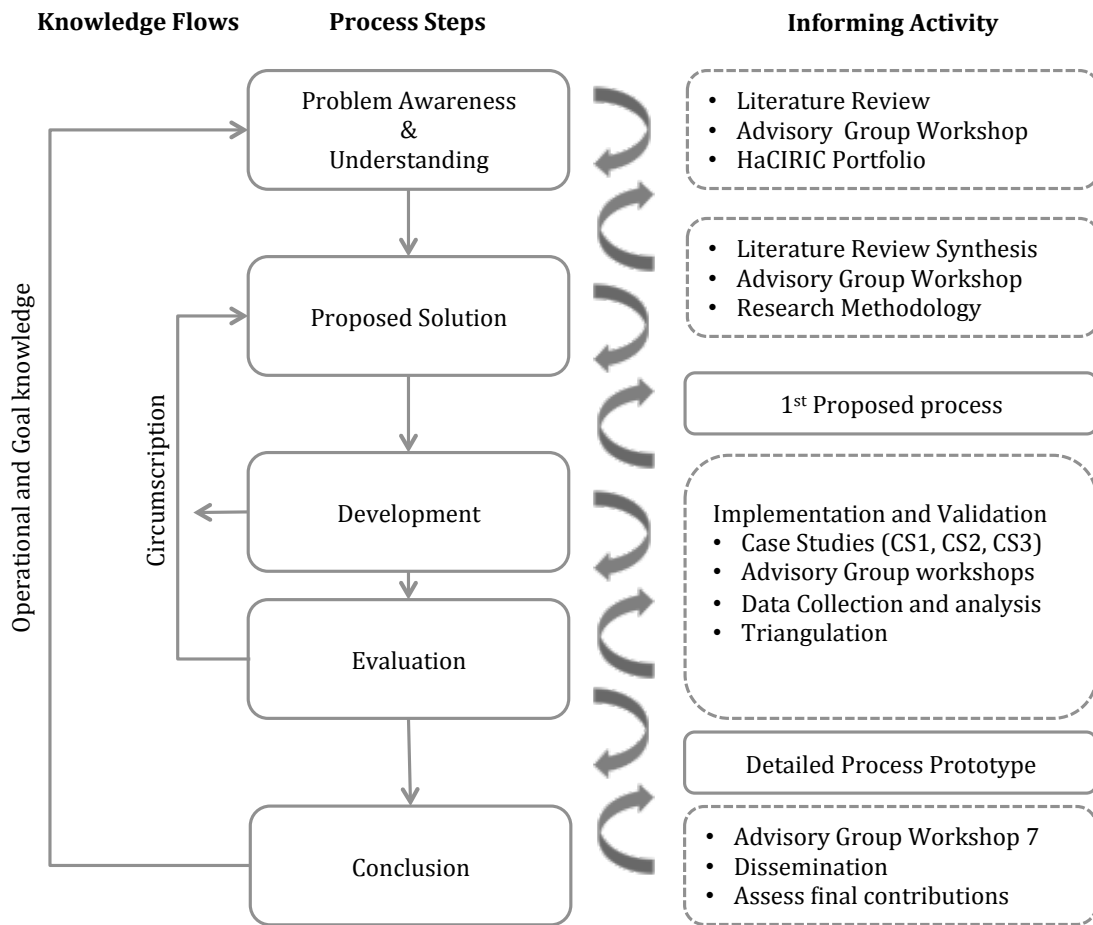


Figure 28: Research methodological framework

In constructive research an array of qualitative and quantitative research methods can be used to inform the key elements of the research methodological framework. The research methods selected by the author are explained and reasoned in terms of the suitability for this thesis in the following section.

### 3.5.1 Research process steps and methods

A research method is a way of collecting evidence that indicates the tools and techniques used during data collection (Galliers, 1992). A variety of methods were adopted to collect data that included, Literature reviews and synthesis, questionnaires, documentary analysis, observations and interactive workshops. These are used to develop, implement and evaluate the Benefits Realisation (BeReal) process from multiple perspectives. These methods are further explained in the following sections as they are positioned within the research

methodological framework to enable the author to investigate into the development of an effective benefits realisation process for UK healthcare infrastructures. The research framework process steps and the research methods are interconnected with the '*Pre-understanding \_ Understanding*' hermeneutic spiral that facilitates the generation and flow of knowledge guiding the author to a productive cycle in reaching his and this thesis conclusions.

### **3.5.1.1 Research process step 1 - Problem awareness**

At this initial stage of the research the author seeks to understand the elements of benefits management and realisation, their interaction with other management disciplines and contextualise this knowledge in a healthcare infrastructure development setting. For achieving that the author deploys the collection of secondary data initially through a **literature review**.

The aim of the literature reviews was to:

- Provide the author with a greater understanding of the research area under investigation;
- Enable the author to build on and use the work and experiences of both academic and practitioners;
- Demonstrate the need for the research by identifying gaps in knowledge available in the public domain;
- Demonstrate that the author's proposed process and methods were based on incorporating and go beyond 'best practice' in the research area.

The literature review focused on the following main areas:

- (a) Benefits terminology and how benefits are classified;
- (b) Benefits management and benefits realisation theoretical background;
- (c) A historical line of several benefits management approaches;
- (d) The main elements need to be considered when undertaking benefits management as an output of the reviewed benefits management approaches;

- (e) Types of evaluation for a programme and/or project;
- (f) Relations of benefits management with programme and project Management, change management, performance management and measurement, and finally the role and importance of stakeholder involvement and management.

A further literature review and discussions with industry and academic experts was conducted aiming to gain a better awareness of the research need and its practicalities, as the author was seeking answers to the research question posed at the beginning of this thesis in section 1.4.

The additional topics explored were:

- (g) Techniques that embrace the benefits realisation thinking;
- (h) 'Best practice' ingredients of a benefits realisation process;
- (i) Investment models and project progression appraisal approaches specific to UK Healthcare infrastructure development;
- (j) Levels of healthcare delivery services in the UK.

The findings from (a) to (j) are detailed in chapter two and Appendix I. These findings were enlightening in forming the, suggestion of the solution, development and evaluation stages of the research methodological framework.

### **3.5.1.2 Research process step 2 - Suggestion of a solution**

Prior to the first conceptual process construction, data from the literature review was grouped by similarity, resulting in a matrix that presented different aspects mentioned by each benefits management approach. This process allowed the identification of the major foundations, in which the issues for constructing a benefits realisation process were based. The use of the advisory group **workshops**, the placement of the author within HaCIRIC and the author's personal knowledge and experience provided the sources of the primary data that was synthesised with findings from the literature review as described



above. As a result the benefits realisation (BeReal) conceptual process is introduced in chapter 4.

### **3.5.1.3 Research process step 3 and 4 - Development and evaluation**

As explained earlier the second strategy to be integrated in the research methodology framework is **case study** research. The aim of case studies is to reach a fundamental understanding of structure, process and people (Gummesson, 2000). The case study approach would inform the development, evaluation and conclusion phases of the constructive research sequence. The author has adopted a multi case study approach to further construct and test the benefits realisation process under development.

Multiple case studies allow the analysis of data across organisations, which in turn enable the identification of context specific constraints in the implementation process and outcomes (Herriot and Firestone, 1983). Multiple cases, adequately sampled, provide understanding and explanation, as they help point out specific conditions under which a finding will occur, and also help to form more general categories of how these conditions may be related. In this way, a multiple case design allows for a replication logic, in which each case study serves to confirm or disconfirm inferences drawn from previous ones (Yin, 2003).

The number of the case studies that are needed for a multi case study approach are not defined in the literature. Eisenhardt (1989) recommends that anything between 4 and 10 case studies need to be studied for the results to have validity. However Dyer et al. (1991) suggests that the decision on the number of case studies should be made by the researcher and is dependent on what new information can result from studying more cases. The reasons for selecting the case studies are described in detail on Chapter 4.

Within the case studies the following research methods are deployed: (1) workshops; (2) documentary analysis; (3) informal interviews and discussions; and (4) questionnaires.

#### **3.5.1.4 Research method (1) - Workshops**

Most of the data collected in the research was through workshops with stakeholders.

The workshops carried out in research were of two types:

1. Data gathering and process development as part of the case studies

These included workshops across all case studies that were used for Benefits Elicitation, Benefits Classification, Profiling and Segmentation. In case study 3 workshops were also carried out for the Optioneering phase. These workshops are further detailed in chapter four where the full case studies are presented and analysed.

2. Advisory group workshops:

These workshops were initially part of the action research mode in the HaCIRIC research project. The workshops evolved into focusing solely on the BeReal construction and were central to fruitful pre-understanding and understanding progression. The author used these workshops for presentation of the case study findings, process assessment, validation and formulation of a detailed plan of next steps as they were identified in the research methodological framework.

#### **3.5.1.5 Research method (2) - Documentary analysis**

Yin (2003) suggests that documentary information is likely to be important in any case study. Documents are primarily used to identify new evidence and augment evidence from other sources, thus providing new insights. The main advantages of using documentation as a source of evidence relies on the fact that it is stable, i.e. it can be reviewed repeatedly, it is unobtrusive and normally provides a broad coverage, i.e. a long span of time, events and settings (Yin, 2003).

In this research, documents were used mainly to provide specific details on the investment appraisal process used by the organisations involved in the case

studies. Documents also provided complementary information on the organisational structure and common practices on infrastructure development and management. Documents of diverse types have been collected and analysed, including written reports, infrastructure appraisal guides, business cases at their various levels of progression, i.e. Strategic Outline Case (SOC), Outline Business Case (OBC) and Full Business Case (FBC), as well as published information about the organisations on the Internet. The specific documentation analysed within each case is described in Chapter 4.

#### **3.5.1.6 Research method (3) - Interviews**

*Interviewing* is the most significant qualitative technique that can be used within a case study to obtain information from a small sample (Easterby-Smith et al., 2002, Yin, 2003). For the three case studies presented in this thesis the author used informal interviews to collect qualitative data (see Appendix II.14). Informal interviews have some predetermined questions, but these are used only as a guide, the researcher is able to change these and explore further into an answer, dependant on the response and how the researcher interprets the conversation (Robson, 2003; May, 1993).

#### **3.5.1.7 Research method (4) - Questionnaires**

A number of questionnaires were used to gather data in regards to a Post Occupancy Evaluation (POE) in case study 1. The author used the data collected from this questionnaire to identify links between the POE outcomes and the degree to which benefits identified have been realised.

Questionnaires are tools used to collect quantitative data, they gather numerical data through which patterns and causal relationships are discovered, the findings are seen to have high reliability. Questionnaires are a good way to gain an insight into ‘characteristics, attitudes, and beliefs’ of many people (Marshall and Rossman, 1999). In this case the questionnaires were used to gather an insight and assess the different groups’ views and perceptions of the services, facilities and overall effects of the infrastructure investigated in case study 1 (see

Appendix II.1). The questions addressed benefits identified through workshop as explained in the previous section. The AUDE (Association of University Directors of Estates) and CABE (Commission for Architecture and the Built Environment) best practice guidance has been used for developing an effective questionnaire involved in Post Occupancy Evaluation. Within the best practice guidance are recommendations of the kind of questions that should be used when addressing client satisfaction. This was relevant to the work being undertaken within the case studies as a large focus of the studies is on the experience of the staff and patients. Through analysis of the questionnaire findings and their link to benefits identified it was possible to see if the infrastructure development in case study 1 has delivered these benefits in the view of the staff, patients and community. Further details on the use of this method are presented in section 4.3.1.

#### **3.5.1.8 Research process step 5 - Conclusion**

The constructive research sequence cycle concludes and reinitiates by analysing all inputs and outputs of the previous stages in order to determine if the research aims and objectives have been met. In doing so the author in the last chapters of this thesis discusses the artefact's (BeReal process) contributions to knowledge and practice, argues on its applicability, usefulness. The research and therefore this thesis is concluded with recommendations for future research needed, contributions to the methodology followed, and discusses its validity and applicability.

### **3.6 Validity**

The research design should be sufficiently rigorous to provide support for the study to be believable and trustworthy (Robson, 2003). Therefore, validity should be considered within phenomenological research, even though the criteria for evaluating such issues was developed for positivist research designs (Remenyi et al., 1998). As interpretative research is different in nature from positivist approaches, the standards used should also be different, and they

usually refer to whether there has been consistency and integrity in the design of the study (Remenyi et al., 1998).

Furthermore, it is acknowledged that case studies can be criticised on the basis of lack of rigour, including bias (Yin, 2003; Robson, 2003), because the data gathered is mostly based on the perceptions and subjective interpretations of the researcher. This bias can be reduced by a process of data triangulation where multiple perspectives of the same phenomenon are provided (Kagioglou, 1999). Triangulation is a method of cross checking the existence of certain phenomena and the veracity of individual accounts, by gathering data from a number of informants and through a variety of channels (Yin, 2003).

The use of variety of research methods by the author aimed to achieve the triangulation of data and therefore reduce the case study bias, as supported by Yin (2003) where the use of multiple sources in case studies is rated more highly than those that rely on single source of data.

### **3.7 Summary**

This chapter presented the research methodology used for this research. The main objective of this research is to develop a robust benefits realisation process for the UK healthcare infrastructure sector and as such an interpretative approach is taken as the epistemological option.

The overall research direction was driven by the ‘pre-understanding – understanding’ hermeneutic spiral as research philosophy, building on the author’s personal experience and interaction within this research’s environment.

A combination of constructive and case study research strategies was adopted to investigate, develop, construct and test the BeReal process, which in research output terms is the main artefact developed here.

The author desired that this research would be informed by ‘real world’ interactions and interventions as it is also recommended in literature when adopting a constructive research methodological framework.

The use of several research methods for data collection was deployed to validate the findings from the case studies. In doing so the intention was for the bias inherent in the research methodological framework to be reduced.

## **4 Chapter four – The BeReal process investigation and development**

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The literature review presented in chapter 2 illustrated the need for a benefits realisation process that can be applied when planning, developing and delivering a healthcare infrastructure. The author undertook a number of case studies as investigatory and validation mechanisms for the development of the benefits realisation process. Details of how the conceptual process was further informed developed and validated through the advisory group workshops and the case studies are presented here. The key tools and techniques used in the BeReal process and how these were implemented tested and further developed is also discussed.

### **4.1 Introduction**

The author undertook three case studies in the healthcare industry where he had the opportunity to be exposed to a number of issues linked to project progression decisions related to outputs and benefits. This chapter presents the rationale of how the case studies were selected, an overview as well as the main findings followed by lessons learnt.

The selection of the case studies was critical in the investigation and development of the benefits realisation process aiming to test the validity of the process phases. It would have been difficult to undertake one case study to test and validate the whole process given time constraints, as the whole lifecycle of such projects spans from 20 to 30 years. Therefore the process needs to be tested in healthcare organisations that major infrastructure projects are active and are at different stages of their development. This selection criterion provided the opportunity to investigate the applicability of the process in its various phases. In satisfying this and following the alignment of the proposed process with the dominant investment appraisal approaches three case studies were selected as illustrated in Table 11.

**Table 11: Case studies and benefits realisation process phases**

Proposed BeReal phases		Case study 1	Case study 2	Case study 3
Benefits management strategy	I	✓		
Benefits profile	II	✓	✓	✓
High-level benefits map	II	✓	✓	✓
Benefits realisation plan	III		✓	✓
Benefits evaluation and reviews	IV	✓		

✓: Main focus.

The author tested and validated the process based on the following questions:

- How does it fit in with the different investment appraisal approaches?
- What steps need to be included in the process to make these approaches focus on benefits to be delivered?
- Is the process applicable to different scales of investment?
- Is it applicable to different healthcare settings?
- Can it run along project management at various stages?

Answers to these questions form the case study criteria as:

- Investment / procurement process route;
- Infrastructure development stage;
- Size of the capital investment;
- Level of healthcare services provided;
- Location of the infrastructure project.

The differentiators of the above criteria and the main characteristics of the three case studies are summarised in Table 12.



**Table 12: Case studies - characterisation summary**

Characteristics	Selected case studies		
	Douglas Green	St Thomas	3Ts
ID	CS 1	CS 2	CS 3
Investment /Procurement Route	LIFT	PPP	CIM / UK Treasury
Capital investment (£m)	15	40	420
Level of healthcare provided	Primary	Community and Secondary	Acute and Tertiary
Location	Salford	Stockport	Brighton
Infrastructure development stage	Post Occupancy	Outline Business Case (OBC)	Outline Business Case (OBC)

#### 4.1.1 Douglas Green – Case study 1

The Douglas Green healthcare facility was identified as case study 1 (CS1). This project is part of the Manchester Salford and Trafford (MaST) LIFT programme. As previously described LIFTs intent is to contribute to the redevelopment of primary care infrastructure, through building facilities that can deliver diverse services including those for the acute sector (Binley's, 2008). In 2008, there were 42 nationwide LIFT schemes and this was set to continue in the future with seven already under development, for which procurement activities were already in progress.

In 2001 MaST LIFT was introduced as incorporating a new procurement route for primary care services through Community Health Partnerships (CHP) and it is the largest of the LIFT partnerships. The author in collaboration with the MaST partnership programme director (member of the advisory group) selected the Douglas Green LIFT project from 12 operational schemes for the purpose of this research. The project was at the post occupancy stage following an initial investment of £15 million and had already been in operation for 12 months. The UK government has made a large investment into LIFT expecting many benefits to be realised, so there was also a need to evaluate how successful LIFT schemes in operation have actually been. However as stated in the House of Commons report (2006) "It will be many years before the expected benefits of delivering services to

local communities through LIFT can be realised.” and that there “is not a formal methodology to manage and realise intended benefits”. Combining the organisation’s need and the purpose of this research Douglas Green located in a deprived neighbourhood in Salford fitted the case study differentiator selection criteria.

The investigation into how MaST LIFT would follow a benefits realisation approach presented the author with the opportunity to develop and validate the methods for benefits elicitation, benefits evaluation and selection of stakeholder groups related to BeReal phases as those were previously introduced and illustrated in Table 13.

**Table 13: BeReal phases investigated in CS1**

BeReal phases to be investigated in		Case study 1
Benefits management strategy	I	
Benefits profile	II	✓
High-level benefits map	II	✓
Benefits realisation plan	III	
Benefits evaluation and reviews	IV	✓

#### 4.1.2 St Thomas Community Hospital<sup>4</sup> – Case Study 2

The St Thomas Community Hospital project was identified as case study 2 (CS2). This project is part of NHS Stockport primary and secondary care service reconfiguration programme where by in 2004 has embarked on 10-year journey to deliver fit for purpose healthcare infrastructures. The author in collaboration with the Stockport NHS Finance director (member of the advisory group) selected St

<sup>4</sup> *Community Hospital* – is a healthcare facility that bridges acute and primary care. A community hospital is one without contractually resident medical staff. They provide minor surgery, rehabilitation services, maternity services and could also provide care for older people that no longer require hospitalisation, but cannot yet return home. (Binley’s NHS Guide, 2008).

Thomas project whose main aim was to “provide care close to home and to offer responsive, personalised and convenient services with a strong emphasis on quality and safety.” (NHS Stockport, 2008). This development was also considered to be a flagship project in the UK government’s community hospital infrastructure programme. The project was at the Outline Business Case development stage planning to invest £40 million through a PPP investment route. NHS Stockport had a strategic vision summarised in the six following aims:

- To seek to improve the overall health and well - being and to reduce the variation in health experience of the people they serve;
- To commission and provide care, whenever possible and appropriate, in primary and community settings;
- To support and invest in staff through development and staff involvements processes and so make it fulfilling to come to work;
- To increase the level of public and patient involvements in the decision-making processes about their collective and individual care needs;
- To work in partnership with the Local Authority and other agencies to maximise the opportunity for collaboration and joint benefit;
- To maximise the benefits of the resources they manage and to remain.

There was the need to translate the strategic vision into a meaningful direction that St Thomas Community project will embrace and aim to deliver through the new infrastructure project. There was the SHA’s<sup>5</sup> requirement that the project would follow the Gateway review process (presented earlier) where a benefits realisation methodology must be included in the Outline Business Case. The inclusion and content of a benefits realisation methodology would be a criterion for the approval of the project’s budget and investment or not decision to be made.

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<sup>5</sup> *Strategic Health Authorities* – were created by the UK government in 2002 to manage the local National Health Service on behalf of the secretary of State. They are the key link between the Department of Health and the NHS. They are responsible for the successful delivery of improved local health services ensuring that they are of a high quality. They also have responsibility of managing the capacity of services and ensure that national priorities are integrated into local health service plans. They are decision mechanisms for local funding allocation regarding infrastructure and staffing.

Combining the organisation’s need and the purpose of this research St Thomas’s Community hospital project fitted the case study differentiator selection criteria.

The investigation into how St Thomas Gateway® review process would adopt a benefits realisation approach presented the author with the opportunity to develop and validate methods for benefits elicitation, dependency maps and formulate a n approach for developing a benefits realisation plan related to the conceptual BeReal phases II and III as those were previously introduced and illustrated in Table 14.

**Table 14: BeReal phases investigated in CS2**

BeReal phases to be investigated in		Case study 2
Benefits management strategy	I	
Benefits profile	II	✓
High-level benefits map	II	✓
Benefits realisation plan	III	
Benefits evaluation and reviews	IV	

#### 4.1.3 3Ts Regional Centre<sup>6</sup> - Case study 3

The 3Ts Regional centre development project was identified as case study 3 (CS3). The Brighton and Sussex University Hospitals (BSUH) NHS Trust is investing £420.1m through public funding in the development of the Regional Centre for Teaching, Trauma and Tertiary Care. Program completion is expected for 2019.

The author in collaboration with the BSUH Estates and facilities director (member of the advisory group) selected the Tertiary, Trauma and Teaching (3Ts) whose vision it is to provide clinical services, buildings and infrastructure that will be

<sup>6</sup> Teaching, Trauma and Tertiary Care – Tertiary care centres provide treatment for complex conditions e.g. cancer therapy

used by the local populations of Mid Sussex, Brighton and Hove for the next 30 to 40 years (Brighton and Sussex University Hospitals, 2009). BSUH 3T was in May 2009 at the business case approval stage, and had been through a number of other stages since 2007.

The program definition began with developing the strategy for health delivery. This definition process started in 2007 and was rooted on a myriad of policies (local, regional, national) for health delivery in the UK. Such definitions are carried out prior to the design phase, but that doesn't mean that further definitions to services could not be done during the design phase. This strategic planning phase is documented on the Strategic Outline Case (SOC). As part of developing the SOC, the Office of Government Commerce (OGC) recommends that the expected benefits from the investments should be stated. Throughout the program implementation the OGC assesses its progress and after completion, evidence should be provided that the expected benefits were achieved.

In the 3T programme, the justification for the investment is based on two main issues: a need to improve service delivery, achieving high standards that are also better aligned with NHS's policies for healthcare delivery; and the need to provide adequate and modern built infrastructure to accommodate such services. The SOC document also mentions a desire to achieve that with efficiency, through the best use of resources.

The principal aim of this case study was to elicit, classify and characterise benefits for the 3Ts hospital development as these were investigated in the two previous case studies as well as validating the BeReal methods of doing so. Furthermore, the case study aimed to develop and test methods for benefits weighting that were subsequently used for selecting between design options for the hospital development. The activities are in alignment with BeReal conceptual phases I, II and III as illustrated in Table 15.

**Table 15: BeReal phases investigated in CS3**

BeReal phases to be investigated in		Case study 3
Benefits management strategy	I	✓
Benefits profile	II	✓
High-level benefits map	II	✓
Benefits realisation plan	III	✓
Benefits evaluation and reviews	IV	

## 4.2 Case study methodology

The methodology for undertaking the case studies was that of action research and is described in chapter 3. The author was not only observing and reviewing documentation with regards to the relevant projects but he also took an active role in participating in project reviews, facilitating workshops and leading activities. He became an ambassador of promoting the 'benefits realisation thinking' within the organisations under the scope of the case studies and on occasions a catalyst for introducing changes. The information gathering, data collection and was achieved by active participation in meetings as well as using the following research methods:

- **Interviews** with key personnel i.e. project director, finance director, project and planning managers; These were informal interviews aiming to capture and understand the current perceptions of those involved in regards to the current development and delivery process, the stakeholder engagement and decision making mechanisms. The interviews also aimed to develop an understanding of how a benefits realisation approach is perceived within the organisation and how it may or not assist towards delivering a successful project. A sample of the questions asked during these interviews is included in Appendix II.14.
- Current and past **documentation review** with regard to the project justification and delivery management, including business cases, Strategic

Service Development Plans, organisation investment appraisal process, Gateway<sup>®</sup> reviews, minutes of meetings etc.;

- **Informal discussions** with organisation's staff directly involved with the project's progress;
- Formulation of a **project working/steering group** lead by the author to plan and review case study activities;
- Active participation in **workshops** focusing on the development, applicability and validation of the BeReal phases under consideration and tools and techniques to inform the process;
- Delivery of **benefits realisation master classes** for members of the organisation that would be involved with the planning delivering and managing the project in operation. Aiming to raise awareness and educate on benefits driven project management best practice;
- **Questionnaires** were appropriate with the facilities users and staff to gain direct feedback on project's outputs impact to the organisation and the community;
- **Advisory group workshops** to cross validate findings from all case studies, present BeReal development in line with the new findings and lessons learnt;
- **Focus sessions** within the 'advisory group workshop' to discuss future direction and approve process steps to be incorporated into the final BeReal process.

### 4.3 Case studies activity

The section that follows details how these research methods were planned and executed within the three case studies and presents the outputs that contributed toward the BeReal process steps architecture and the formulation of the key tools and techniques that are presented in chapter 5.

The action research approach of focusing on different and specific aspects in each of the case studies provided an excellent platform and an opportunity to further

develop and cross-reference and validate diverse components of the BeReal process.

#### 4.3.1 Activity description and outputs of CS 1

The focus of this case study was to:

- a. Establish an interactive systematic organisation of the identified/elicited benefits, under a three-level organisation (as emerged from the literature review and advisory group meeting 1);
- b. Identify a benefits mapping approach and its usefulness; and
- c. Identify methods to evaluate how successful the healthcare infrastructure is/has been in relation to the staff and the community (based on benefits realised).

To investigate CS1 the following methods (summarised in Table 16) were deployed. The detailed activities and outputs are described in the section that follows Table 16.

**Table 16: CS1 research methods and aim**

CS1 Research Methods	BeReal Phase	Aim	CS1 focus
Project working group	All	Governance	
Informal interviews/discussion	I	Current process awareness	
Documentation review	I	Strategic benefits identification	(a)
Master class	All	BR process awareness	
Workshop 1	II	Sub benefits identification	(a)
Workshop 2	II	Benefits dependency map	(b)
Questionnaires	IV	Evaluation	(c)
Advisory Group workshop	All	Outputs validation	All



### *CS1 Project working group*

The project working group was created to ensure representation of key stakeholders, including, the MaST LIFT partnership programme director, a project manager, the Douglas Green health centre manager, a Gateway<sup>®</sup> reviewer from the Department of Health, a facilities manager, and administration support. The group scheduled monthly meetings to review and monitor progress and give advice on future steps.

### *CS 1 Informal interviews and discussion*

This took the form of one informal interview (see Appendix II.14) with the MaST LIFT programme director and several informal conversations with the people that were involved with the planning delivery and operationalisation of the Douglas Green LIFT scheme (and consisted of the project working group as mentioned above). The aim was to understand the current investment process of the LIFT organisation and to what extent a benefits realisation process will be feasible to investigate. One of the main aims of this case study was to evaluate to what extent the LIFT scheme in operation had delivered the benefits that is intended to achieve. This method has contributed to the conclusion that there was not enough evidence of documented benefits that could be used as a baseline for evaluation of the Douglas Green scheme. The documentation review that followed would focus on how 'high level' benefits will be retrospectively identified so the can initiate a benefits realisation process in line with the authors suggestions. The method also resulted into further identifying the LIFT stage development process and how can be aligned with a benefits management approach.

### *CS 1 Documentation review – Benefits identification method*

This method contributed to the identification of benefits related to 1st wave schemes of MaST LIFT. Douglas Green is part of this wave. This was a retrospective identification of benefits as the Douglas Green facility was already occupied and operational. In order to compile a catalogue of benefits to be evaluated, the study looked into:

- The Strategic Service Development Plan (SSDP), April 2002;
- The approved business case documentation, July 2004.

The result of the study delivered a first set of high level benefits that the local healthcare authorities aimed to deliver through LIFT in the area of Manchester, Salford and Trafford (MaST). This was then further explored as part of a benefits identification workshop involving the Strategic Partnering Board (SPB)<sup>7</sup> of MaST LIFT and the project-working group.

### *CS 1 Master class workshop*

Prior to commencing the engagement with the rest of the organisation and in order to investigate to what extent a benefit realisation process can be undertaken and validated with MaST LIFT; it seemed appropriate that a benefits master class should be delivered. The master class took the form of a half-day workshop where and it involved all the members of the MaST LIFT SPB board attended. The aim was:

- To raise the awareness of a benefits realisation thinking and approach;
- Present how the proposed benefits realisation process will be investigated within MaST LIFT and how its potential contribution to the current investment process.

### *CS 1 Workshop 1: Sub - benefits elicitation workshop*

This workshop was to explore *CS1 aim (a) i.e. to establish an interactive systematic organisation of the identified/elicited benefits, under a three-level organisation (as emerged from the lit review and advisory group meeting 1).*

The purpose of this workshop was to investigate the benefits elicitation proposed step of the process by observing how participants will react and contribute to it,

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<sup>7</sup> MaST LIFT Strategic Partnering Board

and identify tools and techniques of how to achieve the best possible outcome by collecting evidence through discussion and templates and by testing their usability.

Benefits elicitation or identification is a key activity as of the proposed benefits realisation process as it was described earlier in this chapter (section 2.15.2).

It was identified by the previous methods that a set of 5 five high level benefits would be used as the drivers for the workshop in order to further profile benefits and elicit the next level of benefits that will characterise specific targets and link to the project's achieved outcomes.

Participants of the workshop included the following categories of stakeholders involved with the MaST LIFT:

- MaST LIFT Co chief executive;
- Manchester PCT finance director
- Health centre managers x 3;
- Department of health Gateway<sup>®</sup> reviewer;
- Manchester City Council Health Joint Unit program manager;
- Primary Plus facilities manager;
- Community Health Partnership knowledge manager;
- MaST LIFT SPB.

The participants were presented with a set of the 5 high-level benefit profile templates (example in appendix III.1) and were invited to discuss their definition and common understanding of these.

Following the validation of these high level benefits, the participants were then asked to further breakdown these to sub- benefits in line with specific targets that the Douglas Green scheme was aiming to achieve.

The benefits elicitation workshop delivered a full set of benefits, organised into Strategic (as the high level benefits are now renamed) and Sub benefits. The set of benefits consist of over 5 Strategic benefits and 36 Sub benefits (see Table 17).

**Table 17: MaST LIFT case study - examples and benefit organisation**

Legend: ✓ - Main focus.

Benefits		Benefits classification	
		Strategic benefits	Sub benefits
1.	Improved patient services	✓	
1.01	Improved patient experience		✓
1.02	Better access to facilities (product)		✓
1.03	Greater privacy		✓
1.04	More services in 1 place (co-location)		✓
1.05	Improved health outcomes		✓
1.06	Greater access (service)		✓
1.07	Less waiting		
1.08	New services		✓
1.09	Care closer to home		✓
1.10	Increased patient choice		✓
2.	Time Cost Quality	✓	
2.01	Faster procurement		✓
2.02	Faster delivery from concept to operation		✓
2.03	Removal of backlog maintenance		✓
2.04	Non-interruption of service product		✓
2.05	Predictability of time cost delivery		✓
2.06	Actual time cost delivery		✓
2.07	Flexibility and future proofing		✓
2.08	Cost savings due to co-location		✓
2.09	Lower total running costs		✓
3.	Contribution to regeneration	✓	
3.01	Investment into deprived areas		✓
3.02	Higher local employment		✓

3.03	Improved community facilities		✓
3.04	Improved economic activity		✓
3.05	Sustainable environment (economic)		✓
3.06	Sustainable environment (social)		✓
3.07	Better links with other services – “cause and effect”		✓
4.	Improved staff satisfaction	✓	
4.01	Better working environment		✓
4.02	Incentives		✓
4.03	Reduced absences		✓
4.04	Increased career prospects		
4.05	Increased training opportunities		
4.06	Higher level of staff retention and increased corporate learning and memory		
5.	Better partnership/Continuous improvement	✓	
5.01	People working together on many schemes (greater understanding, reduced cost and time; better relationships, less conflict management)		✓
5.02	Increased quality between schemes		✓
5.03	Value for money improvement from scheme to scheme		✓
5.04	Access to finance		✓

### *Workshop 2: Validate a benefits mapping approach*

This workshop was to explore CS1 aim (b) *i.e. to identify a benefit mapping approach and its usefulness and how is related to the BeReal phase II: benefits characterisation*. Benefits mapping or dependency is another key activity of the proposed process as it was earlier described (section 2.15.2). The purpose of this workshop was to investigate how such a technique can be executed and how useful would be towards the final development of the BeReal process.

The participants were asked to initiate and a benefits mapping approach and generate maps to include strategic, sub and end benefits, enablers and changes as these were identified in ‘CS1 Workshop 1’. A series of 1 workshop and 2 meetings

were organised aimed to test mapping techniques and produce a benefit dependency map based on these benefit set. The initial benefits mapping workshop, involved members of MaST LIFT’s SPB and was facilitated by the HaCIRIC research team. During the workshop, participants identified relationships between *Strategic* and *Sub* benefits using ‘cause and effect’ diagrams. There were two subsequent meetings with the *project-working group* to further enhance and validate the map. The logic of the map was to work from right to left when linking *Strategic* to *Sub* benefits and from left to right when linking *enablers* or *changes* to benefits. An illustrative example is shown in Figure 29.

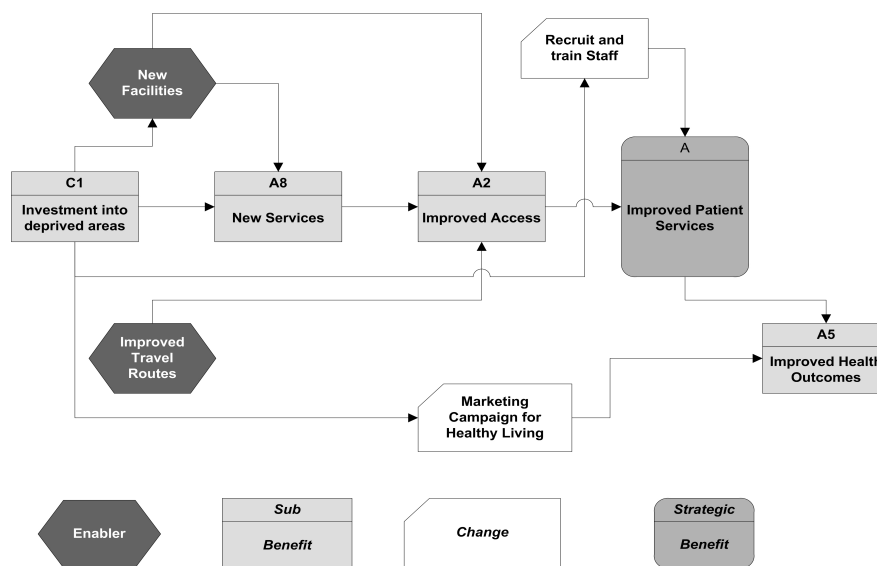


Figure 29: Benefits map of MaST LIFT strategic benefit ‘Improved patient services’.

### Questionnaires: Evaluation

In line with the main focus of CS1 (c) *Identify methods to evaluate how successful the healthcare infrastructure is / has been in relation to the staff and the community and related to the BeReal phase IV: Evaluation and Review* the development and implementation of an appropriate *POE (Post Occupancy Evaluation)* method was investigated. In section 2.20.5 the significance of benefits ranking and review was described. The main aim regarding to *Evaluation Phase* within CS1 was to investigate how such an evaluation can be linked direct with the proposed benefits realisation process. Having a set of benefits to be evaluated, the author moved onto identifying suitable methods for collecting data linked to these benefits in

order to be able to evaluate to what extent these have been realised. Following a literature review on POE and best practice evaluation guides for healthcare facilities, the project working group, assigned a data collection method to each identified benefit. A combination of methods was identified.

Table 18 presents an extract of the benefits/methods matrix. The focus of the evaluation was mainly on capturing the perspective of service providers, facilities users and of the community.

**Table 18: CS 1 MaST LIFT data collection methods**

Benefits		Methods of data collection			
		Questionnaires			Documentation review
		Patient	Community	Staff	
1.	Improved patient services				
1.01	Improved patient experience	✓			
1.02	Better access to facilities (product)	✓	✓	✓	
1.03	Greater privacy	✓		✓	
1.04	More services in 1 place (co-location)	✓	✓		✓
1.05	Improved health outcomes				✓
1.06	Greater access (service)	✓	✓		✓
1.07	Less waiting	✓			✓
1.08	New services	✓	✓		✓
1.09	Care closer to home				✓
1.10	Increased patient choice	✓	✓		✓

✓ - Main focus, adapted from Sapountzis *et al* (2009) and Yates *et al.* (2008)

The evaluation was based on the perceived impact according to patients, staff and centre users of the Douglas Green healthcare facility in relation to the 5 'CS1' strategic benefits. The research team used questionnaires for staff, patients and centre users, to produce primary quantitative and qualitative data.

The main bulk of the data collection was done through two questionnaires one for the staff of the schemes and one for the patients and end-users of the facility (See appendix II.1). Questionnaires can be used to gain an insight into 'characteristics, attitudes, and beliefs' (Marshall and Rossman, 1999). In this case the questionnaires gathered an insight and assess the different groups' views and perceptions of the services, facilities and overall effects of the LIFT scheme. As explained earlier the questions addressed benefits identified through earlier meetings that were specific to the group. The questionnaire took no more than ten minutes and involved approximately 6 key questions with 10 sub questions. Through analysis of the questionnaire findings it was possible to see if the infrastructure in CS1 had delivered these benefits in the view of the staff, patients and community.

Prior to developing the questionnaire, the AUDE (Association of University Directors of Estates) (2006) and CABE (Commission of Architecture and the Built Environment) (2008) guides were studied. Within this guidance were recommendations of the kind of questions that should be used when addressing particular issues. E.g. (a) client satisfaction – product; (b) client satisfaction – service; (c) defects; (d) predictability – cost; (e) predictability- time; (f) safety; (g) comments. These issues were relevant to the work that was undertaken within CS1 as a large focus of the study was on the experience perception of the staff and patients. The generic knowledge acquired from the guides mentioned before was combined with the review of the localised NHS Salford (2008) *Involvement team* questionnaire toolkit guide. The author initially distributed the questionnaires within the HaCIRIC research group (6 people) and the project-working group of CS1 (8 people) and feedback was received in terms of its relevance and content before it was redesigned and distributed to the targeted population.

The aim of the questionnaire was to link each benefit that was going to be evaluated to a specific question (appendix II.4). Therefore, the author would be able to analyse to what extent patients, staff and centre users perceive that the benefit has been realised (totally, partially). Table 19 gives an illustration of some questions included in the questionnaire and their link with an elicited benefit of



the patient/centre user questionnaire. A full table with the link established between all benefits and questions is included in Appendix II.4.

**Table 19: Questions and benefits link illustration**

		<b>Sub - Benefits</b>					
		Strategic Benefit	Improved patient services	Improved patient experience	Better access to facilities	Greater privacy	Increased patient choice
ID	Question	Benefit	A	A1	A2	A3	A10
	How satisfied are you with						
1.4	Ability to get to the centre by car				✓		
1.5	Ability to get to the centre by public transport				✓		
1.6	Peace and quiet of the centre			✓			
1.7	Fresh air and ventilation within the centre			✓			
3.18	Awareness of different services available						✓
4.1	Level of privacy in the facility					✓	
4.2	Conversations in the treatment room (overhead)					✓	
4.10	Awareness of different options available in regards to health treatments						✓

Patient and staff participants were contacted via a postal questionnaire. Centre users were contacted via distribution of the questionnaire by the activity lead (detailed further in the next section). For patients the questionnaire was sent to their home address held on the PCT database (distributed by the PCT staff so no data was held by the researcher). There was an incentive will be provided by

Primary Plus a major stakeholder of MaST LIFT. The incentive was that every returned questionnaire would enter into a raffle with the opportunity to win a hamper. For staff the questionnaire was distributed using the internal mail system. The questionnaire had an accompanying information sheet with an explanation and purpose of it, with assurance that all information would be treated with confidentiality. To maximise participation those patients who did not return a questionnaire within two weeks they were sent a reminder and a follow up questionnaire. Consent was presumed on return of a completed questionnaire in a stamped addressed envelope that was provided.

The questionnaire targeted the three different groups interacting with the infrastructure in CS1. These were (1) service providers (staff); (2) users (patients); and (3) centre users (people who would come to the scheme to use any of its other services for example the pharmacy or community centre patients).

In selecting the sample the following were considered:

(1) Patients - A 35% sample size (May 1993) of the patients' total number of 1820 was targeted. (The percentage included an estimated 40% non-response rate) To achieve a general representation of the population and to avoid over representation of one category the patient sample was selected using stratified random sampling. The patient population was first divided into categories using "age" as the main characteristic to differentiate between them. Following consultation with the NHS Salford PCT data holders the age groups targeted were:

- Age 16–19, population of 124;
- Age 20–34, population of 541;
- Age 35–54, population of 590;
- Age 55–64, population of 234;
- Age 65+, population of 331.

A systematic sampling approach was then used for each of the above groups, as the researcher knew the exact number of patients in each age group. The entire number in each group was divided by the defined sample size (in this study 35%

from each group) to determine the sampling interval (May, 1993), which in turn was used to select the patient that the survey was posted to. For example the entire patient population over 16 years of age was 1820. Following age stratification 541 of the population forms the 20–34 age group. Within that group the sample size was 189 (35%) therefore the sampling interval for this group will be 3; meaning that NHS Salford would select a random name of the first three and so on of this group list to post the questionnaire until the sample number of 189 was reached;

(2) Centre Users; these were users of the CS1 infrastructure other than patients, i.e. people who would come to the scheme to use any of its other services or centre activities for example the pharmacy or community centre. A list of all activities that took place within the LIFT centre was compiled. These activities were: smoking cessation; hypnotherapy, acupuncture, massage service, counselling service, quality of life assessment; coffee mornings; 'age concern' support service; IT support; and intro to computers. Due to the low numbers of participants in these activities the questionnaires were distributed to all participants that attended the centre over a period of 8 weeks. This period covered all the spectrum and frequency rate of the activities;

(3) Staff, this was the group consisting of the working population of the CS1 infrastructure. The questionnaire aimed to capture the views of all working disciplines within this centre. The working population was divided in groups using the following characteristics:

- Medical Services – population of 7 (1 GP, 6 District Nurses);
- Administration Services – population of 4 (3 receptionist, 1 GP practice manager);
- Facilities management services – population of 2 (1 centre manager, 1 audit manager);
- Other Services, i.e. Centre activity (as described above) leads - population of 9;

The numbers of staff within these groups was low; therefore the decision was taken to target the whole working population within each centre so a general representation from each group was achieved (May, 1993).

All data was anonymous and no direct contact to exchange personal data between the researcher and the patients, staff or centre users was made at any point of the study. Prior to the commencement of this activity the author submitted an *Ethical Approval* application to the NHS Research Ethics Committee (REC). The Salford and Trafford Local Research Ethics Committee reviewed the application form in July 2008. The committee advised that the project is considered to be service evaluation, and therefore it did not require ethical review by a NHS Research Ethics Committee or approval from the NHS R&D office (*Ethical approval REC Reference: 08/H1004/92*).

The questionnaire achieved a 15% return on patient centre/user and a 70% return on staff questionnaire distributed. The literature does not clearly define what is a satisfactory level of returned questionnaire surveys. Holbrook et al. (2005) assessed whether lower response rates are associated with less unweighted demographic representativeness of a sample, by examining the results of 81 national surveys in the USA with response rates varying from 5 percent to 54 percent. They found that surveys with much lower response rates were only minimally less accurate. Although the author understands that the low response rate can give rise to sampling bias in regards to the outcomes. Analytical software (SPSS<sup>8</sup>) was used to analyse the quantitative data as it was emerged from the questionnaires. The results were segmented in to four satisfaction categories for each group in line with the questionnaire sections. Therefore the results are presented in the sense of 'how satisfied are you with:

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8 Statistical Product and Service Solutions (SPSS) – This is a suite of programs, which form a computer package used by business organisations, education and health researchers, survey companies, the government and others. Through statistical analysis of data it can carry out in-depth data access and preparation, analytical reporting and graphics, as well as major statistical aspects.

1. Building and accessibility;
2. Waiting times and appointments;
3. Services and staff;
4. Privacy and patient choice.

In summary the returned questionnaires showed the following level of satisfaction, the scale of satisfaction is presented in VDS (very dissatisfied), DS (dissatisfied) F (neutral), S (satisfied), VS (very satisfied).

**Table 20: Summary of CS1 questionnaire results in terms of satisfactory levels**

<b>Patient Only</b>					
	<b>VDS%</b>	<b>DS%</b>	<b>F%</b>	<b>S%</b>	<b>VS%</b>
Building & Accessibility	4.01	3.08	12.76	32.05	48.38
Waiting Times & Appointments	5.53	6.90	15.33	34.56	37.90
Services & Staff	1.62	1.53	16.66	29.34	51.50
Privacy & Patient Choice	3.68	6.13	16.78	28.88	44.78
Overall	3.71	4.41	15.38	31.21	45.64

<b>Patients User Only</b>					
	<b>VDS%</b>	<b>DS%</b>	<b>F%</b>	<b>S%</b>	<b>VS%</b>
Building & Accessibility	4.82	4.17	16.29	28.87	45.86
Waiting Times & Appointments	4.39	6.15	23.36	31.99	34.13
Services & Staff	3.46	2.26	19.38	26.19	48.73
Privacy & Patient Choice	2.43	6.08	22.02	25.52	43.94
Overall	3.78	4.66	20.26	28.14	43.16

<b>User Only</b>					
	<b>VDS%</b>	<b>DS%</b>	<b>F%</b>	<b>S%</b>	<b>VS%</b>
Building & Accessibility	6.49	5.08	20.41	25.67	42.33
Waiting Times & Appointments	2.91	3.53	37.05	27.18	29.34
Services & Staff	6.31	3.07	23.22	22.25	45.14
Privacy & Patient Choice	2.78	5.32	31.29	17.90	42.68
Overall	4.62	4.25	27.99	23.25	39.87

<b>Staff</b>					
	<b>VDS%</b>	<b>DS%</b>	<b>F%</b>	<b>S%</b>	<b>VS%</b>
Building & Accessibility	3.27	7.83	18.40	40.71	29.78
Security, Health and Safety	1.74	0.00	9.81	59.20	29.28
Employment Services & Training	1.93	3.17	21.88	44.93	28.10
Working Environment & Incentive	3.22	3.10	14.37	46.29	33.05
Overall	2.54	3.52	16.12	47.78	30.05

The satisfaction survey results (illustrated in Table 20) were subsequently presented in terms with their link to the specific benefits (illustrated in Table 19).

The cross-reference analysis produced the results that could now be linked to benefits and contribute towards establishing their level of realisation in relation to patient, centre user and staff perception.

Table 21 shows an example of how the questions and the survey responses were linked to specific benefits, using cumulative satisfaction level of the data analysed.

**Table 21: Example of cumulative satisfaction levels - correlation of questions with benefits**

Benefits	Results	Questionnaire answers (%)						
A1 <b>Improved patient experience</b>		1,6	1,7	1,9	1,11	1,12	1,13	...
Very dissatisfied	3,2 %	2,4	2,4	2,6	2,4	3,3	6,9	...
Dissatisfied	1,9 %	0,0	4,9	0,0	0,0	0,0	3,4	...
Fairly satisfied	13,9 %	2,4	4,9	5,1	7,3	6,7	17,2	...
Satisfied	32,8 %	26,8	31,7	28,2	34,1	46,7	41,4	...
Very satisfied	48,2 %	68,3	56,1	64,1	56,1	43,3	31,0	...

Appendix II includes a full set of the data from CS1, i.e. Questionnaires (Appendix II.1), sample demographics (Appendix II.2), table linking the questions and benefits elicited (Appendix II.4), questionnaire results in terms of (1) level of satisfaction for each of the four questionnaire sections (Appendix II.3), (2) in terms of the level of satisfaction for each benefit linked (Appendix II.5).

#### 4.3.2 Activity description and outputs of CS 2

Building up from the findings of CS 1 were the benefits that were retrospectively identified, this case study explored further the conceptual BeReal phase II (as in section 4.5). The focus of this case study was to:

- Develop further the three tier benefits classification approach and its usefulness;
- Investigate the Benefits elicitation method with a diversity of stakeholders as a critical aspect;
- Investigate how BeReal can inform Gateway<sup>®</sup> reviews and Business Case development stages.

**Table 22: CS2 research methods and aim**

CS2 Research methods	BeReal phase	Aim	CS2 focus
Project working group		Governance	
Informal interviews/discussion		Current process awareness	(c)
Documentation review	I-III	Business Case process	(c)
Master class		BR process awareness	
Workshop 1	II	Sub benefits elicitation	(a) (b)
Workshop 2	II	End benefits /actors /enablers	(a) (b)
Advisory group workshop	All	Feedback / outputs validation	All

### *CS 2 Project working group*

The nature of a project-working group was to make certain that Stockport PCT was fully engaged with the case study aims and objectives and ensure deliverables in the agreed timeframe. The group involved the author, another HaCIRIC researcher and key Stockport PCT stakeholders involved with the St Thomas project, including, Stockport PCTs finance director, a project manager, a GP, and administration support. There was a scheduled monthly meeting to review and monitor progress and give advice on future steps.

### *CS 2 Informal interviews and discussion*

This took the form of one informal interview with the Stockport PCT finance director and several informal conversations with the people that were involved with the composition of the Outline Business Case of St. Thomas Community hospital. The aim was to understand the current business case process that Stockport PCT was following and to what extent a benefits realisation process would be feasible to integrate at these early stages. The discussion resulted into identifying the need for a robust benefits realisation process when developing an Outline Business Case (OBC) or an investment justification. This method has

contributed to also being able to link the proposed BeReal process with Gateway<sup>®</sup> reviews.

#### *CS 2 Documentation review – Strategic benefits identification method*

This method contributed to the translation of the strategic vision of Stockport PCT in relation to St. Thomas Community hospital. In order to compile a catalogue of benefits to be evaluated, an initial study by the project working group looked into:

- St Thomas's community venture Health Impact Assessment – Report, November 2007;
- The St Thomas's community venture, NHS Stockport Report, June 2007;
- NHS Stockport Strategic Plan 2009 to 2014 – March 2009.

The result of the study delivered a first set of high-level benefits that will provide the direction for the St Thomas project. These benefits are further explored as part of the benefits elicitation workshops that followed.

#### *CS 2 Master class workshop*

Holding a benefits realisation master class as part an introduction to the benefits elicitation workshop, was now a result of the successful delivery of the master class in CS1 where the from the participants positively appraised its usefulness. The master class took the form of a two-hour interactive session prior to the two elicitation workshops and involved all key stakeholders that participated as described in the next section. The aim was:

- To raise the awareness of a benefits realisation thinking and approach;
- Present how the proposed benefits realisation process will be investigated within NHS Stockport and how its potential contribution to the current business case development and Gateway<sup>®</sup> review process.

#### *CS 2 Benefits Elicitation workshops*

The two workshops were focused on engaging key stakeholders of St Thomas community hospital development into identifying the benefits that this project will



bring. The benefits identified will be used to formulate a benefits realisation scenario that will be part of the Full Business Case for this project.

The main aim was to validate the strategic benefits, identify further potential sub benefits, and list selected, enablers, actors, beneficiaries, end benefits (measures), methods and dis-benefits for St Thomas Community Hospital. In addition to that the author was investigating on the best technique of doing this as well as how would this contribute to the overall usability of the process.

Prior to the two workshops the strategic benefits profiles were created using the findings of the '*CS 2 Documentation review*'. These profiles (example in appendix III.4) were validated in agreement with NHS Stockport board through a presentation from the finance director. There were 6 strategic benefit criteria identified: Accessibility, Capacity, Functionality, Efficiency, Whole System Optimisation and Ease of implementation.

These 6 strategic benefit criteria formed the basis for discussion amongst 28 stakeholders that participated in the two benefit elicitation workshops. The stakeholders present included 5 GPs, 4 GP practice managers, 11 Stockport PCT/NHS directors/leads, a project support officer, 3 members of the Stockport managed care group, 2 members of PALS (Patient Advice and Liaison Service), an architect, and a Tribal consulting representative.

The workshops included a master class on benefits realisation and BeReal, which provided the group with a background and understanding of the process. Following the master-class, 2 interactive sessions took place. The participants were given benefit templates to populate. They were asked for each of the 6 strategic benefit criteria to:

- Define each criterion;
- Identify Sub Benefits to satisfy the criteria.

And for each sub benefit to identify:

- Enablers: i.e. changes needed to deliver the benefit;

- Beneficiaries (main benefit recipients);
- Actors (main people or organisations need to act to deliver or own the management of the benefit);
- Potential disbenefits that St Thomas community hospital may bring.

At the end of each session group representatives presented their findings and inter group discussions took place to further populate and agree on the benefit templates.

The workshops resulted in the composition of 6 strategic benefits and 23 Sub-benefits. Participants have also identified a list of 36 beneficiaries, 68 actors and 73 enablers that will form the input to further activities when interdependencies between those elements would be established in order to formulate a benefits map and a proposed benefits realisation plan. A list of 18 dis-benefits had also been identified that would be used to further inform the project's OBC risk register. These benefits are briefly introduced here; a full list of the workshop outcomes is included in appendix II (II .6 benefits, II.7 enablers, II.8 actors, II.9 beneficiaries, II.10 disbenefits).

Following analysis of the workshop findings the initial group of six strategic benefits had been modified mainly incorporating two new strategic benefits designed as:

- Strategic fit (and contextual);
- Operations management and clinical outcomes.

Four other initial strategic benefits were also consolidated in two emerging strategic benefits Taking into consideration the information obtained from the meetings, for most of the sub benefits, enablers, beneficiaries, actors, measures and methods were identified.

**Table 23: Strategic benefits consolidation CS 2**

Strategic Benefits	
Initial	Emerging
-	1. Strategic fit (and contextual)
-	2. Operations management and clinical outcomes
1. Capacity	>> 3. Appropriate built environment
2. Functionality	
3. Accessibility	>> 4. Accessibility
4. Whole system optimisation	>> 5. Whole system optimisation and efficiency
5. Efficiency	
6. Ease of implementation	>> 6. Ease of implementation

### 4.3.3 Activity description and outputs of CS 3

The focus of this case study was to:

- a. Further establish an interactive systematic organisation of the elicited benefits, under a three-level organisation (advancement from CS1 and CS2);
- b. Develop and validate a clear benefits organisation method, under a classification approach (segmentation concept, advancement from CS2);
- c. Structure benefits elicitation meetings with a diversity of stakeholders as a critical aspect (advancement from CS2 and wider group);
- d. Identify and test of the benefits weighting/ranking approach;
- e. Identify and test of the benefits optioneering approach; and
- f. Introduce, inform and validate a monitoring/controlling structure covering the overall program lifecycle (pathway concept).

Table 24: CS3 research methods and aim

CS3 Research methods	BeReal phase	Aim	CS3 focus
Project Working Group		Governance	
Informal interviews/discussion		Current process awareness	
Documentation Review	I	Strategic benefits identification	(a)
Master class	All	BR process awareness	
Workshop series (4)	II	Sub and End Benefits Elicitation	(a)
Workshop 5	II	Benefits definition	(a)
Workshop 6	II	Optioneering	(d) (e)
Advisory Group Workshop	All	Feedback / Outputs validation	All

### *CS3 Project working group*

The 3Ts project had already prior of the case study, established a project management organisation to drive the project forward. The author with another two HaCIRIC researchers joined this group and worked along the programme director, the assistant director of capital development for BSUH, a service lead, a healthcare planer and administration support. The group had weekly teleconference and monthly face-to-face meetings to monitor progress and plan the activities described in this section.

### *CS3 Informal interviews and discussion and documentation review*

The activities to adopt a benefit realisation approach in the project began before undertaking the case study, as the programme director of the 3Ts development was a member of the BeReal advisory group. In that period, there were three major pre case study informing activities led by the programme director aiming to discuss the benefits that a major hospital development will bring to all stakeholders involved. These three activities as described below there were

carried out prior to the BeReal process investigation, development and validation activities.

The first pre-case study informing activity was the *Strategic benefits elicitation* held in February 2008 where in a workshop prior to the approval of the *Strategic Outline Case* (SOC) six strategic benefits had been elicited: (1) strategic fit; (2) clinical outcomes; (3) modern healthcare facilities; (4) improved access; (5) teaching, training and research; and (6) effective use of resources.

The second pre case study informing activity was a *Patient and Staff Design Forum* held in September 2008. It was a workshop and part of the Patient and Public Involvement (PPI) efforts that are required for this type of governmental projects. This workshop generated a list of design requests (very specific issues) that would later be analysed and addressed during the design phase. This list would later be included in the process of tracking benefits realisation.

The third activity was a workshop with major patient stakeholder group members aiming to get their view on potential benefits of the scheme proposed. The BSUH 3Ts project director and two service improvement facilitators in September 2008 facilitated the patient forum; 18 patient representatives were invited. The forum gave patients representatives an opportunity to discuss a number of issues including the design of the building, out-patient communications, transport, visiting, inpatient stay and leaving the hospital. From these discussions a total of 280 benefits were identified.

Following discussion and review of the minutes and documentation produced as a result, the author incorporated the findings to kick off the BeReal process investigation and case study.

### *CS3 Master class workshop*

Building on from the knowledge and experienced gained on CS1 and CS2 a benefits realisation master class preceded each benefits elicitation workshop. The master class took the form of a one-hour interactive session and involved all stakeholders that participated in each session as described in the next section. The aim was:

- To raise the awareness of a benefits realisation thinking and approach;
- Present how the proposed benefits realisation process will be investigated within the 3Ts project.

*CS3 Workshop series (1-4): Sub and end benefits elicitation*

The author with two other researchers from HaCIRIC facilitated the elicitation workshops with different stakeholder groups to communicate the strategic benefits previously discussed and raise benefits realisation and management process awareness and need. Subsequently participants were asked to identify and define benefits that the 3Ts programme redevelopment would like to deliver. The focus was on outcomes from an end-user perspective and the different stakeholder groups.

The outcome of these workshops was a list of redefined strategic benefits and sub-benefits. The strategic benefits redefined were: (a) generation of outcomes in compliance to NHS's strategic intent (health policies); (b) increased local access to healthcare services; (c) adequate facilities and facilities management; (d) improved clinical outcomes; (e) efficient and non-disruptive development and implementation process; (f) improved training, teaching and research skills; (g) improved management of service operations; and (h) better use of resources to deliver high quality care. The consolidated set of strategic and sub benefits elicited in the four benefits identification workshops is shown in Table 25.

The group of stakeholders that were selected by the project working group to participate were the ones that would have a direct impact or be impacted by the 3Ts redevelopment. Each group would form the attendees for one workshop. The 4 groups were:

- (1) Patient representatives, and Patient Experience Panel - 12 participants;
- (2) The 3Ts BSUH programme board - 12 participants;

Medical professionals and representatives from:

(3) Medicine/Elderly care, trauma/critical care, neurosciences – 14 participants;

(4) Imaging/cancer/clinical infection service/outpatients – 16 participants.

These workshops were used to gain the views of the different groups on BSUH 3Ts and the benefits they believe the BSUH 3T programme should bring. The workshops were split into two sessions (a) a plannery session where the aims of the workshop were discussed and the methodology of elicitation was agreed and (b) a focus group session where the participants worked together in eliciting benefits. This approach gave stakeholders the chance to discuss, agree, disagree and/or develop a shared perspective (Hakim, 2000).

During the workshops an overall of 682 benefits were elicited these included a lot of repetition or different interpretations of the same term. The benefits were then summarised by the project-working group and compiled into two main categories consisting of 8 *strategic benefits* and 37 *sub benefits* (presented in Table 25).

#### *CS3 Workshop 5 - Benefits definition*

This workshop was facilitated by the 3Ts project director and was attended by the relevant BSUH 3T stakeholders<sup>9</sup>, and occurred between the benefits elicitation workshop series and the 1<sup>st</sup> optioneering workshop. The aim was to develop the a description of the benefits so they can be used in a meaningful way at the next planned workshop that would deal with selecting the preferred design option based on the benefits that had by now elicited, consolidated and defined in an agreed approach by all key stakeholders. The table of these benefits and their definitions is included in Appendix II.11

#### *CS3 Workshop 6: Optioneering*

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9 Stakeholders: Director of intensive care; consultant histopathologist; consultant surgeon; clinical director, emergency care, PLC ENT/MFU/urology/breast, 3Ts deputy clinical lead, consultant anaesthetist, chief nurse, sexual health & HIV consultant, matron; a medical director; and a project manager.

The 3Ts estates director who was also the programme director for this project facilitated this double purpose workshop. The author participated and observed this activity having prior to it discussed the proposed optioneering process with the facilitator and agreed the method that benefits should be used to determine the preferred design option by the key stakeholders. This process lasted 5 hours and its direct outputs are summarised below.

The participants of this workshop were key stakeholders of the project and included representatives from all the groups that have participated in the previous workshops (1-4) to ensure continuity and ensure that stakeholders were engaged in the decision process. The participants included the BSUH CEO, 10 senior managers, 5 patient group representatives, 5 healthcare commissioners, 3 local authority representatives and 12 medical professional representatives that also participated in workshop 5. (The facilitator, the CEO and the author did not participate in the scoring and weighting of the options).

The facilitator kicked off the workshop by presenting the design options available which included two options of 'do min' He also explained that the 2 do minimum options are just to fulfil steps required by the treasury. Those options will not be developed, as they do not align with the vision for the 3Ts where a unique hospital is needed.

The participants were invited to select (intuitively) their preferred option. Each attendee would participate in activity by scoring each option to the degree they felt it would satisfy the 8 strategic benefits and sub-benefits identified in previous meetings (Workshops1-4) and as defined in workshop 5. A table with these benefits and sub-benefits including was given to each participant prior to the presentation (included in Appendix II.11).

In the room, boards containing a description of each option (schematic plans and three-dimensional views – from the road point of view and from the see point of view – skyline). These boards also had diagrams describing high levels phases of the construction process.



Only non-financial benefits were used in this workshop and the facilitator highlighted that the results of this section was going to be used in the subsequent workshops with the results of a capital cost analysis and running cost analysis (as per the optioneering steps described in section 5.3.3).

The architect described the design options available and explained issues like context, neighbours, access, views, what to retain, etc. were taken into account as a result of the pre-case study consultation meetings described earlier. The main concept used was the “campus like” type of building which integrates the existing facilities to the new ones also improving the orientation and flow of people across the new development, therefore improving patient experience without service disruption.

After the presentation the facilitator explained the scoring exercise that was based on first selecting intuitively the best option and second by filling the scoring table. In regards the latter is important to mention said that the scores would be from 1 (worst option) to 10 the best option. The suggestion was made to the attendees to leave rows in blank for those who felt non-qualified to assess a benefit. 40 minutes was given to the attendees to fill in the table.

33 out of 35 attendees (95%) selected option 1 as their intuitive first option. The other 2 votes went to option 3. The results of the scoring exercise were not made available during the meeting.

Once the scoring exercise was finished the facilitator started explaining the weighting exercise. This exercise started with ranking the 8 strategic benefits in order of importance and then attributing a percentage to this benefits related to its relevance. The 8 strategic benefits should add together a total of 100%. The ranking and the relevance were gathered through consensus of the group.

The final results of this exercise where:

- Clinical outcomes (2) and appropriate facilities (3) as the most relevant of the benefits in equal level of importance;

- Strategic fit (1) and operational management (7) as the second most relevant of the benefits and in equal level of importance;
- Access to services (4) and teaching, training and research (5) as the third most relevant of the benefits and in equal level of importance;
- Use of resources (6) as the fourth most relevant and important;
- Development and implementation as the least relevant and important.

The attendees were consulted whether someone hardly disagreed with the ranking above. No expression of disagreement was raised.

The participants were then asked to attribute a percentage for each of the sub-benefits, according to the amount given in the previous ranking exercise. However, it was highlighted that those values could be changed if adjustments were necessary. The results are presented in Table 25.

**Table 25: CS3 - BSUH 3Ts - Identification, organisation and weighting of strategic and sub benefits**

Benefits ID		Benefits classification		Weighting
		Strategic	Sub	%
1.	Strategic fit (and contextual)	✓		<b>13.4</b>
1.01	Stakeholders alignment		✓	2.6
1.02	Synergy of services		✓	2.6
1.03	Context development		✓	2.6
1.04	Co-location / distribution		✓	3.7
1.05	Image, reputation, objectives		✓	1.9
2.	Clinical outcomes	✓		<b>17.9</b>
2.01	Co-location		✓	3.0
2.02	Reduce referrals		✓	2.3
2.03	Improved quality of care		✓	6.3
2.04	Improve care outcomes		✓	6.3
3.	Appropriate facilities (and facilities management)	✓		25.0
3.01	Fit-for purpose building and infrastructure		✓	3.0
3.02	Facilities flexibility and future proofing		✓	3.0
3.03	Physical distribution of service locations (layout)		✓	4.0
3.04	Improved support services		✓	2.0
3.05	Increased patient/user safety		✓	5.0
3.06	Greater privacy (by better design)		✓	3.0
3.07	Removal of backlog maintenance		✓	1.0
3.08	Better working environment		✓	4.0
4.	Access to services	✓		<b>10.7</b>
4.01	Service diversity/capacity fit		✓	5.4
4.02	Increased physical access		✓	3.5
4.03	Increased availability of services		✓	1.8
5.	Training, teaching and research	✓		<b>8.9</b>
5.01	Improved research capability		✓	3.6
5.02	Improved teaching		✓	3.6

5.03	Knowledge transfer		✓	1.7
6.	Use of resources	✓		10.7
6.01	Better equipment/recourses (technology)		✓	3.5
6.02	Better personnel		✓	1.8
6.03	Improved efficiency		✓	5.4
7.	Operations management			12.5
7.01	Improved service coordination			3.5
7.02	Preventive health services			4.7
7.03	Improved user experience			4.3
8.	Development and implementation	✓		0.9
8.01	Investment / change management effort		✓	0.9
8.02	Construction negative impact		✓	n/w
8.03	Planning ability		✓	n/w
8.04	Sustainability		✓	n/w
8.05	Development feasibility		✓	n/w
8.06	Reduce service interruption		✓	n/w
8.07	Faster delivery (up to operation)		✓	n/w

Legend: ✓ - Main focus.

Adapted from: Sapountzis *et al.* (2009) and Yates *et al.* (2009). Codinhoto & Passman (2009).

Having completed the benefits weighting and ranking (appendix II.12) it was then possible to score the proposed options (between 1 and 5) in relation to the ranking of the benefits and identify the final design proposal to be carried forward. The participants inserted their score in the spreadsheet provided (see example in Appendix II.13) and the final calculations resulted into 'Option 1' being selected as the preferred design option based on the stakeholders' perception, as the option that will most probable be better designed to deliver the most and more important benefits.

#### 4.4 The advisory group validation method

From the beginning and throughout this research the author with the HaCIRIC University of Salford academic director established an advisory group to present his findings, initially from the literature review and subsequently from the case studies, to further inform and validate the development of the BeReal process.

The advisory group consisted of academics and industrialists that included, the National Audit Office (NAO) director for Public Private Partnerships, the Department of Health (DoH) director of estates and facilities and head of Gateway<sup>®</sup> reviews, a lead Gateway<sup>®</sup> reviewer from DoH, the Community Health Partnerships

CHP UK chairman, a knowledge share manager from CHP, the program director of NHS MaST LIFT partnership, the MaST LIFT co chair, the director of estates and facilities of Brighton Sussex University Hospitals NHS Trust, the finance director of NHS Stockport, a representative of Salford Royal Hospital Trust, a senior project manager for the Join Health Unit of the Manchester City Council, a facilities manager from Primary Plus Ltd, the HaCIRIC research team , and 3 professors in the fields of process management, lean production theory and organisational excellence. The advisory group met seven times during the investigation into the development of the benefits realisation process.

A summary of the advisory group meetings/workshops is presented in the Table 26 and followed by a detailed description of each one extracted from the workshop minutes and reports produced during the research.

**Table 26: Research methods: advisory group meetings/workshop summary**

Advisory group	Date	No of participants	AG focus
Advisory Group1 – AG1	25/01/2007	26	Literature Review, conceptual process, case study strategy
Advisory Group 2 – AG2	02/05/2007	21	BeReal and project management
Advisory Group 3 – AG3	26/09/2007	16	The role of stakeholders
Advisory Group 4 – AG4	14/02/2008	10	CS1 findings validation - Strategy and Assessment
Advisory Group 5 – AG5	23/09/2008	13	CS2 findings validation - Elicitation
Advisory Group 6 – AG6	05/03/2009	24	CS3 findings validation – Optioneering and Pathway
Advisory Group 7 – AG7	02/02/2010	21	Final BeReal process - All phases

In the *first meeting (AG1)* held in January 2007, the author presented to the group the initial findings from the literature review, combined with his personal experience and interpretation of how the research should progress. The intention of the author was to discuss and validate the following:

- The research questions presented in the introduction of this thesis;
- Gain a further understanding of how Benefits Management at the time was perceived in the healthcare industry;
- Explore how a benefits realisation process would contribute to the successful delivery of healthcare infrastructures;
- Present the '*four proposed phases of the BeReal process*' and '*the three-tier benefits classification*' approach;
- Present the research strategy and gain feedback on case study suggestions and methodology.

The workshop lasted for four hours and the outcome was very constructive for the research progression. The research questions seemed very appropriate both on academic and industry exploration terms. There was the re-enforcement of the view from the industrialists that there was a need then more than ever for an effective benefits realisation process in all construction sectors and primarily in healthcare. The BeReal process presented felt appropriate to go forward with and to further investigate its development in the case studies suggested as previously described. The workshop findings pointed the author into the direction to further explore and integrate to the final BeReal process the following issues:

- Governance and ownership of the BeReal Process when applied in a project environment;
- Feedback loop within the process to promote continuous improvement and organisational learning;
- How can the process be flexible so it can be applied at different stages of an infrastructure development;
- Integration of the process with 'everyday' project management practice;
- The role of templates in benefits elicitation e.g. benefits profile.

The feedback received was incorporated into the understanding of the author's knowledge accumulated so far and formed the pre-understanding to be explored in CS1 as this was described in section 4.3.1.

The *second advisory group meeting (AG2)* was in May 2007 and focused on the findings of CS1 with MaST LIFT, the author presented the progress made so far in terms of the following aspects:

- Alignment of BeReal with project management;
- Benefits elicitation tools and techniques;
- Benefits mapping;
- The role of disbenefits and unanticipated benefits.

The workshop lasted for two hours and main outcomes included:

- The validation of the techniques used to elicit benefits retrospectively and their incorporation towards the final set to be used with the BeReal process;
- The need to have a benefits strategy phase at the conception stage of a project with clear direction of what benefits need to be realised;
- The possible merge of the benefits dependency map within the benefits profile;
- Inclusion of the disbenefits within the risk register of the project;
- The role of the end-user (patient and staff) of healthcare facilities and their opinion should be instrumental in defining to what extent the project has delivered benefits;
- The BeReal process could potentially be a tool to strengthen arguments why particular healthcare services are needed and provide the case of why related changes need to be made both in infrastructure and services;
- The adoption of the BeReal process from the organisation beyond the remit of the case study will be a verification of its practical contribution.

The *third advisory group (AG3)* took place in September 2007, the author presented to the group the progress made in terms of CS1 and the development of the process and focused on:

- The role of stakeholders at different stages of the process; and

- The investigation of how stakeholders can participate into the evaluation of a healthcare infrastructure in terms of benefits realised.

This was a two-hour workshop and main outcomes were:

- The importance to include in the resulting BeReal process methods for selecting stakeholders to participate in the different stage of the process, to optimise the outcome of participation, manage expectation and enhance communication;
- A suitable method of benefit realisation measurement was the use of questionnaires that would target the patient, users and staff of the healthcare infrastructure facility and questions included will be linked to the identified benefits. Link of outcomes and customer satisfaction.

The *fourth advisory group (AG4)* was in February 2008 where the findings and analysis of the data collected was presented by the author. The first and the fifth phase of the process were communicated in more detail incorporating advancement and lessons learnt from CS1. These are further detailed in section 5.3.1 and 5.3.5 and are:

- Strategy alignment;
- Assessment.

The fourth advisory group (AG4) was a three-hour session and the also addressed the following issues that helped the author's understanding in better designing the aims and focus of CS2 and contributed towards the composition of the detailed steps within the phases of the final BeReal process presented in Chapter 5.

- What needs to be considered when formulating a benefits strategy;
- The embedment of BeReal into business case development;
- A clear definition of benefits as they are understood by those involved is needed, to enhance communication and manage expectations;
- Use of BeReal as continuous improvement mechanism;
- Identify best approaches on developing a 'benefits currency'.

The fifth advisory group meeting (AG5) was in September 2008 where the author presented the findings and lessons learnt from CS2. The second phase of the BeReal process was further detailed in terms of the steps required within this phase as detailed in section 5.3.2.

- Elicitation
  - Structure of for benefit profile and segmentation;
  - Structure of stakeholder groups and communication.

The AG5 workshop also focused on the findings of how:

- The BeReal process can inform the development of the Business Case in the different stages of the development (SOC, OBC, FBC);
- The use of the knowledge and data generated through the implementation of BeReal contributes towards Gateway reviews;
- Benefits can be used to drive project plans;
- The importance of establishing 'cause and effect' relationship between benefits and resources.

The author also presented his strategy for CS3 where the benefits profile and benefits realisation plan phases would be investigated.

The sixth advisory group (AG6) took place in March 2009, the author presented his findings and lessons learnt for CS3 where the reorganisation of the process in terms of the need to have an Optioneering and a Pathway phase was concluded. During AG6 benefits ranking weighting and optioneering techniques were discussed and how these may be applied to the final BeReal process. The development of an IT platform to enable the easier implementation of the BeReal process was also discussed.

The seventh and final advisory group (AG7) took place in February 2010 and the author presented a summary of the three case studies, the advisory groups findings and lessons learnt and the final BeReal process. The group further discussed the composition of the steps within each of the five phases. Chapter 5



fully describes and discusses these steps and presents the final architecture of the BeReal process.

#### **4.5 Discussion, investigation and validation limitations**

The BeReal process is informed and tested through case studies in infrastructure developments at different stages of their lifecycle.

The fact that CS1 (MaST LIFT) focused on the assessment phase through Post Occupancy Evaluation (POE), CS2 (NHS Stockport) in stakeholder consultation for developing a stakeholder informed OBC and CS3 (Brighton and Sussex 3Ts) on the business case approval phase, was initially regarded and was afterwards confirmed as an opportunity to develop and sequentially validate the BeReal process both on the initial phases more related with the benefits elicitation (i.e., Phase 2: *Benefits profile and high-level benefits map*) and with the definition of a benefits realisation plan (i.e. BeReal process phase 3), until the operations and facilities management phase which is more related with delivering monitoring/controlling of benefits (i.e., phase 4: *benefits evaluation and review*). The phase terminology and detail has evolved in line with the cases study and advisory group findings as are detailed in the following chapter.

The contribution of the case studies and the advisory group data analysis on how the process was informed is presented in chapter five, a summary of the main findings and challenges of BeReal's implementation and validation and research limitations are discussed in concluding this chapter.

The BeReal process was adopted in the case studies with a major focus on establishing a formal method to plan for (CS2 and CS3) and evaluate (CS1) the expected benefits of investments, complying with OGC requirements (CS2 and CS3). The author aspired BeReal to be a process for creating an environment for learning and improving driven by expected benefits as suggested by Farbey et al. (1999). This was considered to be a success by the project working groups involved in all case studies and acknowledged by the advisory group as the main focus of the implementation and validation research stages. Such environment

seems to incentivise a team to focus on following procedures and avoiding deviations from plan (focus on planning and control), whereas a more flexible environment could better facilitate learning and continuous improvement.

*Providing means for a very inclusive planning process* - One of the most positive aspects of adopting the BeReal process is that those involved considered it as a very inclusive process. Engaging the different stakeholders (mainly patients and user groups in CS1 and CS3) in the planning process was a very positive aspect, as in governmental projects, public involvement and acceptance is something highly desired and generally required by governmental authorities. However, it should be noted that a participatory processes could generate a large amount of information, which is difficult to manage. According to the stakeholders involved in the case studies, a large amount of information about preferences and expectations was generated and some team members felt that it would be useful if they had a framework that would structure such information and clearly display the evaluation criteria that's is being used. Another challenge is to know who to engage and when. Engaging participants on high-level discussions about strategic issues and expected benefits can be very difficult as they tend to express themselves in the level of spatial requirements. This issue is addressed within phase 2 and 3 of the final BeReal process: *elicitation and optioneering*.

*Increasing awareness of expected outcomes* - the establishment of a benefits realisation work stream within the case studies pursued increased awareness of the need to understand and track how project's outputs will lead to project outcomes. In all case studies it was observed that the benefits realisation work stream was segregated from other project activities. Other project team members were not involved on these activities and didn't have much awareness about what were the expected project benefits. Recommendation to resolve this is presented in section 5.4.5 *benefits activities and resource dependencies* and 5.5 *Process implementation team*.

*Driving decision-making based on expected benefits* - In CS3 the BeReal process provided a rational decision making process to evaluate the different design options based on their ability to fulfil the expected benefits. Such process met OGC

requirements for business case development (also examined in CS2). However, it was questioned if such approach, which is based on weighing factors and then selecting the option with the higher score really leads to choosing the most cost effective option. As participants were asked to intuitively choose an option beforehand, the question here is if decisions were going to be different if the weighting was also based on cost and scores of other individual attributes. The multi criteria ranking that follows the benefits weighting of options recommended in section 5.4.4 aims to address this issue. Case study participants in CS1 and CS2 stated that BeReal enabled a framework for participation in the project development, a rationalised and justifiable decision-making process and a method for accountability over the benefits realised.

*Providing means and methods for accountability* - In many projects there is an attempt to comply with OGC rules and have a plan in which benefits are stated as well as means for accountability. However, project stakeholders involved with CS1 and CS3 said in their experience that in most projects the expected benefits are rarely evaluated. The team gets dispersed after the project is delivered and no one checks if the intent of investment was achieved. Furthermore, similar challenges reported on the literature were observed in CS3 i.e.: the difficulty to set metrics to intangible expected benefits (Bradley, 2006), difficulty to systematically include unexpected benefits that result from emerging opportunities (Farbey et al., 1999), and the challenge to assess achieved benefits given their long period of realisation (Winter et al., 2006), and that was problem that the benefits realisation working group in CS3 attempted to mitigate.

The project working group in CS3 acknowledged that as a result of adopting the BeReal process they can understand the importance of planning at a business case development stage the way that they will measure it benefits by assigning responsibilities through the benefits realisation work stream. However, a challenge is to balance rigor and relevance in the measuring system. Difficulty was found to find the adequate metrics to measure some of the expected benefits, particularly for the intangible ones. Similarly, difficulty was found to set metrics to assess the construction process and the expected benefits related to it. Section

5.3.4 where the pathway phase is described, attempts to give an answer to these concerns.

*Timing of implementation and external influences-* Difficulties were also found in covering all strategic aspects in the process. In all three case studies this was associated with two problems: implementing the model in a later stage of development, after the expected benefits have been defined; and the need to pursue emerging opportunities, i.e. governmental funding for building something not initially in the scope of the programme (as in CS3). The initiative of pursuing such opportunities needs to be considered in the benefits realisation workshops and efforts as part of the elicitation phase (5.3.2).

## 5 Chapter five – BeReal process architecture

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This chapter describes the final artefact as the result of the research detailed in this thesis; the BeReal process. The author describes and discusses here how the emerged process phases are constructed, and the key process steps within each phase. The BeReal phase have been informed, investigated and developed as a result of the literature review presented in chapter two and the case studies and the advisory group workshops presented in chapter four. The author also discusses the key tools and techniques that are deployed in the five BeReal phases, as they have been refined following analysis of the field research outcomes. The interpretation of the new knowledge acquired by the author is also presented in terms of the paradigm shift needed, the process integration principles and the key aspects

### 5.1 Defining the main terms

Following the literature review and the case study outcomes and prior to presenting the final version of the process, it is wise to clarify how the main terms used in this chapter are understood within the BeReal context. The need to have a clear definition of terms was highlighted at the initiation stage of each case study as discussed in the previous chapter.

The constructed process presented here can be used through the project lifecycle. The benefits realisation (BeReal) process can be used when planning for change, allocating resources to improve performance, and delivery of benefits through the implementation of change.

These terms are key in following the steps of the process and are used regularly and often have different meanings. For the purpose of this chapter they have been defined, as they are now understood following the analysis of the knowledge gained and interpreted through the hermeneutic lens of the author. These main terms used in the final BeReal process are:

- Benefits and change;
- Programme or project;

- Benefits realisation and management;
- Stakeholders.

*Benefits and Change* - Benefits are defined as the outcomes of change (from programmes or projects), which are valued positively by stakeholders. Benefits can be elicited and planned, managed, delivered and realised. Benefits are, therefore, related with stakeholders' perceptions about an outcome or output – benefits are related with the value placed by a stakeholder on a change initiative. Benefits are desired or actual outcomes from change, that are perceived positive by stakeholders.

Change initiatives and related outcomes require a bundle of management techniques and resources. Typically change is developed and delivered within a programme or a project environment. Change is only justifiable if directly (or indirectly) contributes to the delivery of benefits.

*Programme or project* - Programmes and projects are not usually set up to directly deliver benefits. They usually promote an environment to implement change, which is capable of delivering benefits. Project (and programme) management typically deliver outputs, but will not necessarily always manage and deliver benefits.

Benefits realisation focus on the integrated management of:

- Benefits – what is to be achieved;
- Change – how the benefits are to be delivered;
- Management – the process of integrating the “what” and the “how” including the allocation of resources.

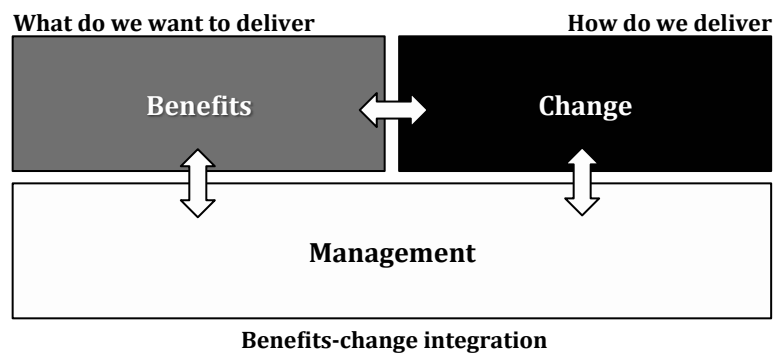


Figure 30: Process integration principles

Benefits realisation aims to ensure that an output or outcome of a change initiative produces the projected benefits included in a business case. The BeReal process helps identify all the impacts that result from a change initiative and the management of the unexpected ones.

*Stakeholders* are those persons or organisations whose views, interest and/or requirements can have an impact or are impacted by project or programme benefits and/or changes.

The process overview that follows segments the benefits realisation approach into five phases, which are structured as activities and deliverables. These and other relevant terms are presented here as understood by the author and used within the BeReal process.

- *Phase* is a combination of standard activities and deliverables;
- *Activity* is a structured set of tasks that guide and support to deliver common objective within the process. e.g. to create a benefits profile;
- *Deliverables* represent documented project and process information. Deliverables are the result of performed activities;
- *Effectiveness* relates to the degree to which a change initiative meets the planned change or the degree to which a benefit is delivered as planned. Effectiveness refers to the relation between planned objectives/targets and results achieved;
- *Efficiency* relates to the use of resources committed to implement the change initiative. Efficiency measures how well benefits (or outputs) are

delivered with the minimum resources. Efficiency refers to the relation between results and utilised resources.

## 5.2 BeReal process phases evolution

The following sections will describe the five phases of the BeReal process as they have been informed, validated and developed by the literature review and the cases studies. The first conceptual process (introduced at section 2.20) has gone through a number of iterations as the case studies were progressing and data was generated and analysed by the author. The new phase structure doesn't change dramatically. The final BeReal process and the sequence of activities encapsulate the terminology and approach as an outcome of the research strategy and methodology deployed. A high level summary is illustrated in Figure 31, where the evolution from the pre-case studies proposed process to the final (for the purposes of this thesis) BeReal process is shown.

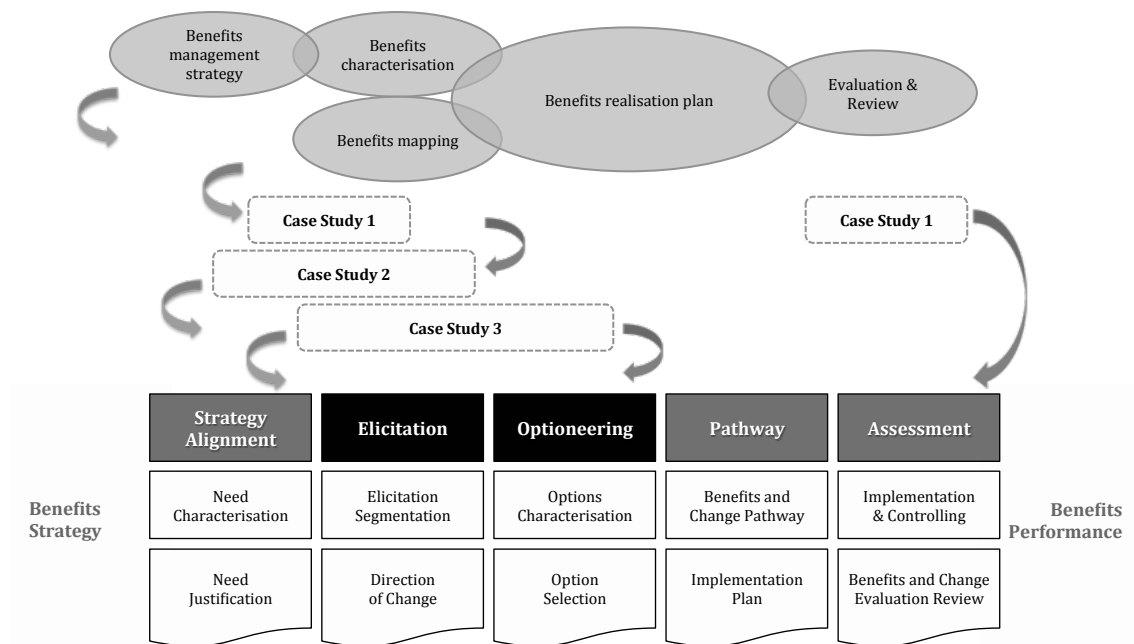


Figure 31: High level view of the final BeReal process

It will be helpful at this point to visually summarise (Table 27) the case study activities, methods and tools used as introduced in chapter 4 and also visually



relate how these have influenced the emerging five phases of the BeReal process as opposed to the four conceptual ones described in section 2.20.

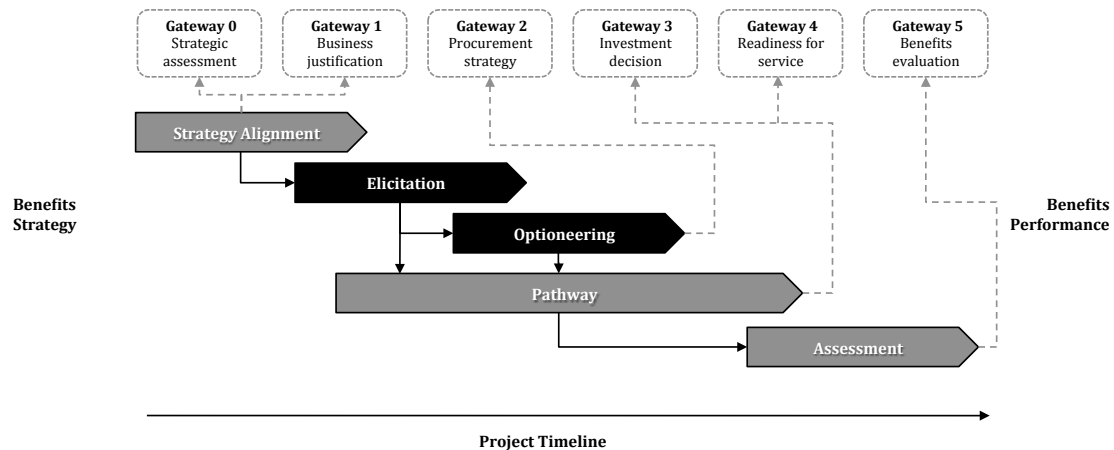
**Table 27: Case studies summary and influence on BeReal phase evolution**

SUMMARY	Case studies		
	Douglas Green	St Thomas	3Ts
Characteristics			
ID	CS 1	CS 2	CS 3
Investment /Procurement Route	LIFT	PPP	CIM /Treasury
Capital investment (£m)	15	40	420
Level of healthcare provided	Primary	Community and Secondary	Acute and Tertiary
Location	Salford	Stockport	Brighton
Infrastructure development stage	Post Occupancy	Outline Business Case (OBC)	Outline Business Case (OBC)
Duration of case study	12 months	4 months	6 months
<b>Methods</b>			
Documentation review	✓	✓	✓
Project working group	✓	✓	✓
Benefits realisation master class	✓	✓	✓
No of workshops	2	2	6
Advisory group workshops	3	1	3
<b>BeReal phase evolution</b>			
Strategy alignment from phase I	✓	✓	✓
Elicitation from phase II	✓	✓	✓
Optioneering (new phase)			✓
Pathway from phase III			✓
Assessment from phase IV	✓		

Although each phase is represented as an individual set of activities and deliverables, the concept is that interaction between each phase may occur at any time through a flexible “soft gate” approach, so that feedback is obtained at a

suitable time without holding up activity. Each phase in turn is designed to inform the ‘hard gates’ of the Gateway<sup>®</sup> review introduced in chapter 2. This should make it easier to align BeReal with an individual organisations’ own decision-making processes and use the BeReal process outcomes as contributors to do so. The case studies have demonstrated that the process can start at any stage but will be more efficient and beneficial to those involved if it initiates with the *Strategy Alignment* phase.

The chart below (Figure 32) shows how the five phases are interdependent and carried out in a semi-sequential way and also illustrated how each phase informs the Gateway<sup>®</sup> review process.



**Figure 32: Benefits realisation process timeline**

The *Benefits Management Strategy*, (conceptual phase I) is now the *Strategy Alignment* phase. When planning for benefits management and realisation the case studies have shown that it is not sufficient to just identify a benefits strategy but to link this with the overall strategy of the organisation that will deliver the infrastructure. This phase brings together key stakeholders to build a collective vision of potential outputs and their impact on the respective programme and other business activities. A common understanding of the individual stakeholder potential benefits and disbenefits is pursued in this phase through the strategic benefits elicitation workshop and the development of the stakeholder management and communication plan. As a result, stakeholders generate a list of

*Strategic Benefits*, which characterise the purpose of the project and provide an overall guide for its success. Criteria for the project development brief are set based on strategic benefits and provide the focus of the development.

The *Benefits Characterisation and Benefits mapping* (conceptual phase II) have been integrated into the *Elicitation Phase*. The emphasis here is upon benefits elicitation. The aim of this phase is to breakdown the strategic benefits into sub and end benefits (the *three tier structure approach* introduced in 4.3.8). This approach determines in more detail how the Strategic benefits are to be achieved as a result benefits of the three different levels are classified and characterised. Interdependencies amongst them are established. This classification creates the criteria where the optioneering phase that follows will be based upon. The established dependencies between the three levels of Strategic, Sub and End benefits and all information gathered generate the core benefit profile.

The *Optioneering phase* is a new emerging phase as a result mainly of the investigation of the conceptual process in CS3 as detailed in 4.3.3. The author believes that this is a niche approach on selecting project options. This phase aims to challenge and optimise the benefits profile by analysing options against benefits and the funding available, and to agree a recommended option. Stakeholders are brought together to work on optimising their requirements, by weighting and ranking them. The result is a selected option to be progressed and further detailed in the Pathway phase. The advisory group validation of the CS3 outcomes and the author's observations analysis recommend that the Optioneering phase be best carried out alongside the elicitation phase.

The *Benefits Realisation plan* (conceptual phase III) is now integrated within the *Pathway phase*. The knowledge gained during the research indicates that this phase has to cover a wider spectrum than originally thought when planning to implement change. At this phase specific elicited benefits are linked to resources and are associated with project plan activities. Stakeholders are engaged to agree on the pathway plan and set ownership for measuring and monitoring the realisation of benefits. The implementation plan generated, as a key outcome of this phase is the document that will guide the pathway, as it evolves during the

project delivery stage and it can be used for a project assurance review and also for guiding the operational stage of the infrastructure.

The *Benefits Evaluation and Review* (conceptual phase IV) is presented here as the *Assessment phase*. Aiming to integrate the benefits management with the wider assessment of the project or focus the success or not of the project on whether benefits have started to be realised or not. At the assessment phase, benefits are tracked and remedial action is taken as required to ensure adherence to the implementation plan generated during the Pathway phase. It should include any adjustments that take into account emerging differences to the internal and external environments of the project when compared to the forecast. The assessment is carried out by interviews, questionnaires, post occupancy evaluation (as informed by CS1) and other techniques that ensure dependency of outputs to the identified outcomes (Benefits or disbenefits). The project documentation is then updated with the emerging measuring and monitoring outcomes. This is an on-going activity (frequency of the assessment will depend on the scale of the project) where stakeholders are engaged to assess the realisation of the benefits.

The BeReal process phases consist of a combination of standard activities and deliverables as described in the following sections. The recommended sequence of these activities and their deliverables is illustrated in the flowcharts included for each phase. To further assist the reader in understanding the thinking behind the structure of the flowcharts of each of the phases a generic architecture of each phase is presented here (Figure 33).

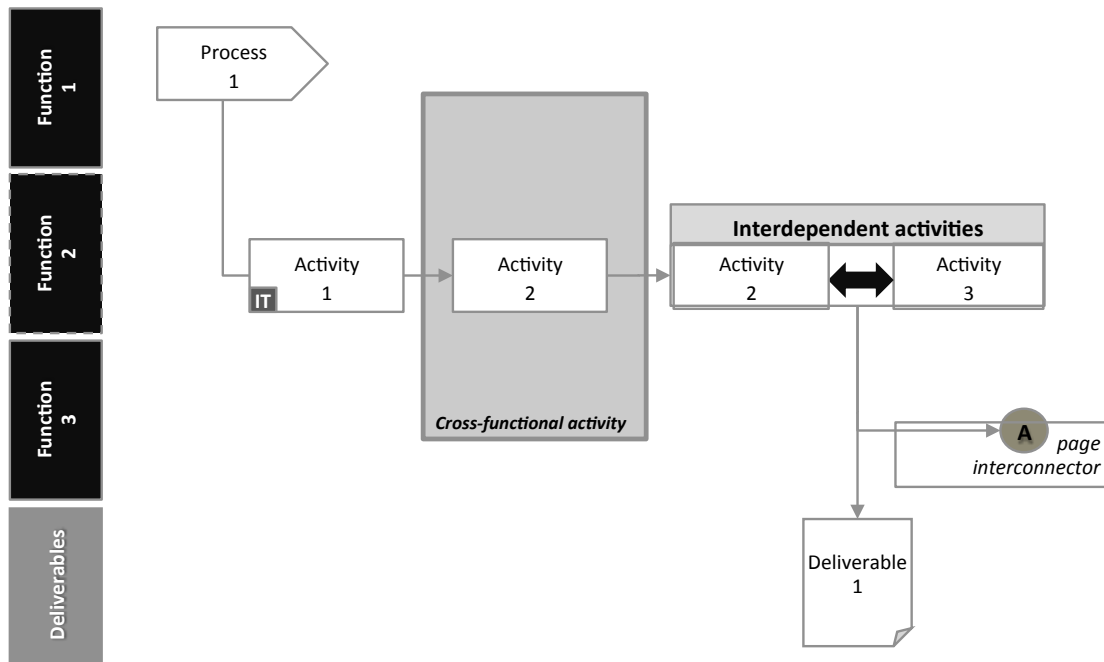


Figure 33: BeReal flowchart illustration

Each flowchart is presented in four layers aiming to facilitate ease of the process adoption. The four layers are:

- Organisational input: where client and user specific inputs from the usual business processes or project management activities of the organisation is required;
- BeReal specific activities: these are additional benefits realisation activities that have been identified as an outcome of this research and are carried out by the project working group or BeReal team and they are recommended for the successful implementation of the process;
- Stakeholder function or supplier activities: these are the set of activities that require further stakeholder involvement and consultation in order to ensure validation and assurance of the on going project progress and facilitate the communication plan as identified in the strategy alignment phase.
- Deliverables: are documents that are generated as an output of an activity and are further categorised as:
  - *Activity deliverable* – a first output of an activity;

- *Transformed deliverable* - where the original activity deliverable has undergone a review or has been updated as a result of further consultation or phase progression;
- The case studies determined that BeReal's activities and deliverables could be customised depending on project characteristics such as scale and management intent, however the flowchart indicate that the *key activity deliverable* and the *key phase deliverable* are necessary if the benefits realisation process is to have at minimum a meaningful and beneficial contribution to the success of the project.

The key activities and deliverables of each phase are further detailed in the sections that follow.

## **5.3 BeReal phases in detail**

### **5.3.1 Strategy Alignment**

The strategy alignment phase links the organisation's strategy with the proposed investment and the range of potential achievable benefits. The strategy alignment activities (Figure 34) have been mainly informed by the documentation review in all three case studies where the need of an early identification of benefits was deemed instrumental. They are designed to link the business investment model with the benefits realisation process, translating high level policy into realistic and appropriate aims. The strategic benefits to be defined will promote a progressive refinement of strategy which permits the interests and knowledge of stakeholders at all levels of the organisation to shape the form of strategic change while retaining the overall strategic direction determined by principle strategy makers.

In order to carry out these activities, and as investigated in the initiation of each case study; it is recommended that key stakeholders should be brought together in a project-working group. This group will create a collective vision for the program of potential outputs and their impact on the respective programme and other business activities – leading to agreement on the high level strategic benefits.

In all phases effective communication with all stakeholders is key to the success of the project and the BeReal process. The case studies have shown that internal stakeholders, those closer to the project, often use complicated terminologies and technical data during their discourse with the wider stakeholder group. This can lead to poor communication between the group and a lack of understanding (Hynds and Martin, 1995). Stakeholders need to be aware of this and ensure that they communicate fluently at all times so that throughout the project's lifecycle every person involved is aware of the 'current' status of their project and their role. Therefore an early stakeholder and communication plan needs to be initiated within the strategy alignment phase.

During this phase an alignment of the BeReal process with the organisation's investment appraisal method is key as it was tested mainly in CS2 and CS3 (as presented in sections 4.3.2 and 4.3.3) when the alignment of the process with the CIM and Gateway<sup>®</sup> processes was validated. This approach, that mixes an existing (and stakeholders' known) process with a new and emerging process, can further enable BeReal's use as a tool that brings individuals and teams together whilst breaking down organisational barriers by shifting people's thinking towards benefits and outcomes. In summary this phase of BeReal focuses on the need identification from a benefits perspective, and on the initial development justification of change investments, assuring proper alignment with the organisation strategy.

Key activities identified and recommended for the strategy alignment phase are:

- Strategic benefits elicitation;
  - The aim is to translate the preliminary need concept into meaningful project strategic benefits;
  - The emphasis is on contextualising the organisation's goals and clarifying direction;
  - Benefits elicited from meetings, workshops and/or surveys are subsequently segmented in (sub) categories, by similarity and dissimilarity criteria; and

- Activity deliverable: strategic benefits set.
- Need justification review;
  - Use meetings and workshops to engage in discussion between stakeholders;
  - Further characterise the preliminary need that led to the program/project initiation; and
  - Activity deliverable: Documented stakeholders' perceptions of the need justification.

A flow chart of all the recommended activities and deliverables of the *Strategy Alignment* phase is presented in Figure 34.



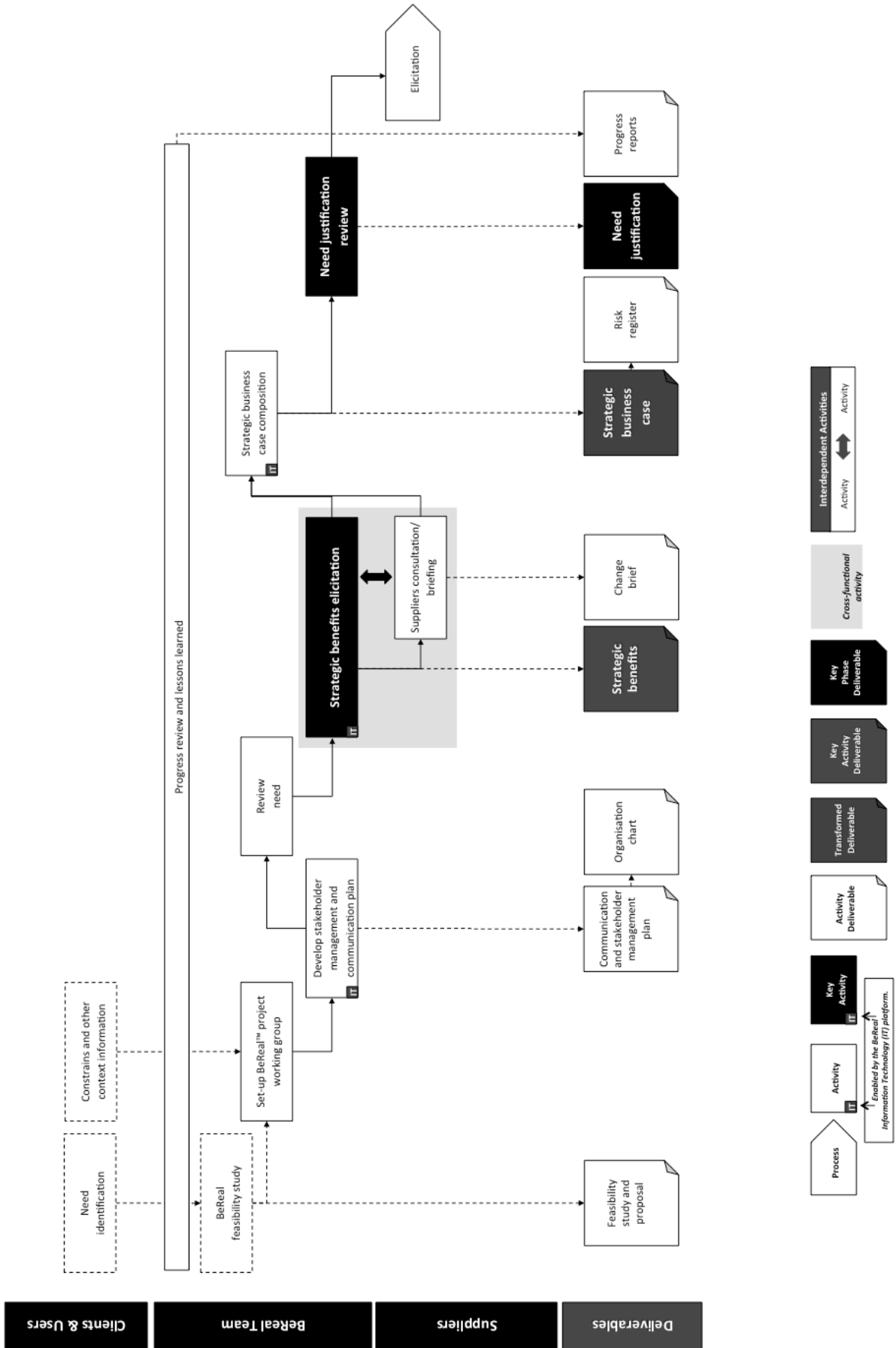


Figure 34: Strategy alignment phase flowchart

### 5.3.2 Elicitation

In the elicitation phase the ‘strategic benefits’ are further validated and two additional levels of benefits are identified, Sub and End benefits. This approach was introduced in 2.15.2 and examined through all three case studies. Sub Benefits are specific targets linked to the strategic benefits that support the evaluation of design options, while End Benefits are specific targets that enable performance to be measured. During this phase dependencies between all three levels are identified and the core benefit profile is created (described in 5.4.1).

Activities which such as ‘benefits profiling’ and ‘segmentation’ are used to arrive at a set of structured, profiled benefits that can be organised by type such as, time, ownership, organisation impact, etc.

For example a strategic benefit “improvement in patient experience”, may have the following sub benefits “increased patient choice”, “reduced waiting time”, “improved community facilities” and “greater privacy”.

The sub benefit “increased patient choice” may be linked to an end benefit “Increased health services available”:

- “Improvement in patient experience” provides the strategic direction of the project;
- “Increased patient choice”, “reduced waiting time”, “improved community facilities and greater privacy” will provide the criteria on which options can be shortlisted; and
- “Increased health services available” is the tangible target that can be measured.

The realisation of each benefit is determined through the dependency criteria as established during this phase.

Key activities identified and recommended during the elicitation phase are:

- Finalise benefits segmentation – A selected project-working group further segments benefits using similarity and dissimilarity criteria. During this activity the group should consider the wider impact of the benefit on both the internal and external environment (e.g., financial impact, stakeholder impact, etc.), (see example in Appendix III.3).
- Need justification review – The need for the solution that the project will deliver is reviewed in light of the more detailed benefit structure. The Strategic business case initiated in the previous phase is updated to provide a more robust justification for the need and to provide evidence for better decision-making.

A flow chart of all the recommended activities and deliverables of the *Elicitation* phase is presented in Figure 35.

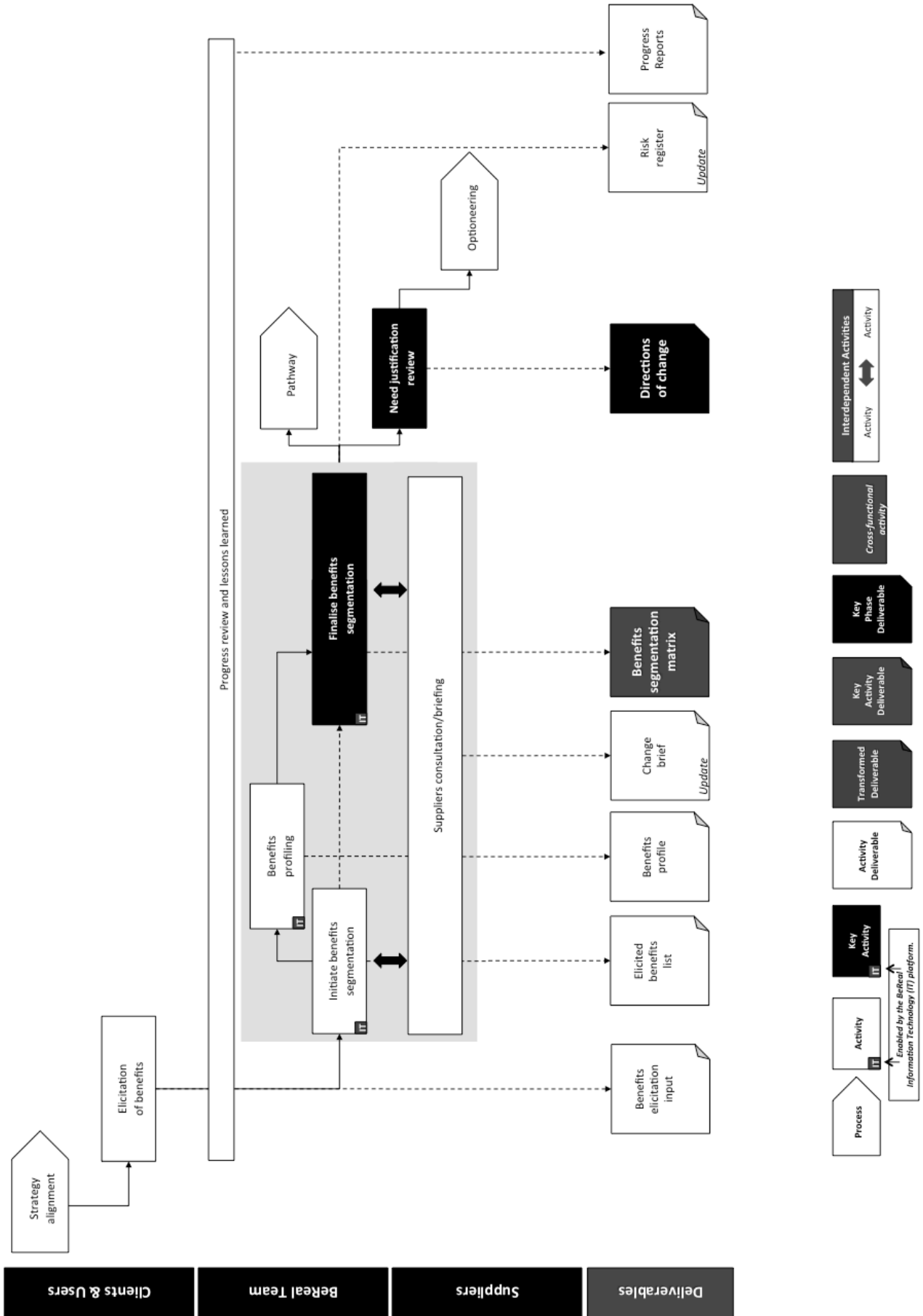


Figure 35: Elicitation phase flowchart

### 5.3.3 Optioneering

In the optioneering phase, options are judged against expected benefits and availability of funding. Stakeholders work on optimising their requirements, by weighting and ranking them. Then, the result is used to select a preferred option.

The optioneering and the elicitation phases are aiming to deal with the non-consideration of some stakeholders and how they can influence projects' results (Ward & Daniel, 2006) that the literature review identified as one of the main reason for project failure.

Optioneering involves identifying and assessing alternative change options based on a mix of dimensions. A three-step approach that includes a benefit, an economic and a multi-criteria approach is derived from the literature review and by investigating this part of the process during CS3 as described in 4.3.3.

The benefits approach involves benefits ranking of options where the first step is to short-list the identified options, based on the three-tier benefit structure, and using an appropriate scale.

The economic approach analyses the short-listed options based on cash flows quantitative analysis, in which benefits (value) are now compared to change (cost) of every alternative option (e.g., do nothing, do minimum, option A).

The multi-criteria approach analyses the options based on the economic dimension (value - cost), which is now broadened to include additional project customised dimensions, such as time and organisation readiness.

Following the multi-criteria ranking activity, which ranks options, the preferred option is identified.

The key activities identified and recommended at the optioneering phases are:

- Relative weighting of benefits – Through a small but representative stakeholder workshop the strategic and sub benefits are weighted;

- Multi-criteria ranking of options – Multi-criteria ranking is a core activity in the Optioneering phase, involving the active participation of stakeholders to score change options according to a group of weighted dimensions. The outcome is an organised and ranked list of assessed change options; and
- Selection of the preferred option – Based on the Multi-criteria options report, a selected group of stakeholders (e.g., investment board) analyses and discusses results, identifies next steps for future reference and agrees action. Based on the options assessment information a process loop or a final investment decision should occur.

A flow chart of all the recommended activities and deliverables of the *optioneering* phase is presented in the Figure 36.

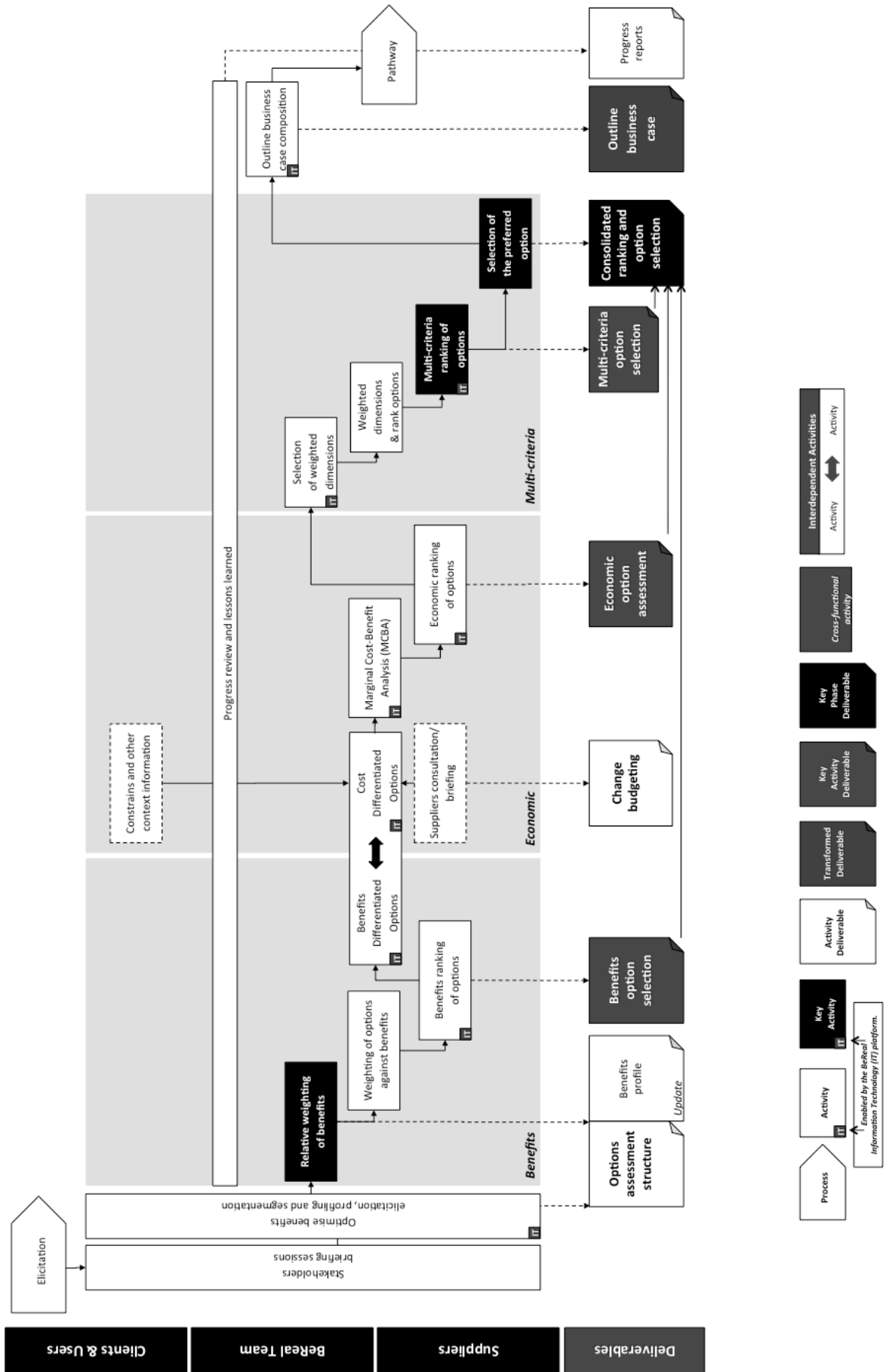


Figure 36: Optioneering phase flowchart

### 5.3.4 Pathway

The Pathway phase focuses on the detailed plan to manage and realise the defined benefits and incorporate unplanned ones within the context of the preferred option of the programme or project.

In reality the pathway of the benefits starts as soon as they are conceived during the elicitation phase.

By the time this phase is reached the benefits elicited earlier in the process would have been subject to robust consultation. Commonly agreed attributes would have been assigned and what remains to be done is to link these directly to the proposed project/change plan.

Further analysis and planning is performed to develop a robust action plan where benefits and activities are closely interdependent, enabling immediate recognition of the impact of any plan variation to the realisation of the benefits.

This phase addresses two of the main reasons identified in the literature review and presented in chapter 4 as to why a project fail to deliver benefits i.e. The long periods of a project's life cycle, leading to a disconnection between benefits planning and delivery due to changes in personnel (Reiss et al., 2006); and the non-consideration of necessary interconnected issues that might influence the project's success (Thorp, 1998).

During this phase a close link of benefits, activities, resources and key performance indicators is established. Measurement methods, data sources and specific measures are assigned to each benefit. Baseline (as-is) and target (to-be) state scenarios are documented and provide the platform for effectiveness and efficiency gains to be compared.

The key activity of the Pathway phase is:

- Implementation plan development – Two key elements, benefits and resources are analysed to enable a dependency network to be created. This activity ensures that there is a clear link between change projects (e.g.,



group of activities, specific tasks, time frame/duration, and risks) and benefits.

A detailed implementation plan should encapsulate a management framework that enables review of: the baseline (as-is) vs. targeted (to-be) versus actual (as-is) is agreed and documented. Performance measurement methods in terms of what, how, who and when is fully identified and documented.

A flow chart of all the recommended activities and deliverables of the *Pathway* phase is presented in Figure 37.

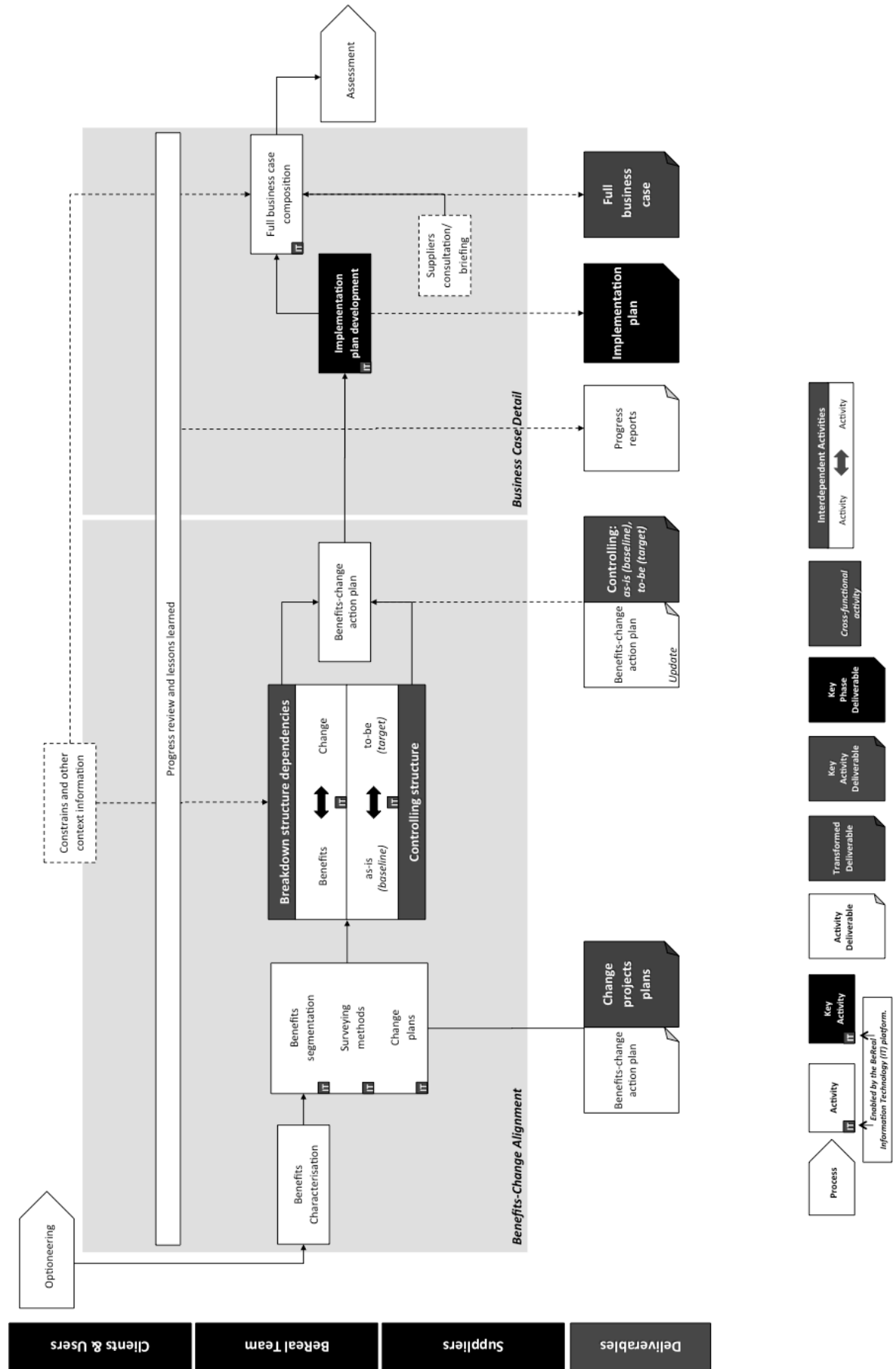


Figure 37: Pathway phase flowchart

### 5.3.5 Assessment

The Assessment phase happens during the change implementation and thereafter, enabling tracking of the realisation of the benefits and change plan ensuring the identification and implementation of remedial actions.

This phase focuses on how to evaluate change and the level of benefits realisation, identifying necessary adjustments as a result of the internal and/or external context to maximize realised benefits and minimise dis-benefits.

The assessment phase tracks outcome as they emerge (as-is/actual), compare them to the initial position (as-is/baseline) and to plan (to-be target) and facilitates corrective actions in the light of changes.

The assessment is carried out by interviews, questionnaires, post occupancy evaluation and other techniques as investigated in CS1 presented in 4.3.1 It is important to highlight here that if the valuation is to be judged in terms of stakeholder satisfaction, this is a very difficult thing to measure. Qualitative description is necessary in addition to any quantitative measures used, if the benefits are to be properly evaluated in terms of their level of realisation. Rooke et al. (2010) say that a distinction should be drawn between outputs and outcomes when evaluating projects. They go on to explain that project outputs are theoretically under the direct control of the project management, however stakeholder value may be best conceived in terms of outcomes: the effect that these outputs have on the stakeholders life or business. It is also important to look far into the lifecycle of a project and its outputs in order to appreciate its true positive or negative outcomes, as these progressively perceived by stakeholders that interact with it. In simple terms determine if the benefits have been realised or not.

This phase should be seen as an on-going activity where stakeholders are engaged to assess the realisation of benefits and simultaneously acquire knowledge and learn from the process. Evaluation is only useful inasmuch as it acts as the basis for learning and improvement (Rooke et al., 2010), and leads to organisational

learning helping people to build a mutual understanding of benefits, costs and risks (Kaplan and Norton, 1996). This in turn supports process improvement as people learn by their mistakes (Farbey et al., 1999) and supports the adoption of a continuous improvement cycle as discussed in section 2.5.

The key activity identified in the assessment phase is:

- Plan remedial actions – this activity relates to the identification and implementation of remedial actions to:
  - Enhance effectiveness by better aligning benefits and change (as-is/actual) with the initial position (baseline) and the planned scenario (target); and
  - Optimise efficiency between change and benefits, maximizing realised benefits and minimising required change and dis-benefits.

This phase put emphasis on the widely agreed argument that measurement is central to managing benefits (Thorp, 1998). The case studies have shown in the investigation of the benefit elicitation phase that some benefits may emerge unanticipated from the change process (Farbey et al., 1999) while others are naturally difficult to measure (Reiss et al., 2006). This issue is controversial with some arguing that soft benefits may have to be omitted from a benefits realisation plan (Glynne, 2007), while others suggest that benefits not tied to KPIs are of little value (Bennington and Baccarini, 2004). However the case studies show that these soft benefits are often the most important. Hard measures such as financial figures can often be deceptive, as the intangible assets of a business or an organisation are often ultimately of far greater value and sophisticated measures exist for capturing them (Bartholomew, 1999). Measures should be comprehensive and agreed by all stakeholders, covering all the important outcomes through the lifecycle of the change initiative. They must also be rigorous with benefits expressed in such a way that their realisation could be demonstrable (Reiss et al., 2006). They must also be clearly owned by liable sponsors (Thorp, 1990). A flow chart of activities and deliverables within the *Assessment* phase is presented in Figure 38.

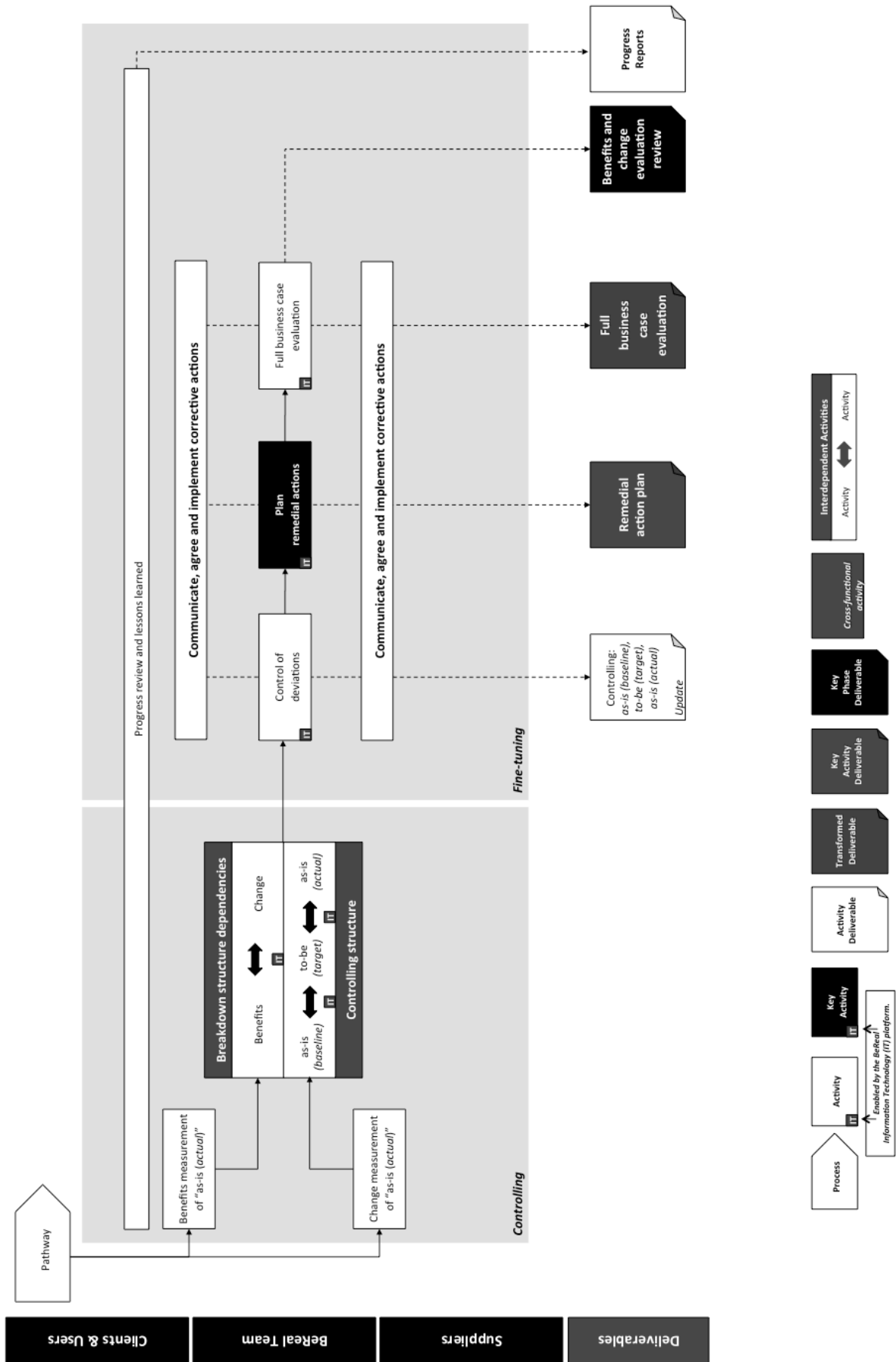


Figure 38: Assessment phase flowchart

## 5.4 Key BeReal tools and techniques

In the previous section the process phases were introduced and described, what follows is a list of the key tools and techniques as they have been developed during this research and used throughout the BeReal process. The author highlights these as essential in order to achieve the process deliverables and contribute towards its successful implementation. These are:

- Benefits profiling;
- Benefits breakdown and hierarchy;
- Benefits segmentation;
- Multi-criteria ranking – Optioneering;
- Benefits, activities and resources dependencies; and
- Controlling assurance;

These are further detailed in the following pages.

### 5.4.1 Benefits profiling

Benefits profiling is a fundamental activity in the BeReal process it initially deals with what has been highlighted in the literature review in reference to the vagueness with which the expected benefits of a project are defined. (Reiss et al., 2006) as well as the uncertainty within project teams in allocating responsibility for managing and delivering benefits (Lin and Pervan, 2001).

The case studies have shown that there are often difficulties to understand terminology within workshops e.g. what is a benefit? a sub-benefit? measures and methods? The process implementation team needs to be clear of terms itself and convey this to the group of stakeholders involved at any stage of the development.

Benefits capture is the process of identifying and describing benefits, as they understood within the context of the project and its stakeholders. Once the key

stakeholders have been identified, the benefits they desire from the project can be elicited through a consultation process as described in the *elicitation phase* using techniques such as workshops and interviews (Bennington and Baccarini, 2004). These should be structured so as to understand the relations between changes in infrastructure, or technology, business processes and business performance (Sakar and Widestadh, 2005). The case studies have confirmed what was identified in the literature that in addition to capturing the benefits this process maximises commitment (Glynne, 2007) and communicates the strategic and economic constraints on the change initiative (Remenyi and Smith, 1998).

CS1 initially tested the constitution of a benefit profile template (Bradley, 2006) and its use was incrementally tested and validated in CS2 and CS3, The research validated that a typical benefit profile should include as a minimum:

- Description for each benefit or dis-benefit;
- How it will be measured (e.g. formula, source of data);
- Is it a qualitative or quantitative benefit;
- A financial valuation if possible;
- Its impact on current business processes;
- How it interacts with other benefits; and
- The stage at which is likely to come on stream.

The benefits profiling should be initiated at strategy alignment or elicitation phase and kept under constant review the change process and depending on the scale of the project maybe subject to alteration (CCTA, 1999) as it was established in the case studies.

A template of the benefits profile as it was used and validated in all three case studies is shown in Appendix III.4.

#### **5.4.2 Benefits breakdown and hierarchy**

The benefits breakdown and hierarchy technique is a fundamental activity that needs to be positioned at the initiation of the process. It evolves throughout the process phases as additional stakeholder involvement and consultation occurs. All

three case studies contributed to the fact that a clear definition of all strategic benefits, sub benefits and end benefits need to be articulated as benefits terminology is usually misinterpreted by different stakeholders that are involved in a change programme.

The research has concluded that benefits might be realised at different stages of a projects' lifecycle, although major impacts will probably occur on later stages of the project's operational state; nevertheless it is necessary to classify and characterise benefits as early as possible if they are to properly managed and by that increase the probability of their realisation.

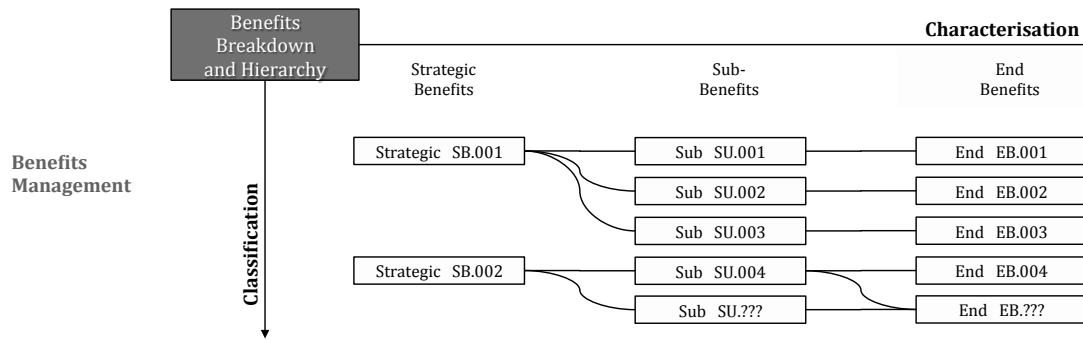
Active and systematic organisation of the identified/elicited benefits, under a three-level organisation structure, is regarded as a necessary and valuable activity. This activity consists of highlighting (dis) similarities, consolidating (e.g. two similar elicited benefits in one) and segmenting elicited data/benefits under the systematised approach that is able to assure support throughout the investment programme (e.g. selection of design options, controlling/monitoring).

As previously described BeReal organises benefits into three tiers:

- Strategic benefits – they relate to the high level purpose of the programme/project and provide an overall direction of success throughout the life cycle;
- Sub benefits – they are more detailed benefits, that drive design and support options' assessment;
- End benefits – are benefits that are further profiled into specific targets that enable performance to be measured.

A dependency map (Figure 39) linking the three tiers is constituted following the benefits elicitation illustrating dependencies (this is also supported by the BeReal IT platform as described in appendix V).





**Figure 39: Benefits breakdown and hierarchy**

To develop a representative and robust list of benefits, it is necessary to involve diverse stakeholders. This contributes highly to the quality of the benefits sets elicited (including dis-benefits and cost), helping to address the real impact of the investment and its outcomes. The process is beneficial in bringing key stakeholders of a development programme together and in all three case studies has provided the platform for collaboration, enhanced communication and better involvement. However a wider stakeholder engagement would be more beneficial as it was concluded following the ‘benefits elicitation ‘ workshops in CS3.

Since benefits are elicited a traceability management of benefits is recommended, highlighting stakeholders involved, identified overlapping and dependencies between the benefits, etc. Major data collection techniques tested and recommended to elicited benefits are workshops with stakeholders, surveying questionnaires and historical data gathering through consultation of existing documentation. All the data is recorded in recommended templates as in Appendix (III.1), benefits elicitation input matrix and Appendix (III.2) elicited benefits list output matrix.

### 5.4.3 Benefits Segmentation

Benefits segmentation is one of the key techniques mainly used in in the strategy alignment and elicitation phases and has been investigated mainly in CS2 (workshops 1 and 2) and CS3 (workshops 1-4). It was observed following the analysis of data gathered during these elicitation workshops that such activities to understand stakeholder priorities (e.g. workshops, seminars) can lead to a large

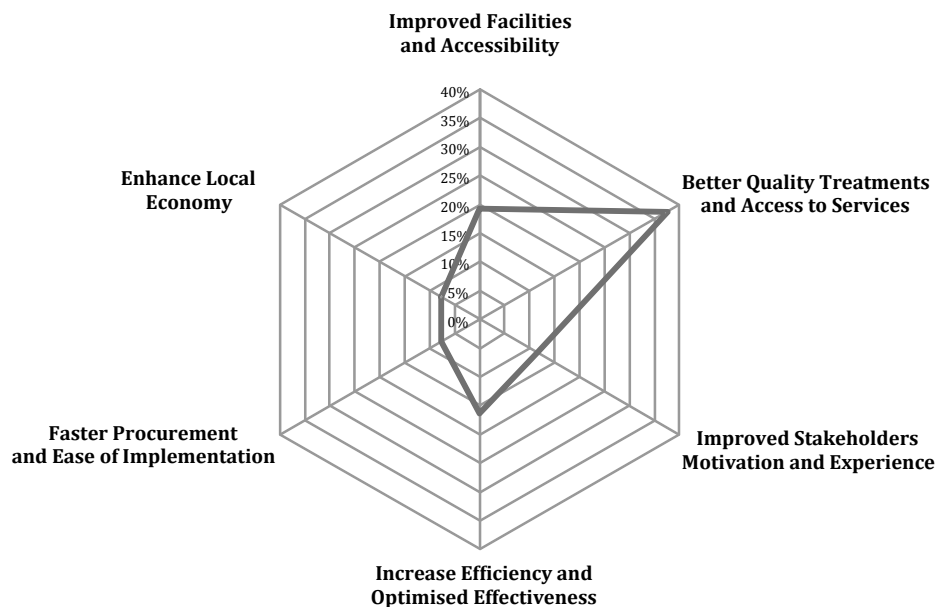
amount of relevant but very fragmented data. Benefits segmentation process helps turn such fragmented data into useful information using similarity and dissimilarity criteria.

In the BeReal process segmentation is undertaken to consolidate elicited benefits into a manageable number that fit the recommended three-tier approach.

Benefits are segmented according to a diversity of criteria/attributes, as hard, soft, tangible, intangible, quantitative or qualitative, dis-benefits or unexpected.

The benefit segmentation technique incorporates outcomes of the benefit profiling activity where attributes related to each benefit are assigned (e.g., ownership, responsibility, time). Management of benefits begins after the elicitation phase and throughout the whole lifecycle. Benefits segmentation (and profiling) enhances awareness about whom, how and when the realisation and change takes place.

The segmented benefits can also be illustrated using a spider diagram (Figure 40), helping easy interpretation and visualisation of benefits related data.



**Figure 40: Benefits segmentation illustration**

The organisation of benefits in terms a selected group of aspects (e.g., planned and unplanned, internal and external, built environment lifecycle states, stakeholder

category) using segmentation techniques (see appendix III.3), is regarded as advantageous, especially to understand and clarify which aspects might be more (or less) represented by the elicited group of benefits. It also helps to understand benefit ownership issues and when a benefit should be measured and realised all of which contribute to the monitoring and managing aspects of the process.

Structured project benefits as derived from stakeholder workshops are the core of the overall management process as examined in CS2 and CS3. The BeReal process in that respect aligns the overall project potential outputs with the change initiatives and subsequently turns them into desired planned outputs. Thus the stakeholder management process that often is depicted as entirely political (Olander & Landin, 2005, Newcombe, 2003) is supported here by a structured process for the elicitation and management of benefit outcomes.

#### **5.4.4 Multi criteria ranking**

Multi criteria ranking is a recommended key technique used in the optioneering phase and has been developed as an outcome of the relevant workshop 6 in CS3 described in section 4.3.3 (Chapter 4).

Optioneering is all about informed collective decision making, a selection of options based on weighting strategic and sub benefits. It should enable the debate of the different options considering a streamlined number of benefits and does not include the third tier in benefit's details (end benefits) into the decision-making process. The identification of the best option (ranking) is based on a ranking developed only among the short-listed options, and also focusing on the strategic and sub benefits levels (see Appendix III.5 for benefits weighting and ranking matrix template as developed in CS3). Only after ranking the shortlisted options, further detailed *end benefits* are incorporated into the decision-making process as a basis for the development of a full business case approach (*see BeReal pathway phase flowchart* Figure 37).

Multi-criteria ranking is a core activity of optioneering. It involves scoring of change options according to a group of weighted dimensions. The outcome is an organised and ranked list of assessed change options.

This approach is a way of structuring complex decision-making, using a seamless and easy step-by-step method, that ends with a synthesised ranking. An illustration of the multi-criteria decision-making table is shown on the opposite page.

The multi-criteria ranking of options consolidates quantifiable and non-quantifiable project customised dimensions into the decision-making.

Identification of dimensions should include multiple attributes that stakeholders consciously suggest and unconsciously regard as valuable (e.g. benefits, risk, cost, economic, etc. as per Figure 41).

	Dimension	Weight	Options			
		1-5	A	B	C	...
Investment Analysis	Economic	2	1	3	4	...
	...	1	1	5	3	...
	...	5	...	...	...	...
	Assessment		41	29	37	...
	Ranking		3	1	2	...

Dimensions:  
Multi-criteria

**Figure 41: Ranking and weighting illustration**

Active participation of stakeholders is highly recommended, specifically in the multi-criteria ranking of options activity of the optioneering phase (e.g., identification of dimensions should emerge from workshops).

The final BeReal process focused on the benefits dimension as it was presented in CS3, a template as developed on this case study is detailed in appendix III.6.

### 5.4.5 Benefits activities and resource dependencies

The identification and link of identified and structured benefits to resources and project plan activities is key to the pathway and assessment phases of the BeReal process. Poor identification of necessary means to achieve benefits has been one of the main failures in traditional project and change management (Truax, 1997).

A dependency network is established amongst benefits, activity and resources. The established dependencies relate any potential variation in resources and activities (e.g., time, risks, cost) to the impact of the realisation of the linked benefit. Based on this approach, decision-making and traceability is evidenced and fully justified.

Depending on the change project, the dependency network might be developed at an elementary level (e.g., task) or at a more consolidated level (e.g., activities as a group of tasks).

Monitoring and managing this dependency network will further enable a more efficient allocation of resources, focusing on effective achieving the desired outcome.

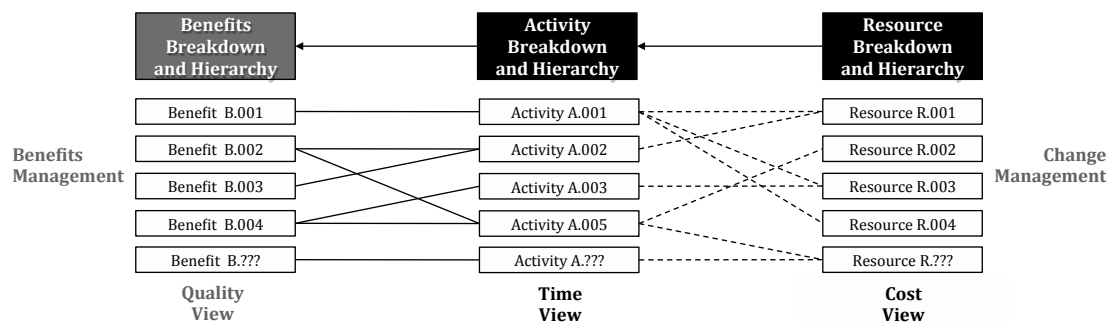


Figure 42: Benefits, activities and resource dependencies

### 5.4.6 Controlling assurance

The final activity presented in this thesis is key in the Pathway and Assessment phases but also to the overall robustness of the process.

Conceptual design of a monitoring and controlling structure covering the overall project and organisation environment should guarantee traceability of identified

activities and changes along the project lifecycle, highlighting dependency and overlapping of benefits. Based on conversations held with the case studies project management teams, the cross analysis deviation between what benefits have been *planned* (to-be), what is now in place (*as-is or actual*) and what is in fact *delivered* (*emerged*) creates an effective lifecycle monitoring/controlling approach of deviations that seems to be extremely relevant to properly measure the success of the programme, and that should cover both *efficiency* (resources versus results) and *effectiveness* (achievement of what is planned) perspectives.

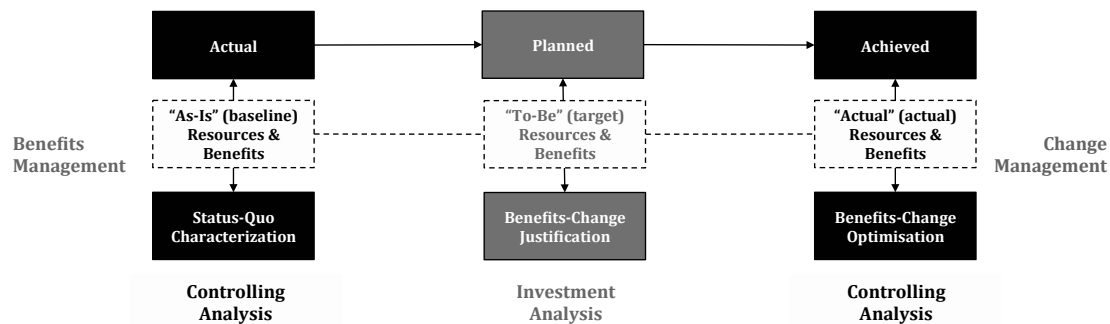


Figure 43: BeReal controlling assurance

A structure of control and assurance that enables the definition of the baseline (as-is), the targeted outcomes (to-be) and the actual results (as-is) is therefore deployed.

The baseline (as-is) mirrors the initial situation, as a basis for establishing appropriated KPIs. It contributes to need justification and related change development.

Targeted (to-be) group of KPIs enable the definition of goals, both in terms of benefits (value) and change (cost) measures.

Actual (as-is) group of KPIs enable measurement of the level of achievements, in terms of benefits (value) and change (cost).

In order to guarantee comparability between: baseline (as-is), targeted (to-be) and actual (as-is), the group of KPIs should be carefully aligned through appropriate data sources and methods.

## **5.5 Process implementation team**

An *organisation chart* to manage the process implementation and related stakeholders is highly valuable. It comes from the findings of the literature review that poor ability to manage change has been one of the main reasons of project success or failure (Truax, 1997). This was also identified during the informal discussion and interviews mainly on CS1 and progressively its need was reinforced on CS2 and CS3.

The literature also points to a process implementation team that focuses on project accountability but such effort should be improved if the rest of the organisation is better engaged on understanding what their contributions to benefits realisation were (Bradley, 2006).

The diversity of stakeholders involved, ranging from clients and users to suppliers, needs to be appropriately managed.

Thomas and Thomas (2005) support this as they believe that involving all stakeholders from the outset helps the team to become integrated and have a common understanding and shared knowledge. The key they would say to an effective stakeholder group would be through integrated teamwork. They do however point out that with changes that occur in organisations especially those of personnel nature for example staff leaving and new ones joining. To deal with these changes there needs to be some effective management from either the project manager or a core stakeholder group.

Taking the literature guidance (OGC, 2003; Reiss, 2006; Glynne2007) into account and from the experience gained from the case studies the recommended organisation chart for managing a benefits driven approach should consist of a BeReal coordination structure and a steering committee as illustrated in Figure 44.

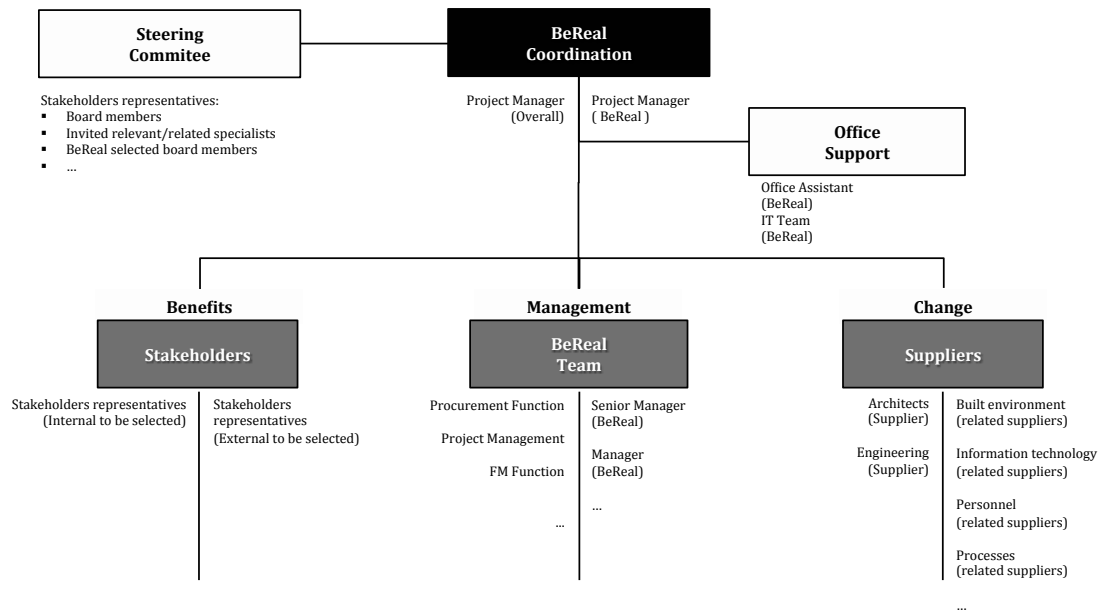


Figure 44: BeReal process implementation team, illustration

### 5.5.1.1 BeReal Team specific responsibilities

When a programme/project uses the BeReal process it is recommended that a BeReal team is established as it was tested at the initiation of each case study and was discussed in the literature review in section 2.14. The BeReal Team's main purpose is to oversee the operational development of the project through activities such as those set out below.

- Delivery of work aligned with the plan (and project direction) by managing day-to-day activities;
- Detail, review and direct the work of stakeholder sub-groups. This includes participation and promotion of joint initiatives, data gathering, discussion, analysis and diffusion of outputs;
- Contributions to the involvement of relevant stakeholder groups and promote effective two-way communication;
- Provision of a forum for dissemination of initiatives, decisions and progress updates;
- Co-validation of project deliverables, as benefits profiles, options ranking, risks, business case, change proposals;
- Elicitation of stakeholders' perceptions into benefits characteristics; and



- Assure future support of performance and controlling initiatives.

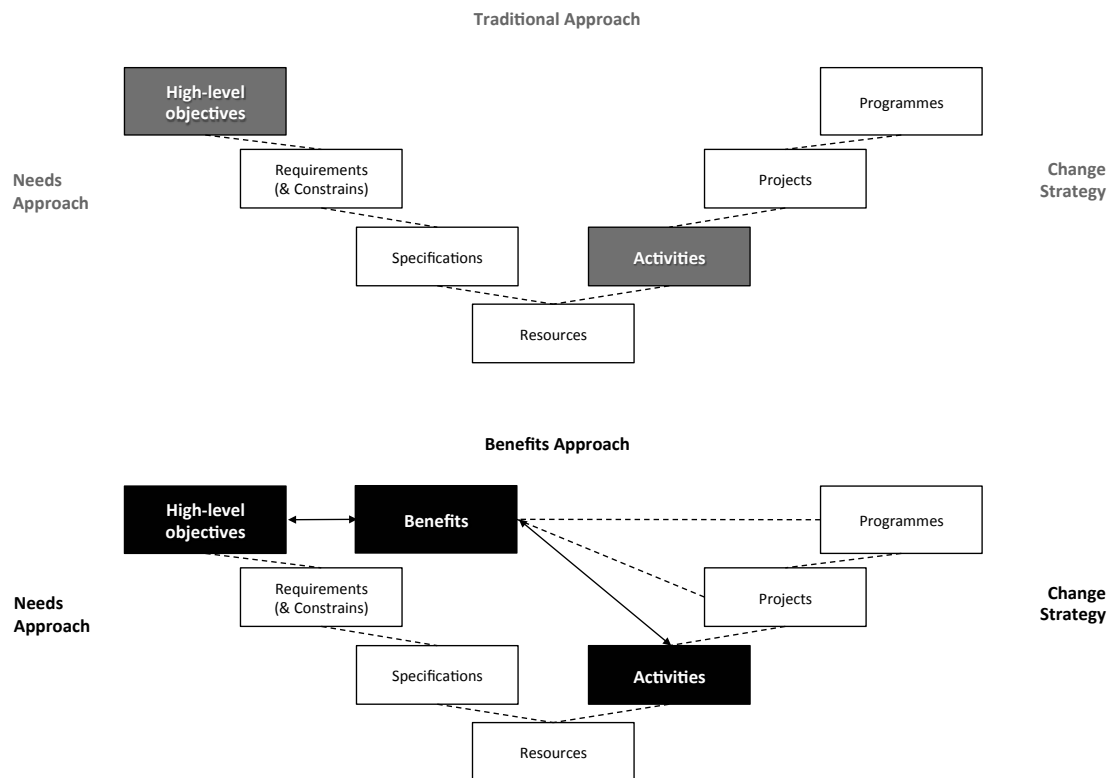
#### **5.5.1.2 BeReal Team reporting mechanism**

- Team will report to the co-ordinator that leads project strategy development and oversees project day-to-day operations;
- Team meetings and other initiatives will be proposed, agreed with and presented to the coordinator;
- Outputs developed by the team will be submitted for approval to the appropriate level.

### **5.6 Discussion**

#### **5.6.1 Paradigm shift**

The knowledge gained from the case studies and the literature review is that benefits realisation, if and when carried out at all, is not integrated into organisations' culture, business and project activities. A change in mentality from a traditional based approach guided by macro-objectives and requirements to a benefit driven strategy is the challenge. A traditional approach often consists of static documents that are limited and not kept up to date. For parties to have any confidence that benefits will be achieved, there needs to be a paradigm shift, a change in the way of thinking so that benefits are identified through a rigorous process, are well defined, given on-going attention and are monitored/adjusted effectively through out the lifecycle of the project/ programme. It is also important to highlight that a different (and more effective) way of thinking and working it clearly requires a positive commitment from top management to integrate the approach into the business as a whole, if it is to achieve its full potential. It was earlier discussed that achieving the necessary shift from a traditional approach to benefits driven strategy is the challenge. To implement change through a benefits driven strategy, a waterfall of links need to be considered (e.g. the links between activities and resources (Figure 45)).



**Figure 45: Paradigm shift from traditional approach to a benefit driven approach**

Following this paradigm shift, *'what'* benefits to be delivered (the benefits strategy) need to be linked transparently with *'how'* the benefits are to be delivered, taking into account of the resources and activities required, and the content of the overall change strategy.

BeReal focuses on how benefits should be elicited at the initial, strategy deployment stages of a programme, how benefits should be managed and traced along the life cycle and deployed within the programme's business case. Subsequently, the author aspires BeReal to be an appropriate method to drive and control the programme plans; providing tools and techniques for defining specific benefits. It also allows the measurement and evaluation of the extent to which those benefits are delivered (or not).

### 5.6.2 Process integration principles

BeReal actively plans how resources can be used to realise benefits at three key levels, strategic, portfolio and programme/project level, in a way that

complements other business management tools. Feedback loops in the process help keep a focus on the identified benefits despite changes in the internal and external environment. As many benefits materialise long after the individuals involved have moved on, BeReal governance structures cover the life cycle of the programme/project.

Allocating resources effectively, effective communications and transparency are the key to implementing the BeReal approach successfully. As BeReal involves a different (and more effective) way of thinking and working it clearly requires a positive commitment from top management to integrate the approach into the business as a whole, if it is to achieve its full potential. Effective communications is a vital aspect of any change program, contributing to increasing transparency and facilitating the management of expectations across the diversity of stakeholders.

The benefits pathway is shaped by three interlocking views (i.e., “as-is” actual, the “to-be” planned, future and the “emerged” actual), supported by stakeholder engagement and cultural alignment, to promote benefits ownership and transparent delivery.

Unlike normal practice, the targeted benefits (what is to be delivered) are managed (process) to ensure they align fully with change activities (how benefits are to be delivered) as explained defined in section 5.1 where the main terms of BeReal are defined. This is achieved through the integration of programmes/projects, activities and resources. The allocation of resources, in particular, is actively managed to take account of the “as-is” actual position, the “to-be” planned, future position and the “emerged” actual achieved position.

### **5.6.3 Process key aspects**

The key aspects in terms of BeReal’s contributions to key project management areas as they have been identified at the beginning of these research and validated by following the research strategy and methodology can be grouped under the following headings and discussed in this section:

- Decision making support based on a benefits driven approach;

- Performance optimisation;
- Control and accountability;
- Assurance;
- Stakeholder management and communication; and
- Knowledge management enabler.

*Decision making support based on benefits driven approach* - One of the fundamental aims of the author was to investigate and develop a process that puts benefits realisation at the heart of strategic decision-making, by using benefits as a roadmap for change. That has been reiterated throughout this research. The resulting process in every step and deliverable is aimed to contribute to decisions that organisations have to make when delivering infrastructure development project. The alignment of the BeReal process with the organisations investment appraisal and project progression sequences was tested in all three case studies and it was acknowledged that the outcomes contributed towards decisions been made based on the evidence that the process delivered. Such decisions for example included the formulation of a Gateway<sup>®</sup> review report in CS2 based on the elicitation workshop outcomes, the selection of a design option for the hospital redevelopment in CS3 as a result of the optioneering workshops as presented in Section 4.3.3 (Chapter 4).

*Performance optimisation* - The BeReal process mainly on the Pathway and Assessment phase is based on the principle that for benefits to be achieved they have to linked directly with the activities and resources on the project plan that drives the infrastructure development. The research has strongly indicated that achievement of sustainable good performance should emerge from proper identification and allocation of resources to elicited benefits. Senior management that was involved in the case studies acknowledged that benefits driven approach (such as BeReal) on project management has positive influence in reducing friction, braking down silos and focus the team on optimising project outcomes, and as a consequence have a positive effect on the organisation's performance.

*Control and accountability* - It is important to remember that many programme/project benefits materialise long after individual project teams are redeployed and therefore, collective governance needs to be retained to manage benefits longevity. The BeReal process is considered to be by those that interfaced with it during the case studies and the advisory group a dynamic process that allows baselines to be set and benefits to be tracked throughout the lifecycle of a project.

*Assurance* - BeReal aligns with assurance frameworks such as audit, systems structures and oversight committees, through:

- Application of soft skills to deliver personal integrity, cultural change and stakeholder collaboration;
- Transparent change management;
- Explicit risk allocation / awareness;
- Transparent decision making around option analysis and interpretation of feedback;
- Provision of accurate and current information flows to stakeholders demonstrating the efficiency and effectiveness of the assurance policies and BeReal operations (which should also include compliance with statutory obligations).

*Stakeholder management facilitation* - The investigation into the three case studies on the healthcare infrastructure programmes at their different stages of their development have proved the authors belief that such programmes are notoriously large and complex with multiple stakeholders. The characteristicly have long whole lifecycle, with many stages including policy setting, planning, development, construction, commissioning of healthcare service operations, facilities management (e.g. maintenance), refurbishments and demolition. They are also often subject to enforced structure and governance change due to policy. Due to this healthcare infrastructure programmes are hard to manage; they often run over time and budget, and are often unable to reach the targets that were planned at the outset of the programme by the different stakeholders involved. BeReal can be used to overcome these difficulties through the different tools and

techniques, described earlier in this chapter. It is particularly effective in these complex environments because of the stakeholder management processes imbedded within it as it was widely acknowledged following the validation workshops with the research's advisory group.

BeReal is divided into five main phases: Strategy alignment; Elicitation; Optioneering; Pathway; and Assessment, throughout each of these phases it is paramount that stakeholder engagement is a priority. In line with current thinking BeReal takes into account the 3 main elements introduced in the literature review across the 5 phases for the successful implementation of Benefits Realisation and Management these are, leadership, people/organisational issues and tools and techniques (Payne, 2007). Each of the three elements is interlinked and the experience from the case studies has indicated that without one the process could fail. For BeReal the soft issues included within the people /organisation section include the team working through the establishment of the project working group in the Strategy alignment phase, communication (discussed further later on) and stakeholder engagement. Whilst the hard issues lie within the tools and techniques section such benefits profiling, benefits segmentation, multi criteria ranking, that aid the implementation of the process.

The BeReal process is a way of co-ordinating different stakeholders' involvement, promoting wide consultation and buy-in. Expectations must be managed, as the process of achieving objective value judgements is inter-subjective, it is influenced by the supplier as well as the customer (Rooke et al., 2010). People involved in planning and delivering a project must be careful not to generate unrealistic expectations that will lead to the stakeholders being disappointed (Bartlett 2006, Reiss et al., 2006). BeReal encourages those involved to be rigorous about the benefits desired.

Early involvement of stakeholders is reflected in the first phase of BeReal: *Strategy alignment*. This first phase is concerned with developing the project team and assigning roles and responsibilities to each of these individuals, identifying desired strategic benefits with a project team and developing a clear communication strategy to ensure the project moves through the effectively through the

subsequent phases. The project working group should consist of key representatives of the different stakeholder groups involved in the project, to ensure a fair and true representation of all those involved and affected by the project. For example in the redevelopment of 3Ts in CS3 the BeReal project team consisted of representatives from the medical staff, patients, administrative staff, the council, the PCT (if still in existence), the architects, programme manager. There is a continued need for stakeholder management and analysis throughout the different phases of BeReal, with the involvement of a wider group of stakeholders in the second phase (*elicitation*) as worked in CS2 and CS3, with activities such as the identification of end benefits, benefits mapping and profiling to form the basis of an on going benefits realisation plan. Consultation with stakeholders both internal and external continues through to the third *Optioneering* phase which involves the weighting and scoring of benefits to chose the desired way forward, which may be a design or/and a service option.

In section 2.9 of this thesis the author presented that during stakeholder management of any programme there are a number of issues that should be considered, one of them was the 'issue variance', where project factors change during a project e.g. one issue may mean more to one stakeholder than another. This is quite significant when adopting BeReal in terms of the value of a benefit, as it was emphasised, in particular during the elicitation and optioneering workshops in CS3. A benefit may hold more value to one stakeholder than it does to another. It may even be the case that a benefit to one stakeholder is a dis-benefit to another. Learning from these workshops outcomes was that by involving all relevant internal and external stakeholders (or representatives) in the process of benefit elicitation in the second phase of BeReal, ensured that the views of all involved was captured. This approach is a necessary significant surveying activity, as the participation of a variety of stakeholders enables the incorporation of different views and perspectives. The process of elicitation gave all those stakeholders involved in the case studies an opportunity to have their opinions of what they believe to be a benefit/dis-benefit of the programme documented and added to the overall benefit list. The elicitation technique gives the stakeholders an opportunity to discuss, disagree and/or develop a shared perspective (Hakim, 2000), maybe

even agreeing that the dis-benefit is ‘a price worth paying to obtain positive benefits’ (Ward et al., 1996). However a shared perspective cannot always be achieved, as it was the experienced when the *criteria ranking* and *weighting* of options against benefits was investigated in CS3. This was overcome by having clear definition of the benefits through their profile established in the earlier workshops by the same group of stakeholders, and by communicating and presenting their dependence with the various stakeholder groups. This was followed by the benefits ranking process that was undertaken through open discussions and gave all stakeholders involved the feeling and the reassurance of inclusivity through joint decision-making.

The literature review often mentions that effective communications is a decisive aspect of any change program (Kagioglou, 2000, Bradley, 2006), contributing to increasing transparency and facilitating the management of expectations across the diversity of stakeholders. BeReal promotes effective *communication* and assures expectations management, aiding effective knowledge share under a sustainable continuous improvement approach. Benefits elicitation meetings for example with a diversity of stakeholders are recommended and understood as a critical surveying activity, since the participation of a variety of stakeholders enables the incorporation of different views and perspectives. Participation of a diversity of stakeholders (including the overall project management team) along the project lifecycle and throughout the organisation (e.g. business functions) is also regarded as beneficial under a management of expectation perspective and contributes to a better comprehensive set of benefits.

#### *Knowledge management enabler*

The process offers a means of turning fragmented data into useful information, as introduced when described the benefits segmentation and profiling techniques. BeReal in project knowledge management terms is about getting the right information related to benefits, in the right form, to the right people at the right time, which according to Rooke et al. 2010 is the definition of lean knowledge management. Koskela in 2000 states that by achieving this placement of



knowledge could increase value, and he goes further to identify the five principles of value generation which hold true for the BeReal process too:

- *'Ensure all customer requirements, both explicit and latent have been captured'*; in BeReal terms that can be seen as the identification and elicitation of all desired benefits;
- *'Ensure that customer requirements have bearing on all deliverables for all customers'*; in BeReal terms this is the link of benefits identified, by the stakeholders involved, with planned project outcomes during the optioneering and pathway phase as described earlier in this chapter;
- *Ensure the capability of the production system to produce products required'*; BeReal adopts this in the pathway phase where the dependency between benefits, resources and project plan activities is achieved;
- *Ensure that relevant customer requirements are available in all phases of design solutions, production plans and products'*; BeReal progresses the use of stakeholder elicited and structured benefits through all phases of the process and in particular when selecting options and generating the final project plans. BeReal's dataset allows those involved understanding the ambitions and the achievements of a project to date. It ensures that relevant stakeholder requirements (translated into benefits) are available in all phases of production (the BeReal phases). The key tools and techniques described in section 5.4 allow documents to be shared amongst different stakeholders at different levels of permission;
- *'Ensure by measurement that value is generated for the customer'*; BeReal controlling structure of benefits and their measurement on the *Assessment* phase aims to determine their level of realisation in terms of capturing the stakeholders perception of it.

## **5.7 BeReal process validation**

There were two main routes for the validation of the BeReal process:

(1) The adoption of the BeReal process in the NHS organisations that participated in the case study 2 and case study 3 following their completion; (2) the wide dissemination of the research findings and in particular the process itself and how these were received both by the academia and the industry.

Following the conclusion of the BeReal case study 3 (i.e. the 3Ts project investigated) the programme director and the project team adopted the BeReal process as presented in chapter 5 to monitor the realisation and achievement of expected benefits throughout project implementation. A benefits leader was assigned and a sub-committee established as it is prescribed in the final BeReal process. The group presents progress quarterly in a specific Benefits Realisation board meeting lead by the BSUH CEO. The data collected and main outcomes described in CS3 (see section 4.3.3) were used to inform the compilation of the scheme's FBC and justify its potential investment by the Department of Health.

Following the conclusion of case study 2, NHS Stockport adopted BeReal as a methodology going forward in developing and informing the Outline Business Case for the St Thomas project. The Gateway<sup>®</sup> review team that appraised the progress of the project invited the author in the gate 3 reviews of the St Thomas project where the BeReal methodology and the outputs of the benefits elicitation workshop were presented. The outcome of the review considered that the methodology followed was robust and recommended that the outputs and findings would strengthen the St Thomas business case. As a consequence the Gateway<sup>®</sup> review team involved would recommend the BeReal process as one to adopt when planning for the development of healthcare infrastructures or developing a business case for a change programme as such.

Additional validation of the usefulness and contributions of the BeReal process can be demonstrated through the wide dissemination of the outputs generated as a result. A list of academic publications, industry reports, keynote presentations, and invited lectures in the area of the benefits realisation and management led by the author is detailed in Appendix VI.

The author was also invited by The Stationary Office (TSO) to be a reviewer of the 2011 edition of *Managing Successful Programmes (MSP)* and successfully reviewed and participated in the construction of the benefits management chapter within this guide endorsed by HM Government (MSP 2011).

## **5.8 Conclusion**

This chapter describes the BeReal process i.e. the artefact constructed as the result of the research presented in this thesis; The author described and discussed here how the emerged process phases were constructed. The BeReal phases presented in this chapter have been informed, investigated and developed as a result of the literature review in chapters two, the case studies and the advisory group workshops presented in chapter four. The final BeReal process consist now of five phases as these have evolved from the conceptual process presented in chapter 1, following the research methodological framework. The five phases are (1) Strategy alignment; (2) Elicitation; (3) Optioneering; (4) Pathway; and (5) Assessment. The author also discusses the key tools and techniques that are deployed in the five BeReal phases, as they have been refined following analysis of the field research outcomes. The interpretation of the new knowledge acquired by the author is also presented in terms of the paradigm shift needed, the process integration principles and the key aspect.

The BeReal process validity is also presented in terms of the on going adoption of the process by the NHS organisations that collaborated in the case studies and the appraisal by the Gateway<sup>®</sup> reviewers involved in the case studies recognising that the use of BeReal will add value to all programmes and projects in the wider public sector.

## 6 Chapter Six – Conclusions

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This chapter presents the final conclusions on the research on benefits realisation it summarises the main findings from the literature review and the investigation of the case studies and the advisory group workshops undertaken by the author. The chapter discusses the fulfilment of the objectives and research questions that set at the beginning of this quest. Finally it highlights the main outcomes and recommendations for future research needed in the field.

The focus of the research presented was to investigate best practices in the area of benefits management and how these are applied in the UK healthcare sector, in particular the author aimed to develop a robust process for benefits realisation. The author throughout this research addressed the following research question:

- *‘What is the process for benefits realisation that would help address the project success issues within the UK’s healthcare infrastructure development sector and goes beyond current best practice?’*

This question was fully addressed throughout this thesis and in particular in Chapter five where the author presented the final BeReal process constructed detailing its phases and key tools and techniques.

Based on the research aim and research question raised in chapter one the following objectives were set:

- *‘Undertake a literature review to identify ‘best practice’ and issues on benefits realisation, management and related disciplines. In particular aiming to identify:*
  - *What are the current practices and approaches related to benefits management and realisation?*
  - *What are the current processes for planning and delivering healthcare infrastructure programs?*

- *Devise a methodology for investigating significant insights into how 'benefits realisation' is understood currently and link all relevant issues to help develop and promote the adoption of a 'benefit driven' approach;*
- *Develop and propose a benefits realisation process suitable for implementation within the healthcare infrastructure sector that includes:*
  - *Methods and techniques for defining and monitoring benefits;*
  - *Implementation and validation evidence from real cases aiming to assess its utility and usefulness.*

The benefits realisation process developed from this research aspires to be the appropriate method to justify, drive and control change initiatives.

The literature review in chapter two and the author's discussions with industry experts through the advisory group workshops demonstrated and concluded that benefits realisation is emerging as a vital element for 'best practice' programme management in the context of healthcare capital investment in the UK. This thesis presented findings from a literature review in support to that statement, introduced an emergent benefits realisation process (BeReal) and highlighted findings from three case studies, targeting the integrated planning and evaluation of healthcare infrastructures and services in the UK. The research presented provided evidence of the importance of benefits realisation along different phases of capital investment programmes and the findings from the case studies have contributed to the development and validation of the major different dimensions within the BeReal process, as discussed along the following paragraphs.

## **6.1 Literature review findings**

In the literature review within chapter two information was provided on the history and evolution of benefits management and benefits realisation. The aim was to present the existing approaches methods and tools and how these may be applied in the successful management of major programmes and/or projects.

The literature review and initial discussions with industry experts concluded and presented the following:

- Although the need of benefits realisation has coincided with the increasing use and complexity of IT systems it is an emergent and vital element for 'best practice' programme or project management in any major capital investment in UK's healthcare industry;
- The necessary clear distinction between, benefits, outcomes and outputs and presents how those may interrelate during the lifecycle of a programme or project especially the potential of the outcomes to deliver benefits;
- Classification of benefits in terms of value, organisational impact (internal and external), planned and unplanned and stakeholder interaction;
- The importance to understand the differentiation between tangible and intangible benefits and how those may be managed and realised;
- The importance of clear roles and responsibilities for successful benefits management and the necessity of robust methods of governance;
- The broadly accepted in the construction, IT, programme and project management industry benefits management / realisation approaches and highlights their main elements;
- The role of the business case as a 'live' document when driving for successful programmes and projects;
- Linkages between continuous improvement and benefits management and how essential is the measurement, monitoring and reviewing of benefits to maintain a continuous improvement momentum either within an existing programme/ project or when planning for new ones;
- The relationship between value and benefits and existing evaluation stages and techniques;
- The performance management as route for better management and accountability' that provides information required for process control, enabling the establishment of real but challenging targets, that could be translated into benefits; and

- The understanding about the significance of stakeholder requirements capture and management as vital in ensuring a project's or programme's benefits delivery and realisation for all throughout its lifecycle.

It was evident from the literature available that still major capital investment programmes and projects are measured on their success in relation to cost, quality and time of delivery, and not in relation to the benefits or impact that they have delivered. Although benefits realisation is emerging as one of the methods to assist organisations to manage the whole life cycle of programmes and projects there was no evidence of the successful implementation in the healthcare sector of any of the methods available.

These findings shaped the initial knowledge of the author upon which the BeReal process was developed and probed the research's investigation areas.

## **6.2 Investigation findings**

The BeReal process is innovative, combining best practice from a diversity of knowledge areas and industry sectors. It targets successful and effective delivery of benefits through efficient management of change. Moreover it has been designed to align with programme and project management techniques and investment appraisal processes such as the Gateway<sup>®</sup> Review, Prince2, Capital Investment Manual and the Five Case model as it was investigated and presented in chapter one and four of this thesis.

Initially the main objective was to identify current best practices and demonstrate how to improve benefits realisation in healthcare infrastructure provision. In active collaboration with leading industry partners (advisory group) the author undertook a variety of case studies, not only to define a business critical process but also to set out an approach that put benefits realisation at the heart of securing wholly integrated (collective) change.

Delivery of consistent high quality services and infrastructure through diverse investment models requires a 'benefits driven' approach. The investigation

through the case studies surfaced the that challenge of answering community needs through intelligent investment is complex and demands a deeper and inclusive awareness and appreciation of how to deliver benefits and allocate resources effectively.

In the light of the research outcomes, with organisational support for the required investment, BeReal's tools and techniques for defining, delivering, measuring and evaluating specific benefits can transform the chances of successful delivery of change programmes.

The research targeted the development of a robust and comprehensive benefits realisation process from the strategic planning stages to delivery. The resulting process and its five phases focuses on how to elicit and prioritise potential benefits with stakeholders at the initial stages, and how to track and manage benefits during the lifecycle of a programme or project to achieve successful outcomes.

Too often people have assumed that a programme or project will achieve certain benefits, without carrying out analysis to find out what users, partners and other stakeholders really value or how these benefits are to be achieved.

In all three case studies it was observed that people involved with delivering a change project concentrate their efforts on achieving outputs, such as a new building, an IT system, or a change to a service. By the time this goal is delivered, as it was evidenced in CS1 there is no understanding of the specific benefits anticipated and no ability to influence, or even track, their achievement.

Needless to say users and partners often become frustrated over time at the failure to realise or build on the benefits expected at inception.

To change this all the case studies demonstrated that the parties involved in a change programme need a continuing focus on the development of the right activities supported by the right resources, to deliver the right benefits at the right time. They also need suitable models and pathways to guide and support



these efforts to achieve planned benefits. BeReal was acknowledged by all involved as such a process.

The BeReal process helps identify and deliver benefits from projects that will deliver infrastructures facilities and services. It also helps identify stakeholders' priorities when costs have to be reduced and a number of options are available.

In addition, the output from the benefits structures discussed in this thesis in the form of elicitation, optioneering, and tracking can help communications between parties and make explicit what is expected from each of them, improving delivery and accountability.

The testing of the BeReal process had some limitations, since a number of tools and techniques and other elements have not been validated. The author would like to highlight here that exploring the Pathway Phase from the activities linked with benefits to the achievement of outcomes and deliverables was only investigated as a conceptual phase and was not fully investigated due to the limitation of the case studies. However the project working team in CS3 have fully adopted the BeReal process as was initiated with the author and are now pursuing the development of an implementation plan as prescribed within the Pathway phase of the BeReal process.

Some of the elements of the process are still at a prototypical state and more research is needed to further develop it as recommended later in this chapter.

### **6.3 Research contributions**

The main theoretical and practical contribution of this research is in terms of presenting a new process that embraces a benefits realisation approach. The process is built upon integrating project management best practices and continuous improvement methods. It promotes knowledge flow down and sharing by managing stakeholders expectations throughout the change lifecycle, when planning and delivering healthcare infrastructure programmes or projects.

The result is a collaborative process that is informed by practice and literature and can help those involved in different roles to identify and manage benefits and disbenefits throughout the life of a programme or project.

Crucially BeReal was recognised by participants in the case studies and the academics and industrial participants of the advisory group as a dynamic process, facilitating adjustments to plans in the light of experience gained and changes in the external or internal environment so that the benefits aimed for, have a better chance of being achieved and an increased predictability of being realised.

#### **6.4 BeReal novel contributions in relation to the HaCIRIC project**

The placement of the author within the Health Care Infrastructure Research and Innovation Centre has positioned this research at the forefront of the centre's academic research portfolio as the HaCIRIC executive board considered it a prime contribution to the '*Supporting decision making in Healthcare*' research theme. This further reinforces the validity of this research. The BeReal process as it was developed by the author and presented in thesis has contributed to HaCIRIC's engagement with other research centres, academic institutions and industry partners. They all have recognised its contributions and created avenues for the BeReal process, tools and techniques exploited and methodology used for its development to be deployed as follows:

- The development of an IT platform to facilitate the implementation and adoption of the BeReal process in collaboration with IT academic experts and research students at the University of Salford (see Appendix V). The IT platform links the process steps and outcomes in an open public access website and a knowledge database that encapsulates both general and project specific information;
- The development of a Benefits Quantification Method to inform the phases of the BeReal process as prompted, in collaboration with Herriot Watt University;

- The use of BeReal in generating evidence when designing GP practices to optimise flexibility and changeability in commissioning services. A project in collaboration with the Imagination Research Centre at Lancaster University;
- The piloting of the final BeReal process within the Department of Health in IT, service reconfiguration and infrastructure redevelopment projects;
- The consideration of the BeReal process to be used in conjunction with 'Building Better Cases' training program for public sector managers by the Capital investment unit of the Welsh Assembly Government; and
- The dissemination of the knowledge generated during the BeReal project through, (i) the contribution to the revision of the Managing Successful Programmes, benefits management guidance and (ii) the inclusion of the BeReal process to training material within the Gateway reviewers forum.

## **6.5 Research methodology and validity**

As described in chapter three the author adopted a constructive research methodology (Kasanen et al., 1993, Lukka, 2003, Vaishnavi and Kuechler, 2004) for this investigation. The underlining research philosophy was that of the pre understanding – understanding (Odman, 1995 in Kagioglou, 2000). The main mechanism for moving the author's knowledge from a pre-understanding state into an understanding one was the participation of the author in meetings, and general discussion with the participants in the three case studies and the seven advisory group workshops as well as the analysis of the data gathered in the field research.

As the main aim of this research was to investigate best practices and develop a robust process for benefits realisation (the artefact) the constructive research sequence of: Problem awareness → Suggestion of a solution → Development → Evaluation → Conclusion, helped to accomplish this aim. The author's learning and understanding was used to inform the development of the BeReal process in its various stages.

The research methodology deployed has proved to be successful in terms of achieving the development of the BeReal process. The methods contributed into identifying within the literature the best approaches and thinking in the benefits realisation and management area and identify knowledge gaps. The author identified the relationship between these two focus areas and other management disciplines such as project and programme management; change management; performance management and measurement; evaluation and stakeholder management. Moving from the 'problem awareness' to the 'suggestion of a solution' further literature review and interaction with industry experts took place to identify the main elements (by synthesising other model elements and identifying gaps in practice) of the conceptual artefact so to understand and align the process with the main UK healthcare sector investment appraisal and infrastructure development approaches. These steps have led to the development and the first interpretation of a 'suggested solution'; the first conceptual BeReal process as presented in section 2.20.

The three case studies as they were presented in chapter four and discussed in chapter five encapsulated the development and evaluation steps of the constructive research cycle. Although the significant data that was collected and analysed from the case studies contributed towards developing the final artefact, the time constraint of the period that healthcare projects take to complete (as explained in section 2.21) limited the testing and validation of the full BeReal process and its recommended tools and techniques. The wider implementation of the process and in particular the Pathway phase forms part of the recommendation for further work.

The use of a variety of qualitative methods within this research that involves a considerable amount of variables and interpretations of phenomena prompts the question of validity, as it is usually the case with such a research approach. The validity of a research can be divided in three possible concerns according to Yin (2003) in Henrich (2009); Internal validity, external validity and construct validity.

Internal validity is relevant to exploratory and experimental studies where the proof of a concept, conclusion or hypotheses is required. This was not the case for this research so such validity is not needed.

External validity is related in generalising research findings and the data acquired through cases studies substantiated the BeReal process implementation and usefulness. The three case studies presented in chapter four were conducted in the UK healthcare sector within well-established organisations where the projects under investigation were under different development stages. The three case studies also had other differentiation characteristics (discussed in section 4.3), such as investment appraisal method, level of healthcare service provided, size of the investment etc., giving a well-defined portrayal of the healthcare infrastructure sector. As such the outcomes of the research can be considered as representative examples of healthcare infrastructure projects. Also throughout the research a number of research methods (introduced in chapter three and demonstrated in the section 4.3) such as, workshops and questionnaires were used to gather data. The analysis of findings from a number of research methods enabled the triangulation process, which reduced the bias of the qualitative data collected (Yin, 2003). The additional factor of the use of the 'Advisory group' workshops and discussions (see section 4.4) as a validation mechanism of the case study outputs as they were understood and interpreted by the author, demonstrates that the conclusions of this research is not a speculative assumption but the outcome of a methodologically planned and direct interaction with industry experts and academics that the 'advisory group' consisted of.

The data collection methods used in the case studies and the case study design deployed by the author is also regarded as a systematic approach that can be replicated and applied in other infrastructure development sectors such as education, housing or even services redesign and provision.

Yin (2003) stresses that there are three data collection principles that facilitate the establishment of construct validity (the third type of validity discussed here) of a case study where assurance of everything that should be quantified is really measured. These three principles are: Use of multiple sources of evidence;

creation of a case study database; and finally the maintenance of a chain of evidence. The three case studies presented and discussed in this thesis evidence the results of this research; all data collection was captured in individual standardised spread sheets, and the constructive research cycle facilitated the chain of evidence and contributed the research reaching its conclusions.

The validity of the main artefact; the BeReal process itself was discussed at the end of chapter 5.

## **6.6 Recommendations for further research**

The final objective of this research was to:

- *'Recommend further work based on the outcomes of this research'*

Recommendation for further work can be divided in two types: firstly research that needs to be done to further inform and validate the process steps, tools and techniques, and secondly work that will involve the wider use of the process.

In addressing the first category and as discussed in the previous sections of this thesis the author recognises that there are steps within the process that are not fully validated by the research presented here. Such elements that the author considers critical for the optimisation of the BeReal process and further work is recommended are:

- The investigation of how the *Pathway phase* will be in operation when implemented within the same organisation that has followed the prescribed previous phases of BeReal. The association of benefits, resources and activities as a driver for this phase is something that is considered 'niche' when project plans are implemented and its further investigation when operationalised will provide useful contributions towards a better alignment of the process steps recommended in this thesis;
- Similarly the full investigation into the Assessment phase as a sequence of the above is also recommended;

- Use of the *BeReal Implementation Plan* as the operational brief and manual during operations. The author recommends that the documentation and in particular the BeReal Plan should act as the operations manual when the infrastructure or the project outcome is occupied or become fully functional. This will ensure the continuation of knowledge acquired from the delivery and development team onto the operations team. It will be interesting to explore how such knowledge will be shared and flow and to what extent the BeReal process contributes to that;
- A benefits 'currency' remains a topic that still requires further research. It was not a topic that was directly addressed through this thesis, but the author having enhanced his knowledge and experience in this area believes that if a common 'benefit currency' that reflects and combines stakeholders perceptions of the worth of a benefit is used, it will facilitate the smoother flow down of decisions made and the justification of an investment;
- The full adoption of the process as part of everyday business and not as an additional operation. This thesis presented and discussed the findings of the research as it was planned in snapshots when applied in the case studies under a controlled environment. The author believes that the full implementation of the process by a single organisation in a portfolio of projects will demonstrate the degree to which the BeReal process can be aligned with day to day operations and contribute towards project success; and
- Finally the full development of templates /documents and integration with an IT platform to enable the communication of the process steps for both training and application purposes is recommended.

The BeReal process has been tested exclusively in the healthcare infrastructure development sector, therefore its wider applicability cannot be claimed, the belief of the author and those participated in this research is that BeReal is fully relevant and scalable in all sectors that engage in projects that aim to introduce change (as examples this can be sectors such as education, housing and

regeneration). Such an implementation and adaption of the BeReal process needs to be further explored.



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## 7 References

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- Akao, Y. (1997). "QFD: past, present, and future" In Proceedings of the 3rd Annual International Symposium on QFD (QFD'97) [Online]. Retrieved 09/07/09 from [http://www.qfdi.org/QFD\\_History.pdf](http://www.qfdi.org/QFD_History.pdf).
- Ashurst, C. & Doherty, N. F. (2003). Towards the formulation of 'a best practice' framework for benefits realisation in IT projects. *Electronic Journal of Information Systems Evaluation*, 6, 1-10.
- Atkinson R.; Crawford L. And Ward, S. (2006). Fundamental uncertainties in projects and the scope of project management, *International Journal of Project Management*, v. 24, 687–698.
- AUDE (2006). Guide to Post Occupancy Evaluation Report and toolkit, published by the Association of University Directors and Estates and the University of Westminster with support from the Higher Education Funding Council for England (HEFCE).
- Ayuso, S., Rodriguez, M., A. & Ricart, J., E. (2006). Using stakeholder dialogue as a source for new ideas: a dynamic capability underlying sustainable innovation. *Corporate Governance*, 6, 475-490.
- Ballard, G. (2008). The lean project delivery system: An update. *Lean Construction Journal*, 2008, 1-19.
- Bannister, F., McCabe, P. & Remenyi, D. (2001). How much did we really pay for that? The awkward problem of information technology costs. *The Electronic Journal of Information Systems Evaluation*, 5, 1-11.
- Bartholomew, D. (1999). Process is back, Cleveland, Industry Week.
- Bartlett, J. (2006). Managing programmes of business change, Hampshire, UK.
- Bauman, Z., (1978). "Hermeneutics and social science: approaches to understanding", Hutchinson of London.

- 
- Bennington, P. & Baccarini, D. (2004). Project benefits management in IT projects – An Australian perspective. *Project management journal*.
- Binley's (2008). *NHS Guide*, Summer-Autumn Edition, Beechwood House publishing, ISSN 1742-7916.
- Blaikie, N., (1993). "Approaches to social enquiry". Policy Press.
- Bradley, G. (2006). *Benefit Realisation Management – A Practical guide to achieving benefits through change*, Hampshire, UK, Gower.
- Busi, M. & Bititci, U., S. (2006). Collaborative performance management: present gaps & future research. *International Journal of Productivity & Performance Management*, 7-25.
- CABE (2005). *The impacts of office design on business performance*. The Commission for Architecture and the Built Environment, available at: [www.cabe.org.uk](http://www.cabe.org.uk).
- CABE (2008). *Assessing design quality in LIFT primary care buildings*. The Commission for Architecture and the Built Environment, available at: [www.cabe.org.uk](http://www.cabe.org.uk).
- Calvert, S. (1995). *Managing stakeholders: The commercial project manager*, McGraw Hill.
- Carroll, A., B. & Buchholtz, A., K. (2006). *Business and society: Ethics and stakeholder management*, South Wester, Thomson.
- Carruthers, J., Ashill, N., J. & Rod, M. (2006). Mapping and assessing the key management issues influencing UK public healthcare purchaser-provider cooperation. *Qualitative Market Research: An international journal*.
- Cartlidge, D. (2006). *Public private partnerships in construction*. Routledge.
- Caudron, S. (1993). Just exactly what is total quality management? *Personnel Journal*, 72, 32.
- CCTA (1999). *Managing Successful Programmes*, The Stationery Office.
- CCTA (2000) Central Computer and Telecommunications Agency - *Managing the business benefits*. *The Antidote* 27, 28-29.

- 
- Chigot, P. (2005). Effects of sound in offices: subjective experience vs. objective assessment. *Facilities*, 23, 152 - 163.
- Christoffersen, A. K., & Emmitt, S. (2009). Case Study A Exploring the Value Universe: A Values - Based Approach to Design Management. *Architectural Management: International Research and Practice*, 34-52.
- Codinhoto, R. And Passman, D. (2009). *3Ts Sussex Hospital – Optioning Meeting*, internal process report, 9<sup>th</sup> February 2009
- Cohen, M., Z., Kahn, D., L. & Steeves, R., H. (2000). “Hermeneutic Phenomenological research: a practical guide for nurse researchers”. Sage publications.
- Cohen, R., Standeven, M., Bordass, B. & Leaman, A. (2000). Assessing building performance in use 1: the PROBE process. *Building Research & Information and Management*, 29, 85-102.
- Cohen, L., And Mannion, L., (1994), ‘Research Methods in Education’. Fourth edition, Routledge, UK.
- CDRA Community Development Resource Association, (2011). Measuring Development: Holding Infinity. Annual report, 2000/2001. Retrieved on 12/11/08 from: <http://www.cdra.org.za/>.
- Collyer, M. (2005). Assessing efficacy of prescribed design criteria through post occupancy evaluation of end user satisfaction: case study of sure start local programme centres. Plymouth, University of Plymouth.
- Cooke-Davies, T. (2002). The 'real success factors on projects. *International Journal of Project Management*, 20, 185-190.
- Cudney, E. A. (2009). *Using Hoshin Kanri to Improve the Value Stream*, Taylor & Francis, 160pp.
- Cyert, R. M., & March, J. G. (1963). *A behavioral theory of the firm*. Englewood Cliffs, NJ, 2.
- Department of Health (2008), ‘Changing For the Better: Guidance When Undertaking Major Changes To NHS Services’, National Reconfiguration

- 
- Team/Commissioning & System Management Directorate, Department of Health, UK, 9<sup>th</sup> of May 2008.
- Department of Health (2011). Review of Gateway Results in the Health Sector for the Year 1 April 2009 to 31 March 2010. Published 5<sup>th</sup> of January 2011. Available:  
<http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Managingyourorganisation/Gatewayreviews/index.htm>
- Deming, W., E. (1986). *Out of the Crisis*, Cambridge, MA, MIT Center for Advanced Engineering Studies.
- DQI Design Quality Indicator (2009). Retrieved on 05/08/09 from:  
<http://www.dqi.org.uk/website/default.aspa>.
- Dyer, W. G., Wilkins, A. L. & Eisenhardt, K. M. (1991). "Better stories, not Better Constructs, to Generate Better Theory: A Rejoinder to Eisenhardt; Better Stories and Better Constructs: The Case for Rigor and Comparative Logic". *The Academy of Management Review*, vol. 16(3), pp. 613-629.
- DoH (2000). *The NHS Plan, A Plan for investment, A Plan for Reform*, London, HMSO.
- Easterby-Smith, M. , Thorpe, R. & Lowe, A., (2002). "Management research: an introduction". Sage Publications Ltd.
- Egan, J. (1998). *Rethinking construction*, London, HMSO.
- Eldin, N. And Hikle, V. (2003). Pilot study of quality function deployment in construction projects. *Journal of Construction Engineering and Management*, 129(3), 314–29.
- Eisenhardt, K M. (1989). "Building Theories from Case Study Research". *The Academy of Management Review*. Vol.14(4), pp.532-550.
- Emmitt, S., Sander, D. & Christoffersen, A. K. (2005). 'The value universe: defining a value based approach to lean construction', Proceedings IGLC-13, July, Sydney, Australia.

- 
- ENCARTA® (2005). <http://encarta.msn.com/dictionary/disbenefit.html>. Buffalo, NY, Encarta® Dictionary. Microsoft Encarta®.
- European Commission (2002), Project Cycle Management Handbook. Retrieved on 02/08/09 from: [http://www.stgm.org.tr/docs/1123450143PCM\\_Train\\_Handbook\\_EN-March2002.pdf](http://www.stgm.org.tr/docs/1123450143PCM_Train_Handbook_EN-March2002.pdf)
- Farbey, B., Land, F. & Targett, D. (1999). The moving staircase – problems of appraisal and evaluation in a turbulent environment, *Information Technology and People Journal*, 12, 238-252.
- Farbey, B., Land, F. F. & Targett, D. (1993). *How to Evaluate Your I/T Investment: A Study of Methods and Practice*, Oxford, Butterworth Heinemann.
- Ferns, D., C. (1991). Developments in programme management. *International Journal of Project Management*, 9 148-156.
- Fox, S. (2008). Evaluating potential investments in new technologies: Balancing assessments of potential benefits with assessments of potential disbenefits, reliability and utilization. *Critical Perspective on Accounting*.
- Flanagan J., Nicholls, P., (2007). *Public Sector Business Cases Using the Five Case Model: a Toolkit*, Healthcare Financial Management Association (HFMA), ISBN: 978-1904624424, Crowne, Bristol ,UK.
- Franco, M. & Bourne, M. (2003) Factors that play a role in “managing through measures”. *Management Decision*, 698-710.
- Future And Innovation Unit (2001). *Creating Value from Your Intangible Assets*. London, Department of Trade and Industry (UK).
- Galliers, R., D., (1992). ‘Choosing information systems research approaches’, *Information system research,- Issues, Methods, Practices Guidelines*, Edited by Galliers, R., Blackwell Scientific Publications, UK pp. 144-162.
- Gann, D.M., Salter, A.J. And Whyte, J.K. (2003). The Design Quality Indicator as a tool for thinking, *Building Research and Information*, Vol. 31, No. 5, pp. 318-333. Grant, 2007).

- 
- Garcia-Ayuso, M. (2003). Intangibles lessons from the past and a look into the future. *Journal of Intellectual Capital*, 4, 597-604.
- Gerwin, D. (1988). A theory of innovation processes for computer-aided manufacturing technology. *IEEE Transactions on Engineering Management Journal*, 90-100.
- Ghalayni, A., M., Noble, J., S. & Crowe, T., J. (1997). An integrated dynamic performance measurement system for improving manufacturing competitiveness. *International Journal of Production Economics*, 207-225.
- Glynne, P. (2007). Benefits management-changing the focus of delivery. *Association for Progress Management Yearbook 2006/07*, 45-49.
- Green Book (2003). 'A guide to appraisal in Central Government' HM Treasury Guidance, TSO, London, UK.
- Gummesson, E.,(2000). "Qualitative methods in management research", Sage publications, 262p.
- Hakim, C. (2000). *Research design; successful designs for social and economic research: 2nd edition*, Routledge, London.
- Harris, K. (2008). *An analysis of what makes succesful team: A case study of a research team*. School of the Built Environment, Salford, The University of Salford.
- Harrison, J. S., & John, C. H. S. (1996). Managing and partnering with external stakeholders. *The Academy of Management Executive*, 10(2), 46-60.
- Hauser, J. R. And Clausing, D. (1988). "The House of Quality," *Harvard Business Review*, Vol. No. 3, (May-June), 63-73.
- Henrich, G., (2009). 'Development Of A Tool For Diagnosing Production Management Efficiency On Construction Sites', PhD. Thesis, BuHu Research Institute, University of Salford, UK.
- Herriott, R., E. And Firestone, W. A. (1983). Multisite qualitative policy research: Optimizing description and generalizability, *Educational Researcher*, Vol. 12, 14-19.

- 
- Holbrook, A., Krosnick, J., and Pfent, A., (2007). "The Causes and Consequences of Response Rates in Surveys by the News Media and Government Contractor Survey Research Firms." In *Advances in telephone survey methodology*, ed. Lepkowski, J., M., Tucker, N., C., Brick, J., M., De Leeuw, E., D., Japac, L., Lavrakas, P., J., Link, M., W., and Sangster R., L., New York: Wiley.
- House of Commons (2006). 'NHS Local Improvement finance Trust', Forty seven , report session, 2005-2006, Committee of public accounts, The Stationery Office limited, HC562, 4<sup>th</sup> of July 2006.
- Howell, G., Laufer, A., & Ballard, G. (1993). Uncertainty and project objectives. *Project Appraisal*, 8(1), 37-43.
- Hutchins, D. (2008). *Hoshin Kanri: The Strategic Approach to Continuous Improvement*, Gower publishing, 308pp.
- Hynds, P. & Martin, W. (1995). A Case study of failure in professional communication. *IEEE transactions on professional communication*, 38, 139-145.
- Irani, Z. (1998). *Investment Justification of Information Systems: A Focus on the Evaluation of MRPII*. Department of Manufacturing and Engineering. London, UK, Brunel University.
- Jaunzens, D., Grigg, P., Cohen, R., Watson, M. & Picton, E. (2003). *Building performance feedback: getting started*. BRE Digest. Watford.
- Jha, S., Noori, H. & Michela, J., L. (1996). The dynamics of continuous improvement - Aligning organizational attributes and activities for quality and productivity. *International Journal of Quality Science*, 1, 19-47.
- Kagioglou, M. (1999). "Adapting and adopting manufacturing project processes into construction: a methodology". PhD. Thesis, TIME Research Institute, University of Salford, UK.
- Kagioglou, M., Cooper, R., Aouad, G., Hinks, J., Sexton, M. & Sheath, D., M. (1998). *A Generic Guide to the Design and Construction Process Protocol*. University of Salford.

- 
- Kagioglou, M., Cooper, R., Aouad, G. And Sexton, M. (2000). "Rethinking Construction: the Generic Design and Construction Process Protocol", Engineering, Construction and Architectural Management Journal, Vol.7 No 2, pp 141-153.
- Kakabadse, A., Bank, J. & Vinnicombe, S. (2004). Working in organisations, Gower.
- Kaplan, R., S. & Norton. D., P. (1996). The Balanced Scorecard, Harvard Business School Press.
- Kasanen, E., & Lukka, K. (1993). The constructive approach in management accounting research. Journal of management accounting research, (5), 243-264.
- Kerlinger, F., N. (1979). "Behavioural research: a conceptual approach". Holt, Rinehart and Winston.
- King, B. (1989). Hoshin Planning: The Development Approach, GOAL/QPC, Methuen MA.
- Kippenberger, T. (2000). Managing the business benefits. The Antidote, 5.
- Koskela, L J & Houvila, P (2000). 'On Foundations of Concurrent Engineering', - International Journal of Computer Integrated Design and Construction.
- Koskela, L. J. And Howell, G. (2001). 'Reforming Project Management: The Role of Planning, Execution and Controlling', Proceedings of 9th International Group for Lean Construction Conference, pp.185-198.
- Kumar, K. (1990). Post-implementation evaluation of computer-based information systems: current practices, Communications of the ACM, 33, 203-212.
- Lee, A., S., (1989). 'A scientific methodology for MIS case studies', MIS Quarterly, Vol.13, No., pp32-50.
- Leahy, P., (2009). Preface in HaCIRIC 'Better Health through better infrastructure', 2009 Progress Report, by HaCIRIC Imperial College London, UK.



- 
- Leyton, R. (1995). Investment appraisal: the key for IT? In Farbey, B., Land, F., F. & Target, D. (Eds.) *Hard Money, Soft Outcomes*. Henley on Thames, Alfred Waller Ltd, in association with Unicom.
- Lewin, K. (1946), Action research and minority problems, *J Soc. Issues* 2(4): 34-46.
- Lillrank, P., Holopainen, S. & Paavola, T. (2001). Catching intangible IT benefits. *The Electronic Journal of Information Systems Evaluation*, 4, 1-11.
- Lin, C. & Pervan, G. (2001). A review of IS/IT investment evaluation and benefits management issues, problems and processes. Grembergen, *Information technology evaluation methods & management*. Idea Group Publishing, 22-24.
- Lin, C. & Pervan, G. (2003). The practice of IS/IT benefits management in large Australian organisations, *Information and Management Journal*, 41, 13-24.
- Linneman, R., E. & Kennell, J., D. (1977). Shirtsleeve approach to long-range plans. 141-150.
- Love, P. E. D., Irani, Z., Standing, C., Lin, C. & Burn., J. M. (2004). The enigma of evaluation: benefits, cost and risks of IT in Australian small-medium-sized enterprises, *Information and Management*, 42, 947-964.
- Lukka, K. (2003). The constructive research approach. Case study research in logistics. *Publications of the Turku School of Economics and Business Administration, Series B*, 1(2003), 83-10.
- MSP *Managing Successful Programmes*, (2011). The Stationery Office, HM Government, Crown, ISBN 9780113313273.
- Mantzana, V. & Themistocleous, M. (2004). Identifying and Classifying Benefits of Integrated Healthcare Systems Using an Actor-Oriented Approach, *Journal of Computing and Information Technology - CIT*, 12, 265-278.
- Marshall, C. And Rossman, G. B. (1999). *Designing Qualitative Research* 3rd Edition, Thousand Oaks, CA: Sage.

- 
- May, T. (1993). *Social Research: Issues, methods and process*, Open University Press.
- McCartney, H. I. (2000). *Successful IT: Modernising Government in Action*, Retrieved on 12/08/09, from:  
[http://www.ogc.gov.uk/documents/Successful IT Modernising Government in Action.pdf](http://www.ogc.gov.uk/documents/Successful_IT_Modernising_Government_in_Action.pdf)
- Mclaughlin, C., P. & Kaluzny, A., D. (1990). Total quality management in health: making it work. *Health Care Management Review*, 15, 7-14.
- Merriam-Webster (2005). *Merriam-Webster Online Dictionary*. Springfield, MA, Merriam-Webster.
- Mulvany, P. (1999). *Assessing biotechnology impacts*, Closing speech, intermediate technology development group associates 'day, Intermediate Technology Development Group. Rugby, Warks.
- Murphy, K. & Simon, S. (2002). Intangible benefits valuation in ERP projects. *Information Systems Journal* 301-320.
- Neely, A., Adam, C. & Kennerley, M. (2002). *The Performance Prism: The Scorecard for Measuring & Managing Stakeholders Relationship*, London, Financial Time/Prentice Hall.
- Newcombe, R. (2003). From client to project stakeholders: a stakeholder mapping approach. *Construction Management and Economics*, 841-848.
- NHS (1993). *The Good European Health Record: Ethical and Legal Requirements*. London.
- NHS Executive (1994). *Capital Investment Manual*, London, HMSO, ISBN: 0 11 321776 5. The Capital Investment Manual comprises of eight booklets:  
*Overview*, ISBN: 0 11 321718 8  
*Project Organisation*, ISBN: 0 11 321719 6  
*Business Case Guide*, ISBN: 0 11 321720 X  
*Management of Construction Projects*, ISBN: 0 11 321723 4

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*Private Finance Guide*, ISBN: 0 11 331722 6

*IM&T Guidance*, ISBN: 0 11 321722 6

*Commissioning a Healthcare facility*, ISBN: 0 11 321724 2

*Post -Project Evaluation*, ISBN: 0 11 321775 7.

NHS (2005). Delivering Quality and Value: The ISIP Guide to Strategy and Benefits. Retrieved on 10/08/09 from:

[http://www.isip.nhs.uk/library/archive/strategyandbenefits/ISIP\\_strategy\\_and\\_benefits\\_overview.pdf](http://www.isip.nhs.uk/library/archive/strategyandbenefits/ISIP_strategy_and_benefits_overview.pdf)

NHS (2007). NHS Integrated Service Improvement Plan, No Delays website, No delays, archives.

[www.nhs.uk/serviceimprovement/tools/ITOI-Benefitsrealisation](http://www.nhs.uk/serviceimprovement/tools/ITOI-Benefitsrealisation).

NHS Salford (2008). Questionnaire toolkit, Involvement Team, Salford Primary Care trust, available at [www.salford-pct.nhs.uk](http://www.salford-pct.nhs.uk)

Nogeste, K. (2006). Development of a method to improve the definition and alignment of intangible project outcomes with tangible project outputs, School of Business, RMIT.

Nogeste, K. & Walker, D. H. T. (2005). Project outcomes and outputs: making the intangible tangible. *Measuring Business Excellence*, 9, 55 - 68.

NORAD Norwegian Agency For Development Cooperation (1999). The Logical Framework Approach (LFA). Retrieved on 05/08/09 from: <http://www.ccop.or.th/PPM/document/home/LFA%20by%20NORAD%20Handbook.pdf>

Odman, P., (1985). 'Hermeneutics' in Husen, T., & Postlethwaite, N., T., (Eds.) 'The international Encyclopaedia of Education'. Pergamon, Oxford, pp.2162 - 2169.

OGC (2003). *Managing Successful Programmes*, London, The Stationery Office.

OGC (2007a). *Managing Successful Programmes MSP*, London, The Stationery Office.

- 
- OGC (2007b). STDK Home, Delivery Lifecycle: Benefits Management, [http://www.ogc.gov.uk/sdtoolkit/reference/deliverylifecycle/benefits\\_mgmt.html#benmanagement1](http://www.ogc.gov.uk/sdtoolkit/reference/deliverylifecycle/benefits_mgmt.html#benmanagement1)
- Olander, S. & Landin, A. (2005). Evaluation of stakeholder influence in the implementation of construction projects. *International Journal of Project Management*, 321-328.
- Otley, D., T. (1999). Performance management: A framework for management control systems research. *Management Accounting Research*, 363-382.
- Parr, T. & Williams, D. (2007). *Enterprise Programme Management*, Palgrave MacMillan.
- Partington, D. (2000). Implementing strategy through programmes of projects. In Turner, J., R. & Simister, S., J. (Eds.) *Gower handbook of project management*. Aldershot, Gower.
- Payne, M. (2007). *Benefits Management – Releasing project value into the business*, Hampshire, UK, Project Manager Today.
- Passman, D., (2009). Planning Healthcare Environments, in Kagioglou, M. and Tzortzopoulos, P., eds., *Improving Healthcare through built environment Infrastructure*, Wiley-Blackwell, Oxford, UK, pp 9 -38.
- Pasteur, K. (2001). Thinking about Logical Frameworks and Sustainable Livelihoods: A short critique and possible way forward, 2001. Retrieved on 12/01/09, from: <http://www.livelihoods.org/post/Docs/logframe.rtf>.
- Pellegrinelli, S. (1997). Programme management: organising project based change. *International Journal of Project Management*, 15, 141-149.
- Pellegrinelli, S. & Bowman, C. (1994). Implementing strategy through projects. *Long Range Plann*, 27, 125-132.
- Pellegrinelli, S., Partington, D., Hemingway, C., Mohdzain, Z. & Shah, M. (2007). The importance of context in programme management: An empirical review of programme practices *International Journal of Project Management*, 41-55.

- 
- Peters, J., & Howards, K., (2001). "Looking for good research in management – a publisher's case study". *Management Decision*, vol. 39(7), pp. 594-598.
- Phillips, J., J. (2003). *Return on Investment in Training and Performance Improvement programmes*, Burlington, MA.
- Post, J., E., Preston, L., E. & Sachs, S. (1995). *Redefining the corporation: stakeholder management and organizational wealth*, Stanford.
- Preiser, W. (2001). Feedback, feedforward and control: post occupancy evaluation to the rescue. *Building Research and Information*, 29, 456-459.
- Reiss, G., A. (2000). A paper for congress.  
[www.e-programme.com/uploads/articles/](http://www.e-programme.com/uploads/articles/) .
- Reiss, G., Anthony, M., Chapman, J., Leigh, G., Pyne, A. & Rayner, P. (2006) *Gower Handbook of programme management*, Gower Publishing.
- Remenyi, D. & Sherwood-Smith, M. (1998). Business benefits from information systems through an active benefits realisation programme *International Journal of Project Management*, 16, 81-98.
- Remenyi, D., S., J., Swartz, E., Money, A., & Williams, B., (1998). "Doing Research in Business and Management: An Introduction to Process and Method". Sage Publications, London. 309p.
- Rhodes, G. (2004). *Communication with end users will improve building design: measured through post occupancy evaluation*. Plymouth, University of Plymouth.
- Ribbers, P. (2002). Program management and complexity of ERP implementations. *Engineering Management Journal*, 14, 245-252.
- Robson, C. (2003). *Real World Research: Second Edition*, Blackwell Publishing.
- Rocha, C., G., (2011). A conceptual framework for defining customisation strategies in the house-building sector. Doctor in Engineering. Escola de Engenharia, Programa de Pos- Graduação, em Engenharia Civil, UFRGS, Porto Alegre.

- 
- Rooke, J. A., Sapountzis, S., Koskela, L. J., Codinhoto, R., & Kagioglou, M. (2010). Lean knowledge management: The problem of value. In Proceedings of the 18th Annual Conference of the International Group for Lean Construction (pp. 12-21). Technion-Israel Institute of Technology Printing Services.
- Rooke, J. A., Seymour, D and Fellows, R (2003). 'The Claims Culture: A Taxonomy of Industry Attitudes ', *Construction Management and Economics*, 21 (2) , pp. 167-174.
- Sakar, P. & Widestadh, C. (2005). Benefits management - How to realize the benefits of IS/IT investments. Department of Informatics. Goteborg, University of Goteborg.
- Sandt, J., Schaeffer, U. & Weber, J. (2001). Balanced performance measurement systems & manager satisfaction-empirical evidence from a German study WHU. Otto Beisheim Graduate School of Management.
- Sapountzis, S., Yates, K., Kagioglou, M. And Aouad, G., (2009). Realising Benefits for Primary Healthcare Infrastructures. *Facilities Journal*, 27(3/4): 74-78.
- Scharioth, J. & Huber, M. (2006). Preface. In Huber, M. & Pallas, M. (Eds.) Customising stakeholder management strategies: concepts for long-term business success. Springer.
- Schroeder, D., M. & Robinson, A., G. (1991). America's most successful export to Japan: continuous improvement programs. *Sloan Management Review*, 32, 67-81.
- Sedera, D., Rosemann, M. & Gable, M. (2001). Using performance measurement models for benefit realisation with enterprise systems - the Queensland government approach (case study).
- Seymour, D., Crook, D. & Rooke, J. (1997). "The role of theory in construction management: a call for a debate". *Construction Management and Economics*, vol. 15(1), pp.117-119.
- Silverman, D. (1998). "Qualitative research: meanings or practices?". *Information Systems Journal*, vol. 8(3), pp. 3-20.

- Simon, T. (2003). What is Benefits Realisation? *The Public Manager*, 59-60.
- Slagmulder, R., Bruggeman, W. & Wassenhove, L. (1995). An empirical study of capital budgeting practices for strategic investments in CIM technologies. *International Journal of Production Economics*, 121-152.
- Strien, P. J. van (1975). In Fellows, R. and Liu, A. (Eds) (2003). *Research Methods for Construction*.
- Soanes, C. & Hawker, S. (2005). *Compact oxford English dictionary of current English*, Oxford, Oxon, Oxford University Press.
- Susman, G. I., & Evered, R. D., (1978). "An assessment of the scientific merits of action research". *Administrative Science Quarterly*, vol. 23, pp. 582-603.
- Symons, V. (1990). Evaluation of information systems: IS development in the processing company. *Journal of Information Technology*, 5.
- Sweeney, K., & Griffiths, F. (2002). *Complexity and healthcare: an introduction*. Radcliffe Publishing.
- Tennant, C. And Roberts, P. (2001). "Hoshin kanri: implementing the catchball process", *Long Range Planning*, Vol. 34 No. 3, pp. 287-308.
- Thiry, M. (2002). " Combining value and project management into an effective programme management model." *International Journal of Project Management* , Elsevier Science, Oxford (Apr. 2002) 20 (3); 221-228. ( First presented at the 4th Annual PMI-Europe Conference, London, June, 2001).
- Thomas, G. & Thomas, M. (2005). *Construction Partnering and Integrated Teamworking*, Blackwell Publishing Ltd.
- Thomson, D. S., Austin, S. A., Devine-Wright, H. & Mills, G. R. (2003). 'Managing Value and Quality in Design', *Journal of Building Research and Information* 31(5): 334-345.
- Thyssen, M. H., Emmitt, S., Bonke, S. & Kirk-Christoffersen, A. (2010). 'Facilitating Client Value Creation in the Conceptual Design Phase of Construction

- 
- Projects: A Workshop Approach', *Architectural Engineering and Design Management* 6:18-30.
- Thorp, J. (1998). *The Information Paradox - realising the business benefits of information technology*, Toronto, Canada, McGraw-Hill.
- Townley, B. (2002). The role of competing rationalities in institutional change. *Academy of Management Journal*, 45, 163-179.
- Truax, J. (1997). Investing with Benefits in Mind: Curing Investment Myopia. The DMR White Paper, 1-6.
- Turpin-Brooks, S. & Viccars, G. (2006). The development of robust methods of post occupancy evaluation. *Facilities*, 24, 177-196.
- Tzortzopoulos, P., (2004). *The Design And Implementation Of Product Development Process Models In Construction Companies*, PhD. Thesis, Research Institute for the Built and Human Environment, University of Salford, UK.
- Tzortzopoulos, P., Cooper, R., Chan, P. & Kagioglou, M. (2006). Clients' activities at the design front -end. *Design studies*, 657-683.
- Vaishnavi, V., K., Kuechler, W. Jr, (2007). *Design Science Research Methods and Patterns Innovating Information and Communication Technology*. Taylor & Francis Group, 244p., Chapter 2.
- Van Aken, J.,E.,(2004). Management research based on the paradigm of the design sciences: The quest for field-tested and grounded technological rules. *Journal of Management Studies*, v.41, n.2, p.219-246, 2004.
- Waal, A. (2006). *The strategic performance management cycle*. Performance Measurement Association.
- Waal, A. & Counet, H. (2006). Lessons learned from balanced scorecard. In Neely, A., Kennerley, M. & Walters, A. (Eds.) *Performance measurement & management: public & private*.
- Ward, J. & Daniel, E. (2006). *Benefits Management – Delivering Value from IS & IT Investments*, West Sussex UK, Wiley.



- 
- Ward, J. & Elvin, R. (1999). A new framework for managing IT-enabled business change. *Information systems journal*, 9, 197-222.
- Ward, J. & Murray, P. (1997). *Benefits Management: Best Practice Guidelines*. ISRC-BM-97016, Cranfield School of Management, Information Systems Research Centre. Cranfield, UK.
- Ward, J., Taylor, P. & Bond, P. (1995). Identification, realisation and measurement of IS/IT benefits: an empirical study of current practice. Brown, A. and Remenyi, D (eds) *Second European Conference on Information Technology Investment Evaluation*. Henley Management College, Henley on Thames.
- Ward, J., Taylor, P. & Bond, P. (1996). Evaluation and realization of IS/IT benefits: an empirical study of current practice. *European Journal of Information Systems*, 4, 214–225.
- Wauters, B. (2005). The added value of facilities management: benchmarking work processes. *Facilities*, 23, 142-151.
- Wheeler, D., & Sillanpää, M. (1997). *The stakeholder corporation*, Pitman.
- Whiting, R., Davies, J., & Knul, M. (1996). Investment appraisal for IT systems. In Willcocks, L. (Ed.) *Investing in information systems: evaluation and management*. New York, NY, Chapman and Hall.
- Winter, M.; Smith, C.; Morris, P.; Cicmil, S. (2006). Directions for Future Research in Project Management: The Main Findings of UK government-funded research network. *International Journal of Project Management*, v. 24, n.8, pp. 638-649.
- Yates, K., Barreiro Lima, J., Sapountzis, S., Tzortzopoulos, P. And Kagioglou, M. (2009). BeReal benefits realisation model integrated approach: The built environment lifecycle and organisational views, *2<sup>nd</sup> HaCIRIC International Symposium*, April 2009, Brighton, UK.
- Yates, K., Sapountzis, S., Lou, E. and Kagioglou, M. (2008). “BeReal: Tools and methods for implementing benefits realisation and management”, 5th

Nordic Conference on Construction Economics and Organisation, 10-12 June 2009, Iceland.

Yin, R. (2003). *Case Study research: design and methods*: Third edition USA: Sage publications.

Zimmerman, A. & Martin, M. (2001). Post occupancy evaluation: benefits and barriers. *Building Research and Information*, 29, 168-174.

Zimring, C. & Reizenstein, J. E. (1980). Post Occupancy Evaluation: An Overview, Environment and Behaviour cited in Zimmerman, A. and Martin, M., 2001. "Post occupancy evaluation: benefits and barriers". *Building Research and Information*, 29, 168-174.

Zwikael, O., Smyrk, J. R. (2011). *Project management for the creation of organisational value*. London: Springer.

## Appendices

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## **Appendix I – Techniques that embrace benefits realisation**

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### **Hoshing Kanri - HK**

Hoshing Kanri is a technique for strategic policy deployment that has been widely used by Japanese companies (King, 1989). It was developed in 1950 and is a fundamental element of Total Quality Control (TQC). The benefits of this technique is found to include: integration of strategic objectives with tactical daily management, the application of the plan–do–check–act circle to business process management, parallel planning and execution methodology, companywide approach and improvements in communication (Tennant & Roberts, 2001).

Among the issues that motivated the development of such technique is the difficulty of clearly defining business goals and measurable targets, the conflicting requirements of different departments within the organisation and the lack of process ownership leading to little communication, no understanding of each other's needs and a blaming culture when something goes wrong (Hutchins, 2008).

The technique is composed by the following elements (Tennant & Roberts, 2001):

- a. Five-year vision, or an improvement plan based on internal and external obstacles, and revision based on input from all managers on the draft plan;
- b. One-year plan, or the selection of activities based on feasibility and likelihood of achieving desired results (analysis of environment and last year's performance);
- c. Deployment to departments, selecting optimum targets and means (key implementation items and a consideration of how they can systematically accomplish the plan);

- d. Detailed implementation, which major focus is on contingency planning, the aim is to achieve a level of self-diagnosis, self-correction and visual presentation of action;
- e. Monthly diagnosis, showing the issues that helped or hindered progress and the activities to benefit from this learning; and
- f. President's annual diagnosis, which is focused on numerical targets, but the major focus is on the process that underlies the results to make sure that management in each sector of the organization has an adequate capability.

The Hoshin Kanri approach uses three main tools to support policy deployment (Cudney, 2009):

PDCA cycle: an iterative four-step problem-solving process;

- a. Cross-functional management (CFM): enables a continuous checking of targets and means throughout the project, involving a cross-functional group (internal costumers, external costumers, stakeholders, etc.) to balance the representation of the organization on the Hoshin plan;
- b. Catchball: this tool creates a feedback system that allows a continuous and multidirectional communication, being essential for the development of targets and action plans.

## **Logical Framework Approach - LFA**

The United States Agency for International Development (USAID), Practical Concepts Incorporated (PCI), and Team Technologies Incorporated were among the early designers and users of the Logframe, since the early 1970's. The focus of this approach is to create a common understanding about the strategic objectives and the means to achieve success (NORAD, 1999). According to this author, the approach intends to:

Allow a clear view of the programmes' expected impacts;

- a. Define stakeholders responsibilities regarding the achievement of expected results;
- b. Illustrate the elements that constitutes the programme and their interactions, allowing a better understanding of the project;
- c. Consider different points of view simultaneously in the project's conception; and
- d. Avoid a blaming culture, evaluating the project based on the most realistic plan to achieve success.

The Logframe is a core tool used within Project Cycle Management (European Commission, 2002). It is a technique to identify and analyse a given situation, and to define objectives and activities that should be undertaken to improve the situation. The Logframe also provides the basis for planning activities, developing a monitoring system, and a framework for evaluation.

The main element of this approach is the Logical Framework Matrix it shows the most important aspects of a project for a quick and easy visualisation (NORAD, 1999).

## **The Design Quality Indicator - DQI**

The development of the DQI was motivated by a lack of emphasis on design quality in the early stages of performance measurement following Rethinking Construction (Gann et al., 2003). There was a concern that the value of building design was being relegated to a secondary issue because the performance-improving agenda focused heavily on the measurement of physical processes, e.g. reducing time, cost and waste; and not much attention was being given to the quality of designed spaces.

The Design Quality Indicator (DQI) was developed explicitly to measure quality of design embodied in the product – buildings themselves. The three main elements of the DQI toolkit (conceptual framework, data gathering tool, weighting mechanism) mapped the value of buildings in relation to their design for different uses and their ability to meet a variety of physical, aspirational and emotional needs of occupants and users (Gann et al., 2003).

DQI applies a structured approach to assess design quality based on the model by the engineer Vitruvius, who described design in terms of *utilitas*, *firmitas* and *venustas*, often translated as commodity, firmness and delight (Gann et al., 2003). DQI uses an interpretation of these terms as:

- (a) Functionality (*utilitas*) - the arrangement, quality and interrelationship of spaces and how the building is designed to be useful to all;
- (b) Build Quality (*firmitas*) - the engineering performance of the building, which includes structural stability and the integration, safety and robustness of the systems, finishes and fittings; and
- (c) Impact (*venustas*) - the building's ability to create a sense of place, identity and character, and have a positive effect on the local community and environment.

The data gathering tool is divided in four sections, according to the conceptual framework: a first section collects information about the respondent and their

aims for the building, as well as the stage of development of the building; section two focuses on function and has three subsections: use, access and space; section three focuses on impact and contains four subsections: form and materials, internal environment, urban and social integration, and character and innovation; and section four explores build quality and contains three subsections: performance, engineering systems and construction.

The DQI functions through a combination of two major elements: structured workshops and online tools (DQI, 2009). Presentations at the workshops brief an assessment group, formed from members of the building community, throughout the design and build process. Members of the assessment group are known individually as ‘respondents’. The online tools give this assessment group a structure through which to consider a series of important issues relating to their building. This way, the tool assists participants in reaching a consensus about priorities and relationships. In designing for large multi-user buildings, it is important to understand the different views of user groups and individual users and then to reach consensus about shared priorities and relationships.

The workshops are mediated by a facilitator who is able to assess the results of the online tools and record the opinions of those present (DQI, 2009). The online tools take the form of questionnaires and provide instant results that generate discussion during each workshop, informing the process of designing the building.

The workshops should take place at all stages of a building project. Ideally DQI should be put into practice at the first workshop held during the briefing stage and then continued throughout the project. However, the DQI can be used at any phase of the development process (DQI, 2009):

- a. Phase 1: the DQI process begins with a briefing stage workshop, in which the assessment group should define and identify their priorities for the building, develop a common language to communicate with suppliers, form a common understanding of what constitutes success and failure to assess each stage of



project and provide project's designers a in-depth understanding of the brief and users needs;

- b. Phase 2: at the design stage, DQI process can help to ensure design excellence through maintaining the dialog between the assessment group and suppliers, enabling the assessment of design based on the range of uses and needs of the building and informing designers with feedback;
- c. Phase 3: at the pre-construction stage, the assessment group can re-assess design to ensure all issues have been resolved, certifying that the building will satisfy expectations;
- d. Phase 4: at the construction phase, DQI can only be applied when the building is complete, to assess if the delivered building fulfils the assessment group's expectations;
- e. Phase 5: at the use phase, DQI can be used as a post-occupancy evaluation, determining the impact of the building on its users, and informing success aspects, limitations and failures to stakeholders.

## **Quality Function Deployment - QFD**

Quality Function Deployment (QFD) was conceived in Japan in the late 1960s, during an era when Japanese industries broke from their post-World War II mode of product development through imitation and copying and moved to product development based on originality (Akao, 1997). QFD was born in this environment as a method or concept for new product development under the umbrella of Total Quality Control.

The QFD is a process that has been used for managing the development of new manufactured products (Eldin & Hikle, 2003). According to the same authors, in this process, both spoken and unspoken needs of the customers are determined, prioritized, and translated into design parameters. Such design parameters are assigned specific target values and are frequently checked against customers' needs throughout the development cycle to ensure customers' satisfaction with the end product.

Through a set of planning and communication routines, the QFD focuses and coordinates skills within an organization, first to design, then to manufacture and market goods that costumers want to purchase (Hauser & Clausing, 1988). The same authors point out that the foundation of the house of quality is the belief that products should be designed to reflect customers' desires, so marketing people, designers, engineers must work together from the time a product is first conceived. Furthermore, it constitutes a kind of conceptual map that provides the means for inter-functional planning and communications, where people with different problems and responsibilities can thrash out design priorities while referring to patterns of evidence on the house's grid.

## **Projects in Controlled Environments (PRINCE 2)**

PRINCE2 is a structured method for effective project management, first established in 1989 by the Central Computer and Telecommunications Agency (CCTA), which is now the Office of Government Commerce. The method is used extensively by the UK government and is widely recognised and used in the private sector, both in the UK and internationally.

PRINCE2 is a process-based approach, composed by eight different processes management, which is assigned to a project board:

- a. Starting up a project: a pre-project process to ensure that pre-requisites are in place, e.g. project management team, brief, approach, quality expectations, risk log and initiation plan;
- b. Directing a project: a project board is defined to manage by exception, monitor via reports and control through a number of decision points, e.g. authorizing initiation, committing more resources at stage boundaries after checking results so far, monitoring, providing guidance, reacting to threats, and confirming outcomes to close the project;
- c. Initiating a project: plan for quality, cost and time, make sure business case is acceptable and investments justified (considering the risks), as well as providing the baseline for decision making processes. The key document of this process defines the what, why, who, when and how;
- d. Managing stage boundaries: assure products planned have been completed as defined, authorise the start of next stage, record measurements and lessons learned;
- e. Controlling a stage: allocate work, ensure a stage stays on course and react to unexpected events. Main products are work packages, progress reports, project issues log, risk log and stage plan;
- f. Managing product delivery: ensure planned products are created and delivered, including ensuring work is done and that the completed product meets quality criteria;
- g. Closing a project: among other activities includes checking the extent to which expected objectives have been met, assessing products have been

handed over and accepted by customer and generating a lessons learned report;

- h. Planning: a repeatable process which is important in other processes such as planning initiation stage, project, accepting work package and producing a exception plan.

## List of tools/methods related to compared approaches

- Tools/methods to engage stakeholders
  - Logical Framework matrix (Logframe)
  - Catchball (Hoshin Kanri)
  - Benefits dependency maps
  - Affinity diagram (Hoshin Kanri)
- Tools/methods to deploy strategy into operations
  - Logical Framework Matrix (Logframe)
  - Realistic Evaluation
  - Theories of Change
  - Evidence-based Policy
  - Network Theory
  - Dimensional Analysis
  - Business case: including, reasons, options, expected benefits, cost, timescale, investment appraisal (PRINCE2)
  - Contingency plan (Hoshin Kanri)
- Tools/methods to monitor benefits realisation
  - Questionnaires for evaluation by stakeholders through process (DQI)
  - KPIs
  - Gates for informing the achievement of benefits, unexpected impacts and updating risk log (PRINCE2)
  - Checkpoint report (PRINCE2)
  - ASPECT
  - AEDET
- Tools/methods to track threats and opportunities
  - Scenario analysis
  - Risk analysis – generating a risk log (PRINCE2)
  - Environmental Scanning
  - Strategic and anticipative intelligence or competitive intelligence
- Tools/methods to dynamically adapt the process based on assessments
  - Exception plan – shows the actions required to recover from a deviation (PRINCE2)

- Issue log – e.g. request for change, off-specification or statement of concern (PRINCE2)
- Gates for updating business case (PRINCE2)
- Tools/methods to continuously improve process based on assessments (future projects)
  - Gates for generating lessons learned log (PRINCE2)

### **Early comparison with BeReal**

Hoshin Planning is similar to BeReal in the sense that it is focused on engaging the different departments and creating a focus that will drive the entire organisation to achieve the strategic objectives. The technique involves envisioning results, planning for realisation and setting up significant targets to monitor the achievements. However, Hoshin Planning is that it is being applied in the context of companies to engage the different departments in the achievement of the company's business objectives, while BeReal is being adopted in the context of programmes and projects composed by different groups of stakeholders to achieve the defined expected benefits of that temporary organisation.

The Logical Framework Approach is also similar to BeReal, as its main focus is on engaging stakeholders to define strategic goals and then planning the programme or project based on that common vision. However, the Logframe has been criticised for its lack of flexibility, since it assumes that no further judgement regarding the programme's objectives is required, as well as for its large emphasis on quantitative measures, generating poor support for decision-making (CDRA, 2001; Pasteur et al., 2001).

The similarity of the Design Quality Indicator to BeReal lays on the fact that it also focuses on engaging stakeholders to define and discuss their priorities along the process. There is also a continuous evaluation to monitor if expected result is being achieved. However, differently than BeReal, which considers variables related to benefits to assess results; in the DQI tool the building quality is assessed against the variables that are pre-defined based on a conceptual

framework. Moreover, the major focus of the evaluations is on the quality of built spaces, while in BeReal the assessment is focused on the identified benefits for each specific project.

The main similarity between QFD and BeReal is on the participatory focus of the technique, which provides a means for communication and inter-functional planning. Also, similarly to BeReal, QFD supports the process of prioritising, and translating requirements into specifications, and measures to track results.

However, QFD is a technique primarily focused in translating requirements into product specifications. Differently, benefits realisation involves envisioning results and building common strategic objectives, for then deploying these strategic objectives into operations. The focus is not, therefore, in a physical object but is driven by the expected benefits of a specific project.

PRINCE2 is a method for managing projects. The similarity it has with BeReal is that it provides a controlled environment to achieve the expected results. It also provides reviewing stages to monitor the achievements and supports decision-making based on this assessment. However, BeReal has a stronger emphasis on engaging stakeholders to define the expected benefits of a project, agree on possible disbenefits and monitor the realisation of benefits being aware of emerging unexpected benefits and disbenefits.

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## **Appendix II – Case studies data**

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## PATIENT & USER QUESTIONNAIRE

Please, answer the questions bellow by putting **an X in one box** for each question.  
Thank you for taking the time to answer these questions.

### Patient & Users Profile

In this first section, we would like to know a little bit about yourself.

What is your gender? Male      Female

What is your age group? 16-19 20-34 35-54 55-64 65-84 85+

How far do you live from the centre Less than 1 mile Between 1 to 3 miles Between 3 to 5 miles More than 5 miles

To which of these ethnic groups would you say you belong?

**White** British Irish Other

**Mixed** White & Black Caribbean White & Black African White & Asian Other

**Asian or Asian British** Indian Pakistani Bangladeshi Other

**Black or Black British** Caribbean African Other

**Chinese or other ethnic group** Chinese Other

Do you have any disability? Yes      No

What centre's services do you use? Medical Non-medical Both

Please, specify services that you used \_\_\_\_\_

**PART 1– Accessibility**

Firstly, we would like to know your opinion on how you find getting to and around the centre.

	Strongly Agree	Agree	Have no opinion	Disagree	Strongly Disagree
1. It is easy to find the healthcare centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. It is easy to reach the centre by public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. There are enough signs directing users to the centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The centre is conveniently located within the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. The entrance of the building is easy to locate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. It is easy to find a parking space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Disabled car-parking spaces are well located	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. It is easy to find my way around the building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. There is enough information leading users to different places within the building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. The building is suitable for disabled people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Stairs and lifts are conveniently located within building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Toilets are conveniently located within building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. The location of new centre provides better accessibility to services than before	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. The centre offers interesting and attractive services for the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PART 2 – Quality of Spaces**

In this part, we would like to know your opinion on how you feel inside the centre.

	Strongly Agree	Agree	Have no opinion	Disagree	Strongly Disagree
1. The centre atmosphere is peaceful and quiet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. There is plenty of fresh air and natural light within the building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The interior looks clean, tidy and cared for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The interior has a variety of colours, textures and views	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Unwanted noise is minimum in patient areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Spaces have a nice view of the outside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Patients and users have access to outside areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Waiting areas are pleasant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. There are suitable children play areas in the centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. There are suitable baby changing facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Centre spaces consider cultural diversity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. The centre provides high quality spaces for users and patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### PART 3 – Waiting Times and Appointments

Now, we would like to know how well services are fulfilling your specific needs and in time.

	Strongly Agree	Agree	Have no opinion	Disagree	Strongly Disagree
1. When calling the centre, it is easy to get through to someone on the phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If needed, it is easy to get an appointment within the same day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. If needed, it is easy to get an appointment with a specialist	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. It doesn't take long to be seen by a doctor after making an appointment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I am seen on time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The centre's opening hours are convenient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Overall waiting times are convenient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### PART 4 – Services and Staff

In this part, we would like to know how well services and staff are meeting your expectations

	Strongly Agree	Agree	Have no opinion	Disagree	Strongly Disagree
1. The centre's staff is helpful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. The centre's staff is friendly and respectful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. It is easy to reach staff when needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The centre offers a convenient range of community services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. There is a wide range of medical services that can be used during a single visit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. The centre's services have a good reputation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Within the centre one can find all the medical services necessary to fulfil its needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. There is all necessary medical equipment in the centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Prescribed medicine is usually available at the pharmacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### PART 5 – Privacy, Choice and Interaction

In this part, we would like to know about the choices you have and how the building supports privacy when needed.

	Strongly Agree	Agree	Have no opinion	Disagree	Strongly Disagree
1. Patients can have a private conversation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Patients can choose to be alone if they wish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Patients can easily get explanations about their medication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Patients can be involved in the decisions about their healthcare and treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Patients are supported with adequate information to make choices about their health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Patients are aware of different options available regarding their health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Patients have great choice of services in the centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### PART 6 – Importance

Having completed Part 1 to 5, please indicate the level of importance you attach to each of these 5 aspects by ranking the items from 1 to 5, 1 being the least important and 5 being the most important. **Please, note that for each item you should give only one level of importance.**

Least important = 1 ----- Most important = 5

Rank of importance

Part 1 (Accessibility): \_\_\_\_\_

Part 2 (Quality of Space): \_\_\_\_\_

Part 3 (Waiting Times and Appointments): \_\_\_\_\_

Part 4 (Services and Staff): \_\_\_\_\_

Part 5 (Privacy, choice and Interaction): \_\_\_\_\_

### PART 7 – Extra Benefits

The aim of this section is to identify any benefits or negative impacts that we might not have covered in this questionnaire. What do you see as major benefits that emerged from the construction of this centre and what do you think were the major negative impacts?

#### Major benefits of the new centre in my opinion

1

2

3

#### Major negative impacts of the new centre in my opinion

1

2

3

## STAFF QUESTIONNAIRE

Please, answer the questions below by putting **an X in one box** for each question.  
Thank you for taking the time to answer these questions.

### Staff Profile

What is your gender?	Male	Female
	<input type="checkbox"/>	<input type="checkbox"/>

What is your age group?	16-19	20-34	35-54	55-64	65-84	85+
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How far do you live from the centre	Less than 1 mile	Between 1 to 3 miles	Between 3 to 5 miles	More than 5 miles
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To which of these ethnic groups would you say you belong?

<b>White</b>	British	Irish	Other
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Mixed</b>	White & Black Caribbean	White & Black African	White & Asian	Other
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Asian or Asian British</b>	Indian	Pakistani	Bangladeshi	Other
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Black or Black British</b>	Caribbean	African	Other
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Chinese or other ethnic group</b>	Chinese	Other
	<input type="checkbox"/>	<input type="checkbox"/>

Do you have any disability?	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>

Are you also a user of services within the centre?	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>

Please, specify services that you use \_\_\_\_\_

What is your occupation/ profession?	GP	Practice Nurse	Administrator	Practice Manager
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Healthcare Manager	Pharmacy	Community Nurse	Other
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If other, please, specify \_\_\_\_\_

<b>PART 1– Accessibility</b>	Strongly Agree	Agree	Have no opinion	Disagree	Strongly Disagree
1. It is easy to get to the centre by car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. It is easy to reach the centre by public transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The centre is conveniently located within the community	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. It is easy to find a parking space	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Disabled car-parking spaces are well located	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. It is easy to find my way around the building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. The building is suitable for disabled people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Stairs and lifts are conveniently located within building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Toilets are conveniently located within building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>PART 2 – Quality of Spaces</b>	Strongly Agree	Agree	Have no opinion	Disagree	Strongly Disagree
1. The centre atmosphere is peaceful and quiet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. There is plenty of fresh air and natural light within the building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. The interior looks clean, tidy and cared for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. The interior has a variety of colours, textures and views	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Unwanted noise is minimum in working areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Spaces have a nice view of the outside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Staff have access to outside areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. There is adequate space around the examination couch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Centre spaces consider cultural diversity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. There are adequate changing areas, showers and lockers available for staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. The centre enables adequate materials flow, handling and storage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Break out rooms are provided at an appropriate standard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Appropriate working materials, furniture and equipment are available at the centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Working areas have an adequate layout	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>PART 3 – Security / Health and Safety</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Have no opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. Fire exits and escape routes are clearly visible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Equipment and supplies are adequately secured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Security alarms and devices are frequently tested	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. There is adequate training on fire safety and other job safety issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. There are secure place available for employees to store their belongings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. There are adequate policies addressing health and safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Waste is disposed appropriately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>PART 4 – Employment services and training</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Have no opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. Other members of staff are helpful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Other members of staff are friendly and respectful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. There are adequate communication channels among staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. There are appropriate computer, printer and internet access in the centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. There is healthy refreshment choices available in the centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. There is adequate human resources available to get required jobs completed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Training orientation is adequately available for new staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. There is opportunity for staff to attend different courses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Staff has time available to attend courses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>PART 5 – Working environment and Incentives</b>	<b>Strongly Agree</b>	<b>Agree</b>	<b>Have no opinion</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. Staff can adjust the level of lighting for specific tasks, if needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Staff can control noise levels in the environment, if needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Staff can adjust the ventilation, heat and humidity of working areas, if needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. There is adequate overall staffing levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Staff has appropriate contact with working colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Colleagues value each others work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Staff receive enough support and guidance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. There are opportunities to discuss issues and concerns	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Staff receive adequate supervision at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. There is commitment to internal and external fairness and equality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Working hours are conveniently flexible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Staff are aware about policies, decisions and changes that affect their jobs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Staff are provided with different forms of incentives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### PART 6 – Importance

Having completed Part 1 to 5, please indicate the level of importance you attach to each of these 5 aspects by ranking the items from 1 to 5, 1 being the least important and 5 being the most important. **Please, note that for each item you should give only one level of importance.**

Least important = 1 ----- Most important = 5

Rank of importance

Part 1 (Accessibility): \_\_\_\_\_  
 Part 2 (Quality of Space): \_\_\_\_\_  
 Part 3 (Security / Health and Safety): \_\_\_\_\_  
 Part 4 (Employment services and training): \_\_\_\_\_  
 Part 5 (Working environment and Incentives): \_\_\_\_\_

### PART 7 – Extra Benefits

The aim of this section is to identify any benefits or negative impacts that we might not have covered in this questionnaire. What do you see as major benefits that emerged from the construction of this centre and what do you think were the major negative impacts?

#### Major benefits of the new centre in my opinion

1

2

3

#### Major negative impacts of the new centre in my opinion

1

2

3

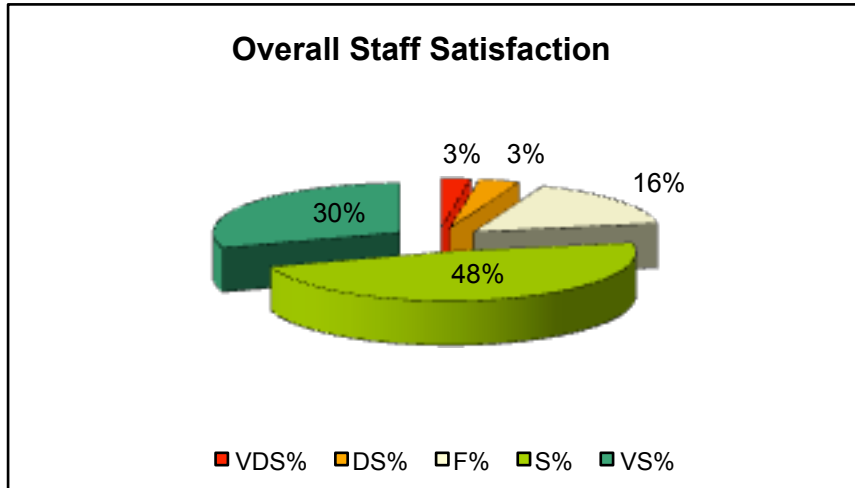


<b>STAFF</b>	Frequency	Percent (%)
<b><u>Gender</u></b>		
Male	5	31.2
Female	10	62.5
Missing	1	6.2
Total	16	100
<b><u>Age group</u></b>		
16-19	1	6.2
20-34	7	43.8
35-54	5	31.2
55-64	3	18.8
65-84		
85+		
Missing		
Total	16	100
<b><u>Have a disability</u></b>		
Yes	3	18.8
No	13	81.2
Missing		
Total	16	100
<b><u>Ethnicity</u></b>		
White British	12	75
White Irish	1	6.2
Black or Black British Caribbean	1	6.2
Black or Black British African	1	6.2
Black or Black British Other	1	6.2
Mixed White & Asian		
Mixed Other		
Missing		
Total	16	100
<b><u>Your occupation</u></b>		
GP		
Practice Manager		
Practice Nurse		
Health care Manger		
Community Nurse		
Pharmacy	2	12.5
Administrator	4	25
Other	10	62.5
Missing		
Total	16	100
<b><u>Centre Services Used</u></b>		
Yes	5	31.2
No	11	68.8
Total	16	100

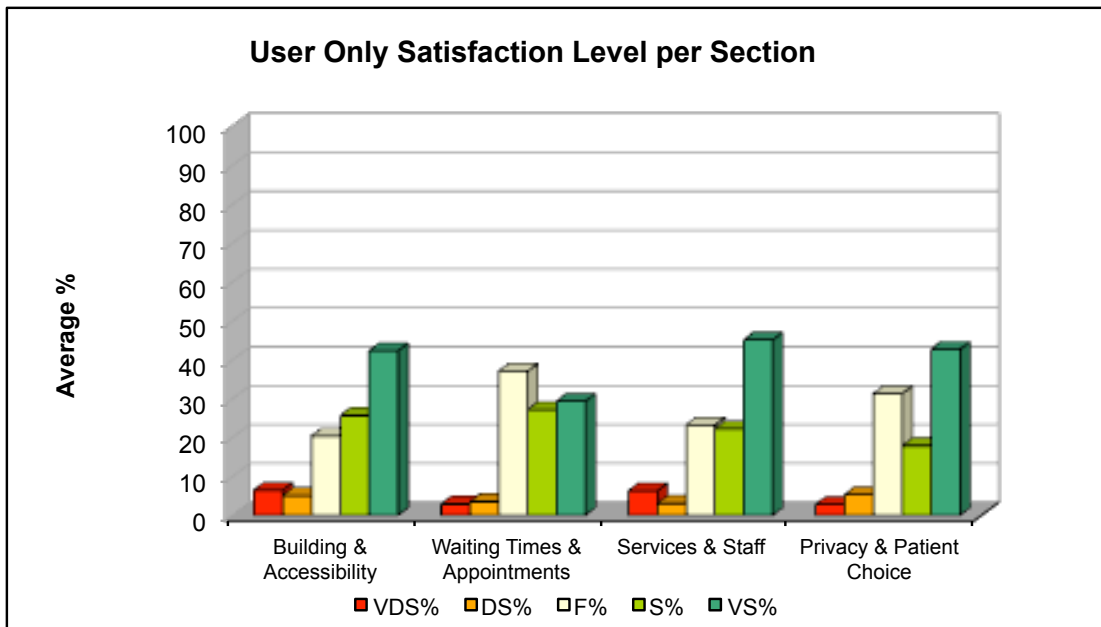
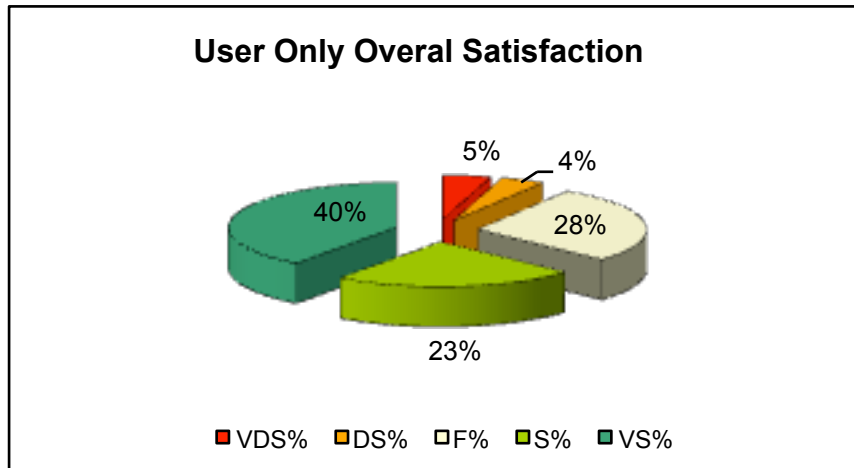
<b>Center User</b>	<b>Frequency</b>	<b>Percent (%)</b>
<b><u>Gender</u></b>		
Male	9	25.7
Female	23	65.7
Missing	3	8.6
Total	35	100
<b><u>Age group</u></b>		
16-19	0	20
20-34	7	25.7
35-54	9	22.9
55-64	8	25.7
65-84	9	
85+		
Missing	2	5.7
Total	35	100
<b><u>Have a disability</u></b>		
Yes	16	45.7
No	18	51.4
Missing	1	2.9
Total	35	100
<b><u>Ethnicity</u></b>		
White British	32	91.4
White Irish	1	2.9
Black or Black British Caribbean		
Black or Black British African	1	2.9
Black or Black British Other		
Mixed White & Asian		
Mixed Other		
Missing	1	2.9
Total	35	100
<b><u>Patient Services used</u></b>		
GP	3	8.6
Nurse	1	2.9
Pharmacy	1	2.9
Podiatry	12	34.3
Other	9	25.7
More than one services		
Missing	9	25.7
Total	35	100
<b><u>Centre Services Used</u></b>		
Yes	11	31.4
No	24	68.6
Total	35	100

<b>Patient</b>	<b>Frequency</b>	<b>Percent (%)</b>
<b><u>Gender</u></b>		
Male	17	40.5
Female	24	57.1
Missing	1	2.4
Total	42	100
<b><u>Age group</u></b>		
16-19	1	2.4
20-34	6	14.3
35-54	15	35.7
55-64	9	21.4
65-84	7	16.7
85+	1	2.4
Missing	3	7.1
Total	42	100
<b><u>Have a disability</u></b>		
Yes	12	28.6
No	28	66.7
Missing	2	4.8
Total	42	100
<b><u>Ethnicity</u></b>		
White British	38	90.5
White Irish	1	2.4
Black or Black British Caribbean	1	2.4
Black or Black British African		
Black or Black British Other	1	2.4
Mixed White & Asian		
Mixed Other	1	2.4
Missing		
Total	42	100
<b><u>Patient Services used</u></b>		
GP	12	28.6
Nurse		
Pharmacy	1	2.4
Podiatry		
Other		
More than one services	29	69
Missing		
Total	42	100
<b><u>Centre Services Used</u></b>		
Yes	6	14.3
No	36	85.7
Total	42	100

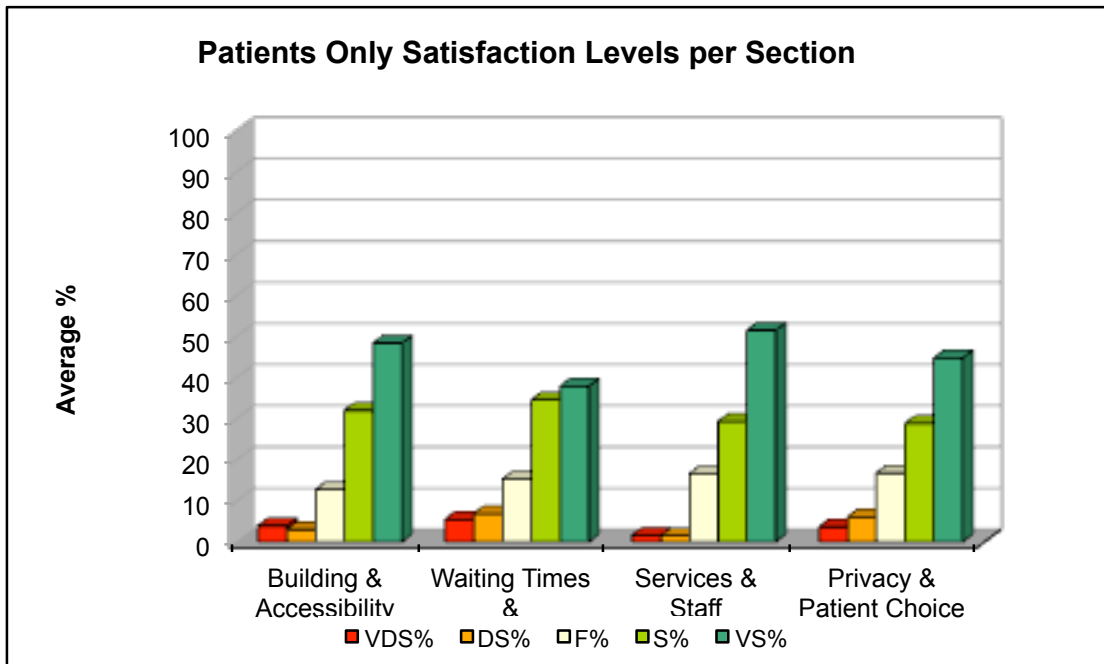
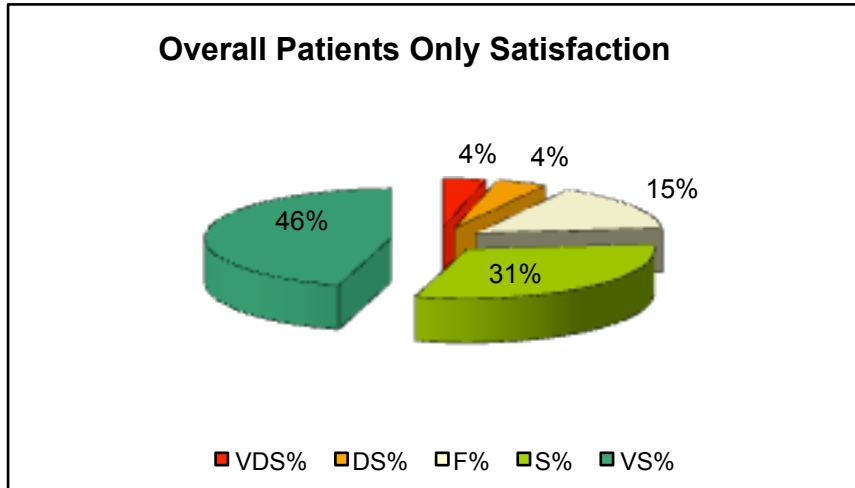
<b>Patient Center User</b>	<b>Frequency</b>	<b>Percent (%)</b>
<b><u>Gender</u></b>		
Male	25	34.2
Female	48	65.8
Missing	4	5.2
Total	77	100
<b><u>Age group</u></b>		
16-19	1	1.4
20-34	12	16.7
35-54	25	34.7
55-64	17	23.6
65-84	16	22.2
85+	1	1.4
Missing	5	6.5
Total	77	100
<b><u>Have a disability</u></b>		
Yes	29	39.2
No	45	60.8
Missing	3	3.9
Total	77	100
<b><u>Ethnicity</u></b>		
White British	70	92.1
White Irish	1	1.3
Black or Black British Caribbean	1	1.3
Black or Black British African	1	1.3
Black or Black British Other	1	1.3
Mixed White & Asian	1	1.3
Mixed Other	1	1.3
Missing	1	1.3
Total	77	100
<b><u>Patient Services used</u></b>		
GP	15	22.1
Nurse	1	1.5
Pharmacy	1	1.5
Podiatry	1	1.5
Other	12	17.6
More than one services	38	55.9
Missing	9	11.7
Total	77	100
<b><u>Centre Services Used</u></b>		
Yes	17	22.1
No	60	77.9
Total	77	100



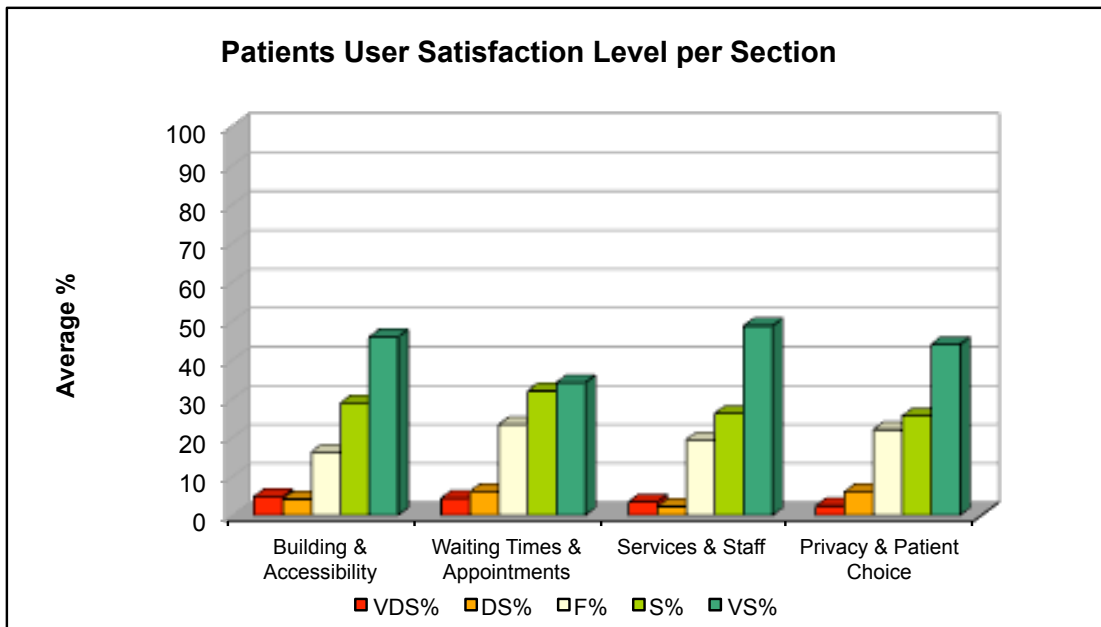
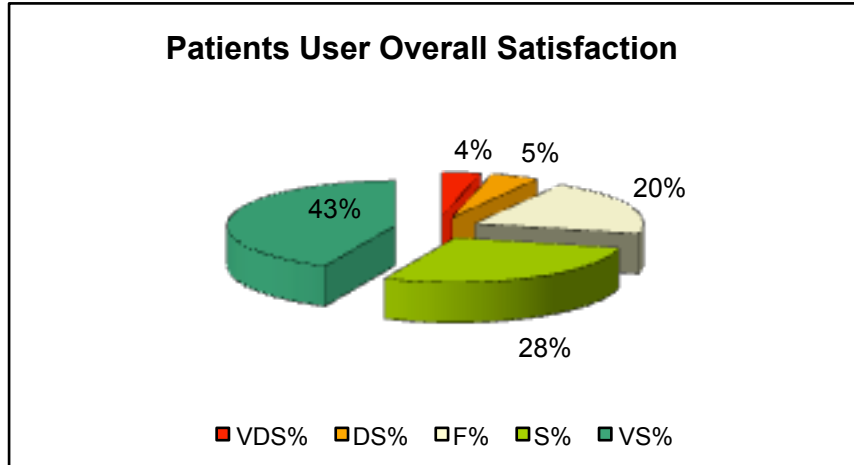
Staff	VDS%	DS%	F%	S%	VS%
Building & Accessibility	3.27	7.83	18.40	40.71	29.78
Security, Health and Safety	1.74	0.00	9.81	59.20	29.28
Employment Services & Training	1.93	3.17	21.88	44.93	28.10
Working Environment & Incentives	3.22	3.10	14.37	46.29	33.05
Overall	2.54	3.52	16.12	47.78	30.05



User Only					
	VDS%	DS%	F%	S%	VS%
Building & Accessibility	6.49	5.08	20.41	25.67	42.33
Waiting Times & Appointments	2.91	3.53	37.05	27.18	29.34
Services & Staff	6.31	3.07	23.22	22.25	45.14
Privacy & Patient Choice	2.78	5.32	31.29	17.90	42.68
Overall	4.62	4.25	27.99	23.25	39.87



Patient Only					
	VDS%	DS%	F%	S%	VS%
Building & Accessibility	4.01	3.08	12.76	32.05	48.38
Waiting Times & Appointments	5.53	6.90	15.33	34.56	37.90
Services & Staff	1.62	1.53	16.66	29.34	51.50
Privacy & Patient Choice	3.68	6.13	16.78	28.88	44.78
Overall	3.71	4.41	15.38	31.21	45.64



Patients User Only					
	VDS%	DS%	F%	S%	VS%
Building & Accessibility	4.82	4.17	16.29	28.87	45.86
Waiting Times & Appointments	4.39	6.15	23.36	31.99	34.13
Services & Staff	3.46	2.26	19.38	26.19	48.73
Privacy & Patient Choice	2.43	6.08	22.02	25.52	43.94
Overall	3.78	4.66	20.26	28.14	43.16







Ref	Benefit	Question and satisfaction																																					
		1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9																													
A2	<b>Better Access to facilities (physical)</b>																																						
	Very Dissatisfied	3.38	0	0	0	13.3	10	7.1	0	0																													
	Dissatisfied	11.72	0	18.8	6.7	23.1	6.7	10	21.4	0	18.8																												
	Fairly Satisfied	22.77	6.2	31.2	13.3	23.1	20	50	28.6	20	12.5																												
	Satisfied	27.00	43.8	12.5	33.3	23.1	26.7	10	28.6	40	25																												
	Very Satisfied	35.16	50	37.5	46.7	30.8	33.3	20	14.3	40	43.8																												
D1	<b>Better Working Environment</b>																																						
	Very Dissatisfied	2.79	0	18.8	0	0	7.7	0	0	0	0	33.3	0	0	0	0	0	0	0	0	6.7	0	0	0	14.3	6.2	0	0	0	0	7.7	0	0						
	Dissatisfied	4.73	0	31.2	0	0	7.1	6.7	0	20	22.2	10	16.7	0	0	6.7	6.7	0	6.2	0	6.2	0	6.7	0	14.3	0	0	0	0	0	0	0	0						
	Fairly Satisfied	15.52	13.3	0	0	0	7.7	0	20	0	0	22.2	20	33	14.3	6.2	13.3	20	50	18.8	33.3	31.2	26.7	20	20	36.4	14.3	0	21.4	0	7.7	6.7	27.3	7.7	28.6	20			
	Satisfied	48.76	53.3	25	50	33.3	38.5	35.7	46.7	60	70	22.2	50	33	64.3	50	33.3	33.3	35.7	56.2	50	43.8	53.3	46.7	66.7	54.5	35.7	50	50	61.5	69.2	66.7	45.5	69.2	61.5	42.9	40		
	Very Satisfied	28.20	33.3	25	50	66.7	46.2	57.1	26.7	40	10	0	20	16.7	21.4	43.8	46.7	40	14.3	18.8	16.7	18.8	13.3	26.7	13.3	9.1	21.4	43.8	28.6	38.5	23.1	26.7	27.3	23.1	23.1	28.6	40		
D2	<b>Incentives</b>																																						
	Very Dissatisfied	1.82	0	0	0	0	28.6	0	0	0	0	0	0	0	0	0	0	0	0	7.7	0																		
	Dissatisfied	1.54	7.7	0	0	0	7.1	8.3	0	0	0	7.7	0	0	0	0	0	0	0	0	0																		
	Fairly Satisfied	15.34	38.5	25	13.3	15.4	30.8	21.4	41.7	8.3	6.7	6.7	7.7	6.7	7.7	6.7	8.3	7.1	14.3	25	7.7	7.7																	
	Satisfied	46.35	30.8	50	53.3	53.8	30.8	21.4	33.3	58.3	66.7	53.3	69.2	53.3	46.2	46.7	66.7	50	57.1	16.7	30.8	38.5																	
	Very Satisfied	34.98	23.1	25	33.3	30.8	38.5	21.4	16.7	33.3	26.7	40	15.4	40	46.2	46.7	25	42.9	28.6	58.3	53.8	53.8																	
D4	<b>Increased career prospects</b>																																						
	Very Dissatisfied	3.33	0	0	10																																		
	Dissatisfied	3.03	9.1	0	0																																		
	Fairly Satisfied	15.50	18.2	8.3	20																																		
	Satisfied	41.83	45.5	50	30																																		
	Very Satisfied	36.33	27.3	41.7	40																																		

Ref	Benefit																																													
A1	<b>Improved Patient Experience</b>		1.6	1.7	1.9	1.11	1.12	1.13	1.14	1.15	1.16	1.22	1.23	1.24	1.25	1.26	1.27	1.28	1.29	1.30	1.31	2.8	4.7	4.8	4.9	4.12	3.1	3.2	3.3	3.4	3.6	3.8	3.13	3.14	3.15	3.19										
	Very Dissatisfied	3.17	2.4	2.4	2.6	2.4	3.3	6.9	5	3.3	13.3	3.7	2.4	2.4	2.4	3	0	7.3	7.5	0	2.4	2.5	2.9	5.3	5.1	2.4	2.4	2.4	2.4	2.4	0	0	0	0	0	0	4.8									
	Dissatisfied	1.90	0	4.9	0	0	0	3.4	5	3.3	13.3	3.7	0	0	0	0	6.1	0	0	0	4.9	5	2.9	2.6	5.1	0	0	2.4	0.00	0	0	0	0	0	0	0	0	0								
	Fairly Satisfied	13.88	2.4	4.9	5.1	7.3	6.7	17.2	30	16.7	26.7	18.5	0	7.1	12.2	19.5	15.2	4.8	0	5	21.9	12.2	7.5	26.5	10.5	20.5	4.8	4.8	9.5	19	12.2	17.9	52.9	26.7	18.5	7.1										
	Satisfied	32.84	26.8	31.7	28.2	34.1	46.7	41.4	25	26.7	20	44.4	26.8	31	29.3	36.6	45.5	52.4	39	40	43.8	34.1	27.5	23.5	36.8	33.3	28.6	28.6	21.4	28.6	29.3	30.8	23.5	26.7	48.1	26.2										
	Very Satisfied	48.24	68.3	56.1	64.1	56.1	43.3	31	35	50	26.7	29.6	70	59.5	56.1	41.5	30.3	42.9	53.7	47.5	34.4	46.3	57.5	44.1	44.7	35.9	64.3	64.3	64.3	50	56.1	51.3	23.5	46.7	33.3	61.9										
A2	<b>Better Access to facilities (physical)</b>		1.1	1.2	1.3	1.4	1.5	1.17	1.18	1.19	1.20	1.21	1.30																																	
	Very Dissatisfied	4.86	2.4	4.9	5	2.7	6.2	3.1	10	6.2	2.6	2.9	7.5																																	
	Dissatisfied	4.51	2.4	2.4	2.5	0	3.1	12.5	15	6.2	2.6	2.9	0																																	
	Fairly Satisfied	14.67	2.4	2.4	12.5	5.4	9.4	25	40	28.1	13.2	5.7	5																																	
	Satisfied	26.05	14.6	24.4	27.5	29.7	25	18.8	10	31.2	36.8	28.6	40																																	
	Very Satisfied	50.97	78	65.9	52.5	62.2	56.2	40.6	25	28.1	44.7	60	47.5																																	
A3	<b>Greater Privacy</b>		4.1	4.2	4.3	4.4	4.5	4.6																																						
	Very Dissatisfied	3.42	0	2.4	0	0.00	0	14.7																																						
	Dissatisfied	8.82	4.8	7.3	13.8	13.5	13.5	0																																						
	Fairly Satisfied	14.72	2.4	9.8	20.7	18.9	18.9	17.6																																						
	Satisfied	27.45	38.1	19.5	34.5	21.6	21.6	29.4																																						
	Very Satisfied	46.13	54.8	61	31	45.9	45.9	38.2																																						
A4	<b>More Services in 1 place (co-location)</b>		3.5																																											
	Very Dissatisfied	2.60	2.6																																											
	Dissatisfied	0.00	0																																											
	Fairly Satisfied	5.10	5.1																																											
	Satisfied	46.20	46.2																																											
	Very Satisfied	46.20	46.2																																											
A6	<b>Greater Access (service)</b>		2.1	2.2	2.3	2.4	2.5	2.6	2.7	3.5	3.17																																			
	Very Dissatisfied	5.30	2.6	17.9	4.9	4.9	2.4	2.4	6.7	2.6	3.3																																			
	Dissatisfied	5.84	0	15.4	4.9	9.8	4.9	0	13.3	0	3.3																																			
	Fairly Satisfied	15.06	10.5	25.6	12.2	17.1	4.9	26.8	13.3	5.1	20																																			
	Satisfied	35.77	34.2	17.9	34.1	39	41.5	39	36.7	46.2	33.3																																			
	Very Satisfied	37.89	52.6	23.1	43.9	29.3	46.3	31.7	30	46.2	40.0																																			
A7	<b>Less time waiting</b>		3.11	3.1	3.12																																									
	Very Dissatisfied	1.20	2.4	0																																										
	Dissatisfied	0.00	0	0																																										
	Fairly Satisfied	6.55	4.8	8.3																																										
	Satisfied	25.40	28.6	22.2																																										
	Very Satisfied	66.85	64.3	69.4																																										
A8	<b>New Services</b>		3.18	3.18																																										
	Very Dissatisfied	2.40	2.4																																											
	Dissatisfied	4.90	4.9																																											
	Fairly Satisfied	26.80	26.8																																											
	Satisfied	29.30	29.3																																											
	Very Satisfied	36.60	36.6																																											
A10	<b>Increased Patient Choice</b>		4.3	4.4	4.10	4.11	4.12	3.50	3.11	3.70	3.13	3.18																																		
	Very Dissatisfied	2.23	0	0.00	5.1	2.5	5.1	2.6	2.4	0	0	2.4																																		
	Dissatisfied	4.76	13.8	13.5	2.6	2.5	5.1	0	2.4	2.8	0	4.9																																		
	Fairly Satisfied	21.91	20.7	18.9	23.1	25	20.5	5.1	12.2	13.9	52.9	26.8																																		
	Satisfied	30.38	34.5	21.6	33.3	27.5	33.3	46.2	26.8	27.8	23.5	29.3																																		
	Very Satisfied	40.92	31	45.9	35.9	42.5	35.9	46.2	56.1	55.6	23.5	36.6																																		
C3	<b>Improved Community facilities</b>		3.9	3.16																																										
	Very Dissatisfied	1.65	0	3.3																																										
	Dissatisfied	3.35	0	6.7																																										
	Fairly Satisfied	23.25	13.2	33.3																																										
	Satisfied	30.05	36.8	23.3																																										
	Very Satisfied	41.65	50	33.3																																										

<b>CS1 Data – Benefits level of satisfaction related to patients</b>			
<b>A1</b>	<b>Improved Patient Experience</b>		
	Very Dissatisfied	3.17	
	Dissatisfied	1.90	
	Fairly Satisfied	13.88	
	Satisfied	32.84	
	Very Satisfied	48.24	
<b>A2</b>	<b>Better Access to facilities (physical)</b>		
	Very Dissatisfied	4.86	
	Dissatisfied	4.51	
	Fairly Satisfied	14.67	
	Satisfied	26.05	
	Very Satisfied	50.97	
<b>A3</b>	<b>Greater Privacy</b>		
	Very Dissatisfied	3.42	
	Dissatisfied	8.82	
	Fairly Satisfied	14.72	
	Satisfied	27.45	
	Very Satisfied	46.13	
<b>A4</b>	<b>More Services in 1 place/co-location</b>		
	Very Dissatisfied	2.60	
	Dissatisfied	0.00	
	Fairly Satisfied	5.10	
	Satisfied	46.20	
	Very Satisfied	46.20	
<b>A6</b>	<b>Greater Access (service)</b>		
	Very Dissatisfied	5.30	
	Dissatisfied	5.84	
	Fairly Satisfied	15.06	
	Satisfied	35.77	
	Very Satisfied	37.89	
<b>A7</b>	<b>Less time waiting</b>	3.11	
	Very Dissatisfied	1.20	
	Dissatisfied	0.00	
	Fairly Satisfied	6.55	
	Satisfied	25.40	
	Very Satisfied	66.85	
<b>A8</b>	<b>New Services</b>	3.18	
	Very Dissatisfied	2.40	
	Dissatisfied	4.90	
	Fairly Satisfied	26.80	
	Satisfied	29.30	
	Very Satisfied	36.60	
<b>A10</b>	<b>Increased Patient Choice</b>		
	Very Dissatisfied	2.23	
	Dissatisfied	4.76	
	Fairly Satisfied	21.91	
	Satisfied	30.38	
	Very Satisfied	40.92	
<b>C3</b>	<b>Improved Community facilities</b>		
	Very Dissatisfied	1.65	
	Dissatisfied	3.35	
	Fairly Satisfied	23.25	
	Satisfied	30.05	
	Very Satisfied	41.65	

<b>CS1 Data – Benefits level of satisfaction related to staff</b>			
<b>A2</b>	<b>Better Access to facilities (physical)</b>		
	Very Dissatisfied	3.38	
	Dissatisfied	11.72	
	Fairly Satisfied	22.77	
	Satisfied	27.00	
	Very Satisfied	35.16	
<b>D1</b>	<b>Better Working Environment</b>		
	Very Dissatisfied	2.79	
	Dissatisfied	4.73	
	Fairly Satisfied	15.52	
	Satisfied	48.76	
	Very Satisfied	28.20	
<b>D2</b>	<b>Incentives</b>		
	Very Dissatisfied	1.82	
	Dissatisfied	1.54	
	Fairly Satisfied	15.34	
	Satisfied	46.35	
	Very Satisfied	34.98	
<b>D4</b>	<b>Increased career prospects</b>		
	Very Dissatisfied	3.33	
	Dissatisfied	3.03	
	Fairly Satisfied	15.50	
	Satisfied	41.83	
	Very Satisfied	36.33	

<b>CS1 Data – Benefits level of satisfaction related to centre users</b>			
<b>A1</b>	<b>Improved Patient Experience</b>		
	Very Dissatisfied	5.49	
	Dissatisfied	3.94	
	Fairly Satisfied	23.19	
	Satisfied	23.19	
	Very Satisfied	44.21	
<b>A2</b>	<b>Better Access to facilities (physical)</b>		
	Very Dissatisfied	6.28	
	Dissatisfied	7.05	
	Fairly Satisfied	19.76	
	Satisfied	24.95	
	Very Satisfied	41.98	
<b>A3</b>	<b>Greater Privacy</b>		
	Very Dissatisfied	4.58	
	Dissatisfied	6.70	
	Fairly Satisfied	29.37	
	Satisfied	16.28	
	Very Satisfied	43.02	
<b>A4</b>	<b>More Services in 1 place/co-location</b>		
	Very Dissatisfied	9.50	
	Dissatisfied	0.00	
	Fairly Satisfied	9.50	
	Satisfied	23.80	
	Very Satisfied	57.10	
<b>A6</b>	<b>Greater Access (service)</b>		
	Very Dissatisfied	4.23	
	Dissatisfied	3.19	
	Fairly Satisfied	32.57	
	Satisfied	28.78	
	Very Satisfied	31.22	
<b>A7</b>	<b>Less time waiting</b>		
	Very Dissatisfied	6.30	
	Dissatisfied	0.00	
	Fairly Satisfied	37.65	
	Satisfied	19.25	
	Very Satisfied	36.90	
<b>A8</b>	<b>New Services</b>	3.18	
	Very Dissatisfied	3.40	
	Dissatisfied	3.40	
	Fairly Satisfied	20.70	
	Satisfied	34.70	
	Very Satisfied	37.90	
<b>A10</b>	<b>Increased Patient Choice</b>		
	Very Dissatisfied	6.42	
	Dissatisfied	2.34	
	Fairly Satisfied	32.28	
	Satisfied	21.72	
	Very Satisfied	37.22	
<b>C3</b>	<b>Improved Community facilities</b>		
	Very Dissatisfied	7.05	
	Dissatisfied	2.25	
	Fairly Satisfied	16.60	
	Satisfied	23.60	
	Very Satisfied	50.25	

<b>CS1 Data – Benefits level of satisfaction related to patient and centre users</b>			
<b>A1</b>	<b>Improved Patient Experience</b>		
	Very Dissatisfied	3.96	
	Dissatisfied	3.01	
	Fairly Satisfied	18.45	
	Satisfied	28.33	
	Very Satisfied	46.25	
<b>A2</b>	<b>Better Access to facilities (physical)</b>		
	Very Dissatisfied	5.06	
	Dissatisfied	5.56	
	Fairly Satisfied	15.88	
	Satisfied	25.58	
	Very Satisfied	47.93	
<b>A3</b>	<b>Greater Privacy</b>		
	Very Dissatisfied	1.93	
	Dissatisfied	8.62	
	Fairly Satisfied	19.43	
	Satisfied	24.50	
	Very Satisfied	45.48	
<b>A4</b>	<b>More Services in 1 place/co-location</b>		
	Very Dissatisfied	6.60	
	Dissatisfied	0.00	
	Fairly Satisfied	6.60	
	Satisfied	37.70	
	Very Satisfied	49.20	
<b>A6</b>	<b>Greater Access (service)</b>		
	Very Dissatisfied	4.91	
	Dissatisfied	5.39	
	Fairly Satisfied	21.43	
	Satisfied	33.30	
	Very Satisfied	35.00	
<b>A7</b>	<b>Less time waiting</b>		
	Very Dissatisfied	1.85	
	Dissatisfied	1.75	
	Fairly Satisfied	18.35	
	Satisfied	21.20	
	Very Satisfied	56.85	
<b>A8</b>	<b>New Services</b>	3.18	
	Very Dissatisfied	2.90	
	Dissatisfied	5.70	
	Fairly Satisfied	24.30	
	Satisfied	30.00	
	Very Satisfied	37.10	
<b>A10</b>	<b>Increased Patient Choice</b>		
	Very Dissatisfied	3.22	
	Dissatisfied	4.89	
	Fairly Satisfied	26.13	
	Satisfied	26.90	
	Very Satisfied	38.86	
<b>C3</b>	<b>Improved Community facilities</b>		
	Very Dissatisfied	3.75	
	Dissatisfied	2.90	
	Fairly Satisfied	20.25	
	Satisfied	28.50	
	Very Satisfied	44.65	



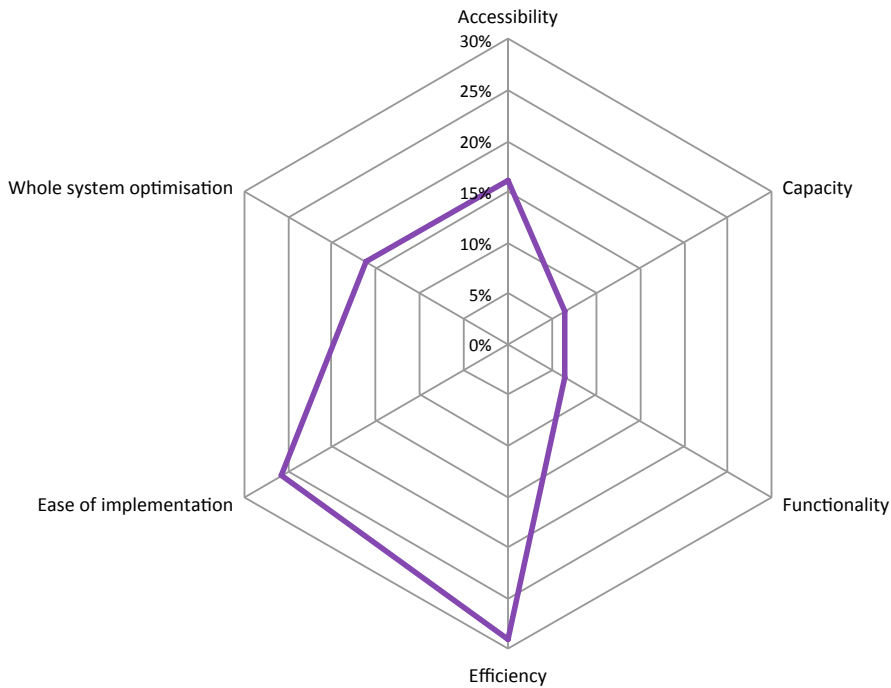








Dis-benefits Summary		Initial Strategic Benefits						
		Control (N <sup>o</sup> of cases)	Accessibility	Capacity	Functionality	Efficiency	Ease of implementation	Whole system optimisation
1	Reduction in activity in secondary care	1						X
2	Further to travel & ease of access to new location	3	X			X	X	
3	No nearby parking facilities	3	X		X	X		
4	No Public transport available	1	X					
5	Loss of belonging	1					X	
6	Impersonal & Intimidating Building	2				X	X	
7	Busy environment will create confusion	2				X	X	
8	Security of the Estate	2				X	X	
9	Staff Communication	3				X	X	X
10	Building not fully utilised	1					X	
11	Not acceptable to some clients	1				X		
12	Transition period creating inefficiency	1				X		
13	New working patterns for staff (service)	3			X		X	X
14	Great dependency on IT services	2				X		X
15	Room sharing	1		X				
16	Change impacts on staff	2		X				X
17	Not in a key shopping centre location	1	X					
18	Reduced foot fall	1	X					
		100%	16%	6%	6%	29%	26%	16%
		31	5	2	2	9	8	5



Criteria	Description	1	2A	2B	3	5	Do Min.
<b>1. Strategic Fit</b>							
1.1 Stakeholder alignment	How consistent is the option with the priorities and targets of our PCTs, SHA and Department of Health?						
1.2 Context	How consistent is the option with the Trust's strategic priorities?						
1.3 Research alignment	How well does the option further the joint research priorities of BSUH/Brighton & Sussex Medical School?						
1.4 Synergy	How consistent is the option with the strategies of our clinical networks and neighbouring NHS Trusts?						
1.5 Image & reputation	To what extent is the option likely to improve the Trust's reputation/image with our patients and local residents?						
<b>2. Clinical Outcomes</b>							
2.1 Co-location	How well does the option co-locate services on the RSCH campus to improve patient care?						
2.2 Reduce unnecessary patient attendances	Outdated accommodation leads to inefficient processes and repeat patient visits. To what extent will the option improve this and reduce unnecessary attendances?						
2.3 Improved quality of care	How well will the option improve the patient's experience of the						
2.4 Improved care outcomes	To what extent will the option improve clinical outcomes, eg. Healthcare Acquired Infection, mortality.						
<b>3. Appropriate Facilities (and Facilities Management)</b>							
3.1 Fit-for-purpose building & infrastructure	To what extent will accommodation be 'fit for purpose' in the option?						
3.2 Flexibility and future development of facilities	To what extent does the option lend itself to flexible use of facilities and possible expansion in the future?						
3.3 Physical distribution of service locations (layout)	How sensibly are buildings/services arranged in the option, eg. to reduce time staff, patients and visitors spend moving across the site?						
3.4 Improved support services	To what extent does the option improve Facilities Management, eg. supplies, laundry, waste disposal?						
3.5 Increased patient safety	To what extent is the option likely to improve patient safety?						
3.6 Greater privacy (by better design)	To what extent is the option likely to improve patient dignity and privacy?						
3.7 Backlog maintenance	To what extent will the option reduce backlog maintenance on						
3.8 Better working environment	To what extent will the option provide a better working						
<b>4. Access to Services</b>							
4.1 Demand/capacity fit	To what extent will the option increase capacity (eg. inpatient beds) in line with demand?						
4.2 Improved physical access	To what extent will the option improve patients' and visitors' physical access to the campus, eg. parking, public transport, finding their way once on site.						
4.3 Availability of services	To what extent will the phasing of the development allow the Trust's highest priority services to start/be improved first?						
<b>5. Teaching, Training &amp; Research</b>							
5.1 Improved research capability	To what extent will the option enhance the research capability of the Trust/Universities/Brighton & Sussex Medical School?						
5.2 Improved teaching	To what extent will the option enhance the teaching of students/trainees of all disciplines?						
5.3 Knowledge transfer	To what extent does the option create a good learning						
<b>6. Use of Resources</b>							
6.1 Use of technology	To what extent does the option take advantage of the latest technology to provide more efficient and more effective services?						
6.2 Recruitment & Retention	To what extent is the option likely to strengthen the recruitment and retention of staff?						
6.3 Improved efficiency	To what extent is the option likely to improve the efficiency of services?						
<b>7. Operational Management</b>							
7.1 Improved service coordination	To what extent is the option likely to lead to more effective operational management of services?						
7.2 Communication & teamwork	To what extent is the option likely to strengthen staff communication and teamwork?						
7.3 Impact of construction	How likely is it that services will be able to treat the same number of patients during the building/decant phase under this option?						
<b>8. Development &amp; Implementation</b>							
8.1 Investment / change management effort	To what extent does the option require more investment in change management than is likely to be feasible?						

**Regional Centre for Teaching, Trauma & Tertiary Care: '3T Programme'**  
**Scores from 9<sup>th</sup> February Non-Financial Appraisal Workshop**

Criteria	Criteria	Scaled Weight	Option 1	Option 3	Option 5	Option Do Min. A	Option Do Min. B
<b>1</b>	<b>Strategic Fit</b>	<b>13.4</b>					
1.1	Stakeholder Engagement	2.7	88%	67%	62%	7%	19%
1.2	Context	2.7	87%	70%	59%	33%	16%
1.3	Research Alignment	2.7	79%	68%	56%	7%	13%
1.4	Synergy	3.6	84%	67%	62%	13%	20%
1.5	Image & Reputation	1.8	88%	67%	59%	10%	17%
<b>2</b>	<b>Clinical Outcomes</b>	<b>17.9</b>					
2.1	Co-location	5.4	85%	63%	61%	7%	15%
2.2	Reduce unnecessary patient attendances	1.8	84%	69%	54%	11%	20%
2.3	Improved quality of care	5.4	84%	72%	66%	10%	18%
2.4	Improved care outcomes	5.4	80%	71%	65%	11%	18%
<b>3</b>	<b>Appropriate Facilities (&amp; Facilities Management)</b>	<b>25.0</b>					
3.1	Fit-for-purpose building and infrastructure	3.6	83%	66%	60%	9%	16%
3.2	Flexibility and future development of facilities	2.7	81%	62%	55%	21%	25%
3.3	Physical distribution of service locations (layout)	3.6	81%	65%	64%	9%	16%
3.4	Improved support services	1.8	80%	71%	67%	12%	21%
3.5	Increased patient safety	5.4	82%	72%	66%	12%	21%
3.6	Greater privacy (by better design)	3.6	87%	78%	72%	13%	19%
3.7	Backlog maintenance	0.9	85%	76%	48%	9%	18%
3.8	Better working environment	3.6	88%	77%	67%	12%	20%
<b>4</b>	<b>Access to Services</b>	<b>10.7</b>					
4.1	Demand/capacity fit	5.4	79%	71%	65%	7%	16%
4.2	Improved physical access	3.6	78%	68%	62%	11%	14%
4.3	Availability of services	1.8	87%	58%	55%	6%	22%
<b>5</b>	<b>Teaching, Training &amp; Research</b>	<b>8.9</b>					
5.1	Improved research capability	3.6	80%	73%	64%	5%	12%
5.2	Improved teaching	3.6	80%	72%	60%	5%	13%
5.3	Knowledge transfer	1.8	84%	74%	58%	6%	13%
<b>6</b>	<b>Use of Resources</b>	<b>10.7</b>					
6.1	Use of Technology	3.6	83%	65%	57%	9%	18%
6.2	Recruitment and Retention	1.8	85%	71%	64%	7%	16%
6.3	Improved efficiency	5.4	86%	71%	66%	8%	18%
<b>7</b>	<b>Operational Management</b>	<b>12.5</b>					
7.1	Improved service coordination	4.5	85%	65%	63%	8%	18%
7.2	Communication and teamwork	2.7	84%	62%	60%	10%	18%
7.3	Impact of construction	5.4	79%	58%	59%	25%	30%
<b>8</b>	<b>Development &amp; Implementation</b>	<b>0.9</b>					
8.1	Investment / change management effort	0.9	59%	57%	54%	32%	39%
<b>Total</b>		<b>100</b>	<b>83%</b>	<b>68%</b>	<b>62%</b>	<b>11%</b>	<b>18%</b>

Option 1 is the preferred design and will be taken forward to the financial appraisal process.

Criteria	W	1	2A	2B	3	5	Min	1	2A	2B	3	5	Min	1	2A	2B	3	5	Min
<b>1 Strategic Fit</b>	<b>13.4%</b>	0.5	0.4	0.4	0.5	0.5	0.1	0.5	0.4	0.4	0.5	0.5	0.2	0.5	0.5	0.4	0.6	0.5	0.2
1.1 Stakeholder alignment		3.7	2.7	2.7	4.0	4.0	1.0	3.6	2.8	3.0	3.8	3.6	1.6	3.8	3.4	3.2	4.6	4.0	1.6
1.2 Context		3	2	2	4	4	1	4	3	3	3	3	1	4	3	3	5	4	1
1.3 Research alignment		5	3	3	5	5	1	4	3	3	4	4	2	4	4	4	4	4	3
1.4 Synergy								3	2	3	4	3	1	4	3	3	4	4	3
1.5 Image & reputation								3	3	3	3	3	2	4	3	3	5	4	2
<b>2 Clinical Outcomes</b>	<b>17.9%</b>	0.7	0.5	0.4	0.7	0.5	0.2	0.6	0.4	0.4	0.7	0.7	0.3	0.8	0.5	0.5	0.9	0.8	0.3
2.1 Co-location		4.0	2.7	2.0	4.0	4.0	2.7	3.3	2.5	2.5	3.8	4.0	1.5	4.3	3.0	2.8	4.8	4.5	1.8
2.2 Reduce unnecessary patient attendances		4	2	2	4	3	1	3	2	2	4	5	2	4	3	3	4	4	2
2.3 Improved quality of care		4	2	2	4	3	1	3	3	3	3	3	1	4	3	3	5	4	1
2.4 Improved care outcomes		4	4	2	4	2	1	3	2	2	4	4	1	4	3	2	5	5	2
<b>3 Appropriate Facilities (and Facilities Management)</b>	<b>25%</b>	0.8	0.6	0.5	1.0	0.7	0.3	0.8	0.6	0.6	1.1	1.0	0.5	1.0	0.8	0.7	1.2	0.7	0.3
3.1 Fit-for-purpose building & infrastructure		3.2	2.5	2.2	4.0	2.8	1.0	3.3	2.6	2.3	4.4	4.1	1.9	4.0	3.4	2.6	4.9	2.8	1.3
3.2 Flexibility and future development of facilities		4	3	3	4	3	1	4	2	3	5	4	1	5	4	1	5	1	1
3.3 Physical distribution of service locations (layout)		5	2	2	5	2	1	4	2	1	5	5	3	3	1	1	5	3	1
3.4 Improved support services		3	3	1	4	1	1	3	2	2	5	5	2	4	3	3	5	4	1
3.5 Increased patient safety		3	3	3	4	4	1	4	3	3	4	4	2	4	4	4	5	3	1
3.6 Greater privacy (by better design)		2	2	2	4	4	1	3	3	3	3	3	3	4	4	3	4	3	1
3.7 Backlog maintenance		2	2	2	4	3	1	2	2	1	4	3	1	4	4	3	5	2	2
3.8 Better working environment		0.3	0.3	0.3	0.3	0.3	0.1	0.4	0.4	0.4	0.4	0.4	0.1	0.5	0.5	0.4	0.5	0.5	0.1
<b>4 Access to Services</b>	<b>10.7%</b>	3.0	3.0	3.0	2.5	2.5	1.0	3.3	3.3	3.7	3.7	4.0	1.3	4.3	4.3	3.7	5.0	4.3	1.3
4.1 Demand/capacity fit		3	3	3	3	3	1	3	4	5	5	5	1	5	5	5	5	5	2
4.2 Improved physical access		3	3	3	2	2	1	4	4	2	3	4	2	4	4	3	5	4	1
4.3 Availability of services		0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.1	0.3	0.2	0.2	0.4	0.4	0.1
<b>5 Teaching, Training &amp; Research</b>	<b>8.9%</b>	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.0	3.0	3.7	3.7	1.7	3.0	2.3	2.3	4.0	4.0	1.3
5.1 Improved research capability		0	0	0	0	0	0	3	3	3	4	4	1	2	2	2	5	5	2
5.2 Improved teaching		0	0	0	0	0	0	3	3	3	3	3	2	3	3	3	3	3	1
5.3 Knowledge transfer		4	3	3	3	3	1	4	3	3	4	4	2	4	2	2	4	4	1
<b>6 Use of Resources</b>	<b>10.7%</b>	0.3	0.3	0.3	0.4	0.4	0.1	0.3	0.2	0.2	0.4	0.3	0.1	0.4	0.4	0.2	0.5	0.3	0.1
6.1 Use of technology		3.0	3.0	3.0	3.5	3.5	1.0	3.0	2.3	2.3	3.7	3.0	1.0	3.3	3.7	2.3	5.0	2.7	1.3
6.2 Recruitment & Retention		3	3	3	4	4	1	3	2	2	4	2	1	4	4	1	5	1	1
6.3 Improved efficiency		3	3	3	3	3	1	3	3	2	3	3	1	3	3	2	5	3	1
<b>7 Operational Management</b>	<b>12.5%</b>	0.4	0.4	0.4	0.4	0.4	0.1	0.4	0.3	0.4	0.5	0.6	0.2	0.4	0.4	0.3	0.5	0.5	0.2
7.1 Improved service coordination		3.0	3.0	3.0	3.0	3.0	1.0	3.0	2.7	3.0	4.3	4.7	1.7	3.0	3.0	2.3	4.3	4.0	1.7
7.2 Communication & teamwork		3	3	3	3	3	1	3	3	3	5	5	1	2	2	1	5	4	1
7.3 Impact of construction		3	3	3	3	3	1	3	2	3	5	5	1	3	3	2	4	4	2
<b>8 Development &amp; Implementation</b>	<b>0.9%</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8.1 Investment / change management effort		3.0	3.0	3.0	3.0	3.0	1.0	3.0	3.0	3.0	4.0	4.0	3.0	2.0	2.0	2.0	4.0	4.0	1.0
Cumulative Score	-	60	49	45	66	55	17	95	79	80	115	113	47	111	98	82	140	109	43
<b>Weighted</b>	<b>100%</b>	3.0	2.5	2.3	3.3	2.8	0.9	3.3	2.7	2.7	4.0	3.9	1.6	3.8	3.3	2.7	4.7	3.7	1.5



## **Benefits realisation scoping and feasibility – Interview protocol**

### **EXAMPLE QUESTIONS**

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#### **Interviewee general information**

1. What is your role in the organisation?
2. How long have you been involved with the project and to what capacity?

#### **General contextualisation**

3. How is the project organised?
4. What is the current state of the development?
5. How do you describe a successful healthcare infrastructure project?
6. What do you think are the main strengths of this project?

#### **Perception of stakeholder engagement**

7. How are the requirements of the stakeholders involved captured and taken through the process?
8. How do stakeholders participate in decision-making?
9. Are there any advantages or disadvantages at the early or late involvement of stakeholders?
10. How is information available for decision making process captured and communicated?

#### **Perception regarding benefits realisation**

11. What is your understanding of a benefits realisation process?
12. What are your expectations regarding its outcomes?
13. What do you think are the main challenges for adopting a benefits realisation approach?
14. Who do you think needs to be involved in such an approach?
15. How do you think a BR approach will help improve the current process?

### **Project milestones**

16. Strategy and bidding process (e.g. business case, Gateway reviews, DoH approvals, financial close, etc.)
17. Service design process (e.g. development of care models, design evaluation options, etc.)
18. Building design process (e.g. requirements capture, design process, design approvals, etc.)
19. Construction process (e.g. beginning of construction, completion, gateway reviews, etc.)
20. Post-occupancy evaluation

### **Project's current development and delivering process perception**

21. Process Weaknesses (negative aspects, difficulties)
22. Process Strengths (positive aspects)
23. What needs to change in the process?

## **Appendix III – BeReal process templates**

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### **Index**

**III.1** Benefit elicitation (Workshop Input) – used in strategy alignment and elicitation

**III.2** Elicited benefits list (Output Matrix) – generated in elicitation and used in all phases

**III.3** Benefits segmentation matrix – generated in elicitation and used in all phases

**III.4** Benefits profile (individual) – generated in elicitation phase and used in all phases

**III.5** Benefits weighting and ranking matrix - for optioneering




**III.6** Option selection based on benefits elicited - for optioneering

Workshop date:		Input by:				
Benefits	Description	Stakeholder		Measure	Enabler	
		Actor	Beneficiary			
Name the benefit	Describe the benefit	Who needs to act to deliver the benefit	Who will be the main recipient	Identify potential measure	Proposed change needed	

<b>Project:</b>		<b>Project Owner:</b>	
<b>Release Date:</b>		<b>Input By:</b>	
<b>Benefit Ref.</b>	<b>Benefits Classification</b>	<b>Outcome or further benefit (Intermediate benefits related to one another)</b>	
	<i>Benefit Phase:</i>	<i>Project STAGE:</i>	
<b>Elicited Benefits List</b>			
<b>A.00 Strategic Benefit Group Name:</b>			
A.01	Strategic Benefit	Further detail on benefit, i.e description, definition agreed by stakeholders	
A.02			
A.03			
A.04			
A.05			
A.06			
<b>B.00 Strategic Benefit Group Name:</b>			
B.01	Strategic Benefit	Further detail on benefit, i.e description, definition agreed by stakeholders	
B.02			
B.03			
B.04			
B.05			
B.06			
B.07			
<b>C.00 Strategic Benefit Group Name:</b>			
C.01	Strategic Benefit	Further detail on benefit, i.e description, definition agreed by stakeholders	
C.02			
C.03			
C.04			
C.06			
C.07			

**Legend:**  Received  Confirmed  Proposed



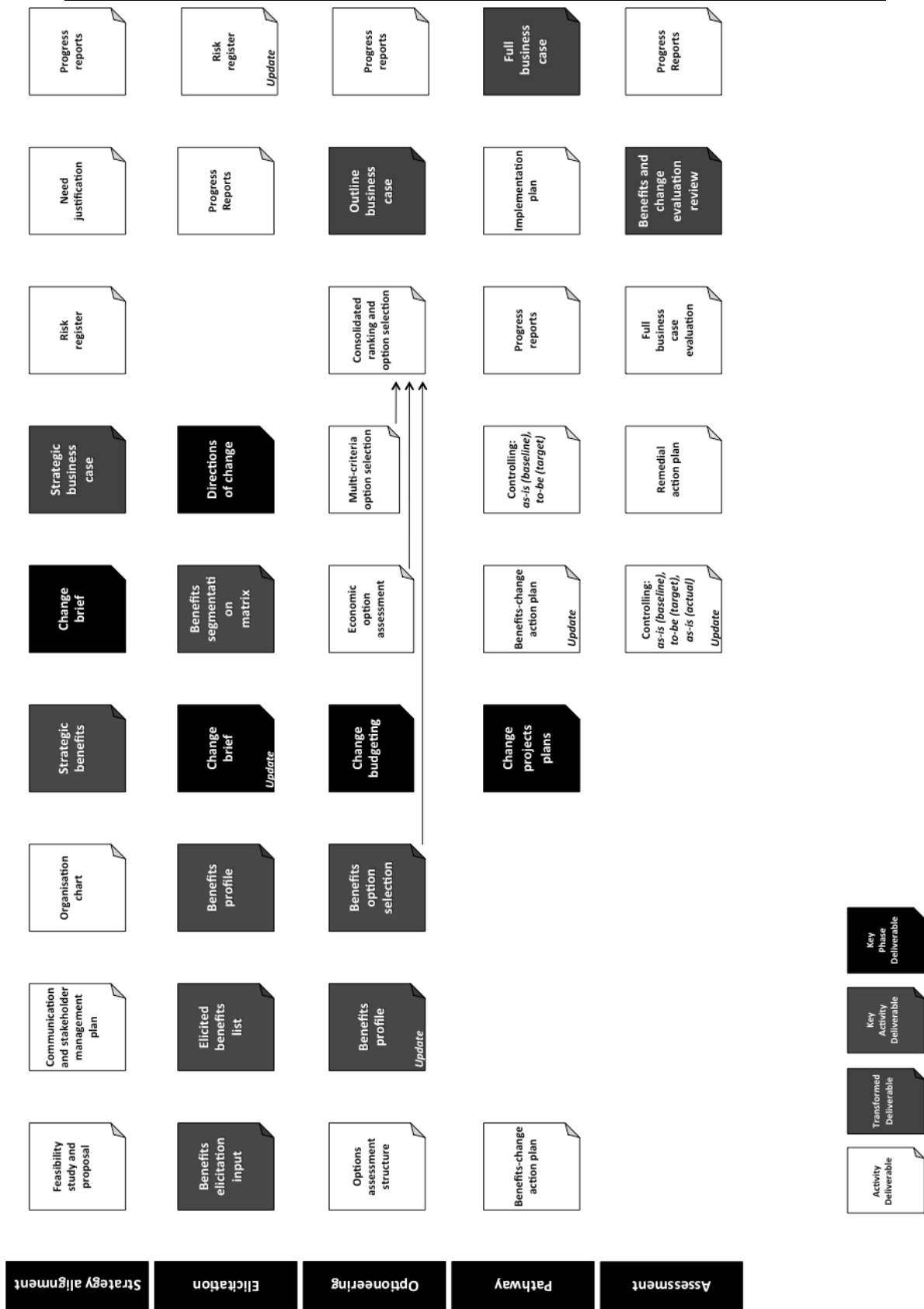
Improved Patient Experience						
<b>Strategic Objective</b>	Improved Patient Services				<b>Benefit Id</b>	A1
<b>Programme</b>	MAST LIFT - Wave 1A					
<b>Owner</b>			<b>Details</b>			
Detailed Description of Benefit						
More appropriate access to service, Improved customer service topatients, better physical environment, seamless transfer between different services and organisations						
Benefit Value Type	Tangible		Intangible			
	Definite	Expected	Anticipated		Intermediate	Final
Stakeholder(s)						
<b>Investors</b>			<b>Beneficiaries</b>			
Clinical Teams			Patients			
Service Planners			Service Users			
Dependencies						
Benefit Id	Benefit Title		Contribute to	Result of	Owner	
B3	Removal of Backlog Maintenance			v		
D3	Reduced Absences			v		
<b>Impact on Other Strategic Objective</b>			D Improved Staff Satisfaction			
Business Change Required						
<b>Process</b>						
<b>Culture</b>						
<b>People</b>						
<b>Policy</b>						
Benefit Measurement						
<b>Measurement Description</b>			<b>Tracking Method</b>		Patient Satisfaction Questionnaire	
<b>Start Date</b>			<b>End Date</b>			
Threshold / Target	(Period)	Achieved	(Period)	Achieved	(Period)	Achieved
						
						
						
Criteria		Method		Source		
Improved Rate of DNA		Data Analysis		PCT Data		
Reduced number of Complaints/ Increased Compliments		Data Analysis		PCT Data		
Less Waiting Times						
<b>Cost</b>						
<b>Risks/Issues to realisation</b>						
<b>Projects Related</b>						
<b>KPIs Affected</b>						
Supporting comments or description of benefit assessment						
Benefit Action LogBook						
Date	Action		Outcome		Actionee	

Strategic Benefits & Sub-Benefits		Benefits Weighting 100%	Project Options: Global score:	A	B	C	D	.../...	Comments	Graphic Representation	
<b>A. Improved Users Experience</b>		<b>11</b>	<b>20%</b>	<b>Score/calculus &gt;&gt;</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	Please see additional segmentation details on TBR.2.02	
A.01	Improved patient service	1.8%	Calculus >>	0	0	0	0	0			
A.02	Improved user (excluding patient) service	1.8%	add 1-5 valuation >>								
A.03	Better Access to facilities	1.8%	add 1-5 valuation >>								
A.04	Greater privacy	1.8%	add 1-5 valuation >>								
A.05	More services in 1 place (Co-location)	1.8%	add 1-5 valuation >>								
A.06	Greater Access	1.8%	add 1-5 valuation >>								
A.07	Improved health outcomes	1.8%	add 1-5 valuation >>								
A.08	New Services	1.8%	add 1-5 valuation >>								
A.09	Less time waiting	1.8%	add 1-5 valuation >>								
A.10	Care closer to home	1.8%	add 1-5 valuation >>								
A.11	Increased patient choice	1.8%	add 1-5 valuation >>								
<b>B. Time (Faster Delivery), Cost (Lower), Quality (Improved Development)</b>		<b>9</b>	<b>20%</b>	<b>Score/calculus &gt;&gt;</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	Please see additional segmentation details on TBR.2.02	
B.01	Faster Procurement (from concept to construction)	2.2%	Calculus >>	0	0	0	0	0			
B.02	Faster delivery (from construction to operation)	2.2%	add 1-5 valuation >>								
B.03	Removal of backlog maintenance	2.2%	add 1-5 valuation >>								
B.04	Reduce service interruption	2.2%	add 1-5 valuation >>								
B.05	Predictability of time cost delivery	2.2%	add 1-5 valuation >>								
B.06	Optimise actual time cost delivery	2.2%	add 1-5 valuation >>								
B.07	Flexibility and future proofing	2.2%	add 1-5 valuation >>								
B.08	Cost savings due to co-location	2.2%	add 1-5 valuation >>								
B.09	Lower total running costs	2.2%	add 1-5 valuation >>								
<b>C. Contribution to Regeneration</b>		<b>7</b>	<b>20%</b>	<b>Score/calculus &gt;&gt;</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	Please see additional segmentation details on TBR.2.02	
C.01	Investment into deprived areas	2.9%	Calculus >>	0	0	0	0	0			
C.02	Higher local employment	2.9%	add 1-5 valuation >>								
C.03	Improved community facilities	2.9%	add 1-5 valuation >>								
C.04	Improved economic activity	2.9%	add 1-5 valuation >>								
C.05	Sustainable environment (economic)	2.9%	add 1-5 valuation >>								
C.06	Sustainable environment (social)	2.9%	add 1-5 valuation >>								
C.07	Better links with other services – "cause and effect"	2.9%	add 1-5 valuation >>								
<b>D. Improved Staff Satisfaction</b>		<b>6</b>	<b>20%</b>	<b>Score/calculus &gt;&gt;</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	Please see additional segmentation details on TBR.2.02	
D.01	Better Partnership/ Continuous Improvement	3.3%	Calculus >>	0	0	0	0	0			
D.02	Better working environment	3.3%	add 1-5 valuation >>								
D.03	Incentives	3.3%	add 1-5 valuation >>								
D.04	Reduced absences	3.3%	add 1-5 valuation >>								
D.05	Increased career prospects	3.3%	add 1-5 valuation >>								
D.06	Increased training opportunities	3.3%	add 1-5 valuation >>								
<b>E. Better Partnership/ Continuous Improvement</b>		<b>4</b>	<b>20%</b>	<b>Score/calculus &gt;&gt;</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	Please see additional segmentation details on TBR.2.02	
E.01	People working together on many schemes (Greater understanding, reduced cost and time) (Better Relationships, Less	5.0%	Calculus >>	0	0	0	0	0			
E.02	Increased quality between schemes	5.0%	add 1-5 valuation >>								
E.03	Value for Money Improvement from Scheme to Scheme	5.0%	add 1-5 valuation >>								
E.04	Access to finance	5.0%	add 1-5 valuation >>								
Strategic benefits (number):		5	Legend:		Strategic benefits (see column "C")					<b>Summary of Data</b> Improved Users Experience 20% Time (Faster Delivery), Cost (Lower), Quality (Improved Development) 20% Contribution to Regeneration 20% Improved Staff Satisfaction 20% Better Partnership/ Continuous Improvement 20%	
Sub-benefits (Number):		37			Sub-benefits (see column "D")						
Strategic benefits and Sub-benefits (number):		42									





## Appendix IV – BeReal process deliverables flowchart



## **Appendix V – BeReal process Information Technology platform**

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The BeReal information technology platform deploys three main tools:

- A Website
- A Knowledge sharing database
- Implementation toolkit

### *The website*

An open public access source through a website tool providing information about the BeReal process and related topics

### *Knowledge Share Database*

This knowledge database tool is designed to provide stakeholders with general information about benefits management related topics and project dedicated directories for authorised stakeholders

### *Implementation toolkit*

The web based Implementation toolkit enables BeReal operationalisation, contributing to virtual and collaborative working environment amongst authorised stakeholders. Key functionalities include:

- Characterise benefits through benefit profiles, combining a definition, cost, value, ownership, etc.
- Upload and manage project plans (activities and resources) and ability to link these with benefits.
- Account, monitor and report on benefit realisation performance.
- Provide a visual/graphical representation of benefit status in relation to the project plan adherence.

- Developed training materials and customised templates enabling BeReal process seamless implementation.
- A generic benefits library to be used in different projects.
- Users activity tracking and approval routes.

Home Admin About  
Current Location: Home

### Programmes & Projects List

New to the tool? Check out the [tutorial](#) .

ID	Programme Name	Projects	
		ID	Project Name
PG.28	MaST LIFT	PJ.11	Douglas Green Energoise Healthy Living Centre
		PJ.13	Test Project
		PJ.24	new project
		PJ.30	Transformation programme
PG.31	Northwest Hospital 1	PJ.14	Test Project
PG.32	Nurse Master Class	PJ.16	A Sample Project
PG.35	Brighton	PJ.17	Improved ward environment
PG.39	Brighton & Sussex University Hospital NHS Trust	PJ.22	3Ts redevelopment

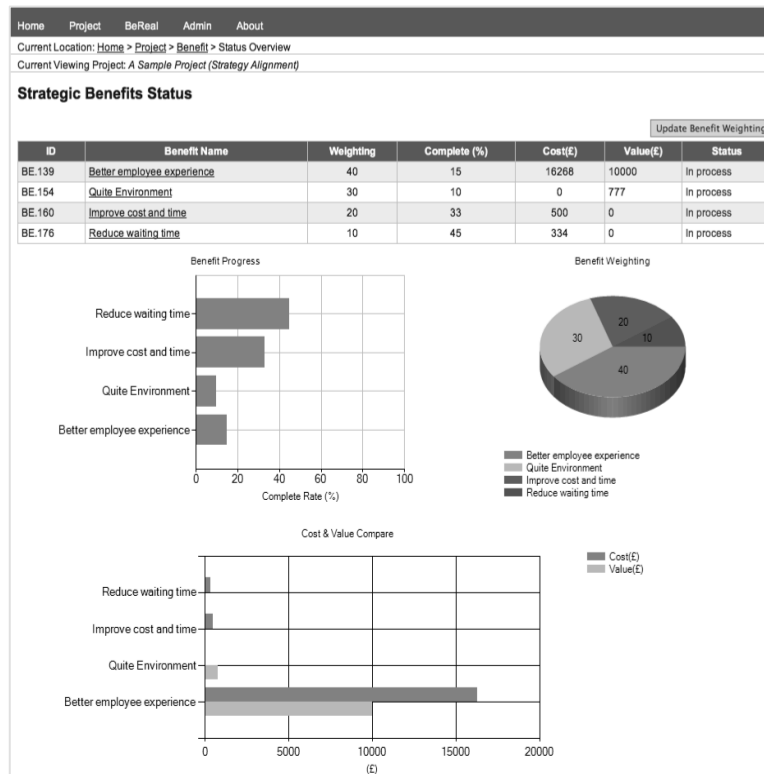


Figure 46: IT Toolkit Programme and Project management view and benefits dashboard

## **Appendix VI– Publications and activity by the author related to this thesis**

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### **Publications**

Sapountzis, S., Lima, J., Yates, K., and Kagioglou, M. (2011) 'BeReal: A benefits realisation process, From planning to delivery: effective benefits realisation' a Consultative guide, The University of Salford, ISBN 978-1-907842-16-0, Manchester, UK

Sapountzis, S., Yates, K., Lima, J., and Kagioglou, M. (2010) "Benefits realisation: Planning and evaluating healthcare infrastructures and services" in Kagioglou, M. and Tzortzopoulos, P. eds, *Improving healthcare through Built Environment Infrastructure*. Wiley-Blackwell, Oxford, UK, pp 166-195

Tillmann, P, Tzortzopoulos, P, Sapountzis, S and Formoso, C (2010), 'Gestao de beneficios na etapa de projecto em empreendimentos hospitalares do reino unido [Managing benefits in the design of healthcare facilities in the UK]', *Gestão & Tecnologia de Projetos*, 5 (1) , pp. 109-132

Sapountzis, S., Yates, K. and Kagioglou, M., Aouad, G., (2009) "Realising Benefits for Primary Healthcare Infrastructures", *Facilities*, Vol.27 No.3/4, pp.74-78, March,

<http://www.emeraldinsight.com/journals.htm?articleid=1774828andshow=html>

Tillman, P., Sapountzis, S., Tzortzopoulos, P., Formoso, C.T. (2012) "A Case Study On Benefits Realization And Its Contributions For Linking Project Outputs To Outcomes" *Proceedings of 19th Annual conference of International Group of Lean Construction*, July 17 - 22, 2012, San Diego, California, USA

Rooke, J. A, Hamblett, K. T, Sapountzis, S., Lima J. B., Yates, K., Kagioglou, M. (2010), “Developing and implementing strategy for benefits realisation” – HaCIRIC 10 September

Rooke, J. A, Sapountzis, S., Koskela, L., Codinhoto, R., Kagioglou, M. (2010) “Lean Knowledge Management: the problem of value”, Proceedings of 18th Annual conference of International Group of Lean Construction, Technion, Israel institute of Technology, Haifa, Israel, July 14-16, pp 12-21, ISBN 978-965-555-495-3

Tillmann, P.A., Sapountzis, S., Tzortzopoulos, P., Formoso, C.T. (2009) “O processo de projeto em empreendimentos gerenciados por benefícios”, Simpósio Brasileiro de Qualidade do Projeto no Ambiente Construído (SBQP 2009), November 18-20, 2009

Yates, K., Sapountzis, S. Lou, E.C.W. and Kagioglou, M. (2009) “BeReal: Tools and Methods for Implementing Benefits Realisation and Management”, Proc. 5th Nordic Conference on Construction Economics and Organisation, Reykjavík, Iceland, 10-12 June 2009, 1, 223 –

Yates, K., Barreiro – Lima, J., Sapountzis, S., Tzortzopoulos, P. and Kagioglou, M. (2009) “BeReal Benefits realisation model integrated approach: The Built environment lifecycle and organisational views”, 2nd HaCIRIC Symposium, Brighton.

Sapountzis, S., Harris, K. and Kagioglou, M. (2008), “The need for Benefits Realisation – Creating a benefits driven culture in UK’s Healthcare Sector”, 1st HaCIRIC Symposium

“Redefining healthcare infrastructure. Integrating services, technologies and the built environment, 3-4 April 2008, London, UK

Sapountzis, S., Harris, K. and Kagioglou, M. (2008) “The development of a Benefits Realisation Management Process to drive successful programmes and projects”, in Pantouvakis, J.P. (editor) (2008) «Proceedings of the Joint Fourth

Scientific Conference on Project Management (PM-04) & the First IPMA /MedNet Conference - Project Management Advances, Training & Certification in the Mediterranean», May, 29-31, Chios, Greece, ISBN 978 960-254-677-2

Harris, K. A, Sapountzis, S., and Kagioglou, M. (2008) “The methodological development of a Benefits Realisation Management Process (BRMP) in the case of Manchester, Salford and Trafford (MaST) Local Improvement Finance Trust (LIFT)”, 8th BuHu International Postgraduate Research Conference, June 26 -27 Prague, Czech Republic

Sapountzis, S., Harris, K. and Kagioglou, M. (2007) “Benefits Realisation Process for Healthcare”, International SCRI Symposium, March 2007, Salford, UK.

### **Presentations Keynote addresses/invited lectures**

Invited lectures on benefits realisation and BeReal for the academic programme ‘Construction management’ at the School of the built environment, the university of Salford, for the academic years 2010 to 2013.

‘BeReal from planning to delivery an effective benefits realisation process for Procure 21+’ Presentation to the P21+ advisors, Quarry House, Leeds Department of Health, 14 March 2011

“BeReal and the Gateway Review process” Keynote presentation at the Gateway Reviewers forum, 22 November 2010, London and 29 November 2010, Leeds, invited by the Department of Health, Head of Gateway Reviews

“The development of a Benefits Realisation Management Process to drive successful programmes and projects”, Conference Paper Presentation in the Joint Fourth Scientific Conference on Project Management (PM-04) & the First IPMA /MedNet Conference - Project Management Advances, Training & Certification in the Mediterranean», Chios, Greece 30<sup>th</sup> May 2008

“Performance Measurement and Management within Healthcare Projects”, Conference Paper Presentation in Joint Fourth Scientific Conference on Project Management (PM-04) & the First IPMA /MedNet Conference - Project

Management Advances, Training & Certification in the Mediterranean», Chios, Greece 29<sup>th</sup> of May 2008

BeReal and LIP @ LIFT & Community Hospitals Knowledge Transfer Programme Launch, Hilton Hotel, Park Lane, London 21<sup>st</sup> May 2008

Benefits Realisation Management Process – An Introduction, North West Ambulance Service, Programme board, NHS Trust Headquarters, Ladybridge Lane, Bolton 23<sup>rd</sup> of April 2008

Benefits Realisation and Health Impact Assessment master class. Organised by Community Health Partnerships, The Lowry Conference room, University House, 4<sup>th</sup> of March 2008

Benefits Realisation: Good Idea, but how? The NWeGG , Project and Programme Managers Forum. The Woodlands Centre, Southport Road, Chorley, 30<sup>th</sup> March 2008

Keynote Presentation on Benefits Realisation for Healthcare at Sigma BR Practitioners Forum, the Institute of Directors, 116 Pall Mall, London – 28<sup>th</sup> November 2007

Benefits Realisation Process and PMS at Manchester City Council, Heron House, Manchester, 11<sup>th</sup> of April 2007

Benefits Realisation – Tribal Consulting Health Planners Meeting, London, 15<sup>th</sup> of June 2007

Benefits Realisation in Primary Healthcare infrastructure- Partnerships for Health Board of Directors, London- 19<sup>th</sup> of April 2007

International Research Week, the Lowry, Salford Quays. Presented paper Benefits Realisation Process for Healthcare at the SCRI symposium day 27<sup>th</sup> of March 2007