

# Healthcare Estate for Innovation

Peter Ward



Guy's and St Thomas'  
NHS Foundation Trust

# King's Health Partners

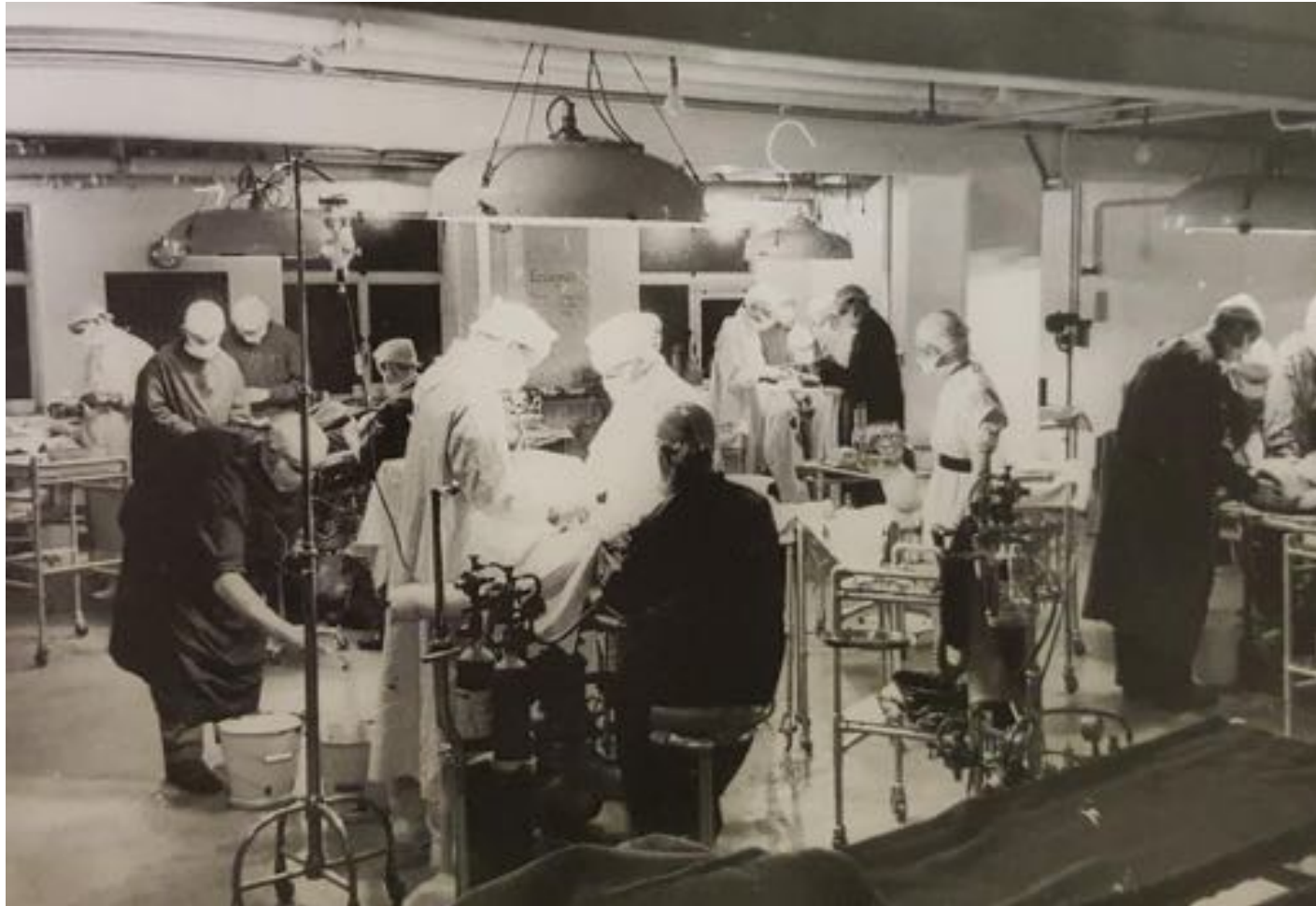
- One of the largest Academic Health Science Centres in Europe
- Teach over 30,000 students
- Employ over 40,000 staff
- Treat over 4.5m patients a year
- Shared vision for campus development



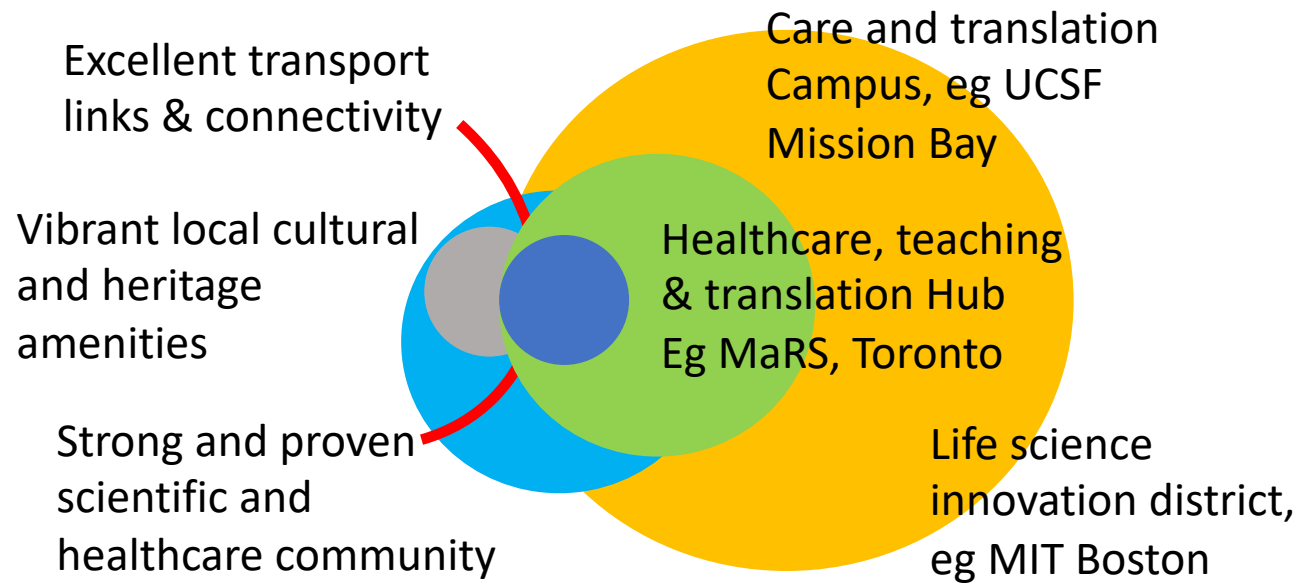








# The next 70 years



## Forget the start-up garage myth. We need golden triangles and super clusters



During the future, there are strong ties between academic institutions and innovation. (Image: Shutterstock)

KING'S HEALTH PARTNERS

# Occupier / Developer / Investor alignment



### Recruiting and retaining the best talent

- Does your **real-estate and location strategy** support your **growth and productivity**?
- Are you **close enough to research, education, infrastructure and amenities**?



### Clustering and collaboration

- Are you in the **right area** to foster **innovation and encourage growth**?
- Do you know **where the clusters of the future will be**?



### Sector convergence & innovation

- Innovation **doesn't have boundaries** and this is **blurring the traditional boundaries of sectors**.
- Are you embracing a **multi-faceted R&D world**? Use real estate to **create the opportunity to innovate**?



### Technology & data

- **1.7% of all patents filed with EPO are from med tech** – most of any sector\*
- How will the future of **technology impact the industry and its property infrastructure**? What is the **benefit of embracing it**?



### The Future of Work

- By 2025, **30% of corporate portfolios will be flexible** – co-working, **resilient and/or accelerator space**\*\*
- Embrace **uncertainty and turn disruption into opportunity** by including **people, technology and workplace** into your real estate strategy



### Drive cost efficiency from Mergers and Acquisitions

- **Mergers and Acquisitions in the Life Sciences industry fell 30% in 2022, but expect to see increase in 2023 - 23\*\*\***
- Are you **maximising the value of real estate in the M&A process**? Start **thinking real estate as early as possible**.

Source: JLL



# Thank you

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**Guy's and St Thomas'**  
NHS Foundation Trust



# Adaptable Estate Strategy & Specification

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Rupert Corbett

18<sup>th</sup> June 2019



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**NHS**  
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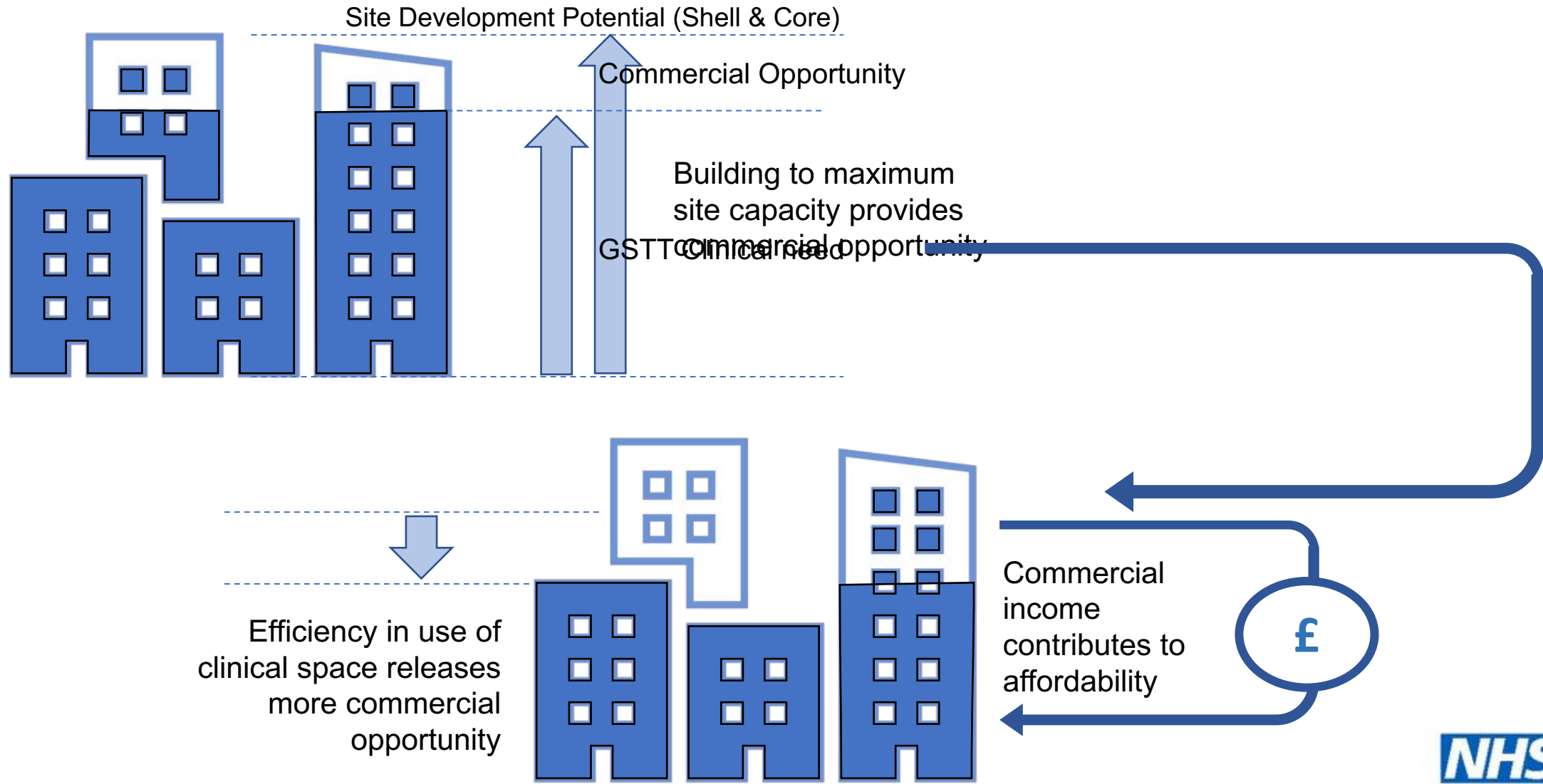
# Knowledge Clusters



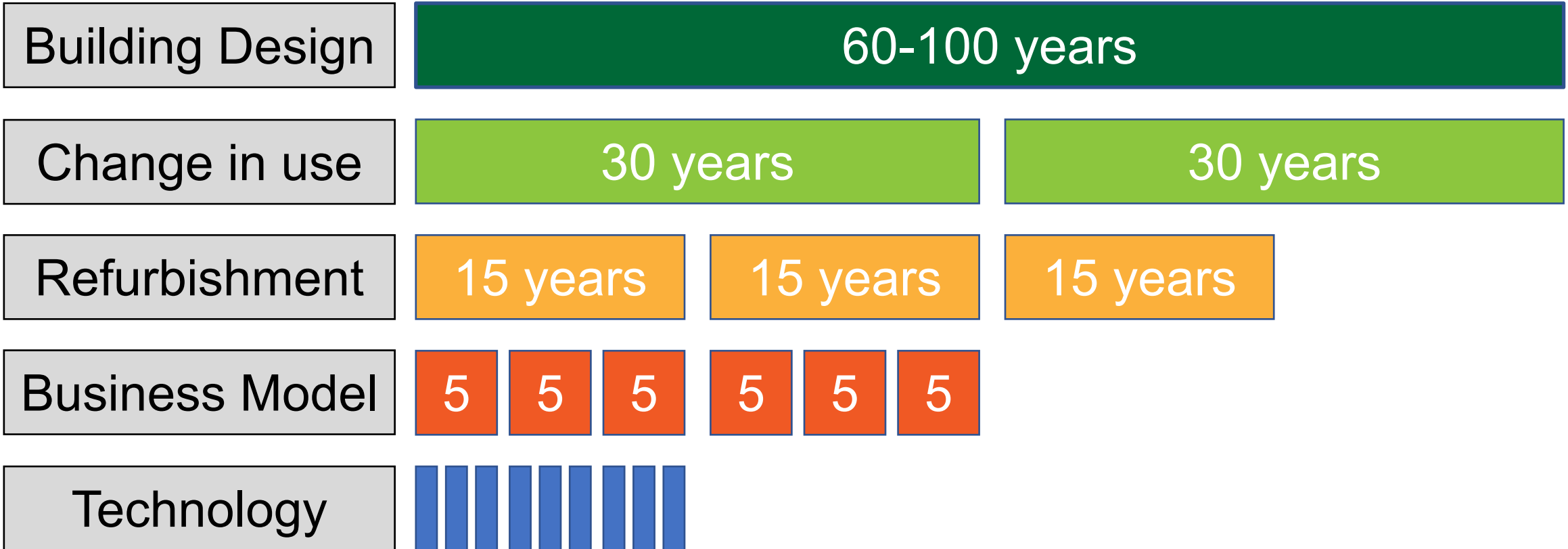
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# How the Strategy works



# 3 Business case model



# Adaptable vs Bespoke

- 
1. Adaptability over time
  2. Maximise Development Area
  3. Programme
  4. Cost






# The Specification

“The Adaptable Estate Specification seeks to develop a ‘*design guideline*’ for a generic Shell & Core approach to building developments that suits bespoke fit-out for different space typologies – healthcare, research, teaching and commercial - that can adapt over time.”

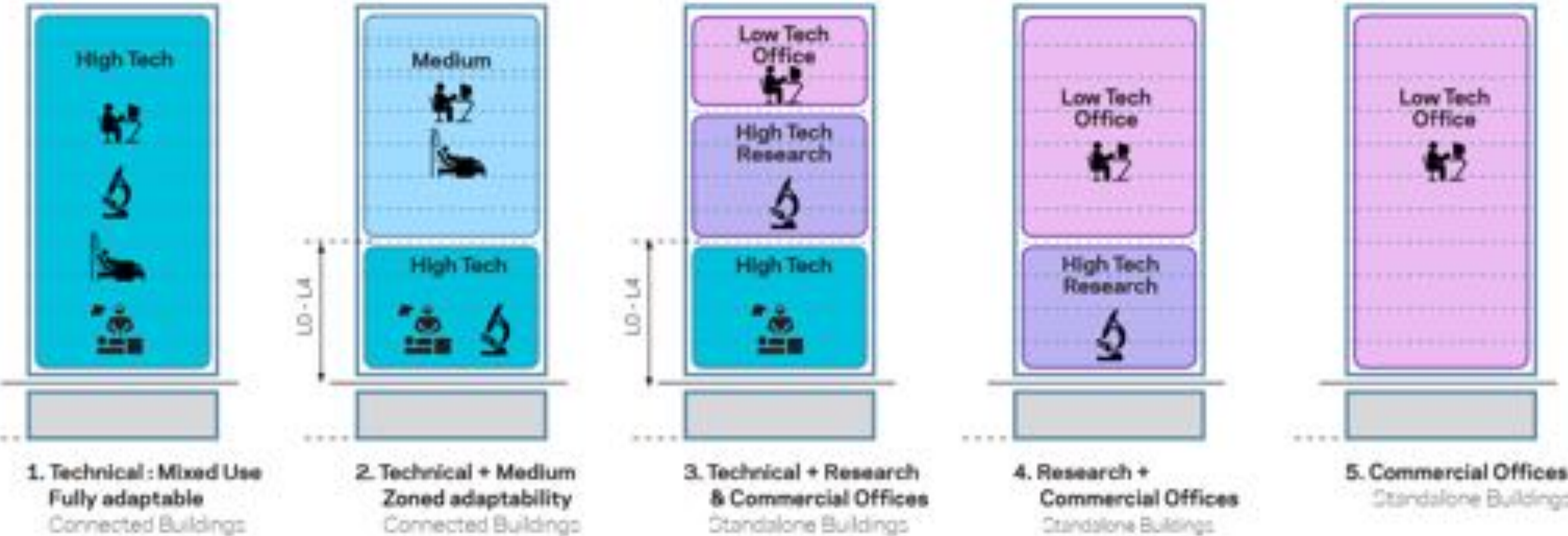




# Typologies

Type	Accommodation	Ceiling Height Requirement	Typical Floor Height Zone	Typical Plan Depths	Typical Grids	Bed Lift Requirement	Service Zone Category Requirement
	Residential	2.7m+	3.6m+				LOW 800mm
	Commercial Offices	2.75m	4m	16 - 50m	9 - 16m		
	Consulting Rooms Clinical Offices	2.7m	4.2-4.5m	10m+			MEDIUM 1200mm
	Inpatient Wards	2.7m	4.5m	16 - 26m	8.4 - 10.2m	Required	
	Support Accommodation Cat 1 Labs	2.7m	4.5m		6.6m+		
	Diagnostics	3m	4.8 - 5m	24m+	6.4m+	may be required	HIGH TECHNICAL 1500mm
	Cat 2 & 3 Labs	3m	4.8 - 5m	24m+	6.8m+		
	Critical Care Theatres Emergency	3m	4.8 - 5m	26-36m+	8.4m+	Required	
	Specialist Equipment Containment Labs		bespoke				VERY HIGH

# Use Typologies – Stacking



High Cost



Low Cost

# Site Development Zoning



CONNECTED

SITE

STANDALONE



Connected



Standalone

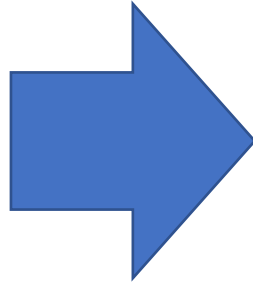


Vertical & Horizontal Connection  
Levels 0 - 4 High Service Zone

No Connection  
Flexible Floor Zoning

FM Tunnel & Corridors

Loading Bay & Ambulance Transfer



**KEY APPROACH**  
Clinical Use with Commercial tenants

**Horizontal & Vertical Connectivity**  
connected to the existing hospital  
Levels B-4 High Tech Use  
Levels 5+ Medium Tech Use

**FM**  
Basement FM Distribution & Tunnel  
Central site Receipt & Distribution

**Clinical Uses**  
Inpatients Beds  
Theater & Critical Care  
Outpatients  
Diagnostic/Imaging  
Clinical Support & Offices  
Emergency & Ambulance transfers

**Commercial Typology Uses**  
Research & Laboratories  
Education & Training

**KEY APPROACH**  
Commercial Use with Clinical tenants

**No Horizontal & Vertical Connectivity**  
not connected to the hospital

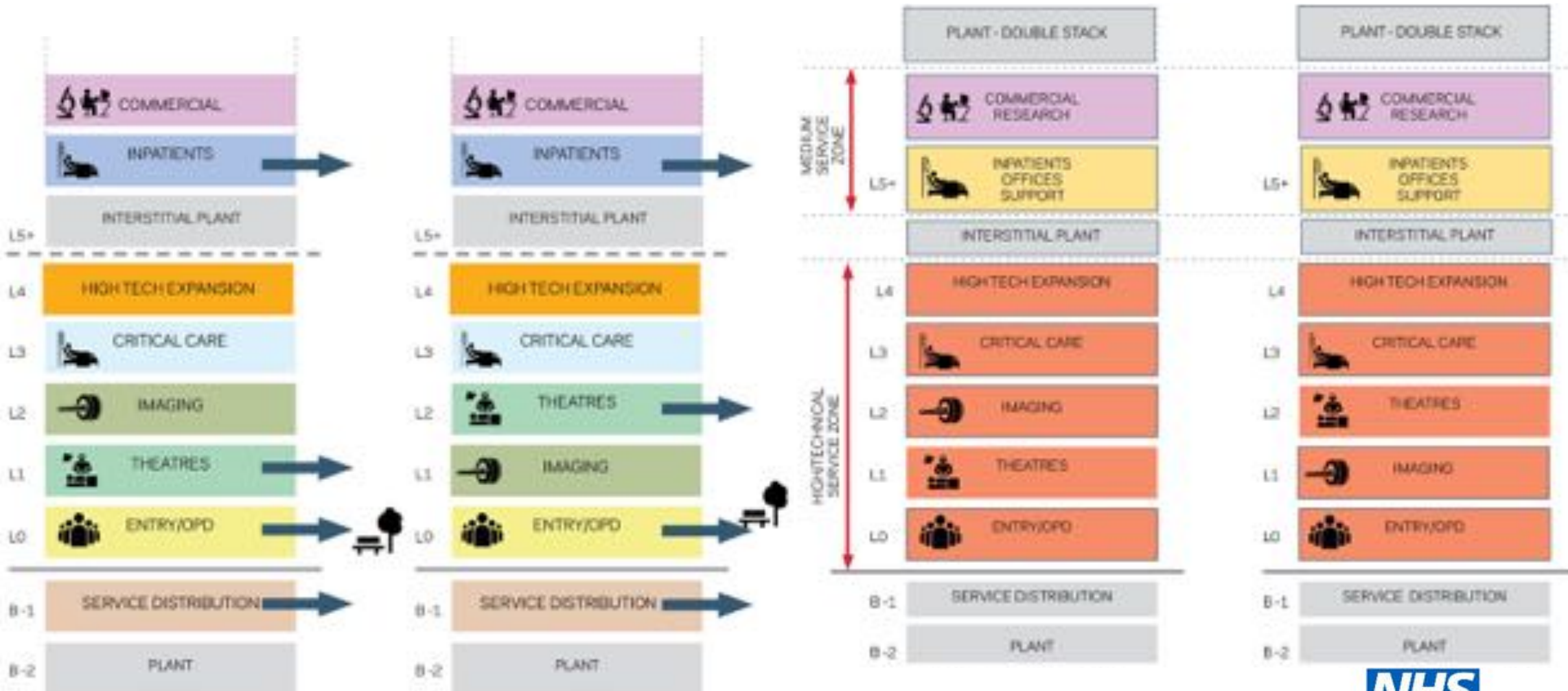
**FM**  
Independently Serviced  
Loading Dock

**Clinical Uses**  
Outpatients  
Daycase Theatre & Beds  
Diagnostic/Imaging  
Clinical Support & Offices  
No Inpatients  
Ambulance transfers may be required

**Commercial Typology Uses**  
Research & Laboratories  
Education & Training  
Commercial Offices



# Connected - Vertical Zoning Strategy





# Fixed and Flexible Elements

**FIXED PARAMETERS**




**Shell & Core**

- Structure
- Building Core Bricks
- MEP Plant
- MEP Distribution
- FM Distribution
- Fire
- Toilet Strategy

**Site & Operations**

- Development Zoning
- Clinical Zoning
- Connectivity
- FM Strategy
- Access
- Public Realm


**FLEXIBLE PARAMETERS**




**Use & Fit-Out**

- Use
- Tenant Requirements


**QUALITATIVE PARAMETERS : Look and Feel**



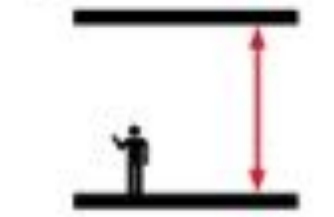
**community**



**activity**



**access to nature**



**Structure**

- depth of plan & floorplate size
- structural grid
- floor heights
- floor loading
- soft and hard structural zones
- floor recesses



**Services**

- plant room locations
- services distribution
- service ceiling zones
- drainage strategy
- toilet strategy



**Circulation**

- core location & lifts
- means of escape
- segregation of flows
- vertical & horizontal connectivity



**Site & Operations**

- public realm & entrance
- development zoning
- FM Distribution
- access



# Design Quality Considerations



Massachusetts General Hospital, Lunder Building by NSSJ



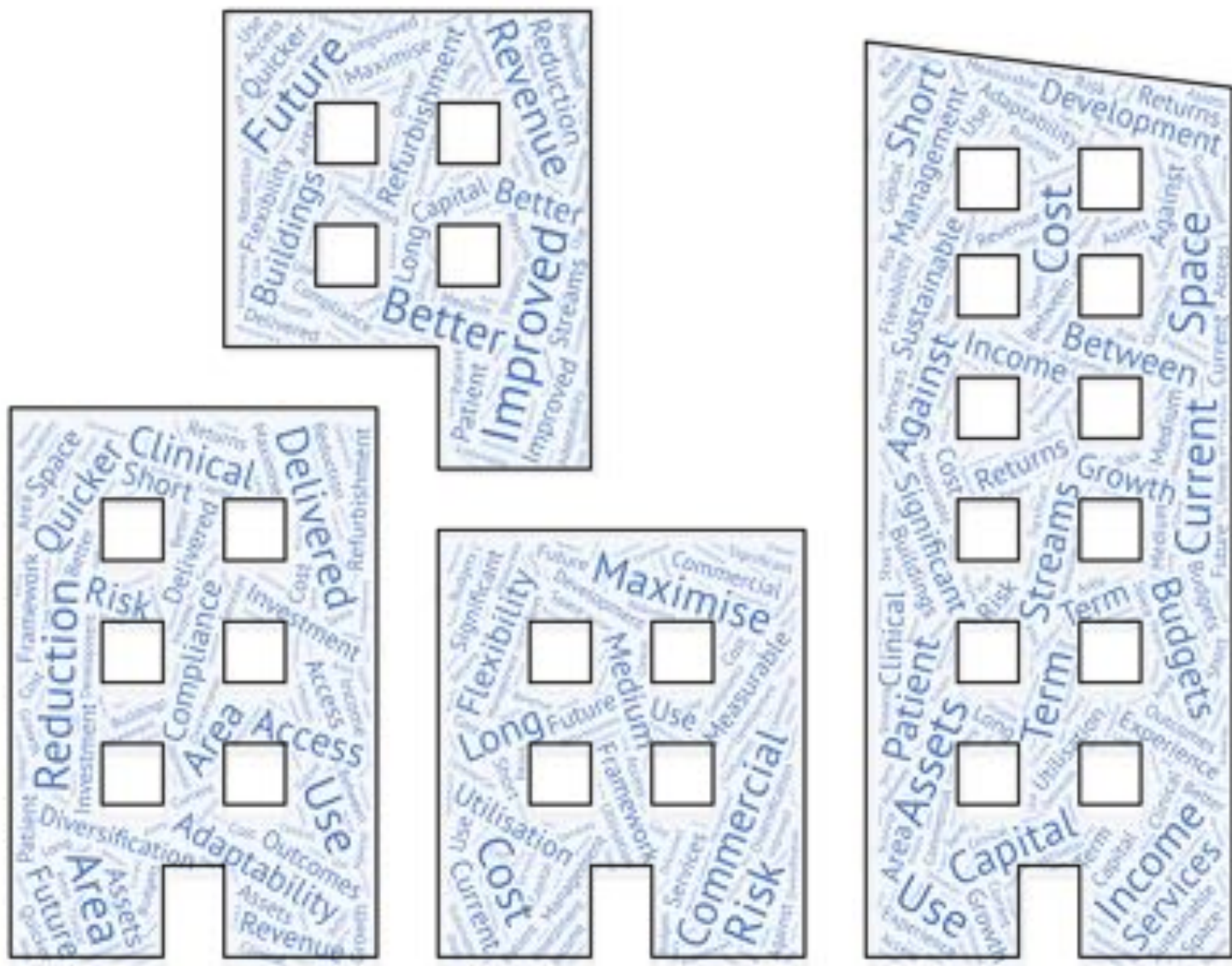
In conjunction with the specific performance requirements there will also need to be considerations of design quality. Areas of specific focus will be;

- Building & Facade
- Entrance & Communal Areas,
- Landscaping,
- Internal Environmental quality





# Adaptable Estate - Benefits





# Thank you

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