Design Quality Indicator - Introduction

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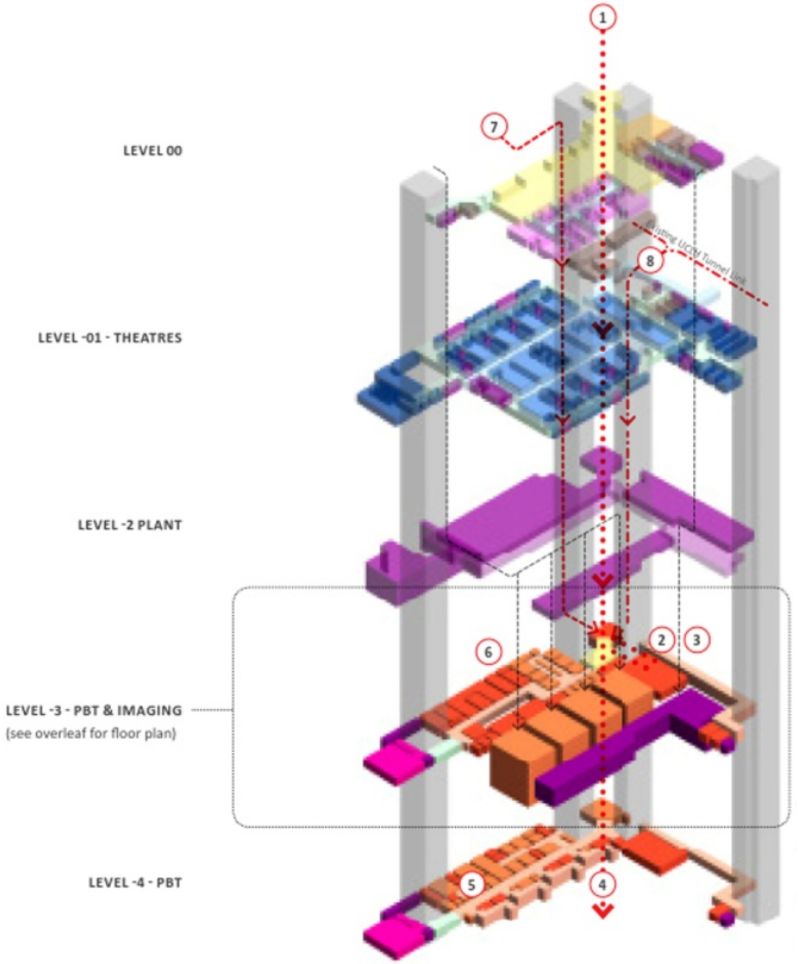
dqi.org.uk

Design Quality Indicator

Purpose

Impact of Design Quality Indicator (DQI)

for Proton Beam Therapy



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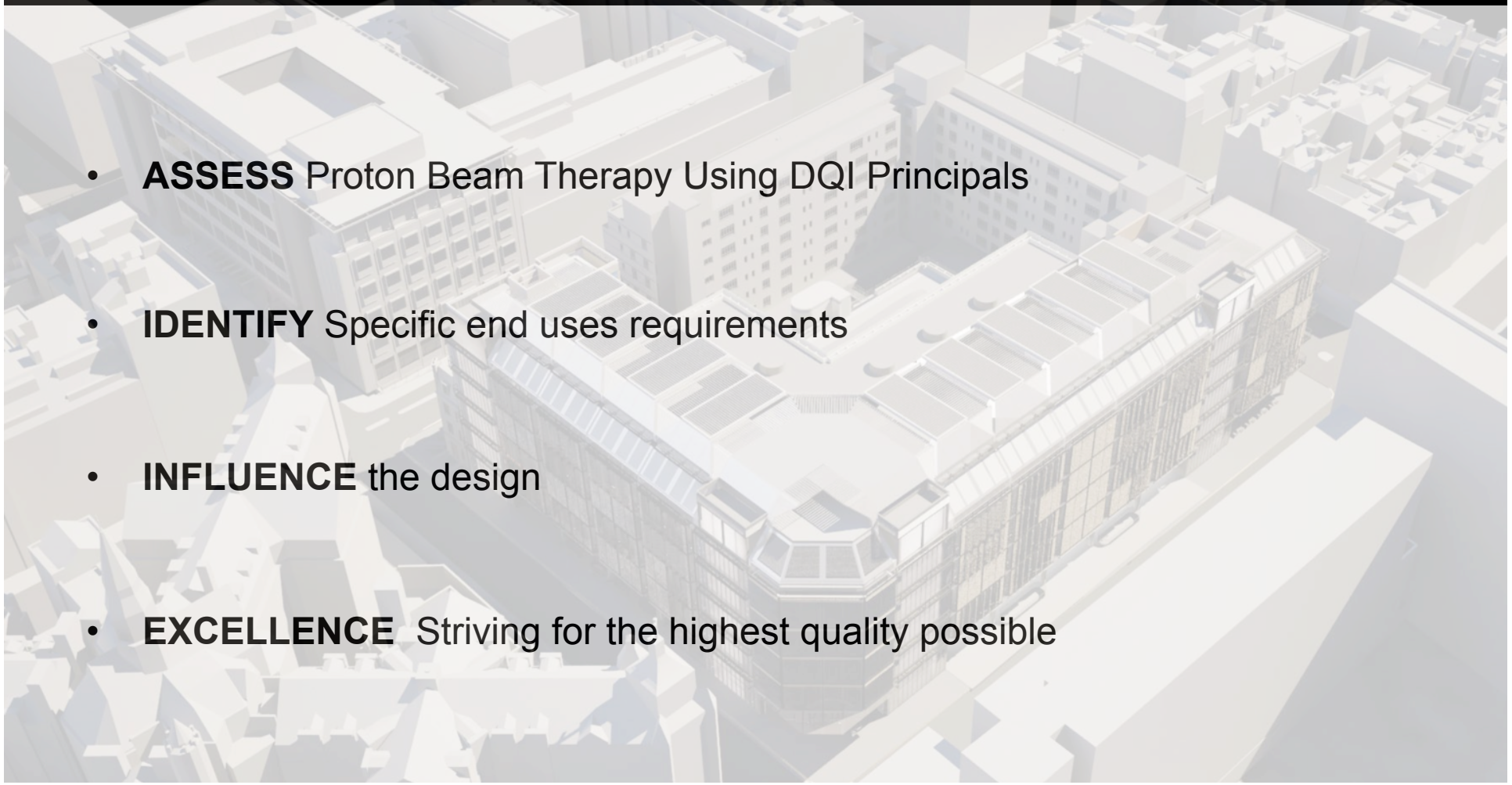
Why DQI for Proton Beam Therapy



- **ASSESS** Proton Beam Therapy Using DQI Principals
- **IDENTIFY** Specific end uses requirements
- **INFLUENCE** the design
- **EXCELLENCE** Striving for the highest quality possible

Proton Beam Therapy/Phase 4

DQI Stages

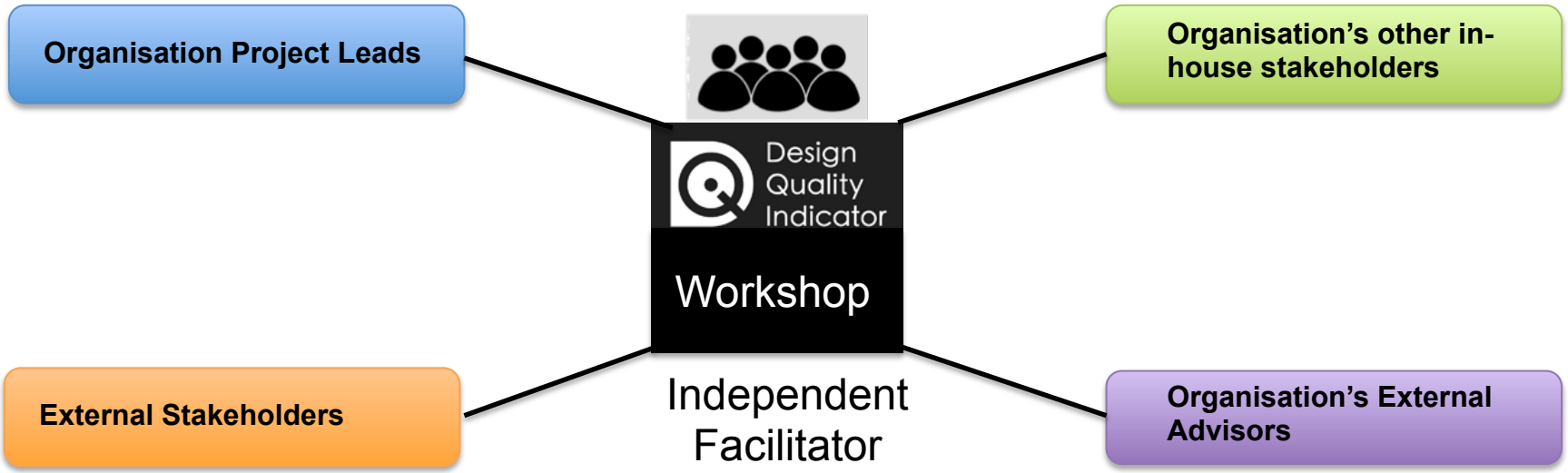
Design Quality Indicator

Proton Beam Therapy

A process that enables every aspect of design quality to be assessed at each stage of the construction process from conception through to occupancy analysis

Organisation of the DQI Workshop

ATTENDEES



"DQI puts the client, their stakeholders, the design & project team and the constructor, in the same vehicle for the whole of the journey"

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Organisation of the DQI Workshop

ATTENDEES

Organisation Project Leads

- Project design Champion
- Project Director
- Project Manager
- Head of finance
- Head of Estates
- Infection control/Microbiologist
- Lead Nurse
- Lead clinician
- Department Heads/Team Leaders

External Stakeholders

- Patient representative(s)
- Carer(s)
- Associated voluntary organisations
- Health and Wellbeing Board representatives
- Local GPs
- Local Commissioner(s)
- Local Authority representative

Organisation's other in-house stakeholders

- Junior Clinician
- Nurse
- Porter
- Caterer
- Admin services
- Patient & Staff Safety
- Procurement Lead
- Consultant
- Sustainability Advisor

Organisation's External Advisors

- Cost Advisor
- Architect
- Healthcare Planner
- PSCP / Lead contractor
- Any specialist that may be required, for example Radiation Protection Officer
- Mechanical and Electrical Engineer

DQI empowers **stakeholders** to be actively involved in **structured workshops** with construction and design professionals to set **targets** against which to **assess design quality**

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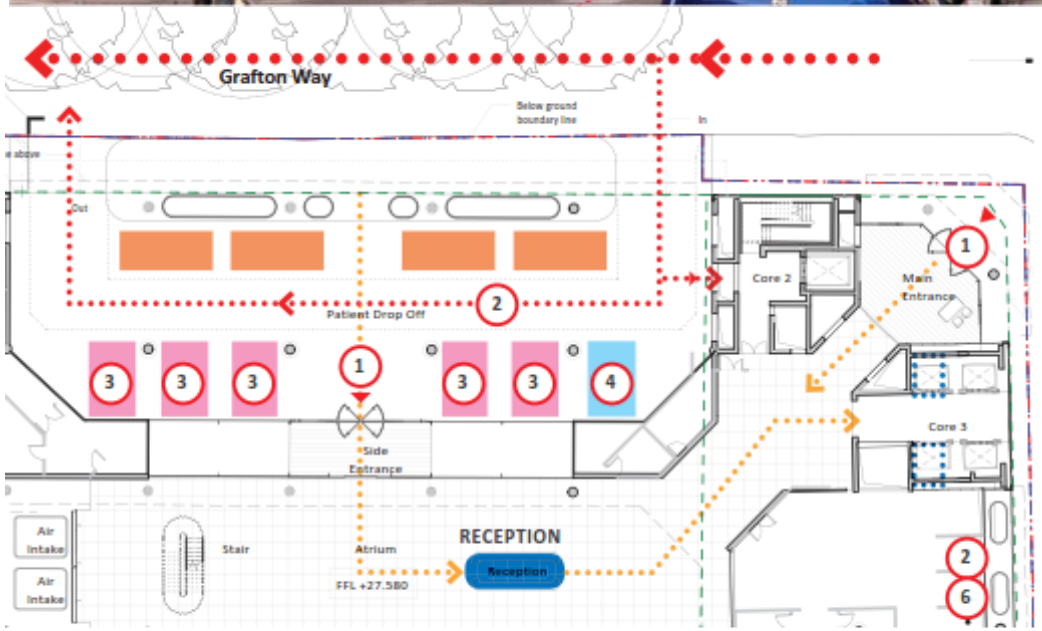
Presentations from the design team

TO ADDRESS THE DQI PRINCIPLES

- BUILD QUALITY
- FUNCTIONALITY
- IMPACT

Functionality - Access Q6



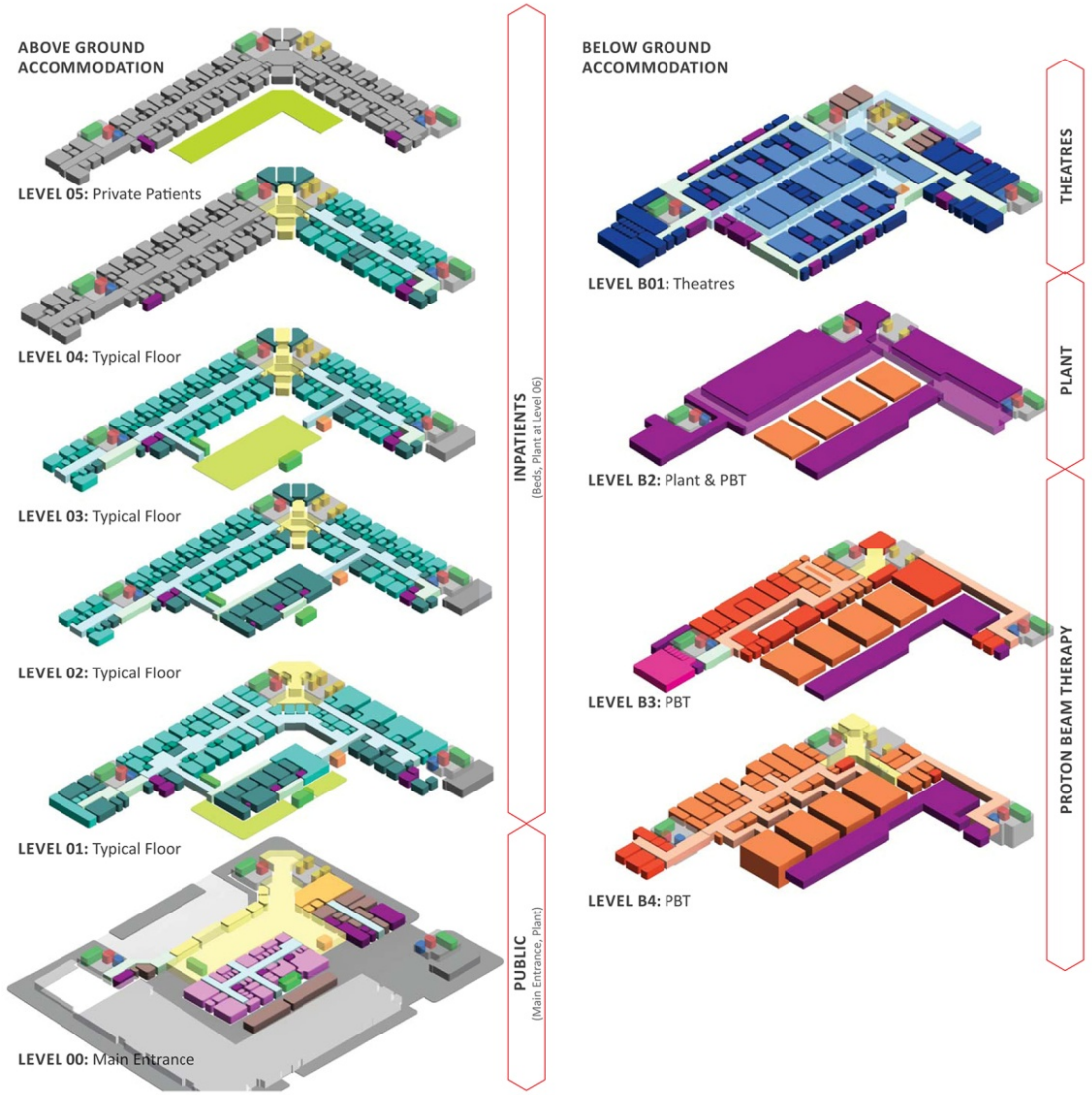
- Discrete entrances are provided for those arriving by ambulance transfer and will be access controlled – via cores 1 or 2. Access to CCU and inpatient wards most likely requirement
- Policy for sensitive transfer of deceased patients to be established
- Security control / CCTV from central desk in atrium

Functionality - Uses

Q18

The Rosenheim / Odeon site is the largest remaining undeveloped area on the UCLH campus:

- PBT brief was established based on facilities in other centres (including USA)
- A ward evaluation study was completed in 2013 before the brief was finalised to illustrate how optimum use could be made of the upper floors for inpatient beds.
- Studies included options with and without surgery
- This established inpatient and theatre capacities and refined policies



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Questionnaire and scoring

Functionality

Access

Access deals with the whole journey from home (or where you start) to the building, department or room you need to get to. This Section asks whether people will easily and efficiently get to and from the site using a variety of means of transport and whether they will logically, easily and safely get into and out of the building.	Strongly Disagree	Disagree	Tend to Disagree	Tend to Agree	Agree	Strongly Agree	Not Applicable	Don't know
1 The location of the building will provide good access for everyone including people using public transport								
Getting to and from the site should be straightforward and safe for all who need to go there. Access requirements for staff, patients and visitors arriving at the building using public transport should be well considered. Pedestrian routes from public transport points should be clear, safe and sensitively designed. Consideration should be given to bringing public transport into the site where possible and appropriate. Any on-site roads should be adequate and sensitively designed.								

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Group Debate

Using DQI principals

- Specific project/department objectives
- What is important to them or their team/department
- Capture Burning issues
- Strengths and Weaknesses about the current design or their existing building
- What could be improved
- Issues that need resolving

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Outcome of the Workshop

Example issues

- Patient Safety
- Control of infection
- Privacy and Dignity
- Waste movement
- Traffic flow
- Staff facilities
- Staff travel within departments
- Wayfinding

2.1-1 Pedestrian Access The nature and location means excessive traffic flow. The existing pedestrian crossing is not well located for the entrance and adjacent hospital making it unsafe for staff and patients. Consider moving the existing crossing and appropriate signage to ensure entrance and flow from adjacent hospital is clear. Ambulance route will be heavily used by patients and staff as this is the direct route, consider vision from reception. The majority of the group thought that most people would use this entrance

2.6-5 Replacement Equipment and high end imaging changes have significant power, heating requirements, effecting additional cooling. Ensure adequate redundancy up to 2017. Note: 10% allowance currently considered and manufacturers are forecasting for future change. Estates team to review this future capacity to ensure this is realistic.

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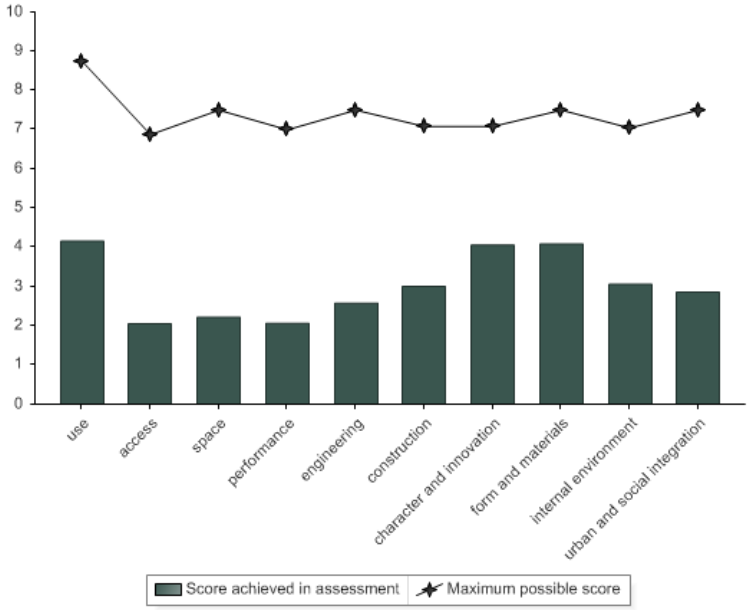
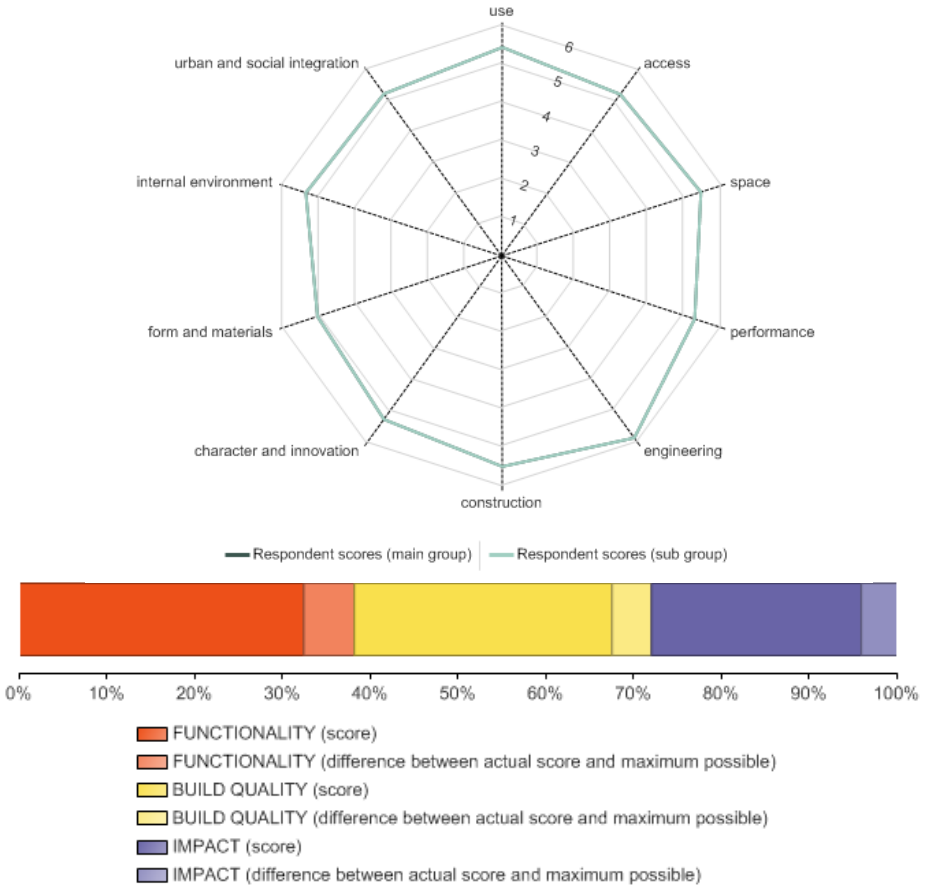
Assessment Results

- Strengths and weaknesses
- Identify areas for improvement





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Benefits of the DQI

- STAKEHOLDER ENGAGEMENT - UNDERSTAND THE DESIGN
- EARLY WARNING TO ENSURE STAKEHOLDER REQUIREMENTS ARE MET BEFORE TOO LATE IN THE DESIGN OR CONSTRUCTION PROCESS
- HIGH QUALITY ACHIEVED
- FIT FOR PURPOSE DESIGN
- ENABLES QUALITY TO BE MEASURED AND IMPROVED UPON
- CAN BE TAILORED TO INDIVIDUAL PROJECT OBJECTIVES
- BETTER ENVIRONMENT FOR THE:
    - PATIENT
    - STAFF

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Compliance

Synergy with BIM processes on-going.

Dovetails with Government Soft Landings

BIM Building Information Modelling (BIM) Task Group

Signposted by BREEAM –
DQI used as consultation process

breeam

Recommended by OGC in procurement guides

OGC

Department of Health – Health Building Note, Common Minimum Standards (CMS).
Features in the five case model business case checklist

DH Department of Health

University College London Hospitals NHS
NHS Foundation Trust

Proton Beam Therapy/Phase 4

Design Quality Indicator

Project Activity Guide

NHS England
National Suport Team: Projects Appraisal Unit
Section 6. Construction / refurbishment project activity guide: 2013-2014

Version: 1st October 2013

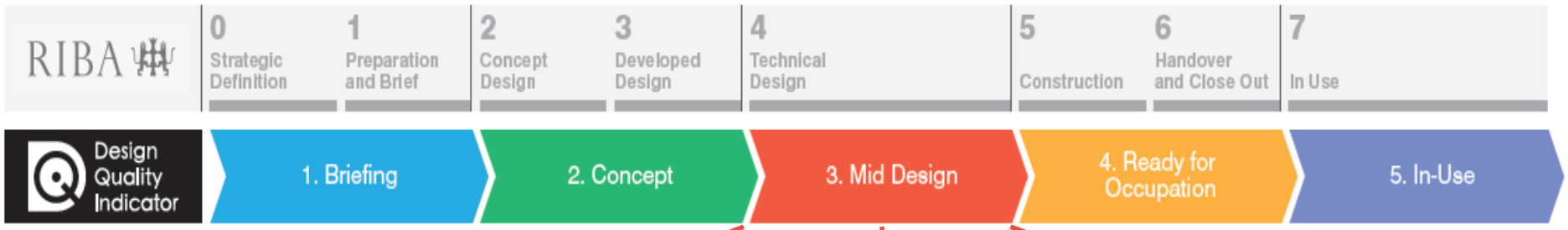
Standard project business case phasing	**Strategic Outline Case** (SOC) [Project Initiation Document -**PID**- for smaller schemes]	**Outline Business Case** (OBC)	**Full Business Case** (FBC)	*Construction Phase*	**Post Project Evaluation** (PPE)	
Private Finance Initiative (PFI) business case phasing	**Strategic Outline Case** (SOC)	**Outline Business Case** (OBC)	**1.** OJEU **2.** Shortlist Bidders **3.** Issue ITPD **4.** Draft Appointment Business Case (dABC) approval **5.** Issue ITSFB **6.** Final Tenders **7.** Recommend Preferred Bidder **8.** Appointment Business Case (ABC) approval **9.** HM Treasury approval **10.** Confirmatory Business Case (CBC) approval. **11.** Financial/Contract close	*Construction Phase*	**Post Project Evaluation** (PPE)	
NHS Local Improvement Finance Trust (LIFT) business case phasing	**Strategic Outline Case** (SOC)	OBC /procurement decision	**LIFT Stage 1** business case	**LIFT Stage 2** business case	Financial Close	*Construction Phase*	**Post Project Evaluation** (PPE)
Department of Health (DH) 'Health Gateway Reviews' *(updated by DH Health Gateway team July 2013)*	**Gateway 0** (Strategic Assessment)	**Gateway 1** (Business Justification)	**Gateway 2** Procurement Strategy)	**Gateway 3** (Investment Decision)	**Gateway 4** (Readiness for Service)	*Construction Phase*	**Gateway 5** (Benefits Evaluation)
Building Information Modelling (BIM) *(Updated by BIS BIM TaskGroup July 2013)*	**DATA DROP 1** Requirement & Constrain Model	**DATA DROP 2** Outline Solution Model	**DATA DROP 3** Construction Information Model	**DATA DROP 4** Operation and Maintenance Information Model	**DATA DROP 5** Post Occupation Validation Information Model and on-going O&M	
BRE Environmental Assessment Model (BREEAM)	**Pre Assessment**	**Design Stage Assessment**	*Issue Interim Certificate*	**Construction & Post Construction Assesment**	**Evaluation and** *Issue Final Certificate*	
Design (Quality Indicator) assessments (DQI) *(Updated by Construction Industry Council July 2013)*	**Stage 1** Briefing	**Stage 2** Mid Design	**Stage 3** Detailed Design	*Construction Phase*	**Stage 4** Ready for Occ	**Stage 5** In use
External Design Review Panel (DRP) via CABE / Design Council	**Dependant on nature of scheme**	**Dependant on nature of scheme and Local Authority planning requirements**	**Dependant on nature of scheme and Local Authority planning requirements**	*Construction Phase*	
Royal Institute of British Architects (RIBA) Stages RIBA 2007 ►	**Stage A** Project Appraisal	**Stage B** Design Brief	**Stage C** Design Concept	**Stage D** Developed Design (1:200)	**Stage D/E** Design and cost estimates	**Stage E:** Technical Design **Stage F:** Production **Stage G:** Tender documentation **Stage H:** Tender Action	**Stage J:** Mobilisation **Stage K:** Construction to practical completion.	**Stage L** Post Practical Completion
RIBA 2013 ►	**0** Strat Definition	**1** Preparation & Brief	**2** Concept	**3** Definition	**4** Technical Design	**5** Construction	**6** Handover	**7** In use
Procure 21 *plus* (P21+)Key Stages *Optimum point for action*	**P21+ Stage 1**	**P21+ Stage 2**	**P21+ Stage 3**	**P21+ Stage 4**	**Post Project Evaluation** (PPE)	
Trust registers scheme						
PSCP selection process						
PSCP selected						
Contract entered into						
Design Development						
Construction			Reach GMP			
Other key activity / milestones						
Approved clinical service strategy						
Approved Estates Strategy						
Approved Travel Plan						
Approved Sustainable Dev. Policy/Plan						
Commissioner support	For SOC	For OBC	For FBC			
Local Authority Planning Approval (Full)	*Allow 13 weeks post written approval for challenge / judicial review*					

NHS England Project Appraisal Unit October 2013

Proton Beam Therapy/Phase 4

Proton Beam Therapy next steps

Proton Beam Therapy



Proton Beam Therapy

Day Surgery, theatres
And discharge

Inpatient beds
And critical care

Patient representatives for each department

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Questions?