



# Automatic for the People

Industrialised Construction Conference  
Anne Daw, Head of MMC / DfMA  
3 July 2025

HLM  
Architects

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National  
Manufacturing  
Institute of Scotland,  
MMC construction

Our design philosophy puts people at its centre. We approach every design with a creative, thoughtful, and fun process that allows the character and ideas of each project flourish in their own delightful way.

#### One team

  
240  
Employees

  
1964  
Since  
1964

  
6 Studios

#### Values

  
Transparency

  
Creativity

  
Expertise

  
Commitment



FOUNDING MEMBER OF  
**MMC**  
IRELAND



**OFFSITE ALLIANCE**  
Delivering change for the industry



Architectural Practice  
of the Year



Offsite  
Architect of  
the Year



Women in  
MMC

# Healthcare



Royal Hospital for Children & Young People and DCN  
NHS Lothian, Edinburgh



Renal Unit - Western General Hospital, Edinburgh  
NHS Lothian/ Robertson



Altnagelvin Hospital, Derry



LinAc - Western General Hospital, Edinburgh  
NHS Lothian



National Centre for Child Health Technology,  
Sheffield NHS Trust



London Institute for Healthcare Engineering (LIHE)  
Guys and St. Thomas' Trust

# NHS Healthcare Context



### NHS is challenged with:

- Long-term lack of investment
- Un-funded hospital programs
- RAAC failures
- Significant backlog maintenance

*“The NHS is quite literally crumbling. I have visited hospitals where the roof has fallen in, pipes regularly leak and even freeze over in winter”*

– Wes Streeting, secretary of state for health and social care, January 2025



St James' Hospital

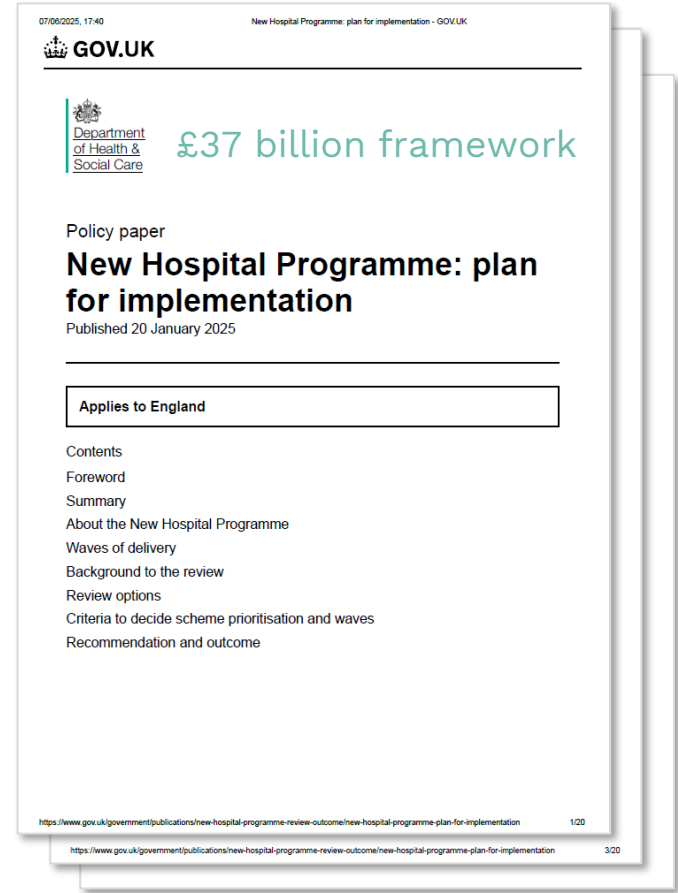
## NHS need is:

- Urgent
- Widespread
- Cannot be met with traditional approaches



### First order of business for NHP:

- Secure the funding (wave 1)
- Establish relationships
- Create a realistic and deliverable timetable



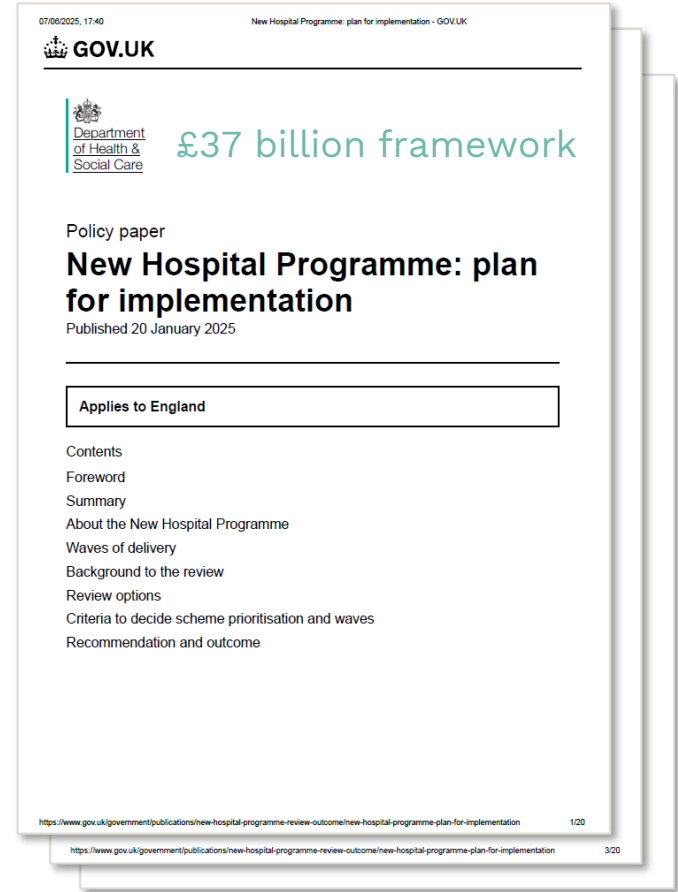


## NHP / H2.0 Context

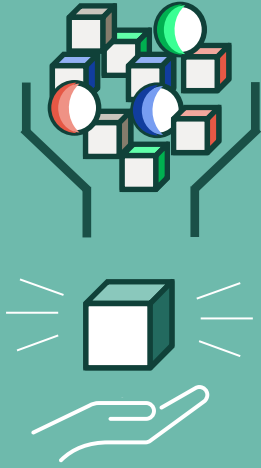
5W's + 1H: How...

- Who: 10 Contractors will be appointed
- Why: Urgent need
- What: 41 hospitals
- Where: Widespread
- When: Wave 1 by 2030

Biggest Hospital building program in a generation...



# Benefits of standardisation:



Standardised  
Product/  
Demand



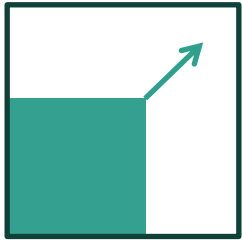
Streamlined  
Business Case/  
certainty of  
pipeline



Improves:

- Speed
- Safety
- Sustainability
- Quality

# Challenges:



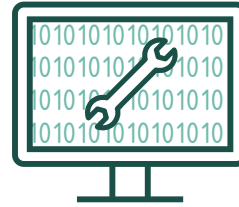
## Capacity

Biggest hospital  
building programme  
in a generation



## Skills

New approach,  
multi-skilled,  
competent  
workforce



## Tools & Methods

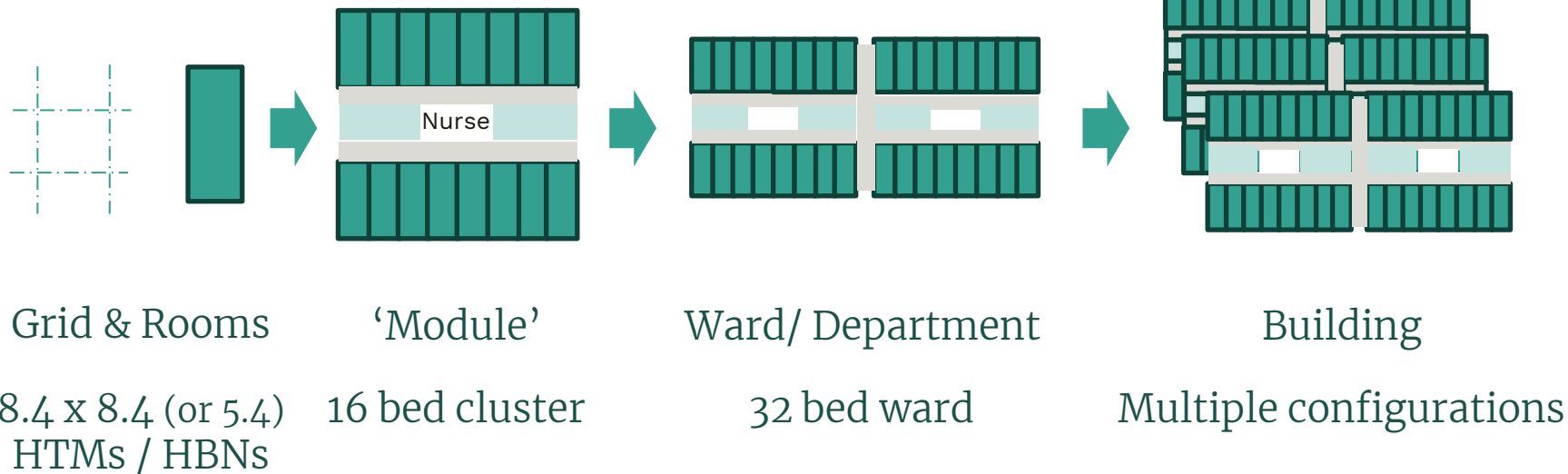
Digital & Data,  
Kit of Parts



## Suitability

Complicated existing  
estates, variations in  
population needs

# Inside-out design



- Brick dims: 8437.5
- Controversial pod location.
- Grid not cross-sector

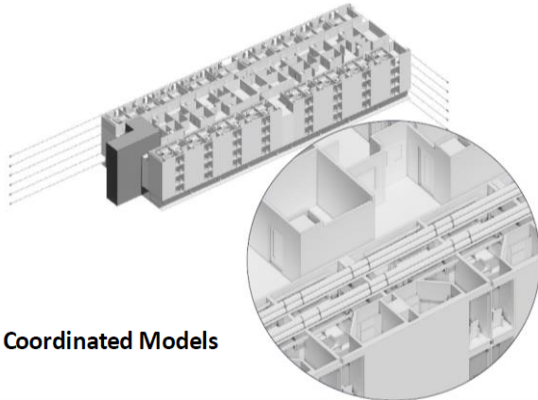
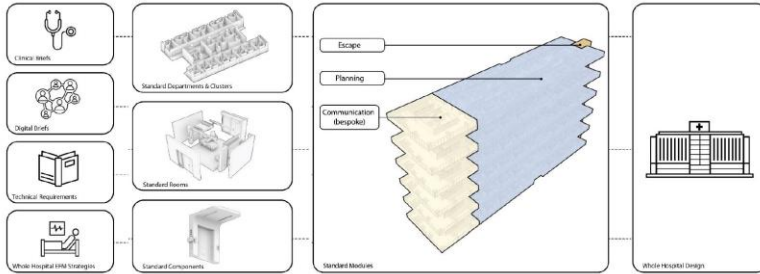
- Current module is 8 beds: larger 16-bed module reduces flexibility.

- Ward sizes are clinically driven. Consider future variations in trust requirements

- Configurations may be too prescriptive for some sites due to fixed ward length.

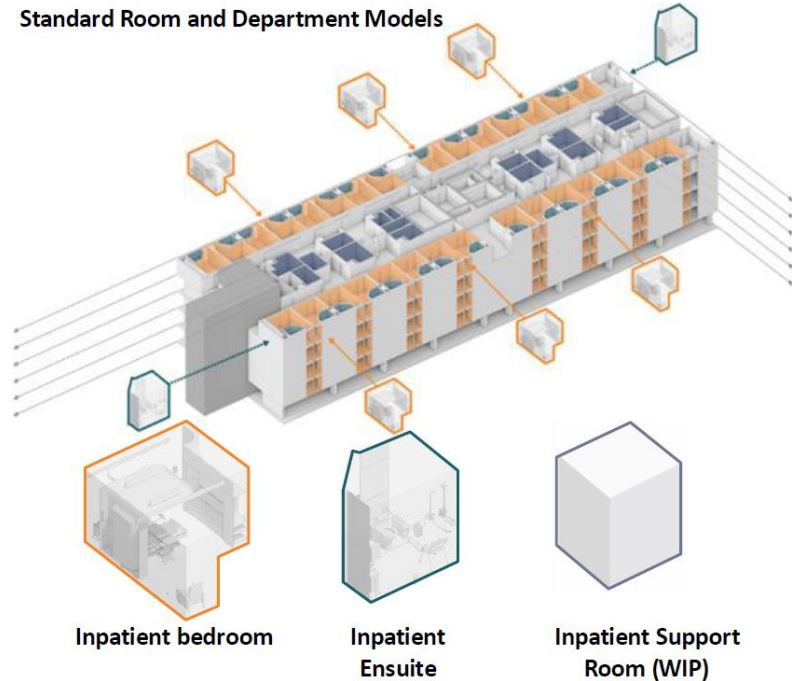


# Kit of Parts Approach



MEP & Structural Coordinated Models

Standard Room and Department Models

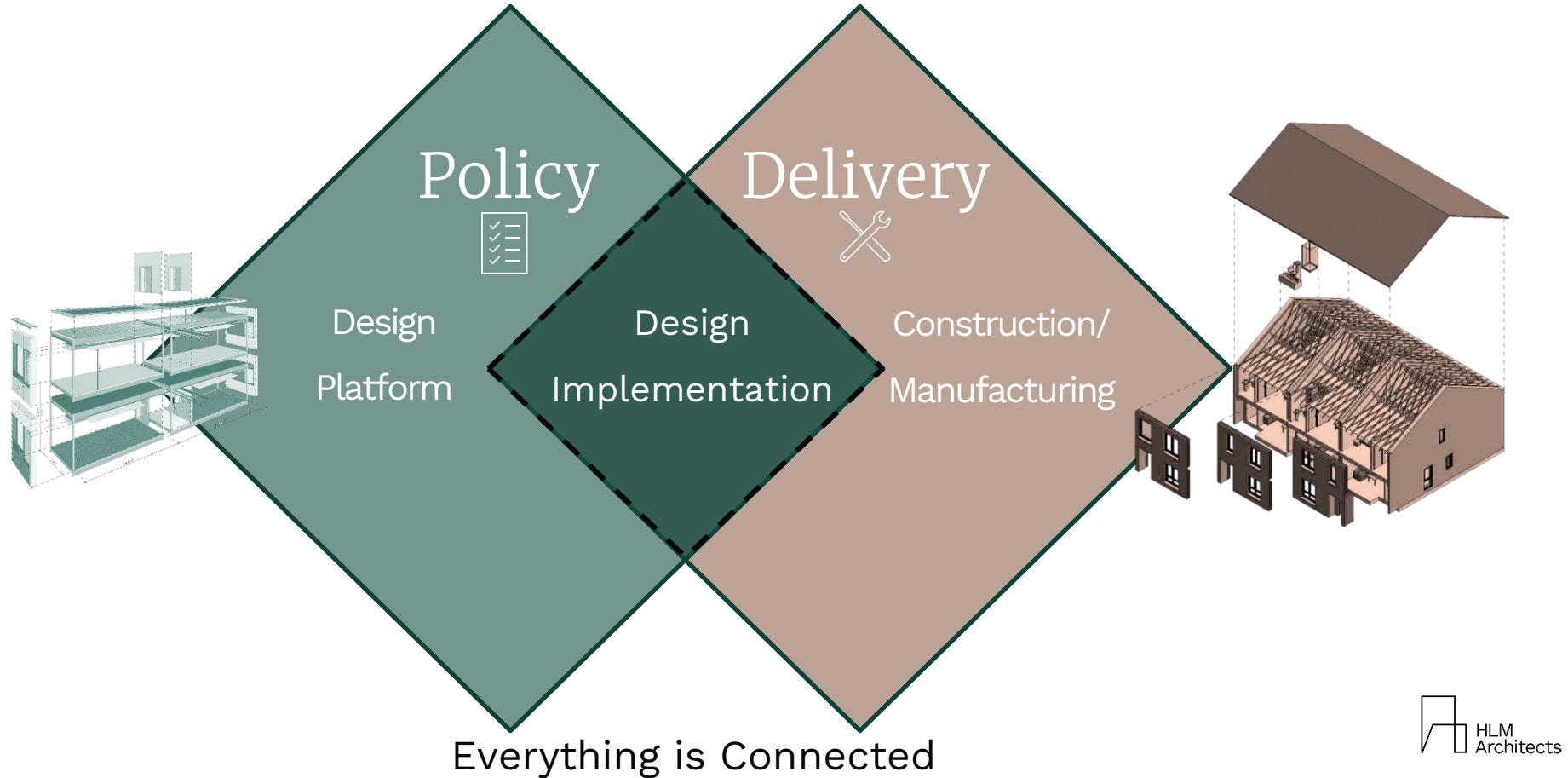




In the Industrialised Construction model,  
where does Design sit?

Photo: Lessons for Students in Architecture by Herman Hertzberger

# Between Policy and Delivery is Design Implementation



## Policy vs. Implementation

*“...every plan you make fails at first contact with the enemy and first execution...the value of making a plan is in getting everyone aligned in what they need to achieve...and enabling them the flexibility to adjust as things change...”*

~Retired US Vice Admiral Kevin Donegan,  
Middle East Institute

Misalignment reduces  
productivity





# MHCLG Digital Kit of Parts Research

## Digital Assets:

Standardised specification templates for each part within the kit comprising:

1. Quality Principles Document
2. Data templates

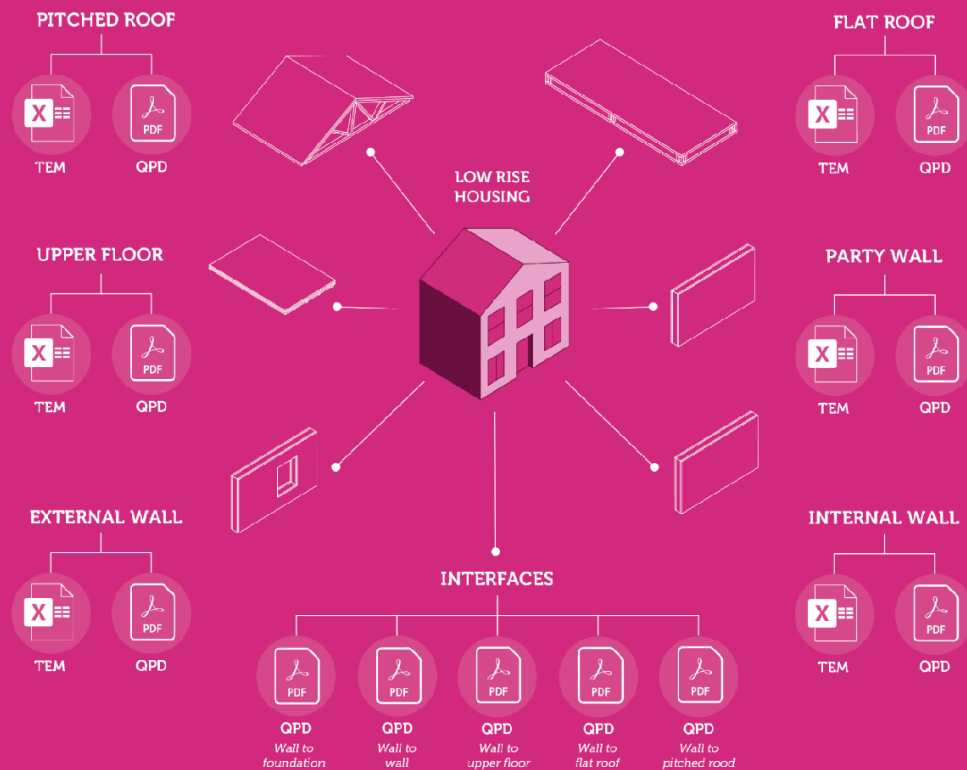
## Digital Toolkit:

1. Created from the digital assets in any software,
2. Embedded with the digital asset standardisation so that design information can be transferred from the supply chain to the designer and back.

## Complementary Software:

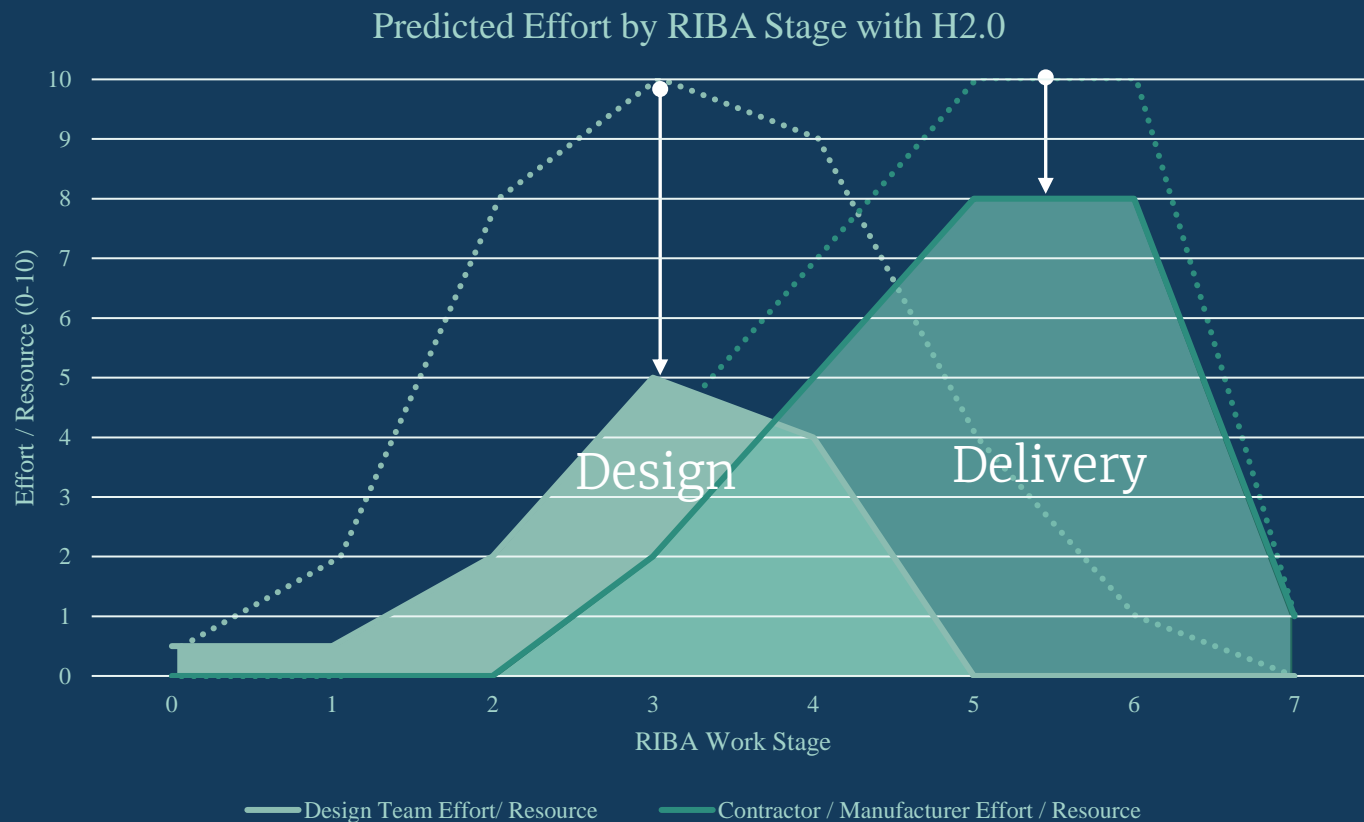
Creates potential for new software and AI tools to be developed to assist the data transfer and design communication.

## D-KOP: A SET OF DIGITAL ASSETS

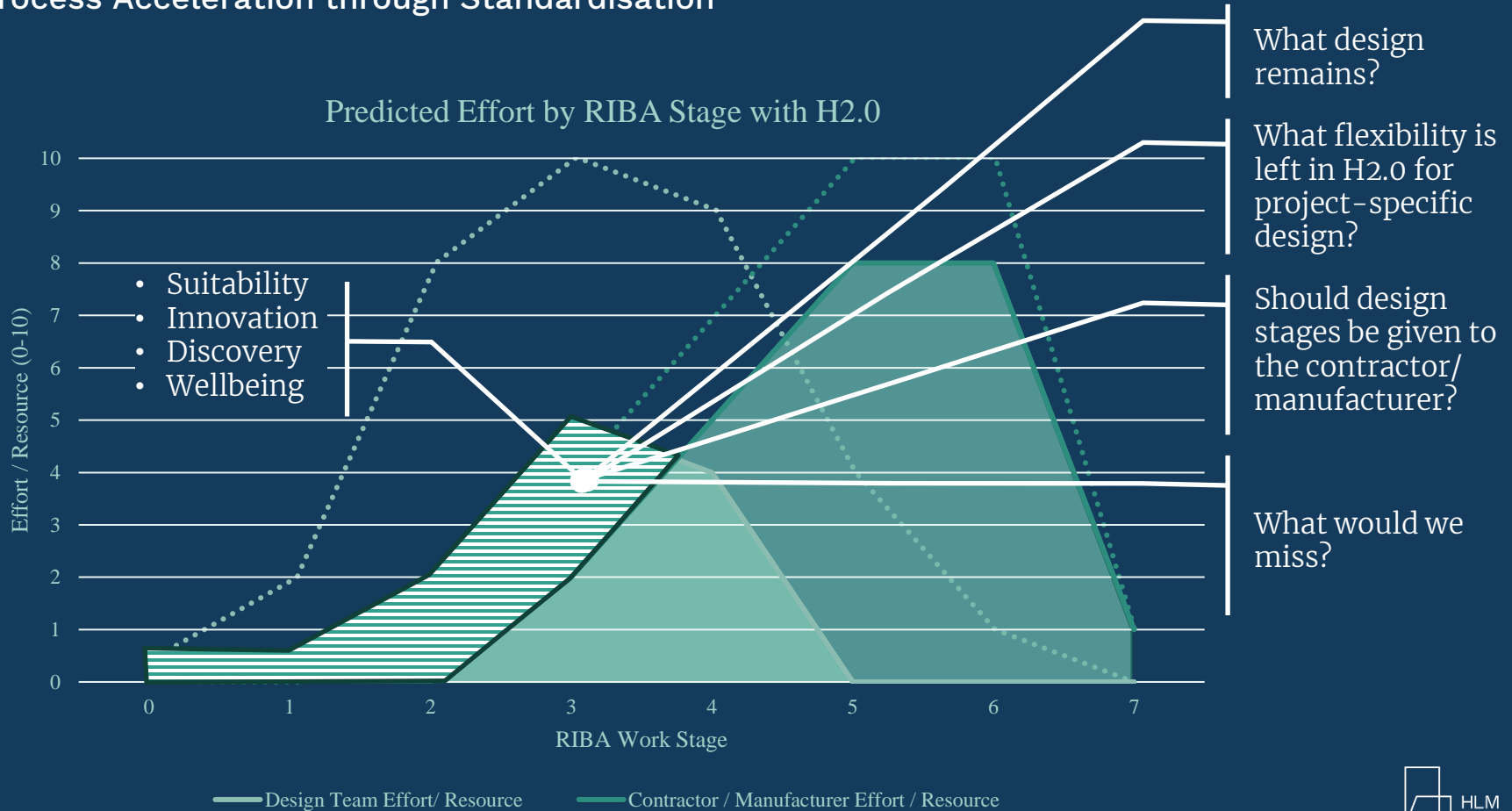



TEM = Specification Template Document  
QPD = Quality and Principles Document

# Process Acceleration through Standardisation



# Process Acceleration through Standardisation



A white line art design on a teal background. It features a large rectangle on the left with a diagonal line from the top-left corner to a point on the bottom edge. A horizontal line extends from this point to the right, where it meets a vertical line that goes up to the top of the frame. Another vertical line continues from the horizontal line down to the bottom of the frame.

# Case Study Prince Charles Hospital Refurbishment



Prince Charles Hospital  
Merthyr Tydfil, Wales  
£202m





# Prince Charles Hospital Plant floor and theatre refurbishment





Prince Charles Hospital  
Modular plant floor





## Prince Charles Hospital Phase 2: Pharmacy & outpatients





# Prince Charles Hospital Hospital entrance and outpatients

ADEILADU  
ARBENIGRWYDD  
YNG NGHYMURU

CONSTRUCTING  
EXCELLENCE  
IN WALES

Winner Retrofit Category





# Case Study Specialized Rehabilitation Hospital

## Specialized Rehabilitation Hospital (refurbishment)





## Specialized Rehabilitation Hospital (refurbishment)





# Specialized Rehabilitation Hospital (refurbishment)





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