Paper G

UHL Strategic Reconfiguration Business Cases

Name of Business Case:	**ICU ENABLER 1** **Vascular Ward Full Business Case**
Forum:	**July 30th 2015 Integrated Finance, Performance & Investment Committee** **August 7th 2015 Trust Board**
Checklist Completed by:	**Nicky Topham**
Project SRO:	**Kate Shields**

Confirm Commissioner support:	NHS England, as part of their regional vascular review, have instructed ULHT to identify and partner with a specialist vascular centre (Level I) to support on-going local care. ULHT have undertaken a selection process and confirmed UHL as their preferred partner going forward. This arrangement secures new patient pathways to UHL for the more complex patients; the hybrid theatre development will make sure that UHL will be able to accept all tertiary referrals. UHL are having similar discussions with the team at NGH who have agreed to formalise referral pathways to UHL for their complex patients – this arrangement fits with the stated local and national commissioning direction and will be confirmed with commissioners once the detail has been agreed.
Confirm Stakeholder support:	The communications plan identifies the direct involvement of health partners in the project; and the future involvement & engagement with external stakeholders including Healthwatch and the general public. Stakeholder engagement is identified in section 6.4 of the case.

		Business Case Section Reference
What is the purpose of this project?	This Full Business Case (FBC) is for the proposed development of the new vascular ward at Glenfield Hospital. The development is the first key enabler of the relocation of level 3 adult critical care services	Strategic Case 1.1

		Business Case Section Reference
	within UHL. The IFPIC and Trust Board will be requested to consider and approve a business justification case for the move of level 3 adult critical care services off the LGH, in order to have assurance that the vascular cases are being considered and approved in the context as key enabling moves for the Intensive Care Unit (ICU). The ICU Business Justification identifies that it will be unviable to maintain the current level of critical care service at the LGH. This has been driven by the Trust's inability to sustain a workforce at the LGH past July 2016. Whilst the move of vascular services is expedited as a key enabler for the ICU move, the move of vascular services: • forms part of the trust's clinical strategy, • aligns with the UHL five year plan and is included in the trusts 5 year reconfiguration capital programme • is an essential move in order to maintain designation as a National Specialised Service.	
Why is it being carried out?	1. This is a key enabler for the move of ICU level 3 beds off the LGH. It vacates ward 21 at the LRI which will be used to repatriate ICU dependant services off the LGH 2. The move of vascular services to the GH is essential for the following reasons: a. Ensures the long term sustainability of vascular services - National Specialised Services re-designation is on-going, UHL need to attain Level One to maintain activity/reputation, this move will support this with: i. Closer working relationships with Cardiothoracic Services	Why are we doing it? section 1.2.1

		Business Case Section Reference
	ii. Enables the development of a thoracic aortic disease centre with an integrated endovascular, vascular and cardiac surgical team - an increasingly important source of revenue for the trust b. Increasing vascular activity due to greater prevalence of vascular disease –project provides an increase in in-patient beds	
What are the key assumptions in this business case?	Leaving the services at the LRI (the 'Do Nothing' option) is not a viable option for this project. Future designation of vascular services is dependent upon the co-location of Cardiology/Cardiothoracic services. The ICU cases are predicated on the vacation of the vascular ward at the LRI. There is an increased workforce of 33.42wte, driven mostly by the provision of an emergency theatre and supporting anaesthetics rota, whilst still maintaining the position at the LGH	OBC Options Appraisal section 3.2 Income & Expenditure section 5.3 table 21

What are the Benefits?		**How will it be measured?**	**Business Case Section Reference**
To the patient	1. Co-location with cardiology/ cardiothoracic services will reduce journeys for cardiac patients who currently travel from GH to LRI for scans 2. Better patient experience through improved and optimised pathways including reductions in readmissions 3. Positioned as pre-eminent total Cardiovascular Institute serving the region and beyond	1. Patient Satisfaction / Activity Data 2. Patient Satisfaction / Friends & Family Test 3. Re-designation	What benefits will it bring? Section 1.2.2 Investment Objectives, Key Deliverables & Benefit

What are the Benefits?		How will it be measured?	Business Case Section Reference
		as Level One service	Criteria Table 7 section 2.15
To UHL	1. Vacates ward capacity at the LRI - is the 1st enabler to relocating ICU level 2 services off the LGH 2. Aligns with the UHL five year plan, clinical strategy and estates development plan 3. Ensures the long term sustainability of vascular services – this move is essential for the re-designation of vascular services, allowing continuity in the provision of services and the ability to become a thoracic aortic disease centre - attracting activity and associated income	1. Vacant ward April 2016. 2. Increased activity	
To LLR	1. Patients remain in LLR for all treatment – keep funding in the local health economy	Increased activity	

		Business Case Section Reference
What is the solution?	This business case supports the creation of a new 28 bedded inpatient ward - with the co-location of cardio-vascular services. This is supported by detailed activity modelling and new patient pathways. The Vascular Ward will be on the 1st Floor of the Glenfield Hospital, placed to optimise all essential clinical adjacencies. It will use ward 23, a 'live' clinical in-patient ward, and an adjacent disused administration and laboratory area. The design brief was based on the outputs of the Vascular Operational Policy and the Schedule of	The design solution section 3.3.1

		Business Case Section Reference
	Accommodation documents. The Vascular in-patient facility will be based on a generic ward design to enable future flexibility but attention has been given to the nature of the specialty particularly from in Infection Prevention perspective. The key objective is to provide a facility where clinical teams can provide efficient and effective care in a facility that engenders calm and healing.	
What options have been considered?	At OBC stage a number of options were considered for the vascular service as a whole, however all options identified that the ward would be located in ward 23.	OBC Options Appraisal Section 3.2
Are there any material deviations to recommended standards?	The vascular ward design has been based upon HBN guidance. The design has derogated with bed space HBN guidance however the design complies with UHL Infection Control standards and has been signed-off by the Infection Prevention team. These derogations were approved by the Project Board.	Estates Annex Appendix 3
How will it be implemented?	The project will be managed in accordance with the principles of PRINCE2 methodology. The project managers will have support from the capital projects team, and external consultants.	Project Plan Section 6.3
Are there any key dependencies?	Internal: The purchase order for this project needs to be placed on Monday 10th August. Whilst discussions are on-going with the NTDA regarding accessing money as part of our capital plan, we need to be able to access capital immediately in order to commence works.	
	External: The long term access to capital will require the NTDA support of our ITFF application to access funds.	
When will it be completed?	Milestone / Date	Project Programme

			Business Case Section Reference
	Finance & Performance Committee support for FBC to be approved by TB	July 30th 2015	section 6.3.1
	Trust Board Approval of FBC	August 6th 2015	
	Construction Commences	October 2015	
	Handover	April 2016	
How much will it cost?	The capital cost of the Vascular Ward is estimated to be £4.2 million outturn (including VAT). The position presented in the FBC shows increased costs of circa £1.5 million. These costs reflect the additional theatre staffing, anaesthetic rotas and angiography staff required at Glenfield Hospital before the Trust configures acute services onto two sites. The majority of these costs are expected to be saved in 2019/20. The revenue costs reflect a worst case scenario position. All areas of revenue cost that have been included within the cases so far will require further confirmation and challenge. For medical staffing this process will be undertaken by Andrew Furlong and John Jameson, and for nursing staff this will be supported by Julie Smith. This process will test that; i) The rationale for the need for additional staffing can be evidenced and detailed planning exists to justify the need ii) The need of for extra staff is directly linked to the need to move vascular services off the LRI site iii) Evidence exists that other solutions using the same staff base have been explored in arriving at the final suggested staffing requirement Only when these three key principles can be		Capital Costs section 5.2 Income & expenditure section 5.3

		Business Case Section Reference
	demonstrated may the revenue pressure be agreed.	
Will it be affordable?	The development causes a net recurrent increase in revenue costs of c£200k per annum. There is also a net non-recurrent increase in revenue costs of c£1.3m per annum anticipated between 2016 and 2019 until reconfiguration and site rationalisation is complete. The Trust Financial Strategy, approved by the Trust Board on 4th June 2015, assumes that the operating cost impact of site reconfiguration will be zero and the non-operating costs impact will be as per the capital programme. Therefore, if the Trust is to maintain the deficit reduction trajectory in the Financial Strategy the operating cost revenue impact of this development is only affordable if either: • CIP targets are increased to offset these costs • Transitional income is secured to offset these costs The development is funded by the c£4m per annum allowance made in the Financial Strategy for annual operating cost pressures.	Affordability section 5.5
How will the project contribute to deficit reduction?	The project will: • Help enable the Trust's preferred option to move of acute services off the Leicester General Hospital which is key to eliminating the structural deficit. • Help increase market share with co-location to cardiac services and improved facilities for undertaking quaternary activity	

		Business Case Section Reference
How have patients been involved?	During July/August 2013 a public engagement / consultation exercise was undertaken with both patients and members of staff to assess support for the Trust's plans for a single site take for Surgery. In addition there were specific questions relating to the vascular services transfer. Both paper and online surveys were undertaken which supports this approach.	Stakeholder Engagement section 2.14 & 6.5
What external assurance has been obtained?	A Health check level 3 review was undertaken on the 6-8th July, formally known as a Gateway Level 3, on the vascular and ICU projects. The outcome of this was an AMBER rating reflecting that successful delivery appears feasible but issues require management attention. The issues appear resolvable at this stage of the programme/project if addressed promptly. With regards to the vascular projects, whilst the review team supported the need to create a cutting edge and comprehensive centre for cardio-vascular medicine and research on a single site at Glenfield, they were concerned that the capital and workforce costs needed to be finalised prior to submission to IFPIC. These are now final as reflected in the FBC.	External review section 6.11

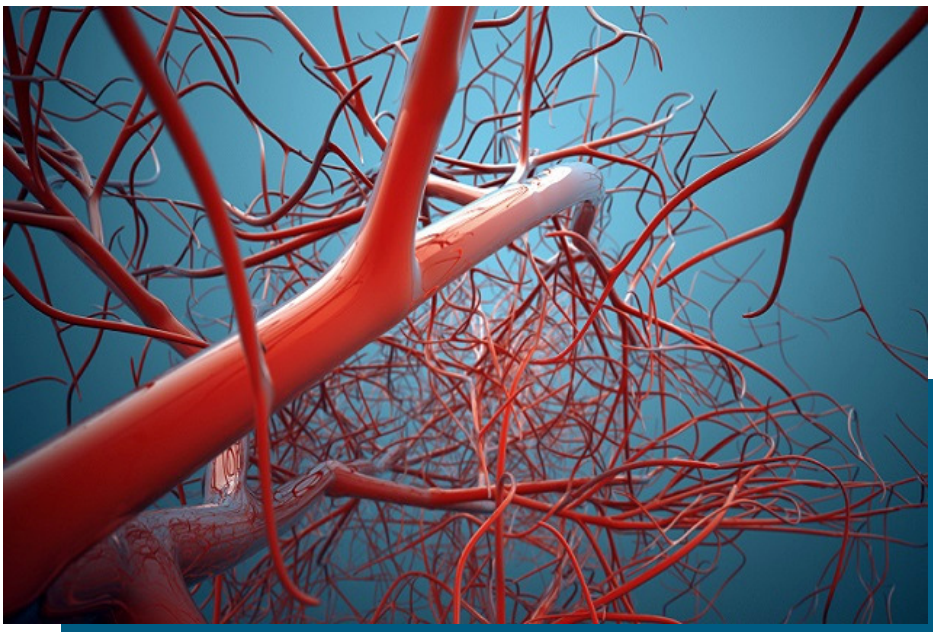
Risks (scoring over 15) & Mitigations			**RAG**	**Business Case Section Reference**
Financial	Inability to secure necessary funding / funding shortfall. Purchase order needs to be raised by 10th August to maintain programme.	Discussion with the NTDA, the Executive Team, IFPIC and Trust Board to access funds from trust capital programme whilst the funding application process progresses to	15	

Risks (scoring over 15) & Mitigations			RAG	Business Case Section Reference
		obtain external funds. This business case needs to be approved to obtain access to funding via ITFF application.		
Operational	The challenging programme does not allow for delay in the construction programme. The impact of delay past April 2016 would risk delivery of the ICU move by July 2016.	At this point the programme is deemed to be achievable, but will be monitored closely.	15	
Workforce	None scoring over 15			
Estates	Unforeseen Asbestos within existing fabric of existing building.	A contingency plan will be developed.	16	
Equipment & Procurement	None scoring over 15			
Comms & Engagement	None scoring over 15			
Stakeholder Ownership	None scoring over 15			
Project Delivery	None scoring over 15			
IM&T	None scoring over 15			
Training	None scoring over 15			

RAG Rating Key for Risks

Probability			Impact: Very Low	Low	Medium	High	Very High
			1	2	3	4	5
Very Low	1		1	2	3	4	5
Low	2		2	4	6	8	10
Medium	3		3	6	9	12	15
High	4		4	8	12	16	20
Very High	5		5	10	15	20	25

University Hospitals of Leicester NHS
NHS Trust



Full Business Case

ICU Enabler 1: Vascular Ward Transfer

July 2015

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Building Caring at its best

Document Quality Management

Title	ICU Enabler 1: Vascular Ward Transfer Full Business Case
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Document History

Version	Date Issued	Brief Summary of Change	Author
1.0	2/06/15	Separation of Vascular OBC/FBC to component parts to accelerate delivery	NJ
1.1	15/06/15	Revision of narrative	NJ
1.2	26/06/15	Revision to include approval structure	NJ/AF
1.3	8/07/15	Economic appraisal refresh	TP/NJ
1.4	13/07/15	Refresh of finance and economic sections	TP/NJ
1.5	13/07/15	VAT reclaim table	NJ
1.6	22/07/15	Formatting update and content review	AF
1.7	23/07/15	Addition of final narrative, check of referencing and final formatting	AF
1.8	23/07/15	Content update review	NT
1.9	31/07/15	Financial updates following IFPIC review	TP

Glossary of Terms

Abbreviation	Full Heading
ALOS	Average length of stay
BCT	Better Care Together
BREEAM	Building Research Established Environment Assessment
BRU	Biomedical Research Unit
CCG	Clinical Commissioning Group
CDM	Construction, Design Management
CMG	Clinical Management Group
DCP	Development Control Plan
DH	Department of Health
DQI	Design Quality Indicator
EVAR	Endo-Vascular Arterial Repair
FBC	Full Business Case
FOT	Fore-cast Out-turn
FM	Facilities Management
GEM	Generic Economic Model
GH	Glenfield Hospital
GMP	Guaranteed Maximum Price
H&S	Health & Safety
HBN	Hospital Building Notes
HTM	Hospital Technical Memorandum
I&E	Income & Expenditure

Abbreviation	Full Heading
IBP	Integrated Business Plan
IM&T	Information Management & Technology
IP	Infection Prevention
KPI	Key Performance Indicator
LCC	Leicester City Council
LLR	Leicester, Leicestershire & Rutland
LOS	Length of Stay
LPT	Leicester Partnership Trusts
LRI	Leicester Royal Infirmary
LTFM	Long-term Financial Model
MES	Managed Equipment Service
NIHR	National Institute of Health Research
NSF	National Service Framework
NTDA	NHS Trust Development Authority
OBC	Outline Business Case
OJEU	Official Journal of the European Union
OSC	Overview Scrutiny Committee
PPE	Post Project Evaluation
PPI	Patient Public Involvement
PSCP	Principle Supply Chain Partner
SOC	Strategic Outline Case
TVAR	Thoracic Endovascular Aortic repair
UHL	University Hospitals Leicester
VFM	Value for Money
VSU	Vascular Studies Unit

Abbreviation	Full Heading
YTD	Year to Date

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Figures and Tables

1 | Executive Summary

1.1 Introduction

This Full Business Case (FBC) is for the proposed development of a Vascular Ward at Glenfield Hospital (GH). The development is the first key enabler of the relocation Level 3 Intensive Care Unit (ICU) off the Leicester General Hospital (LGH) onto the Leicester Royal Infirmary (LRI) and GH.

1.1.1 The ICU Imperative

Whilst there is a good quality and safe Level 3 ICU service at present at the Leicester General Hospital (LGH), the Department of Critical Care Medicine (DCCM) has experienced medical staff recruitment and retention issues across all grades, which will make it unviable to maintain the current level of critical care service in the future. This has been driven by:

- Reduced dependency required within the critical care patient population at the LGH due to previous service moves at UHL. This restricts opportunities for critical care staff to maintain experience in providing care for the most critically ill patients and is a threat to the safety of the service in the near future.
- Due to the acuity of patients, the middle grade rota at the unit at the LGH can no longer be filled with suitable 'trainee' posts. The rota is therefore being filled by higher staff grades at an increased cost.
- Recruitment to substantive consultant intensivist posts at the LGH has been attempted on multiple occasions but has failed, largely due to the loss of training designation and the reduction in patient acuity. A national shortage of experienced critical care nursing and medical staff (coupled with retirement of several existing experienced consultant staff) has compounded recruitment problems.

If the Level 3 ICU beds are not moved, intensive care will be forced to stop at the LGH past July 2016. This will have an immediate impact of UHLs ability to undertake Level 3 ICU dependant surgery at the LGH site and as such surgery will be stopped. The impact will be the need for patients requiring such procedures to travel out of county to other providers. This will have an adverse impact on UHL's reputation and quality of care for patients.

1.1.2 An ICU Enabler

This is a key enabler for the move of ICU off the LGH site. Relocating the vascular ward to the GH frees up key clinical capacity at the LRI site which is required to house the move of ICU dependent specialties relocating from the LGH to the LRI alongside the ICU service.

1.1.3 An Improvement to the Vascular Service

UHL's Vascular Surgery Unit is one of the UK's premier units providing high-quality care for patients with peripheral vascular diseases. It is staffed by a multidisciplinary team of nurses, occupational therapists, physiotherapists, radiologists, anaesthetists and surgeons working to achieve excellent patient outcomes. This is evidenced by both local patient survey data[1]and national audit outcome data[2]. Furthermore, the unit has a strong track-record of innovation and research, from the invention of sub-intimal angioplasty[3] to the early implementation and refinement of endovascular aneurysm repair[4], and more recently leading worldwide collaborative research projects that have both informed clinical care pathways[5] and identified new paradigms for the basis of aneurysmal disease[6].

Despite this record of excellence there are significant challenges facing UHLs Vascular Unit. The provision of many aspects of vascular surgery now falls under the remit of specialised commissioning groups and there is a national move to locate tertiary services in fewer, larger units (level one centres). In order to ensure the long-term survival of the vascular unit and build upon the current success it is necessary to invest in the development of the service and thus place the unit at the forefront of both regional and national contenders to continue providing vascular services. In particular, it is necessary to provide the infrastructure (both material and human resources) to be able to build upon the current tertiary referral practice and develop a quaternary referral practice.

The principal barriers to moving the current service forward are;

- The current location of the service at the Leicester Royal Infirmary site, separate from cardiac and cardio-thoracic surgery, both of which are at the Glenfield Hospital, and
- The lack of ward facilities to further develop inpatient capacity. Both the co-location of vascular surgical services with cardio-thoracic surgery and the provision of all vascular component services (including an inpatient ward) are pre-requisites for the commissioning of complex vascular surgery[7].

[1]Ward 21 Friends and Family Test

[2]Vascular Society of Great Britain and Ireland. National Vascular Registry 2013 Report on Surgical Outcomes, Consultant-level Statistics. http://www.vsqip.org.uk/surgeon-level-public-reporting/ [accessed 1 June 2014].

[3]Recanalisation of femoro-popliteal occlusions: improving success rate by subintimalrecanalisation. Bolia A, Brennan J, Bell PR. ClinRadiol. 1989 May;40(3):325

[4]Endovascular stenting of abdominal aortic aneurysms. Sayers RD, Thompson MM, Bell PR. Eur J Vasc Surg. 1993 May;7(3):225-7.

[5]Surveillance intervals for small abdominal aortic aneurysms: a meta-analysis. RESCAN Collaborators: Bown MJ, Sweeting MJ, Brown LC, Powell JT, Thompson SG. JAMA. 2013 Feb 27;309(8):806-13

[6]Abdominal aortic aneurysm is associated with a variant in low-density lipoprotein receptor-related protein 1. Bown MJ et al. Am J Hum Genet. 2011 Nov 11;89(5):619-27

[7]NHS England. 2013/14 NHS Standard Contract for Specialised Vascular Services (Adults).http://www.england.nhs.uk/wp-content/uploads/2013/06/a04-spec-vascu-adult.pdf [accessed 1 June 2014]..

1.2 Strategic Case

The Trust's vision is to create a comprehensive centre for cardiovascular medicine and research. In moving the vascular surgery unit to the GH site, this brings together not only the clinical services, but also the strong academic components of these services. This will build upon the previous investments in the National Institute of Health Research (NIHR) Leicester Cardiovascular Biomedical Research Unit (BRU) and the British Heart Foundation Cardiovascular Research Centre and strengthen the world-leading position of Leicester as a centre for cardiovascular research excellence.

1.2.1 Why are we doing it?

- A key component and enabler of the level 3 ICU moves will be the transfer of Vascular Services from the Leicester Royal Infirmary (LRI) - it vacates acute inpatient bed base at LRI in anticipation of the single site take for surgery project.
- The co-location and integration with cardiology/ cardiothoracic surgery services at the GH will establish a dedicated vascular inpatient service on one site.
- It will transform the scope and quality of vascular service for both patients and staff and support UHL's ambition to be recognised as a Level One regional centre for complex endovascular services through closer working relationships with Cardiothoracic Services.
- Vascular activity is increasing due to greater prevalence of vascular disease.
- The ongoing National Specialised Services re-designation creates a need for the Trust to attain Level One to maintain its activity/reputation.
- It ensures the long term sustainability of vascular, cardiac and cardiology services – no change in the current service provision would result in a major risk of loss of designation and the secondary effects of this on cardiovascular services as a whole.
- A key consideration for future designation as a thoracic aortic disease centre will be the requirement for an integrated endovascular, vascular and cardiac surgical team. The development of an integrated aortic disease service will form an increasingly important source of revenue for the Trust as other procedures e.g. coronary artery bypass grafts (currently 50% of income) declines
- It increases the acute inpatient bed base at Glenfield Hospital, recognising its position as a provider of specialist care.
- It aligns with the Trust's Five Year Integrated Business Plan, Clinical Strategy and Estate Development Strategy.

1.2.2 What benefits will it bring?

- A comprehensive programme to clinically manage and surgically treat patients with aortic pathology, which is a primary aim of the cardiac, thoracic and vascular surgeons and is reflected in the Five Year IBP to be realised in the next two years.
- Cost Efficiencies through streamlined patient processes
- Future-proofed, updated facilities
- Better quality and safety of care provided
- First step in Trust's strategy towards achieving a two site solution
- Enhanced staff recruitment, development and retention
- Alignment of clinical and research facilities on the GH site. Cardiovascular research has been a major strength of the Leicester Medical School, University of Leicester (UoL) since its inception. This was recognised through the award of a National Institute of Health Research (NIHR) Biomedical Research Unit (BRU) in cardiovascular disease to a partnership between UHL and UoL. The BRU has state of the art facilities for clinical research on the GH site. The opening of the £12m Cardiovascular Research Centre (CRC) at GH further re-enforces the centralisation of services on the GH site

1.2.3 Can we afford it?

- The capital costs are £4.19m. This is accounted for in the Trust's approved Capital programme over the next two financial years.

1.3 Economic Case

The options appraisal process at OBC stage was combined across all components of the vascular service move. This FBC sets out the details for the preferred option for the Vascular ward, which comprised:

- Option A – refurbishment of existing space on the first floor at Glenfield Hospital.

Since OBC, capital costs have marginally changed, and as a result of a review of revenue costs the overall financial position of the scheme is improved over that shown in the OBC. Examined in the context of the overall Vascular capital costs, there is no circumstance where the other options in the OBC options appraisal would now be preferred to the current option, and as a result of this the options appraisal has not been revisited.

The 'Do Nothing approach' is not a viable solution for this project. Future designation of vascular services is dependent upon the co-location of Cardiology/Cardiothoracic services. The 'Do Nothing' option (i.e. not transferring the service) not only jeopardises the future provision of vascular services at UHL but also impacts upon UHL's site wide reconfiguration programme of which this project is seen as a key enabler.

The creation of a vascular ward facility contributes towards the following service efficiencies:

Table 1 Service Efficiencies

Efficiencies	Measure
Reduced average length of stay (including pre and post-op LOS)	Activity Data
Increase in minimally invasive procedures reduces time spent in Critical Care beds	Activity Data
Co-location with cardiology/cardiothoracic services will reduce journeys for cardiac patients who currently travel from GH to LRI for scans	Patient Satisfaction / Activity Data
Better patient experience through improved and optimised pathways including reductions in readmissions	Patient Satisfaction / Friends & Family Test
Positioned as pre-eminent total Cardiovascular Institute serving the region and beyond	Re-designation as Level One service

1.4 Commercial Case

The project required the provision of, and procurement of one key service:

- Construction services

As part of the FBC development, the Trust decided that the scheme would be procured through UHL's framework partnership with Interserve Facilities Management (IFM) and assigned to Interserve Construction Limited. UHL followed procurement regulations and law to establish the framework which is headed in contract between the Trust and IFM. IFM were appointed following an OJEU process with reference: OJ/S S139, 22/07/2011, 231138-2011-EN.

Under the bespoke framework, Interserve Construction Ltd is appointed as principal contractor for the delivery of projects; commercial arrangements and contracts are pre-agreed to cover commissioning of the business case through to final delivery of the asset using an NEC3 Option C Form of Contract (Target Contract with Activity Schedule). Cost savings are split between the Trust and the Client based on previously agreed percentages which engenders a spirit of partnering and collaboration within the Project Team. The risk of cost overrun is transferred to Interserve once the Guaranteed Maximum Price (GMP) has been agreed and construction stage commenced.

Project risk is dealt with openly from the outset of the project and the client; Interserve Construction Limited and the Design Team are encouraged to take an active role in identifying, mitigating and apportioning risk to the party best suited to deal with it. This should be a proactive process throughout the delivery of the project.

Under the framework, Interserve has:

- Taken single point responsibility to manage the design and construction process from completion of OBC through FBC to project completion

- Assembled a dedicated team from its supply chain of experienced health planners, designers and specialists, to successfully deliver facilities that will benefit patients and staff alike
- Provided benefits of experience of long term partnering arrangements that will continue throughout the life of the project
- Committed to identifying construction solutions that will assist in the implementation of improved service delivery, best practice and delivering best value

Interserve and UHL have worked together through the FBC stage to develop and agree a guaranteed maximum price for delivery of the scheme. This reflects:

- Fees for professional advice such as design and cost management
- Market tested packages for construction works on an open book basis

The GMP will be assessed for overall value for money and affordability by cost consultants acting for UHL (Rider Levett Bucknall - RLB). This will take into account elements such as:

- Prevailing rates for similar works nationally and locally
- Published cost indices
- Knowledge of the cost of work in the hospital from other recent schemes
- Prime contractor and client retained risks as identified in the joint risk register

It was agreed that the development of the GMP would be run in parallel with the development of the Works Information and this would be undertaken in a fully open book / collaborative environment, such that a minimum of three quotations would be obtained for all Works Packages making up at least 80% of the GMP.

Package responses were assessed by Interserve Construction Ltd in conjunction with the Trust's advisors RLB to ensure the 'Best Value' tender was included in the GMP. The assessment was not only based on price but also programme, design/ technical proposals and likely risk. Interserve and RLB agreed a formal assessment proposal for each package. Tenders were benchmarked appropriately.

1.4.1 Equipment Procurement Strategy

At OBC stage it was described that the vascular ward would be a transfer of service from LRI to Glenfield, including a transfer of equipment, and as such would need no capital investment. Further review of the ward requirements has concluded that the transfer of some equipment would not be practical; therefore a nominal component of the equipment budget has been set aside for new equipment. This will be procured via the Trust.

1.5 Financial Case

The financial position of the vascular ward business case shows an additional cost of £1.48 million. This is a result of additional costs being allowed for at the Glenfield Hospital before savings from consolidation of other services can be achieved (assumed to be 2019. This is shown in the following table:

Table 2 Financial Position

Baseline Costs	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Income						
Vascular Tariff	7,493	7,493	7,493	7,493	7,493	7,493
Total Income	**7,493**	**7,493**	**7,493**	**7,493**	**7,493**	**7,493**
Expenditure						
Current Staff	3,699	3,699	3,699	3,699	3,699	3,699
Current Non pay	1,539	1,539	1,539	1,539	1,539	1,539
Current FM costs	102	102	102	102	102	102
Current Support costs	2,757	2,757	2,757	2,757	2,757	2,757
Total Expenditure	**8,097**	**8,097**	**8,097**	**8,097**	**8,097**	**8,097**
Overheads	**2,193**	**2,193**	**2,193**	**2,193**	**2,193**	**2,193**
Total Current Costs	**(2,796)**	**(2,796)**	**(2,796)**	**(2,796)**	**(2,796)**	**(2,796)**
Vascular Move Costs	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Recurrent Costs						
Vascular and Support Staffing		1,495	1,375	1,375	1,375	1,375
Savings as a result of consolidation					(1,255)	(1,255)
Equipment Maintenance			7	7	7	7

Total Recurrent Costs		**1,495**	**1,382**	**1,382**	**127**	**127**
Depreciation & Capital Charges						
Change in Depreciation		9	9	9	9	9
Interest Payable	23	94	95	91	87	83
Change in Rate of Return						
Total Depreciation & Capital Charges	**23**	**103**	**104**	**100**	**96**	**92**
Total Additional Cost	**23**	**1,598**	**1,486**	**1,482**	**223**	**219**

The Trust Financial Strategy, approved by the Trust Board on 4th June 2015, assumes that the operating cost impact of site reconfiguration will be zero and the non-operating costs impact will be as per the capital programme.

Therefore, if the Trust is to maintain the deficit reduction trajectory in the Financial Strategy the operating cost revenue impact of this development is only affordable if either:

- CIP targets are increased to offset these costs
- Transitional income is secured to offset these costs
- The development is funded by c£4m per annum allowance made in the Financial Strategy for annual operating cost pressures.

1.5.1 Capital Costs

The capital costs of the Vascular Ward total **£4,195,289** including forecast out-turn inflation. Below is an analysis of the total costs.

Table 3 Capital Cost Summary

Capital Costs	£
Construction	2,196,856
Fees	470,369
Non Works Cost	352,211
Equipment	70,034

Capital Costs	£
Planning Contingency	118,866
Optimism bias	114,570
Approval Sum	3,322,906
Inflation	872,383
Total	**4,195,289**

The creation of a Vascular Ward facility at GH is a key enabler for the transfer of Level 3 ICU services to LRI and part of the continued development of Vascular services at UHL. As part of the Development Control Plan the cost basis of this move has a 'bigger picture' impact for the Trust.

1.5.2 Workforce Plan

Key to delivery is the development of an appropriate workforce to support activity levels within the ward. The workforce plan has been developed in line with assumptions made in the OBC.

Overall the aim of the workforce plan is to:

- Ensure the appropriate supply and skill mix to staff the theatre
- Ensure the right staffing levels are available to achieve the identified standards and manage surges in activity

1.6 Management Case

The programme anticipating completion is set out below:

Table 4 Project Programme

Milestone	Date
Integrated Finance, Performance & Investment Committee support for FBC to be approved by Trust Board	July 30th 2015
Trust Board Approval of FBC	August 6th 2015
Purchase Order placed for construction	August 10th 2015
Construction Commences	October 2015
Handover	April 2016

The project will be managed using PRINCE 2 compliant methodology and project management tools such as Gantt charting and critical path analysis. Project direction and management will be determined by the Project Board.

1.7 Conclusion

This business case is a key enabler to the realisation of the interim reconfiguration of Level 3 ICU services at UHL, and is central to the vision of co-located specialist and tertiary services on the GH site. This is a key move in the Trust's Five Year Strategy. Each of these objectives link to the long-term strategy of the service and the wider Trust:

- A comprehensive integrated vascular, cardiology and cardiac surgery service to provide the best possible care to our patients with cardiovascular disease.
- Vascular service re-designation; Aortic Service designation
- Increasingly complex activity undertaken generating additional income for the Trust
- Redevelopment and increased capacity providing opportunities for the Trust to fulfil its overall strategic transformation programme
- A safe and robust service for the management of level 3 ICU services at UHL
- On-going business continuity of level 3 ICU services

The costs associated with this service move are:

- Capital Costs: £4.19m(accounted for in approved Capital Programme 14/15 & 15/16)
- Revenue Costs: £1.5m
- Loss of Status without re-designation: not financially quantifiable

The key actions and decisions required to realise this vision are:

- Support for the capital investment
- Support for the additional revenue costs recognising that a significant amount are time-limited

1.8 Recommendation

The Trust Board is recommended to approve this business case

Signed: .....

Senior Responsible Owner

Date:.....

Senior Responsible Owner
Project Team

2 | The Strategic Case

2.1. Introduction

This section sets the strategic case for change, i.e. why the project investment is required, with reference to:

- How it fits with national, local and Trust policies;
- The problems that will be addressed;
- How it will meet Trust needs and objectives;
- How it will realise the outcomes and benefits, as well as the associated risks.

2.1.1. Clinical objectives of the project

- To 'free-up' key clinical space at the LRI site that will form part of the transfer / rationalisation of Level 3 ICU services within UHL.
- To continue to safely provide the best care for the most critically ill patients
- To meet increasing demand for vascular services which is greater than the current capacity can provide. Historic trends in growth suggest a 5% annual growth in vascular services
- Requirement for single site vascular and cardio-thoracic departments that incorporates key adjacencies and presence of diagnostics and medical assessment services. This enables implementation of the developed model of care for adults accessing this service
- Changes in the local and national demographics combined with the Trust's plan to develop a level 1 Vascular Centre for Leicester is impacting on increased demand
- The Trust requires additional capacity to reflect NHS national guidance. The new ward (in–part) reduces the risk of compromising compliance of other standards of care such as quality, infection control, emergency and urgent care standards and commissioning standards
- Redevelopment and increased capacity will provide opportunities for the Trust to fulfil its strategic redevelopment programme

2.2. Structure & Content of the Document

This business case has been prepared using the agreed standards and format for business cases, as set out in DH guidance and HM Treasury Green Book. The case comprises the following key components:

- **The Strategic Case** | This sets out the strategic context and the case for change, together with the supporting investment objectives for the scheme

- **The Economic Case** | This demonstrates that the organisation has selected the choice for investment which best meets the existing and future needs of the service and optimises value for money (VFM)
- **The Commercial Case** | This outlines the content and structure of the proposed deal
- **The Financial Case** | This confirms funding arrangements and affordability and explains any impact on the balance sheet of the organisation
- **The Management Case** | This demonstrates that the scheme is achievable and can be delivered successfully to cost, time and quality

Part A: The Strategic Context

2.3. Introduction

This section provides an overview of the context in which the Trust provides its services and the strategic guiding principles, directives and policies that ensure clinical quality standards are met. The intention is to provide an overview of the Trust and its strategic objectives, to highlight current emergency care service delivery and set the context for this business case. It also provides an overview of the driving policies and guidance documents at National, Regional and Local level.

2.4. Organisational Overview & Background

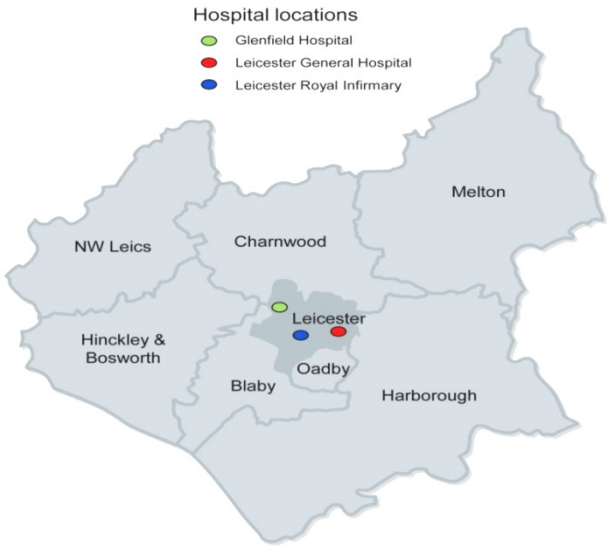
2.4.1. University Hospital Leicester NHS Trust

UHL is one of the largest teaching hospitals in the country and operates across three main sites; the Leicester Royal Infirmary, Leicester General Hospital, and the Glenfield Hospital.

Local Population Context

UHL is the primary acute Trust serving the diverse local population of Leicester, Leicestershire and Rutland (LLR); equating to approximately 1.04 million residents, distributed as follows:

Figure 1 Leicester Region



- Leicester City – population 337,653
- Leicestershire County – population 667,905
- Rutland – population 38,022

The City of Leicester is much more ethnically diverse than the county areas.

The overall population is forecast to grow by around 32,000 (3%) by 2019 - a rate of growth slightly lower than that for England as a whole.

The City of Leicester has a relatively younger population than the County areas and this difference will continue to 2019.

2.4.2. UHL's Clinical Management

The Trust's Clinical Management is structured into seven management groups, with each group led by a Senior Consultant in the role of Director. The seven Clinical Management Groups (CMGs) are as follows:

- **CHUGS** Cancer, Haematology, GI Medicine and Surgery
- **ESM** Emergency and Specialist Medicine
- **CSI** Clinical Supporting & Imaging
- **ITAPS** Critical Care, Theatres, Anaesthesia, Pain and Sleep
- **MSK** Musculoskeletal and Specialist Surgery
- **RRCV** Renal, Respiratory, Cardiac & Vascular
- **W&C** Women's and Children's

2.4.3. Activity & Finance

The Trust was formed in April 2000 and achieved its financial targets for the first 12 years. Financial results for 2011/12 and 2012/13 show that the Trust made a surplus of £88k and £91k respectively. However 2013/14 was a challenging year both operationally and financially and the Trust reported a deficit for the first time since the organisation was formed. In 2014/15 there was a £40.6 million deficit against a plan of £40.7 million.

UHL provides hospital and community based healthcare services to patients across Leicester, Leicestershire and Rutland and specialist services to patients throughout the UK. As such, the main sources of income are derived from Clinical Commissioning Groups, NHS England, and education and training levies. The Trust is actively engaged with key stakeholders to implement NHS policy to improve health services in the local area through a range of formal and informal partnerships.

Financial review for the year ended 31 March 2015

UHL did not meet all of its financial and performance duties for 2014/15; as it failed to breakeven. This was, however, in line with our deficit reduction plan. In respect of our duties:

- **Balancing the books** - delivery of an income and expenditure deficit of £40.6m
- **Managing cash** - we delivered both the External Financing Limit (EFL) and Capital Resource Limit (CRL)
- **Investment in buildings, equipment and technology** - invested £46.2 million in capital developments.

2.5. The Glenfield Site

Glenfield Hospital (GH) provides a range of medical and surgical services and forms part of the UHL Trust. It is located on the north-western edge of the city centre. The site is located close to the M1 and next to the A50, which is one of the main routes into Leicester providing easy access to main bus routes that serve the wider city. A hopper bus service is also available to and from the site and runs at regular intervals.

2.6. Background to the Redevelopment Requirement

Services for Vascular disease cover the provision of surgical, radiological and medical care to patients with circulatory (arterial and venous) disorders. They are categorised as having a high proportion of out-of-hours emergency work[8].

The Vascular Surgery Unit at UHL currently serves a population of around 1million, and has an excellent national and international reputation in the clinical management of aneurismal and carotid disease. However it faces several challenges including changes to the vascular trainee allocation and an ageing Consultant workforce. The service is intrinsically linked with the Vascular Surgery Group of the Department of Cardiovascular Sciences at University of Leicester, a group with an international reputation for excellence in both clinical and laboratory research, having both participated in, and led, several key landmark studies in vascular surgery. The vascular unit has been at the top of the national league tables of clinical results in aneurysm and carotid surgical outcomes for many years. The National Vascular Registry 2013 Report on Surgical Outcomes (Consultant Level statistics) notes an average mortality rate for Aortic Aneurysm patients at UHL of 0.4% compared to the national average of 2.4%.

The Vascular Surgical Unit at LRI is a prospering service, with an international reputation as a leader in the field. The current service provides general and complex vascular and endovascular treatments supported by a growing interventional radiology team, specialist nursing, designated ward, vascular scientists and a designated theatre team. The unit hosts regular multidisciplinary (MDT) meetings and has links with cardiothoracic surgery. However such links are made difficult by the separation between two sites; particularly as 40% of vascular surgery is urgent / emergency.

Historically whilst cardiologists and cardiothoracic surgeons have worked closely together at UHL, interventional cardiology procedures and open heart surgery have been undertaken in separate facilities. Interventional cardiology requires advanced imaging capabilities using X-ray fluoroscopy and ultrasound whereas open heart surgery is performed in a traditional theatre setting. However recent innovations have required surgeons and cardiologists to work closely together in the same setting. This requirement is exemplified by the modern approaches to structural heart disease where new devices are enabling minimally invasive approaches to be used to treat conditions which previously required open heart surgery with cardiopulmonary bypass. These ‘keyhole’ techniques are already producing demonstrable improvements in outcomes

[8] SSNDS Definition No.30 Specialised Services for Vascular Disease (adult) (3rd edition)

(both symptoms and mortality) for patients who would be traditionally regarded as inoperable and are also generally associated with shorter lengths of hospital stay and more rapid recovery than open heart surgery.

2.7. Existing Arrangements

The vascular ward is currently located at the LRI site. This is a 24 bedded ward designed in a number of 4 bed bays and single rooms. The ward is adjacent to the VSU which supports diagnostic tests on vascular patients. The area has not had any significant remodelling or refurbishment within the last 15 years and, whilst functional, does not support future clinical developments to improve patient flow and clinical efficiencies.

2.8. Strategy

This business case, and the associated corporate and project objectives, are supported by a number of significant strategic documents and programmes. This section provides an overview of the driving policies and guidance documents at National, Regional and Local level that can provide context and support the case for change in relation to increasing capacity and providing modern, accessible emergency services. These range from national and local strategies and programmes, to national and local standards and guidance.

2.8.1. National Strategies, Programmes and Guidance

Key national strategies, programmes and policies relevant to this project are summarised in the table below.

Table 5 Strategic Guidance

<table>
<tr><th colspan="3">National</th></tr>
<tr><td>Health and Social Care Act 2012</td><td colspan="2">The government's Health and Social Care Bill outlines the future commissioning arrangements across the NHS</td></tr>
<tr><td>NHS Operating Framework</td><td colspan="2">The Operating Framework for the NHS in England 2012/13 sets out the business and planning arrangements for the NHS. It sets out five high level outcome domains that the NHS should be aiming to improve (below).This business case delivers improvements against each domain:
<table>
<tr><td>Domain 1</td><td>Preventing people from dying prematurely;</td></tr>
<tr><td>Domain 2</td><td>Enhancing quality of life for people with long-term conditions;</td></tr>
<tr><td>Domain 3</td><td>Helping people to recover from episodes of ill health or following injury;</td></tr>
<tr><td>Domain 4</td><td>Ensuring that people have a positive experience of care; and</td></tr>
<tr><td>Domain 5</td><td>Treating and caring for people in a safe environment; and protecting them from avoidable harm</td></tr>
</table></td></tr>
<tr><td>Quality,</td><td colspan="2">Within the national context of no significant growth in the NHS forecast, and a</td></tr>
</table>

National	
Innovation, Productivity and Prevention (QIPP)	requirement to save £20bn by 2015, the Quality, Innovation, Productivity and Prevention (QIPP) is a national initiative looking to provide an integrated, systematic approach to large-scale change. Within this all NHS organisations are encouraged to make better use of existing resources and teams to deliver service improvements. The funding of a new hybrid theatre could secure the future of cardiac services in Leicester, Leicestershire and Rutland in accordance with these principles.
National Programmes of Care & Clinical Reference Groups	http://www.england.nhs.uk/ourwork/commissioning/spec-services/npc-crg/group-a/a04/ NHS England is working with a range of stakeholders at a national level to determine the outcomes expected for specialised services. This will be achieved through the development of clinical strategies set out within five national Programmes of Care (PoC) which group together the prescribed (nationally agreed range of) specialised services. These strategies will enable the commissioning of services to be based on clear evidence and ensure that they are cost effective and patient focused. Vascular Services sits within the Internal Medicine PoC.
2013/14 NHS Standard Contract for Specialised Vascular Services (Adults	This document sets out the required service standards for vascular services. The most significant are:- ◆ NHS Abdominal Aortic Aneurysm Screening Programme Guidance for Public Health & Commissioners, July 2009. ◆ Royal College of Radiologists – Setting the Standards of Providing a 24 hour Interventional Radiology service, September 2008. ◆ Royal College of Radiologists – Standards in Vascular Radiology, 2011 ◆ NCEPOD Report 2005 – Abdominal Aortic Aneurysm – A service in need of surgery. ◆ VSGBI & Royal College of Surgeons – Training in Vascular Surgery & Standards for Vascular Training, 2011 ◆ Medicines & Health Products Regulatory Agency (MHRA) Joint Working Group to produce guidance on delivering the Endovascular Aneurysm Repair (EVAR) Service (RCR, BSIR, VSGBI, Vascular Anaesthesia Society of Great Britain and Ireland(VASGBI), MHRA Committee on the Safety of Devices), December 2010
VSGBI: The Provision of Services for Patients with Vascular Disease, 2012.	The 'Provision of Services for Patients with Vascular Disease (2012)' states that almost 50% of patients with vascular disease present as an emergency and that they should expect to access a specialist vascular team incorporating: surgeons; radiologists; anaesthetists; clinical vascular scientists; specialist nurses and therapy staff. This document sets out the requirement for patients to have 24/7 access to specialist vascular care 'locally', recognising that patients may need to travel beyond their local hospital to receive this care.
Interventional Radiology: Guidance for Service Delivery (2010):	This guidance recognises that all acute hospitals should have access to IR services 24 hours a day, every day because an "...effective, well resourced IR service can contribute to significant efficiencies (financial and non-financial) in care pathways in both planned and emergency care."
HBN/HTM Guidance:	Health Building Notes (HBN) and Health Technical Memoranda (HTM) provide best practice guidance from the Department of Health. Each area of this project refers to the relevant guidance to inform patient flow and outline design concepts, including (but not limited to): HBN 04-01 Adult Inpatient Accommodation HBN 06 Radiology HBN 26 Theatres

2.8.2. Regional Strategy/Guidance

Joint Strategic Needs Assessment (JSNA)

A Joint Strategic Needs Assessment (JSNA) is a statutory requirement (Health & Social Care Act 2012) placed upon the Directors of Public Health, Adult and Children's Services in all local authorities to guide the commissioning of local heath, well-being and social care services. The JSNA provides a systematic method for reviewing the short and long term health and well-being needs of a local population.

The JSNA for Leicester (2012) states that:

> "People in the city die early, particularly from circulatory diseases, cancers and respiratory disease. Poor health is largely driven by deprivation and exacerbated by lifestyle factors embedded within communities. The inequalities gap in health between Leicester and England is not narrowing and the gap between the more deprived and the more affluent communities within Leicester has remained a stubborn inequality. We want to improve the health and wellbeing of the poorest fastest."

Leicester is ranked 25th worst out of 326 local authority areas in England on the national Index of Deprivation (2010). There are also areas of deprivation outside the city – notably certain wards of North West Leicestershire.

In general, the next 20 years is forecast to see an increasingly ageing population, particularly in the county areas. Of the total population growth of 32,000 to 2019, 22,000 will be in the over-65 group. This is largely a challenge in the county areas. By contrast, the key challenge in Leicester City will continue to be premature preventable death and disability.

As people grow older, there is a higher preponderance of long term illness and disability. The number of people living with long term conditions will grow as a population ages. Furthermore, many people will have multiple conditions, meaning their care needs are more complex. From a health need perspective there is a marked variation in life expectancy across LLR with the main factors contributing to mortality being cardio-vascular disease (CVD) and respiratory. Any plans for service improvement must respond to these challenges and make a significant contribution towards better outcomes.

This re-emphasises the importance of the JSNA as the starting point for strategy development and commissioning decisions.

National /Regional Cardiovascular Service Designation Review

The UHL Leicester Vascular Unit is currently designated as a Level 1 Centre (a major vascular service offering all arterial procedures including complex cases). This was as a consequence of the last East Midlands Cardiovascular Network safety, sustainability and accessibility review,

As part of the new specialised commissioning structures these designations are being reviewed. The process for national re-designation of vascular services began in April 2013. It is anticipated that the review will only designate and commission one centre in

the East Midlands to provide complex vascular services. UHL aims to be re-designated as the level 1 centre for the East Midlands.

NHS England's standard contract for Specialist Vascular Services sets the following rationale and national strategic direction for vascular services *"to have specialised services for vascular disease concentrated in relatively few specialist centres in order to maximise the use of scarce and expert staff available on a 24 hour a day basis"*(SSNDS Definition No.30 Specialised Services for Vascular Disease (adult) (3rd edition)).These specialist centres require co-located services including Intensive Care and Interventional Vascular Radiology. In addition it advocates co-location of a number of interdependent services including Interventional Cardiology, Cardiac surgery and Thoracic Surgery.

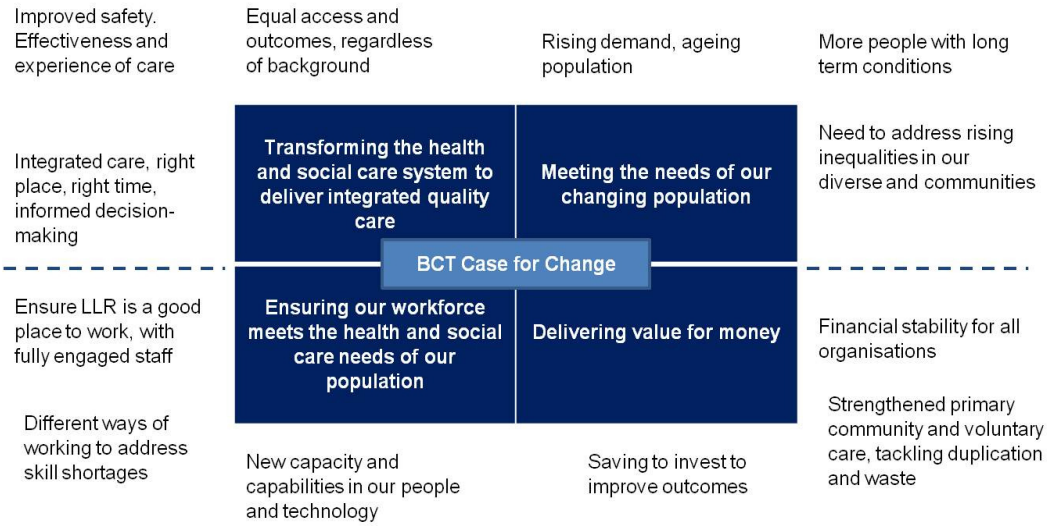
Meeting all of these requirements provides a key driver for future development of UHLs Vascular service and underpins the project subject of this business case.

2.8.3. A Blueprint for Health & Social Care in LLR: Better Care Together 2014 - 2019

UHL is a key partner in developing the Better Care Together (BCT) programme. BCT represents a partnership of NHS organisations and local authorities across LLR, working together to transform the current and future delivery of services and ensure they are of the highest quality and capable of meeting the future needs of local communities.

The BCT case for change is summarised in the diagram below:

Figure 2 Better Care Together Case for Change



LLR Health Community Estate

Over the last three years the LLR Health Community has worked together to better understand the collective capacity and estate challenge facing local organisations. Informed by jointly commissioned analysis, the local health community has committed to a strategy to simplify, standardise and share the delivery of core Estates / FM services and to work together in reducing the collective asset base, better utilise the residual space and capacity footprint and improve the quality of the physical environment.

2.8.4. Trust Vision

In the next five years, UHL will become a Trust that is internationally renowned for placing quality, safety and innovation at the centre of service provision. The Trust will build on its strengths in specialised services, research and teaching; offer faster access to high quality care, develop our staff and improve patient experience. The Trust calls this 'Caring at its Best'.

The Trust recognises the challenges facing the organisation and the LLR health and social care system which are the consequence of significant internal and external challenges which include:

- The financial pressures facing public sector organisations
- Rigorous regulation of healthcare providers
- Changes in the wider health and political landscape
- Focus on choice and greater patient and community involvement
- Inherent inefficiency of current configuration
- Fiscal drag of aging estate reflecting incremental development

2.8.5. Strategic Objectives

Underpinning the vision and purpose are the strategic objectives of the Trust, these are to provide:

- Safe, high quality, patient centred healthcare
- An effective and integrated emergency care system
- Services which consistently meet national access standards
- Integrated care in partnership with others (local and specialised)
- Enhanced delivery in research, innovation and clinical education
- A caring, professional and engaged workforce
- A clinically sustainable configuration of services, operating from excellent facilities
- A financially sustainable NHS organisation

- Enabled by excellent IM&T

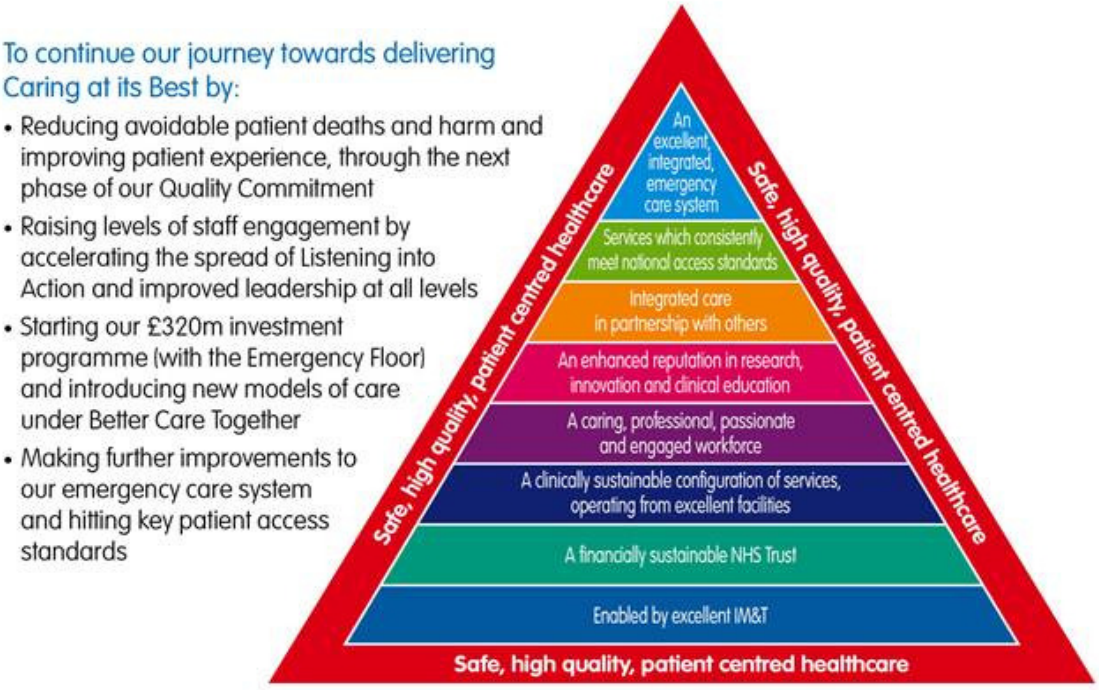


Figure 3 Trust Strategic Objectives

By delivering the strategic vision the Trust will fulfil the purpose of providing 'Caring at its Best'.

2.8.6. Caring at its Best

The UHL team is made up of more than 10,000 staff providing a range of services primarily for the one million residents of Leicester, Leicestershire and Rutland. The nationally and internationally-renowned specialist treatment and services in cardio-respiratory diseases, cancer and renal disorders reach a further two to three million patients from the rest of the country.

UHL work with partners at the University of Leicester and De Montfort University providing world-class teaching to nurture and develop the next generation of doctors, nurses and other healthcare professionals, many of whom go on to spend their working lives with the Trust.

The Trust focuses on being at the forefront of many research programmes and new surgical procedures, in areas such as diabetes, genetics, cancer and cardio-respiratory diseases. UHL is now the home of three National Institute of Health Research (NIHR) Biomedical Research Units and during the year carried out over 800 clinical trials, bringing further benefits to thousands of patients.

The heart centre at the Glenfield Hospital continues to lead the way in developing new and innovative research and techniques, TAVI (Trans-Catheter Aortic Valve Insertion) and the use of the suture-less valves in heart surgery. UHL also have one of the best vascular services nationally, with more patients surviving longer after following an aneurysm repair (to fix a life threatening bulge in a blood vessel).

The Trust is proud to have some of the lowest rates of hospital-acquired infections, such as C. Difficile and MRSA, in the country; the hospital standardised mortality rates are very good, demonstrating a high clinical quality; with the provision of food also been rated as 'excellent' by an independent panel.

UHL's purpose is to provide 'Caring at its Best' and staff have helped to create a set of values, which are:

Figure 4 Caring at its Best

UHL patients are at the heart of all that is done at the Trust. 'Caring at its Best' is not just about the treatments and services provided but about giving patients the best possible experience.

Each element of the objectives and supporting strategy are performance managed through the Trust Board scorecard, regularly reported to Board through the Integrated Performance Report (IPR).

2.8.7. Clinical Strategy

The Trust's clinical strategy is focused on delivering high-quality, patient centred services in the most appropriate setting with excellent clinical outcomes. There will be a process of continual quality improvement for clinical outcomes, morbidity and mortality rates and other clinical indicators to ensure that the Trust remain the provider of choice for patients.

- **Developing a more flexible and integrated workforce**

  The model of clinical practice will be to provide consultant delivered, rather than consultant led, patient care. It will create a sustainable workforce for the delivery of responsive multi-disciplinary clinical services 7 days a week which meets the

needs of patients and clinicians. It will seek and exploit opportunities for service integration across health and social care by removing the historical barriers to change. Training and education will play an integral part in ensuring staff have the right skills now and for the future. Training opportunities to support self-care in long-term condition management and carers will be explored.

The strategy reflects the changes in population demographics, placing the patient at the centre of service planning and design ensuring that holistic patient centred care remains at the heart of everything we do. For example services will be tailored to meet the challenges of a rising elderly population; ensuring integrated care is provided across primary, community and social care. The Trust will work with partners to develop the infrastructure and networks to offer expertise across the health community to ensure that care for the older person is as seamless as possible.

▶ Consolidating and making better use of finite resource

People are living longer, and the NHS' ability to treat and help to manage conditions that were previously life-threatening continues to improve. Alongside this, the NHS faces a potential funding gap of around £30 billion by 2020/21 meaning that the NHS will need to radically transform the way it has traditionally provided care to new and innovative models necessitating a significant shift in activity and resource from the hospital sector to the community.

UHL will meet this funding gap by working collaboratively with its LLR Health & Social Care partners to re-design patient care pathways to ensure that they continue to provide high quality care, outcomes and patient experience whilst delivering value for money. The Trust has an on-going operating deficit in part related to the current configuration of its clinical services which do not optimise clinical adjacencies and patient pathways. In order to deliver financially sustainable, high quality services in the future, UHL's hospitals will need to become smaller and more specialised whilst supporting delivery of care in the community. As a consequence UHL has developed a clinical and estates strategy that optimises where and on which site its services are located as care pathways are changed to meet the financial challenge. The methodology about future location of services is clinically driven, evidence based, inclusive, open and transparent, and involve patients and the public in a meaningful way however will necessitate tough decisions for the health community if it is to meet the 'value for money' test.

The Trust are proactively responding to the national drive towards fewer regional centres of excellence for specialised services by ensuring its services deliver innovative, high quality patient care through robust Research & Development programmes which enable patients to benefit from leading edge developments in the care of specific conditions.

The Trust will specifically seek to ensure it remains as a national centre of excellence for its work in Cardiac, Respiratory, Vascular, Renal, Cancer and Diabetes and significantly strengthen its portfolio of other key services to ensure they are sustainable in the future.

2.8.8. Trust Five Year Integrated Business Plan 2014 – 2019

The five year strategy was developed through four key phases: evidence gathering; analysis, synthesis and planning. In developing the strategy the Trust identified that it operated predominantly in two core markets:

- Local services for LLR where it is the major provider of local secondary care services
- The wider Midlands and East regional economy where the Trust is a key provider of specialised adult and children's services

2.8.9. Trust's Five Year Estate Strategy June 2014

The Trust has undertaken an exercise to review the strategic future of its estate, with a view to creating a development control plan that looks twenty years ahead. "The quality and fitness for purpose of the NHS Estate and the services that maintain it are integral to delivering high quality, safe and efficient care"[9]. It is also an area of significant spend; the budget for Estates and FM Services across the Trust in 2013/14 was £31m.

The Trust's estate strategy identifies the need for flexibility to move property from being a constraint to an enabler for change. UHL is developing a Hospitals Estate Transformation Plan which is based on a strategy that consolidates the estate, develops new facilities, disposes of surplus land and buildings and encourages third party partnerships that will raise income for the Trust. This will be a cornerstone of service reconfiguration and improved utilisation of the Trust's estate. This must be balanced by organisational and public expectations about the provision of highly specialised services alongside local access to primary and secondary care, in the context of high levels of public support for the associated hospitals. It is in this context that the opportunity for significant and far reaching estate transformation will be determined.

The Transformation Plan will;

- Underpin the strategic direction
- Support the clinical strategy to improve patient pathways and improve quality of care
- Support the strategic outline case for the whole site reconfiguration
- Show a clear implementation programme over five years for transformation with tangible benefits
- Improve the patient and staff built environment, investing in improved facilities and infrastructure; greatly aiding recruitment and retention
- Identify capital development to unlock the embedded value of Trust assets and support its ability to deliver clinical transformation and achieve QIPP efficiency savings

[9]Treasury Value for Money Update, 2009

Efficient estate solutions will improve frontline service provision as well as achieving improved utilisation of the estate and unlocking its embedded value. This is possible by delivering a high quality clinical and working environment for patients and staff, resulting in better levels of productivity, flexibility and patient satisfaction. This will also support cross-CMG strategies that maximise optimisation of the estate resources across UHL. This strategy is relevant to this business case; the Estates Transformation Plan will set out detailed strategies for its three main hospital sites.

The Estates Strategy will be updated during 2015/16.

2.9. Summary

The development of a Vascular Ward as part of the transfer of vascular services from LRI to GH is fully aligned with the national, regional and corporate strategies and policies. The co-location with other specialised services at Glenfield Hospital will ensure that safe, high quality patient-centred healthcare can be delivered to the population of Leicester, Leicestershire and Rutland.

In addition the creation of a Vascular Ward supports the following Trust aims and objectives:

- Safe, high quality, patient centred healthcare
- Services which consistently meet national access standards
- Integrated care in partnership with others (local and specialised)
- Enhanced delivery in research, innovation and clinical education
- A caring, professional and engaged workforce
- A clinically sustainable configuration of services, operating from excellent facilities
- A financially sustainable NHS organisation
- Enabled by excellent IM&T

A corporate decision has been made to progress this project at pace as an enabler to the ICU project. Independently it still sits within the reconfiguration programme.

The relocation of Vascular Ward is key in supporting the Trust's Five year plan and service strategies for the future, by increasing specialist services on the GH site and by releasing theatre capacity at the LRI. In the context of national, regional and Trust strategies, it is recognised that investment is required to achieve the project objectives. The proposals detailed in this FBC provide a flexible solution that will enable the Trust to achieve these aims.

Part B: The Case for Change

2.10. Introduction

The purpose of this section of the business case is to outline the strategic case for change.

2.11. Clinical Drivers for Change

- To 'free-up' key clinical space at the LRI site that will form part of the transfer / rationalisation of Level 3 ICU services within UHL.
- To continue to safely provide the best care for the most critically ill patients
- To meet increasing demand for vascular services which is greater than the current capacity can provide. Historic trends in growth suggest a 5% annual growth in vascular services
- Requirement for single site vascular and cardio-thoracic departments that incorporates key adjacencies and presence of diagnostics and medical assessment services. This enables implementation of the developed model of care for adults accessing this service
- Changes in the local and national demographics combined with the Trust's plan to develop a level 1 Vascular Centre for Leicester is impacting on increased demand
- The Trust requires additional capacity to reflect NHS national guidance. The new ward (in–part)reduces the risk of compromising compliance of other standards of care such as quality, infection control, emergency and urgent care standards and commissioning standards
- Redevelopment and increased capacity will provide opportunities for the Trust to fulfil its strategic redevelopment programme

2.12. Current Activity & Demand

1.9

2.12.1. Increase in Demand

The Vascular Ward Business case is predicated that there will be an increase in demand when UHL becomes a designated level 1 vascular centre. Discussions are at a developed stage to undertake complex vascular work from Northampton and Lincoln.

2.13. Constraints and Dependencies

The constraints and dependencies relevant to the project are:

- **Budget** - the Trust has made provision to fund this scheme from its capital programme over two financial years (2014/15 + 2015/16)
- **Physical** – the works will be taking place adjacent to a live clinical environment with limited access internally. The construction access to the proposed vascular ward are constrained due to adjacency to 'live' clinical areas
- **Timescales** – to continue to develop and support Vascular and cardiac services, the expectation is that the vascular ward will be delivered and operational by April 2016.
- **Retained Estate** – the use of existing retained estate for the development creates design compromises and derogations from HBN guidance due to the physical site constraints
- **Infrastructure** – any development of GH site is contingent upon the required estate infrastructure to support developments. A site-wide infrastructure review has been commissioned by the Trust and Glenfield Hospital has been the first site surveyed.
- **Trust Transformation Programme** - Trust wide schemes for redevelopment of the Trust sites are all interdependent. It is essential that phasing and enabling works are scoped accurately to minimise any disruption.

2.14. Stakeholder Engagement

During July / August 2013 a public engagement / consultation exercise was undertaken with both patients and members of staff to assess support for the Trust's plans for a single site take for Surgery. In addition there were specific questions relating to the vascular services transfer. Both paper and online surveys were undertaken. The results are indicated below, with further detail in Appendix 1.

Table 6 Patient Survey Response

	Question	Total	Yes	No	Blanks	Yes%	No%
Paper	Do you support our plans to develop Vascular Services with a new Hybrid Operating Theatre inpatient ward and Angiography suite	49	43	3	3	93%	7%
Paper	Do you support the plans to bring together our Vascular, Cardiac and Thoracic teams to improve the outcomes of our patients?	49	44	3	2	94%	6%
Paper	If the Vascular Service was moved to the Glenfield Hospital to provide better outcomes for our patients would it provide you as a patient with any problems	49	9	26	14	26%	74%

Further stakeholder engagement has been undertaken as part of the development of the Full Business Case, supported by the Communications Department.

1.10

1.11

2.14.1. UHL Quality Commitment

UHL are committed to improving the quality and safety of care for patients. The quality commitment articulates 3 key aims:

- Provide Effective Care – Improve Patient Outcomes. "To deliver evidence based care/best practice and effective pathways and to improve clinician and patient reported outcomes"
- Improve Safety – Reduce Harm. "To reduce avoidable death and injury , to improve patient safety culture and leadership and to reduce the risk of error and adverse incidents"
- Care and Compassion – Improve Patient Experience. "To listen and learn from patient feedback and to improve patient experience of care"

Figure 5 UHL's Quality Commitment

This case has been developed with a view to enhancing delivery of the quality of care with a view to:

- Improving patient pathway management reducing the clinical risk and discomfort through the emergency care pathway
- Improving the patient experience
- Enhancing Patient safety and reducing clinical risk

As a consequence a Due Regard/Quality Impact Assessment has been undertaken to ensure that these commitments are recognised as part of the development, which can be found at Appendix 2

2.15. Investment Objectives, Key Deliverables & Benefits Criteria

In the context of the above and the Trust's Corporate objectives outlined in Section 2.9, the 'SMART' investment objectives for this project are detailed below as part of the wider Benefit's Realisation Plan, clearly outlining what the scheme is set to achieve and how.

It is important to note that agreement of the following from the Project Board, Steering Group and wider stakeholder group has informed the Qualitative Benefits Appraisal detailed in the Economic Case.

Table 7 Investment Objectives & Wider Benefits Realisation Plan

Investment Objective	Project Objective	Benefit	Enablers	Outcome	Baseline Measure	Target date	Owner
A. Business Need	**1.** To develop a centre of excellence, enhancing the Trust's reputation for training, service delivery and treatment, through the provision of a centralised service in modern accommodation.	Support and consolidate the provision of cardio-vascular services on one site	• Robust Design process • Engagement of stakeholders • Key internal adjacencies compliant with Strategic guidance	• Reconfiguration will allow vascular &cardio-vascular services to be co-located providing a new pathway for treatment • Clinically appropriate treatment in centre of excellence (critical mass and centralisation of service)	• Vascular &Cardio-vascular Departments is on one single site • Stakeholders agree and sign off on design • Surgery and radiological follow-up are implemented as key adjacencies	Completed in December 2016 as final part of vascular relocation	Project Board CMG
	2. To increase the productivity of surgical vascular & cardio-thoracic care at Glenfield	Improve patient pathway management reducing the clinical risk and discomfort through the surgical care pathway	• Patient information • Improved patient pathway • Trust KPI targets	• Clinically appropriate transfer of patients • Reduced LOS as a result of 'one stop. procedures • KPI targets meet	• PLACE surveys and complaints register • Trust risk register	December 2016	Project Board CMG
B. Strategic Fit	**3.** To ensure that the changing needs and expectations of a growing population are met in line with Trust clinical strategy and national guidance standards	Ensures that the service model of care is delivered in line with National, Trust and local health economy KPIs	• Compliance to best practice standards and national and local KPIs	• Improved patient experience	• Patient survey (PLACE) • Current quarterly performance reports	Patient survey has to be carried out prior to implementation of new service	Project Board CMG
C. Quality	**4.** To improve the clinical effectiveness and safety of vascular &cardio-vascular service across Leicester	Quality of care is enhanced, in terms of the model of care, and seamless pathways of care and patient flows.	• Model of care and design enhance efficiencies in reducing number of separate procedures and LOS	• Acute and elective pathways reflecting best practice • Reduced LOS	• Current data • Quality indicators report • Quarterly performance reports	December 2016	Project Board CMG
		The built environment enhances clinical practice that support clinical effectiveness, improved patient outcomes and patient safety	• Robust Design process • Engagement of stakeholders • Key internal adjacencies compliant with Strategic guidance	• KPI figures reflect current benchmark relating to patient safety, referral, diagnosis and treatment time	• PLACE surveys and complaints register • Staff surveys • 2012/13 Quality indicators • 2012/14 performance reports Staff surveys	December 2016	Project Board CMG
	5. To improve the clinical adjacencies of services to optimise clinical safety and reduce clinical risk.	Provides enhanced departmental relationships and clinical adjacencies that support clinical effectiveness and improved patient outcomes	• Key internal adjacencies compliant with Strategic guidance	• Centralisation of vascular &cardio-vascular surgery ensuring: • Patient focused pathways with more rapid and increased access to specialist care	• 2012/13 Quality indicators • 2012/14 performance reports • Staff surveys	December 2016	Project Board
D. Sustainability, Service Modernisation, Value for Money	**6.** To equip the ward effectively to existing and known commissioning requirements, as well as to respond flexibly to future changes in service direction and demand.	Improved patient flow for 'one stop' procedures. Flexible use of theatre space	• Design provides seamless surgical facility to cardio-thoracic procedures	• PLACE scores/audits will reflect positive patient feedback	PLACE surveys	December 2016	CMG

Investment Objective	Project Objective	Benefit	Enablers	Outcome	Baseline Measure	Target date	Owner
	7. To create a design which is fit for purpose	Improved Privacy and dignity provisions for all patients	• Design provides adequate space for provision of care to patients accessing ED and eliminates double up in cubicle and trolleys in corridor	• PLACE scores/audits will reflect positive patient feedback	• PLACE surveys	Summer 2017	CMG
		Consolidates existing services & provides clinical expertise whilst realising the Hybrid theatre concept	• Specialist theatre and radiology staff (existing and new) to be recruited to staff facility	• Reconfiguration will allow cardio-thoracic/vascular to be co-located providing an enhanced pathways for assessment and treatment	• PLACE surveys and complaints register • Trust risk register • 2012/13 risk register • Staff surveys • 2012/13 Quality indicators • 2012/14 performance reports • Staff surveys	Summer 2017	Project Board
E. Meeting Commissioners' intentions for healthcare services	**8.** The development will be delivered on time with minimal disruption to current service delivery	The enabling moves will facilitate the ICU programme whilst minimising delay to delivery	• OBC and FBC approval • Planning approval • Efficient programme management • Robust Design process • Engagement of stakeholders	• Post Project Evaluation highlights project is completed on time and Vascular services provided with minimal disruption	• Programme plan	Summer 2017	Project Board
		Reduces complexity and sequence dependency of enabling moves	• OBC and FBC approval • Planning approval • Efficient programme management • Robust Design process • Engagement of stakeholders	• Design process and programme plan implemented that utilised a solution with minimal complexity and dependency on enabling works/moves	• Programme plan	Summer 2017	Project Board

2.16. Benefits Realisation

Work has been undertaken by the Trust to identify and quantify the clinical benefits resulting from this project. These include:

- **Strategic Fit:** in keeping with the longer term site reconfiguration proposals, acting as an enabler to other service moves and relocation. Enables the co-location of services that supports evidence based practice, innovation in developing new models of care and provides a seamless service to adults and children.
- **Clinical Quality and Patient Safety:** access to senior decision makers, immediate diagnostic support on one site
- **Patient Outcomes:** reduced harm, improved morbidity and mortality and opportunities for improved clinical outcome.
- **Patient Experience:** responsive no delays system in a dedicated bespoke environment
- **Clinical Staff & Resources:** improved patient flow, proximity of services and an environment tailored to meet demand will increase staff satisfaction, improve morale and mitigate stress. Reduced sickness absence levels with higher rates of recruitment and retention as the emergency floor be recommended as a place to come and work. The floor will enable more effective ways of working and reduce duplication of work and facilitate collaborative interdisciplinary working.

2.17. Potential Business Scope & Key Service Requirements

The Trust is seeking to improve its vascular ward service through relocation of a 28 bedded ward with ancillary accommodation to the GH site.

2.18. Summary

The relocation of the Vascular Ward to support Vascular Services at Glenfield Hospital frees up capacity at the LRI for the transfer of level 3 critical care and associated clinical services from the LGH.

The move will also help further develop vascular services with cardiology / cardiothoracic services at Glenfield and should reinforce vascular services re-designation as a Level One centre, giving them the ability to continue to attract the complex cases from both around the region and nationally. This combined with the vascular surgeon's outstanding clinical portfolio and results will keep Leicester as one of the country's top centres for this type of surgery. This will bring research and academic recognition and ensure that the reputation of UHL as a centre of excellence

is sustained such that UHL continues to retain and attract the best surgeons in the country.

This investment will provide opportunities to safeguard a number of services (as national commissioning continues in earnest) and further develop the range of procedures it can deliver. It will benefit Cardiology, Cardiothoracic Services through access to these facilities, again further developing the range of procedures they can offer and developing closer working practices between the services.

In the context of the national, regional and Trust strategies, it is recognised that investment is required to achieve the project objectives. The proposals outlined in this FBC provide a flexible solution that will enable the Trust to achieve these aims.

3 | The Economic Case

3.1 Introduction

In accordance with the Capital Investment Manual and requirements of HM Treasury's Green Book (A Guide to Investment Appraisal in the Public Sector), this section of the FBC reaffirms the preferred option highlighted in the OBC. It reviews the changes in capital and revenue costs from the OBC and identifies reasons why the changes have happened and their impact on the position of the preferred option. The OBC, approved by the Trust Board, covered the transfer of the vascular service to the Glenfield Hospital, the development of an angiography suite for vascular patients and the development of a Hybrid theatre to support the expansion of the vascular service.

2

2.1

3.2 OBC Options Appraisal

The three short listed options at OBC stage were as follows:

- **Option A**: Vascular Ward/VSU on Ward 23a, Angiography Suite in vacated TSSD, Hybrid Theatre in new build in courtyard
- **Option B**: Vascular Ward/VSU on Ward 23a, Angiography Suite in vacated TSSD, Hybrid Theatre in combined theatres 5 & 6
- **Option C**: Vascular Ward/VSU on Ward 23a, Angiography Suite in vacated TSSD, Hybrid Theatre in converted theatre 9

The OBC financial appraisal can be summarised in the following table:

Table 8 OBC Economic Appraisal Summary

Option	Appraisal period	NPC £'000	Risk Adjusted £'000	Risk Adjusted NPC £'000
Do Nothing	60 years	237,892	0	238,272
Option A	60 years	378,437	380	378,817
Option B	60 years	379,701	412	380,113
Option C	60 years	376,714	332	377,046

This was combined with the non-financial scores to provide a combined appraisal resulting in the following:

Table 9 Combining the OBC Financial and Non-Financial Scores

Option	Option A	Option B	Option C
Weighted Scores	878.9	638.7	649.9
Rank (non-financial)	1	3	2
Net present cost (NPC) (£'000)	378,438	379,701	376,715
Rank (VFM)	2	3	1
NPC per point score (£'000)	431	594	580
Rank	1	3	2

In conclusion Option A was identified as the preferred option and progressed to the FBC stage.

At the time of the OBC the Do Minimum was not evaluated for a non-financial perspective. This was subsequently carried out on a consistent basis by the same team involved in the original option appraisal. The weighted score for the Do Minimum was 314.5. The Net Present Cost per benefit point would therefore have been £756 and the Do Nothing would have been ranked 4th.

3.2.1 Estimating Costs

The FBC costs have been determined by Capita and the Trust's Cost Advisors, and are in accordance with NHS standards. The total capital costs for the preferred option at OBC stage and FBC stage are summarised below.

Table 10 Vascular Capital Costs for the Hybrid Theatre, Vascular Ward, Angiography Suite & Vascular Studies Unit at OBC & FBC

Capital Costs	OBC Stage (£)	FBC Stage (£)
Construction	6,007,911	6,434,391
Fees	1,568,256	1,341,404
Non Works Costs	603,200	687,394
Equipment	1,656,298	1,310,586
Planning Contingency	464,023	381,983
Optimism Bias	802,761	368,176
Total for approval purposes	**11,102,448**	**10,523,934**
Inflation	845,712	2,664,753
Grand Total	**11,948,160**	**13,188,687**

The above analysis shows a reduction in costs at a common price base for approval purposes (PUBSEC 171) of 5.2%. The OBC had assumed a PUBSEC index of 191 to forecast outturn expenditure this has increased to PUBSEC 213.

This FBC reflects the wards component of the Vascular OBC. The Trust has calculated the split of the overall OBC cost to identify any changes on costs reflecting the ward development. This is as follows:

Table 11 Vascular Ward Capital Costs at OBC & FBC

Capital Costs Wards	OBC Stage (£)	FBC Stage (£)
Construction	2,326,224	2,196,856
Fees	607,219	470,369
Non Works Costs	287,767	352,211
Equipment	143,825	70,034
Planning Contingency	154,902	118,866
Optimism Bias	270,206	114,570

Capital Costs Wards	OBC Stage (£)	FBC Stage (£)
Total for approval purposes	**3,790,144**	**3,322,906**
Inflation	288,882	872,383
Grand Total	**4,079,026**	**4,195,289**

This reflects a 12.3% reduction in the approval sum. Comparing the outturn figures for the total Vascular programme and the vascular wards project. The percentage changes in capital cost are as follows:

Vascular Programme -10.4%

Vascular Ward Project – 2.84%

3.2.2 Revenue Costs

The revenue changes in the OBC have been reviewed and worked up in more detail. The following table reflects the position at OBC of the preferred option:

Table 12 OBC Revenue Costs

Revenue cost for GEM	2015 /16 £'000	2016 /17 £'000	2017 /18 £'000	2018 /19 £'000	2019 /20 £'000	2020 /21 £'000
Current Costs (Do Nothing)	11,854	11,854	11,854	11,854	11,854	11,854
Additional staff costs	0	0	825	882	810	570
UHL Other staff	0	0	613	1,226	1,226	1,226
New FM costs	0	0	113	150	150	150
Additional Non Pay	0	0	28	*37*	*37*	*37*
Total Costs	**11,854**	**11,854**	**13,433**	**14,149**	**14,077**	**13,837**

This showed an increase in costs of circa £2.5 million. Some of these costs were transitional and the additional cost was reduced to £2.0 million by 2020/21. A significant element of these costs related to theatres at the LRI, where £1.2 million had been allowed for to reflect the additional cost of running emergency theatres on three sites and the level of fixed costs at the LRI. The additional costs were partially offset by additional income of £368,000 per annum

The current position for the vascular programme is as follows:

Table 13 FBC Revenue Costs

Revenue cost for GEM	2015 /16 £'000	2016 /17 £'000	2017 /18 £'000	2018 /19 £'000	2019 /20 £'000	2020 /21 £'000
Current Costs (Do Nothing)[10]	11,854	11,854	11,854	11,854	11,854	11,854
Additional staff costs	0	1,542	1,498	1,498	1,498	1,498
Savings from 2 Site consolidation					(1,255)	(1,255)
New FM costs	0	0	12	48	48	48
Additional Non Pay	0	19	88	184	184	184
Total Costs	**11,854**	**13,414**	**13,452**	**13,584**	**12,329**	**12,329**

Additional costs have been reviewed in the context of the requirement for the vascular ward at the Glenfield. The Vascular programme now accounts for the critical care moves required to be implemented to ensure sustainability of the service. Additional income of £187,000 in 2016/17 and £486,000 in 2017/18 has been assumed.

The additional costs for vascular wards in the OBC have been identified as follows:

Table 14 OBC Revenue Costs Vascular Ward

Revenue cost for GEM Ward	2015 /16 £'000	2016 /17 £'000	2017 /18 £'000	2018 /19 £'000	2019 /20 £'000	2020 /21 £'000
Current Costs (Do Nothing)	11,854	11,854	11,854	11,854	11,854	11,854
Additional staff costs	0	0	706	763	691	451
UHL Other staff	0	0	613	1,226	1,226	1,226
New FM costs	0	0	0	0	0	0
Additional Non Pay	*0*	0	0	0	0	0
Total Costs	**11,854**	**11,854**	**13,173**	**13,843**	**13,771**	**13,531**

This compares to the following FBC position:

[10] For comparison purposes the same baseline has been used in the FBC analysis

Table 15 FBC Revenue Costs Vascular Ward

Revenue cost for GEM Ward	2015 /16 £'000	2016 /17 £'000	2017 /18 £'000	2018 /19 £'000	2019 /20 £'000	2020 /21 £'000
Current Costs (Do Nothing)	11,854	11,854	11,854	11,854	11,854	11,854
Additional staff costs	0	1,495	1,375	1,375	1,375	1,375
Savings from 2 Site consolidation					(1,255)	(1,255)
New FM costs	0	0	0	0	0	0
Additional Non Pay	0	0	7	7	7	7
Total Costs	**11,854**	**13,348**	**13,236**	**13,236**	**11,981**	**11,981**

The main additional costs relate to the provision of angiography at the Glenfield Hospital and the provision of an emergency theatre on call service. The costs have reduced from the OBC as a result of a lower assessment of these costs as a result of the assumption that some staff will transfer from the LRI and a review of how Vascular assessment activity would operate.

3.2.3 Summary of FBC Position compared to OBC

The changes between OBC and FBC are as follows:

Table 16 Changes between OBC and FBC

	OBC £'000	FBC £'000	Comment
Capital Costs – Approval Sum Vascular Programme	11,102	10,524	Equipment at FBC deflated to account for Capital Cost inflation reduction of 5.2%
Capital Costs – Outturn Vascular Programme	11,948	13,188	Capital cost inflation significantly higher than that anticipated at OBC. Increase of 10.3%
Capital Costs Approval Sum Vascular Ward	3,790	3,338	Significant reduction in assumptions re equipment and fees. Reduction of 11.9%
Capital Costs Outturn Vascular Ward	4,079	4,195	Capital cost inflation significantly higher than that anticipated at OBC. Increase of 1.9%

Annual Revenue Costs (2020/21)	13,531	11,981	Reduction in additional requirements for Vascular Assessment Unit and additional theatres. Assumption that further savings to be made on consolidation of sites. Reduction of 11.5%

3.2.4 Compliance with Capital Investment Manual & NTDA Thresholds

Capital costs have fallen in respect of the approval sum whilst increasing at outturn. Revenue costs have reduced as a result of a change in model of care for the Vascular Assessment Unit and a review of the emergency theatre costs. In addition to this, the Trust has highlighted which of the additional costs are caused by the inefficiency of maintaining some emergency services on three sites until site rationalization takes place. The saving for this is estimated to be £486,000. If this saving was removed, the vascular ward revenue costs would be circa £440,000 less than that quoted in the OBC (3.4%).

Both revenue and capital costs are therefore less than those quoted in the OBC. Although the CIM states that the option appraisal should be reviewed if costs are outside 10% capital or 5% revenue either way, all the options form a revenue perspective would be affected in a similar way. It is also likely that the capital position for each option would be impacted to the same extent. . The next best Option (option 3) would need to reduce revenue costs by over £4 million to become preferred option at OBC this saving would then need to be greater in a revised option appraisal. Even if there was no capital expenditure in Option 3 it would still not be the preferred option. On this basis the preferred option at OBC stage still stands.

3.3 The Preferred Option

3.5

The Vascular Ward will be undertaken in existing accommodation on the first floor at Glenfield Hospital and will be a significant refurbishment scheme utilising part of existing ward 23, adjacent redundant space, medical engineering and IT skills room. As this is internal works there are no planning consent issues. Designs have been reviewed and discussed with a number of key stakeholders to ensure the proposal complies with local policy.

3.3.1 Design Solution

The final design solution has been developed from OBC to FBC in conjunction with detailed discussions with key clinical stakeholders at all times from initially developing operational policies, patient flows and clinical models to further refine with the

development of a Planning Policy and Design Description document to inform the design solution.

The Trust identified a number of key design principles, which underpinned the development of the design solution.

- Be fit for purpose
- Deliver high quality, safe, efficient and effective care
- Improve patient and staff experience by ensuring patients receive high quality care and service in modern health-care facilities
- Generic design of facilities to ensure maximum flexibility for future service developments
- Future proof wherever possible.
- Conforms to current HBN whenever possible
- Creates an environment, which respects the needs of all patients in terms of privacy and dignity.

It was recognised that models of service delivery change with time, therefore essential that the facilities will respond to the future changes in technology but also changes in clinical support services.

The inpatient ward design solution was based upon detailed activity and capacity modelling undertaken within the OBC. The design solution therefore reflects the capacity for 28 beds for the use of the vascular service.

From October 2014, the design team worked with clinical stakeholders to further develop the design from 1:200 as described within the OBC, to more detailed 1:20 room to show functional room layouts. The proposed 28 bed ward layout solution comprising of:

- Multiple bed bays (2, 3 & 4 bed configuration) – en-suite facilities in each bay
- Single Rooms (6) all en-suite
- Multi-disciplinary Team Office
- Sisters/nursing Office
- Nurse Station
- Hot desk office
- Treatment Room
- Patient Day pace
- Interview Room
- Equipment Store
- Consumables Store
- Clean Utility

- Dirty Utility
- Disposal Hold
- Cleaners facility

The design solution, including schedule of accommodation and equipment has been reviewed and formally signed-off by all key stakeholders.

Schedules of accommodation and outline 1:20 layouts are described in more detail within the Estates Annex (Appendix 3).

3.3.2 Equipment Strategy

The Trust intends to implement an equipment strategy that incorporates the following:

- Ownership of the majority of equipment (including transfer of significant percentage)
- Some equipment leased e.g. beds and trolleys leased under the bed management contract

The original Vascular OBC described a strategy of transfer of existing ward equipment with decommissioning of the existing facility. This has been the starting point when reviewing the equipment strategy however it was recognised that there would need to be a capital allocation as a full transfer is unlikely due to the poor fit of new design solution, difficulty in transferring existing equipment or that equipment is beyond its useful life cycle.

The equipment strategy and equipment schedules were informed and further refined as part of the FBC design development. Detailed design to 1:20 enabled the project team to create room data sheets based on the functional requirement. The room data sheets describe the standard equipment required for each room. This has been tabulated and compared against the proposed equipment transfer list. An equipment list for new and transferrable equipment was shared, signed off and frozen by clinical teams to ensure that all items were captured. The new equipment schedule has been shared with procurement to apply current market costs to each item. The capital cost schedule presented within the FBC now shows real equipment cost pricings.

4 | The Commercial Case

4.1 Introduction

This section of the FBC outlines the proposed procurement strategy in relation to the preferred option outlined in the Economic Case.

- Construction/ installation services.

4.2 Procurement Strategy

Key external advisors and construction services are as follows:

Table 17 Key External Advisors & Construction Services

Role	Organisation
Pre-construction	
Business case preparation	Trust
Mechanical and electrical consultants	Capita
Architects	P&HS
Structural engineers	Curtains
Cost consultants	RLB
CDM	Interserve
Trust project management& cost advisors	RLB
GMP development	Interserve Construction
Construction	
CDM	RLB
Project management & cost advice	RLB
Building contractor	Interserve Construction
MEP Detailed Design & Installation	Interserve Construction

Under the framework, Interserve Construction has:

- Taken single point responsibility to manage the design and construction process from completion of OBC through to project completion
- Assembled a dedicated team from its supply chain of experienced health planners, designers and specialists, to successfully deliver facilities that will benefit patients and staff alike

- Provided benefits of experience of long term partnering arrangements that will continue throughout the life of the project
- Committed to identifying construction solutions that will assist in the implementation of improved service delivery, best practice and delivering best value

Interserve Construction and UHL have worked together through the FBC stage to develop and agree a guaranteed maximum price (GMP) for delivery of the scheme. This reflects:

- Fees for professional advice such as design and cost management
- Market tested packages for construction works on an open book basis

The GMP has been received and falls within the value allowed within the cost allowances highlighted in sections 3 and 5. The GMP will now be assessed for overall value for money and affordability by cost consultants acting for UHL (Rider Levett Bucknall - RLB). This will take into account elements such as:

- Prevailing rates for similar works nationally and locally
- Published cost indices
- Knowledge of the cost of work in the hospital from other recent schemes
- Prime contractor and client retained risks as identified in the joint risk register

This assessment will be complete by Thursday 30th July 2015.

4.3 Risk

A detailed risk register has been developed throughout the FBC process which is regularly reviewed and updated. This is a combined risk register for all components of the vascular service move (Hybrid Theatre, Angiography Suite & VSU, and Ward) which includes common risks as well as those attributable to only one project. The latest version is attached at Appendix 4.

Risks will be classified as:

- Client – these will be the responsibility of the Project Board to manage and monitor
- Contractor – a project specific risk register will be set up for the Project. These will be the responsibility of the Contractor to monitor and will form part of the GMP

The qualification of the costs of identified risks will enable the calculation of a realistic client contingency.

A pro-active risk management regime will be employed throughout the project. It is essential on any project (in particular one of this size and complexity) that the risk management process involves all key members of the project team including:

- Trust Estates
- Trust FM
- Project Consultant Team
- Contractor
- Designers

For each identified risk the following are noted:

- Reference
- Category
- Risk and associated likely impact
- Probability and impact factors and associated overall risk rating
- Mitigation measures
- Cost and time impacts
- Risk owner and / or manager
- Action Date

Over time the allocation of the individual risks (Trust or PSCP) will also be reviewed to ensure risks are placed with the party best placed to deal with it.

4.4 Proposed Charging Mechanisms

The Trust intends to make payments in relation to works required in accordance with the Proposed Key Contractual Clauses.

4.5 Proposed Contract Lengths

A period of mobilisation would be required following approval of the FBC. The indicative construction programme reflected in the capital cost FB forms is 6 months (plus 1 months technical commissioning).

It is planned to raise the purchase order for the Vascular Ward, Angiography Suite, VSU and Hybrid Theatre on August 10th following Trust Board approval on August 6th, in order to meet the identified programme for construction.

4.6 Financial Reporting Standard 5 Accountancy Treatment

Any assets underpinning delivery of the service will be reflected on the Trust's balance sheet.

5 | The Financial Case

5.1 Introduction

The Financial Case examines the affordability of the options &sets out the financial implications for the Trust in terms of capital expenditure and cash flow, income and expenditure account and borrowing. The purpose of this section is to set out the forecast financial implications of the preferred options as set out in the Economic Case and the proposed deal (as described in the Commercial Case).

5.2 Capital Costs

The capital costs of the preferred option total £4.2m outturn and £3.4 m approval sum. Below is an analysis of the total costs.

Table 18 Summary of Capital Costs

Capital Costs	£
Construction	2,196,856
Fees	470,369
Non Works Cost	352,211
Equipment	70,034
Planning Contingency	118,866
Optimism bias	114,570
Approval Sum	**3,322,906**
Inflation	872,383
Total	**4,195,289**

5.2.1 VAT Recovery

Recoverable VAT has been assessed as follows:

Table 19 Recoverable VAT

	Value (£)	VAT (20%)	Recovery of VAT (%)	Total (£)	Comment
Works Cost	2,197,472	439,495	20%	87,899	Based on VAT major refurbishment banding
PSCP fees	233,376	46,675	20%	9,335	Based on VAT major refurbishment banding
Trust fees	199,652	39,930	100%	39,930	100% recoverable
Non Works Costs					
Equipment	58,362	11,672	0%	0	
Planning Contingency (Trust Risk Generally)	99,055	19,811	0%	0	
Planning Contingency (Trust Risk Asbestos)					
PSCP Risk –	95,475	19,095	0%	0	
Inflation	726,986	145,397	0%	0	
Total	3,610,377	722,075	19.00%	137,164	

VAT recoverability assumptions have been based on discussions with the Trust's VAT advisers. The Trust will provide the agreed GMP to them, on which a submission to HMRC will be made.

5.2.2 Financing

The Trust has assumed the scheme will be funded through Interest Bearing Debt. The Trust requires funding in 2015/16 as the capital development is due for completion by April 2016.

5.3 Income and Expenditure

The table below summarises the current income and running costs associated with the Vascular Department together with the impact of the scheme on the current costs of the Vascular Department and the impact a Trust level.

Table 20 Adult Vascular Services – Income & Expenditure

Baseline Costs	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Income									
Vascular Tariff	7,493	7,493	7,493	7,493	7,493	7,493	7,493	7,493	7,493
Total Income	**7,493**	**7,493**	**7,493**	**7,493**	**7,493**	**7,493**	**7,493**	**7,493**	**7,493**
Expenditure									
Current Staff	3,699	3,699	3,699	3,699	3,699	3,699	3,699	3,699	3,699
Current Non pay	1,539	1,539	1,539	1,539	1,539	1,539	1,539	1,539	1,539
Current FM costs	102	102	102	102	102	102	102	102	102
Current Support costs	2,757	2,757	2,757	2,757	2,757	2,757	2,757	2,757	2,757
Total Expenditure	**8,097**	**8,097**	**8,097**	**8,097**	**8,097**	**8,097**	**8,097**	**8,097**	**8,097**
Overheads	**2,193**	**2,193**	**2,193**	**2,193**	**2,193**	**2,193**	**2,193**	**2,193**	**2,193**
Total Current Costs	**(2,796)**	**(2,796)**	**(2,796)**	**(2,796)**	**(2,796)**	**(2,796)**	**(2,796)**	**(2,796)**	**(2,796)**
Vascular Move Costs	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Recurrent Costs									
Vascular and Support Staffing		1,495	1,375	1,375	1,375	1,375	1,375	1,375	1,375
Savings as a result of consolidation					(1,255)	(1,255)	(1,255)	(1,255)	(1,255)
Equipment Maintenance			7	7	7	7	7	7	7
Total Recurrent Costs		**1,495**	**1,382**	**1,382**	**127**	**127**	**127**	**127**	**127**
Depreciation & Capital Charges									
Change in Depreciation		9	9	9	9	9	9	9	9
Interest Payable	23	94	95	91	87	83	79	75	70

Change in Rate of Return									
Total Depreciation & Capital Charges	**23**	**103**	**104**	**100**	**96**	**92**	**88**	**83**	**79**
Total Additional Cost	**23**	**1,598**	**1,486**	**1,482**	**223**	**219**	**215**	**211**	**207**

The total additional costs of the scheme in the medium term are circa £1.5 million.

Workforce

Key to delivery is the development of an appropriate workforce plan to support activity levels within the ward. The workforce plan has been developed in line with assumptions made in the OBC.

Overall the aim of the workforce plan is to:

- Ensure the appropriate supply and skill mix to staff the theatre
- Ensure the right staffing levels are available to achieve the identified standards and manage surges in activity

The additional costs are driven mostly by the provision of an emergency theatre and supporting anaesthetics rota, whilst still maintaining the position at the LGH. These costs will be saved in the medium term when the Trust consolidates its services on to two sites. The remaining costs relate to the additional support for the Surgical Assessment Unit (SAU) at the Glenfield, the additional vascular consultant who will be appointed to manage the emergency take at the LRI, and capital charges.

The Trust has made no assumption in this business case in respect of additional activity. Further activity is assumed as a consequence of the development of a Hybrid theatre, which is considered in a separate business case.

Clearly a significant driver to the costs is the staffing element which is analysed further below:

Table 21 Adult Vascular Services – Workforce Summary

	WTE	£
Vascular consultant	1.00	120,000
SAU Staffing		
Band 8a	0.25	13,791
Band 5	2.00	74,467
Therapies		
Band 7 Physiotherapist	0.80	36,338
Band & Occupational Therapist	0.80	36,338
Anaesthetics	8.00	444,568
Theatres Scrub - B6	1.79	71,318
Theatres Scrub - B5	1.79	58,322
Theatres ODP - B5/6	1.80	65,405
Theatres HCA - B2	1.79	38,920

	WTE	£
Recovery - B5	1.79	58,322
Recovery - B6	1.79	71,318
Recovery Step down B5	0.98	29,634
Recovery Step down B2	0.98	21,345
Imaging Radiographers - B6	0.37	14,124
Imaging Radiographers - B5	0.16	4,996
Imaging Radiographers B3	0.16	3,639
Imaging Nursing - B6	1.22	46,592
Imaging Nursing - B5	3.49	108,982
Imaging Nursing B3	1.81	41,275
Imaging Support	0.66	15,009
Total Workforce Cost	**33.42**	**1,374,703**

The three key areas of additional cost are the vascular consultant, theatres costs and imaging costs.

Vascular Consultant - The Vascular Surgery Unit at UHL faces several future challenges including changes to the vascular trainee allocation and an ageing Consultant workforce. This reconfiguration will require a Consultant Vascular Surgeon to remain at the LRI site to triage ED, give inpatient opinions and operate on emergency cases which are too unstable to transfer to GH.

The transfer of vascular services creates additional workforce pressures within anaesthetics at GH. The additional workforce requirements here are identified as additional middle grade rota to support theatre activity (currently the 2nd ITU middle grade covers theatres until the Consultant arrives), as well as resident on call (3 PA's) for additional cover to reduce frequency of on call. This assumes that anaesthetic resource for day time activity at the LRI is transferred. It should be noted that these requirements are an interim cost pressure until such point as Renal / HPB Services transfer to GH. This is assumed to take place in July 2015. However as this is the catalyst for the change the costs have been included recurrently in the Vascular business case. The transfer of other services will therefore be done at a reduced cost.

In the period between April and July it has been assumed that emergency vascular work will be carried out at the LRI. The additional theatre costs relate to the assessed requirement for additional staff to run additional 10 sessions per week at the Glenfield less the savings that can be made at the LRI

The Interventional Radiology staff relate to the additional staff required to provide the Angiography service at the Glenfield Hospital. No savings at the LRI have been assumed as the service is still required there.

5.3.2 Capital Related Revenue Costs

The workforce represents the majority of the additional costs. The other major costs element is the capital costs. The capital itself has been assumed to be funded through interest bearing debt. The revenue consequences represent the interest on the loan provided and depreciation. However as the majority of the capital cost is based on a refurbished asset, it is unlikely to materially add to value, meaning that depreciation is low.

The table below shows the basis of the capital charges calculation

Table 22 Capital Charge Impact of Scheme (IBD)

Vascular Ward Capital Charges	2015/16	2016/17	2017/18	2018/19
Opening Balance		3,700,245	3,960,003	3,791,492
Drawdown	3,775,760	419,529		
Loan Repayments	(75,515)	(159,771)	(168,511)	(168,511)
Closing loan	3,700,245	3,960,003	3,791,492	3,622,982
Interest on loan (1 July 2015 rate 2.46%)	22,757	94,221	95,343	91,198
Depreciation		8,769	8,769	8,769
Total Capital Charges and interest	22,757	102,990	104,113	99,967

For comparison, the Trust has also modelled the use of PDC to fund the development rather than Interest Bearing debt. The position using PDC is as follows:

Table 23 Capital Charge Impact of Scheme (PDC)

Vascular Ward Capital Charges	2015/16	2016/17	2017/18	2018/19
Return on Asset	32,377	2,916	2,609	2,302
Depreciation		8,769	8,769	8,769
Total Capital Charges (PDC)	32,377	11,685	11,378	11,071

Although the Trust would earn a high Rate of Return if the scheme was funded through PDC, this would be on the impaired asset rather than the PDC given itself and as a result the charge to I&E would be significantly lower than if the scheme was funded through IBD.

5.4 Impact on Trust Income, Cash Flow & Balance Sheet

The Table below sets out the impact on the Trust's balance sheet.

Table 24 Impact on Trust's Balance Sheet

Impact on Trust's Balance Sheet	2015/16	2016/17	2017/18	2018/19

Opening Balance		3,775,760	78,923	70,153
Capital Expenditure	3,775,760	419,529		
Impairment		(4,107,597)		
Depreciation		(8,769)	(8,769)	(8,769)
Closing Balance	3,775,760	78,923	70,153	61,384

In addition to the above the Trust would be paying back the loan required to fund the scheme. It is assumed that £75,000 of loan repayment would be made in 2015/16 and then a figure of £166,000 per annum until 2041.

The new Vascular Department is expected to be available in April 2016.

On coming into use, the Trust has assumed that as the development is refurbished estate the only element what adds to value is the equipment. The basis of this as follows:

Table 25 Value of Impairments

	£
Capital Cost	**4,195,289**
Less Equipment	(87,691)
Revised Capital Cost Excluding Equipment	4,107,598
Planning contingency	148,835
Fees	588,962
Refurb	3,369,801
Total Impairment	4,107,598

5.5 Affordability

In the first instance the scheme identifies a net recurrent increase in revenue costs of c£200,000 per annum. This is driven by increased capital associated costs and the requirement for an additional vascular consultant to manage the emergency take at the LRI

There is also a net non-recurrent increase in revenue costs of c£1.25m per annum anticipated between 2016 to 2019 until reconfiguration and site rationalisation is complete. This reflects an inefficiency of continuing to use three sites to provide emergency theatres and services. It is anticipated that this additional cost is therefore temporary before the Trust consolidates acute services onto two sites.

The Trust Financial Strategy, approved by the Trust Board on 4th June 2015, assumes that the operating cost impact of site reconfiguration will be zero and the non-operating costs impact will be as per the capital programme.

Therefore, if the Trust is to maintain the deficit reduction trajectory in the Financial Strategy the operating cost revenue impact of this development is only affordable if either:

- CIP targets are increased to offset these costs
- Transitional income is secured to offset these costs
- The development is funded by the c£4m per annum allowance made in the Financial Strategy for annual operating cost pressures.

The scheme identifies in the first instance an ongoing affordability gap of c£1.5 M per annum. This reflects an inefficiency of continuing to use three sites to provide emergency theatres and services. It is anticipated that this additional cost is therefore temporary before the Trust consolidates services onto two sites.

5.5.1 Long Term Financial Model

The current 5 year LTFM which reflects the detail of the Financial Strategy approved by the Trust Board on the 4th June 2015 is constructed in a way which aggregates this development as part of the general site rationalisation service development. The assumptions regarding this service development include the operating costs impact of the developments will be zero.

As shown above, the case identifies additional operating costs of c£1.4m pa until 2019 and c£130,000 pa after 2019 and additional outturn capital costs of £0.1m. The revenue costs will need to be managed as described above whilst the capital cost increase will be mitigated across the total capital funding projection of c£330m.

6 | The Management Case

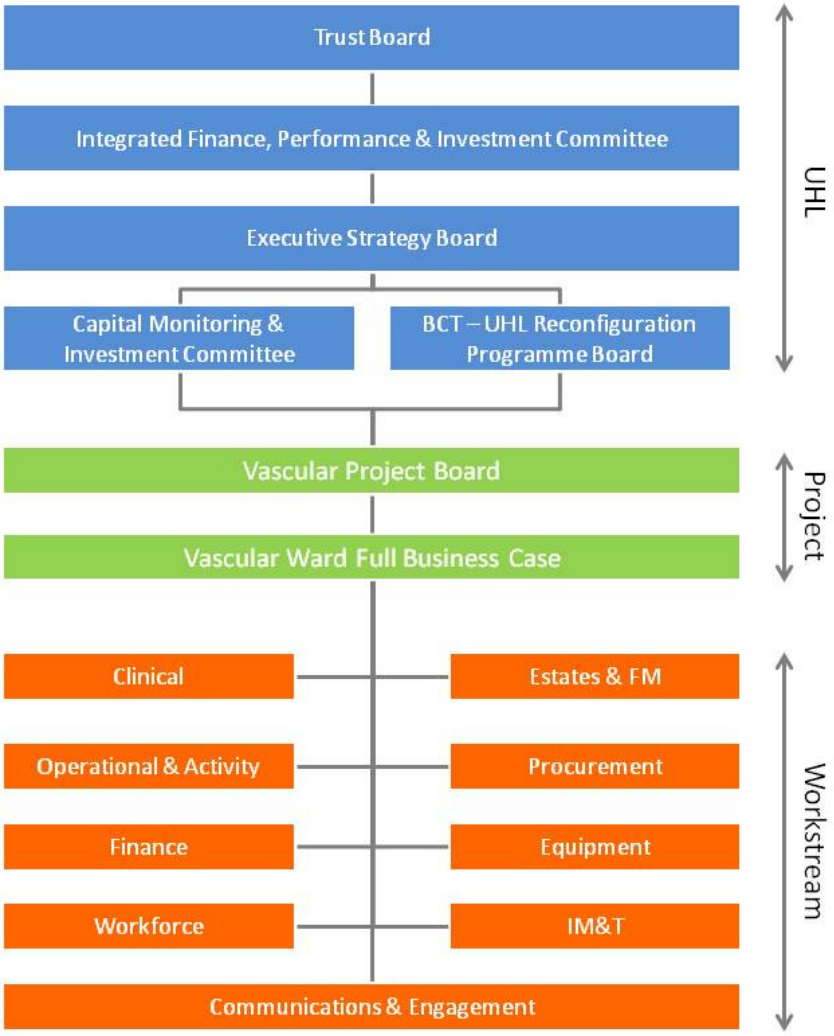
6.1 Introduction

The Management Case provides a summary of the arrangements which have been put into place for the successful delivery of a vascular ward, the associated other service relocations required as a result of the decanting moves, service operation changes, and to secure the benefits sought through the investment.

6.2 Project Governance Arrangements

Project Governance arrangements have been established to reflect national guidance and the Trusts own Capital Governance Framework, as shown in the diagram below.

Figure 6 Vascular Ward Project Structure



6.2.1 Project Roles and Responsibilities

The Key Project roles are described below:

- **Executive Sponsor /Senior Responsible Owner (SRO):** This role is being performed by Kate Shields, with responsibility to the Executive Trust Board for delivery of the project to meet their terms of reference
- **Project Board Chair**: This role will be performed by Kate Shields for the Trust, with responsibility for providing impartial leadership of the project board and ensuring the continued commitment of stakeholders in order to deliver the collaborative approach required to deliver service efficiencies.
- **Senior User:** This role is being performed by Akhtar Nasim, Head of Service (Vascular Lead Clinician), with responsibility for ensuring that the project maintains alignment with the service and business targets described in the Business Case and working within the terms of reference set by the Project Board.

- **Major Capital Projects Director:** This role is being performed by Richard Kinnersley, Major Projects Technical Director with designated responsibility for all Capital Projects across UHL
- **Project Manager:** This role is being performed by Neal James with designated responsibility for delivering the FBC document. He will have day-to-day responsibility for administration of the development of the project (within the delegated role permitted by Project Board).
- **Service Project Managers:** Senior managers from the Vascular and associated departments will undertake this role, having day to day responsibility for providing advice on the service brief to the development team and for planning and delivery of service and workforce change under the direction of the Senior User.

Regular Progress Reports will be submitted to the Executive Strategy Board for onward reporting and management within the established Trust management structure.

6.2.2 Core Group Responsibilities

The roles and responsibilities for the Core Groups are summarised as follows:

Executive Strategy Board (ESB)

This group is a designated committee appointed by the Trust Board, with responsibilities which in summary, include:

- To advise the Trust Board on formulating strategy for the organisation.
- To ensure accountability by holding each other to account for the delivery of the strategy and through seeking assurance that all systems of control are robust and reliable.
- To lead the Trust executively, in accordance with our shared values, to deliver our vision and, in doing so, help shape a positive culture for the organisation

Vascular Project Board

The Project Board at OBC stage was set up to manage the development of all the vascular components in a single case. Subsequent to the separation of the cases, it was deemed appropriate for the same forum to manage all three cases. Membership is as follows:

Table 26 Vascular Project Board

Project Team Member	Role
Kate Shields	Director of Strategy, Project Board Chair.
Akhtar Nasim	Consultant Vascular Surgeon, Service Lead

Richard Kinnersley	Major Projects Technical Director
Caroline Sissling	Operational Manager, Vascular Services
Carolyn Stokes	Service Manager, Vascular Services
David Jenkins	Consultant Microbiologist
Debra Green	Project Manager, Strategy
Elizabeth Collins	Infection Prevention Lead
Gaby Harris	ITAPS CMG
Guy Fishwick	Consultant Radiologist
Neal James	Project Manager
Kate Ward	Matron, Vascular Services
Judy Gilmore	Radiology Service Manager
Matthew Bown	Consultant Vascular Surgeon
Richard Power	CMG Clinical Lead, Musculoskeletal & Specialist Surgery
Sam Leak	CMG Lead, Renal, Respiratory & Cardiothoracic
Sarah Taylor	CMG Lead, Musculoskeletal & Specialist Surgery

Key roles and responsibilities include:

- Responsibility for delivering the project within the parameters set within the business case
- Providing high level direction on stakeholder involvement and monitoring project level management of stakeholders
- Providing the strategic direction for the project
- Ensure continuing commitment of stakeholder support
- Key stage decisions
- Progress monitoring

Vascular Work Streams

As shown in the Vascular Project structure, Figure 6, a number of work stream have been set up to ensure the successful development of the vascular project.

Table 27 Work Streams & Deliverables

Work Stream	Lead	Key deliverables
Operational (including key dependencies)	Ahktar Nasim (Consultant Vascular Surgeon & Head of Service)	Clinical / Operational Pathways (SOPs)
		Activity Scheduling
		Schedule of Accommodation / 1:200 Layouts
Workforce	Clare Blakemore (RRC CMG HR Lead)	Medical Staffing Rota implications
		Clinical Staff implications
		Recruitment
		Management of Change
		Cross-site Transfer
Finance	Tim Pearce	Capital Costing
		Enabling Costs
		Staffing Costs
		Revenue
		Financial Benefits
Procurement & Equipment	David Street (Senior Category Manager)	Fittings, Furnishings and Equipment
		General Equipment

Work Stream	Lead	Key deliverables
		IM+T
Communications	Rhiannon Pepper (Communications Manager)	External and Internal Communications
Estates & Technical	Debra Green (Project Manager)	Site-wide Infrastructure
		Detailed design overview
		Construction

The Work Stream Committees have been set up to take responsibility for driving the key work-streams and to report back to the Project Board on a regular basis.

Key roles and responsibilities will include:

- Day to day responsibility for the delivery of the project to meet the parameters described within the business case
- Provision of appropriate reports on status to the Project Director
- Management of risks and issues and escalation of appropriate matters for executive direction/ approval
- Providing working groups with detailed briefs
- Monitoring, co-ordinating and controlling the work of the Working Groups
- Drawing together the outputs of the Working Groups
- Ensure continuing commitment of stakeholders, both internal and external

6.2.3 Project Execution Plan

A Project Execution Plan (PEP) has been prepared (Appendix 5) to provide detailed information on proposed project management arrangements, including:

- Aims and objectives
- Benefits and constraints
- Organisation
- Roles and responsibilities
- Detailed programme for stage activities
- Risk management arrangements
- Statutory Approvals and Quality Standards
- Project Communications

The end stage of the project will result in the completion, handover and commissioning of the new facility. The Emergency Floor Project Board is responsible for providing assurance that the project has been delivered in terms of product and quality in line with the business case.

6.3 Project Plan

The project will be managed in accordance with the principles of PRINCE2 methodology.

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6.3.1 Programme

6.1

The Project Programme is intended to deliver the project by April 2016. The milestones for this project are set out below. A detailed programme is at Appendix 6

Table 28 Project Milestones

Milestone	Date
Integrated Finance, Performance & Investment Committee support for FBC to be approved by Trust Board	July 30th 2015
Trust Board Approval of FBC	August 6th 2015
Purchase Order placed for construction	August 10th 2015
Construction Commences	October 2015
Handover	April 2016

6.4 Use of Special Advisors

Special advisers have been used in a timely and cost-effective manner in accordance with the Treasury Guidance.

Table 29 External Advisors

Vascular & Hybrid Theatre Development		
1	P&HS Design	Architects
2	RLB	Cost Consultants
3	RLB	Client Advisor: Project
4	Curtains	Structural Engineers
5	CAPITA	Mechanical and Electrical Engineers
6	RLB	PMO
7	Interserve	Building/Construction Supervisors
8	RLB	CDM
9	Interserve	BREEAM Advisor

6.5 Stakeholder Engagement

A Communications Strategy has been developed by the Communications & Engagement work-stream; this identifies key stakeholder groups and key messages that need to be shared at key milestones in the project. This is detailed at Appendix 7.

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Methods of communicating information about the Project to various Stakeholders are detailed below:

1

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1.5

6.5.1 Internal

- **Face to face briefings:** These should be used as the primary source of communication with staff
- **INsite pages:** A section on the Vascular project (Hybrid theatre is a component part)can be included on the staff intranet pages
- **Display boards/ Hoardings around building work**
- **Hospital Hopper:** Information can be displayed aboard and on the exterior of the Hospital Hopper buses, which travel between the three UHL hospital sites.
- **Factsheet style newsletter**
- **Blueprint & Chief Executive's Briefings:** Utilise Blueprint reconfiguration newsletter for staff (bi-monthly) to update staff on progress.

6.5.2 External

- **Social media:** Utilising the Trust's Twitter and Facebook accounts
- **Website:** A section on the Vascular Project can be included on the UHL website, with a link from the homepage
- **Local media**
- **Leicester Mercury Patient Panel:** Panel made up of members of the public who provide comment on local issues
- **Annual public meeting (September):**Use this as an opportunity to share what has been accomplished and what is planned next
- **Patient information leaflet**

6.5.3 Infection Prevention

Representatives from UHL's Infection Prevention (IP) team, including the Lead IP Nurse and Consultant, have been fully engaged throughout the design development. IP representatives have provided guidance and signed off on all relevant aspects of the design.

6.5.4 Health & Safety

Representatives from UHL's Health & Safety team were consulted on the project and design solution. The size and layout of rooms throughout were reviewed Health rooms were reviewed in specific detail to ensure compliance for patient and staff safety.

6.6 Outline Arrangements for Change & Contract Management

Change management associated with the project will be managed through Trust Board, under the chairmanship of the Chief Executive/Senior Responsible Owner (SRO) and Executive Sponsor. Day to day change management issues will be discussed at the Project Team level and any resultant contract and/or cost changes will need to be approved by the Project Board.

6.7 Outline Arrangements for Benefits Realisation

The delivery of benefits will be managed through the Vascular Project Board. A benefits realisation plan has previously been described in Section 2.16. This sets out who is responsible for the delivery of specific benefits, when they will be delivered, and how achievement of them will be measured. The key opportunity is presented by the new design for facilities, which will ensure capacity meeting demand, efficiencies in service delivery, compliance to standards and minimised disruption to overall Trust operations.

6.8 Outline Arrangements for Risk Management

The Trust ensures through the involvement of its employees, that risk management serves as a mechanism for risk reduction. Also, by taking a proactive approach to managing risk exposure, the Trust ensures protection of its patients, staff, visitors, assets and reputation. This project will be managed in that context.

6.8.1 Risk Management Policy

The risk management system is described in the Trusts Risk Management Policy which is accessible to all staff via the Trust Intranet. It is based on an iterative process of:

- Identifying and prioritising the risks to the achievement of the organisation's policies, aims and objectives
- Evaluating the likelihood of those risks being realised and the impact should they be realised
- Managing the risks efficiently, effectively and economically

This is achieved through a sound organisational framework, underpinned by a robust policy framework, which promotes early identification of risk, the co-ordination of risk management activity, the provision of a safe environment for staff and patients, and the effective use of financial resources.

The Trust Risk Register details, in order of relative importance, all the significant risks facing the Trust which are most likely to affect (positively or otherwise) achievement of the Trust's objectives.

All new Trust employees attend the corporate induction course, which includes elements of risk management, before they commence their duties in the workplace. This corporate induction is followed by a local induction, delivered by the service line manager, during which time staff receive information on risks specific to that service.

Risks are identified through feedback from many sources such as proactive risk assessments, adverse incident reporting and trends, clinical benchmarking and audit data, complaints, legal claims, patient and public feedback, stakeholder/partnership feedback and internal/external assurance assessments.

6.8.2 Assurance Framework

The Trust's Assurance Framework provides it with a simple but comprehensive method for the effective and focused management of the principal risks to meeting the Trust's corporate objectives. In this way it provides a structure and describes the controls and assurance mechanisms in place to manage the identified risks. This simplifies Board reporting and the prioritisation of action plans, which, in turn, allows for more effective performance management.

The key elements of the Assurance Framework are:

- Establishment of the Trust's principal objectives (strategic & directorate)
- Identification of the principal risks that might threaten the achievement of these objectives
- Identification and evaluation of the key controls intended to manage these principal risks
- Setting out of the arrangements for obtaining assurance on the effectiveness of the key controls across all areas of principal risk
- Evaluation of the assurance across all areas of principal risk
- Identification of the positive assurances and areas where there are gaps in controls and or assurances
- Putting in place of plans to take corrective action where gaps have been identified in relation to principal risks
- Maintenance of dynamic risk management arrangements including, crucially, a well-informed risk register

Therefore, the Assurance Framework provides a simple framework for reporting key information to Boards. It identifies which of the organisation's objectives are at risk

because of inadequacies in the operation of controls or where the organisation has insufficient assurance about them. At the same time it provides structured assurances about where risks are being managed effectively and objectives are being delivered.

The primary focus is confidence that effective processes are in place to deliver the strategic objectives of the Trust. This allows Boards to determine where to make efficient use of their resources and address the issues identified in order to improve the quality and safety of care.

Where any significant gaps in assurance are identified they are transferred to the risk register and an action plan is developed.

6.9 Outline Arrangements for Post Project Evaluation

The outline arrangements for post Project Evaluation (PPE) have been established in accordance with best practice. The trust will ensure that a thorough post-project evaluation is undertaken at key stages in the process to ensure that positive lessons can be learnt from the project. These will be of benefit to:

- The Trust – in using this knowledge for future capital schemes
- Other key local stakeholders – to inform their approaches to future projects
- The NHS more widely – to test whether the policies and procedures used in this procurement have been used effectively
- Contractors – to understand the healthcare environment better

The evaluation will examine the following elements, where applicable at each stage:

- The effectiveness of the project management of the scheme – viewed internally and externally
- The quality of the documentation prepared by the Trust for the contractors and suppliers
- Communications and involvement during procurement
- The effectiveness of advisers utilised on the scheme
- The efficacy of NHS guidance in delivery the scheme
- Perceptions of advice, guidance and support from the strategic health authority and NHS Estates in progressing the scheme

Formal post project evaluation reports will be compiled by project staff, and reported to the Board to ensure compliance to stated objectives.

6.9.1 Post Implementation Review (PIR)

These reviews ascertain whether the anticipated benefits have been delivered and are timed to take place immediately after the hybrid theatre opens and then 2 years later to consider the benefits planned.

6.10 Contingency Plans

The Trust has a framework for Business/Service Continuity. The Trust's framework ensures the Trust can comply with the business continuity provisions of the Civil Contingencies Act 2004.Contingency plans have been developed to ensure the Trust can continue to deliver an acceptable level of service of its critical activities in the event of any disruption.

In terms of financial contingency, section 5 highlights a planning Contingency of 5% of the total costs, including fees and equipment, for short listed options.

6.11 External Review

Project Health Check reviews (previously known as Gateway reviews) provide a valuable perspective on the issues facing the internal project team, and an external challenge to the robustness of plans and processes. The process provides support to SROs by helping them to ensure the following:

- The best available skills and experience are deployed on the programme or project
- All the stakeholders covered by the programme or project fully understand the current status and the issues involved
- The programme or project can progress more confidently to the next stage of development, implementation or realisation
- Achievement of more realistic time and cost targets for the programme or project

A Health Check Review 3: Investment Decision was undertaken on both the ICU project and the vascular enabling moves; and associated report issued to the Project SRO on the 9th July 2015. A Delivery Confidence Assessment of AMBER was issued by the review team, indicating that: "*successful delivery of the project appears likely. However attention will be needed to ensure risks do not materialise into major issues threatening delivery*".

Feedback specifically for vascular services related to the need to ensure that all financial tables within the FBC document were complete and available for scrutiny as part of the IFPIC and Trust Board approvals process.

Appendices

Appendices are attached as separate documents and consist of the following:

Appendix	Details
1	Patient Survey Response
2	Due Regard / Quality Impact Assessment
3	Estates Annex
4	Full Risk Register (FBC stage)
5	Project Execution Plan
6	Project Programme
7	Communication and Engagement Plan

University Hospitals of Leicester NHS
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Building Caring at its best

Full Business Case | Vascular Ward