



Department for Levelling Up,  
Housing & Communities

# Towns Conference

**Breakout Session A1: Navigating Change in Project Design**

**Jane Healey Brown, Alex Lloyd, Angela Crowther, Peter Neckelmann**

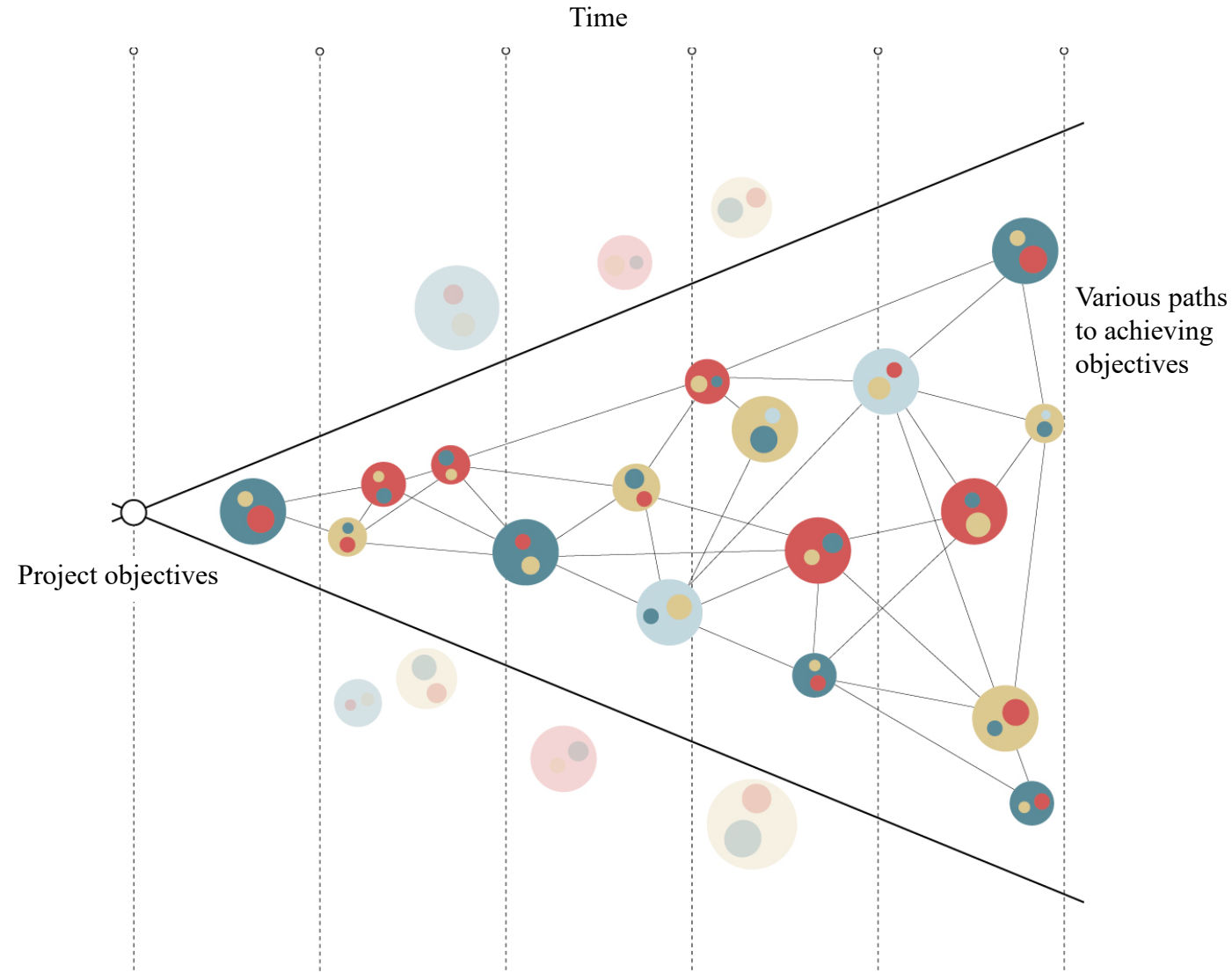
June 2023



# A Long-Term Vision

## Flexibility

- All projects change. Designing and delivering with flexibility in mind is essential.
- How a project responds to and satisfies the objectives should be interrogated repeatedly at each design stage – as well as after a project is completed.
- Goals should be flexible enough to allow for change over time and to allow project design to adapt to changing needs and conditions (including costs).





# Clear prioritisation

## What is essential for success?

- Prioritise what is fundamental to the project (has the greatest or broadest impact) and what are the nice to haves.
- Consider which aspects of the project should be delivered first e.g., in order to establish place, or deliver a financial return.
- Consider how phasing can inform design, e.g. British Land at Brindley Place, Granary Square



Brindley Place, Birmingham





# Clear prioritisation

## What is essential for success?

- Testing the scheme







# 'Meanwhile' uses

## How long is meanwhile?

- 'Meanwhile' construction no longer needs to mean 6 months, 1 year or even 3. Some projects last for more than 10.
- Question what aspects of your projects could potentially be delivered as 'meanwhile' and still satisfy your objectives.





# Low-cost solutions

## Low cost doesn't have to mean bad design

- Consider simple, robust, exposed materials. Exposed plumbing, ventilation, and electrical ducts.
- Prioritise function over aesthetics – not what it looks like, but what it does.
- Don't be afraid to 'kill your darlings', particularly as objectives & conditions change
- Challenge designers, architects and contractors to do more with less and build in flexibility.







# Low-cost solutions

## Low cost doesn't have to mean bad design

- This approach is not confined to buildings and can be applied to a range of other project types:
  - squares and parks



Community space, Norway





# Low-cost solutions

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  - squares and parks
  - high streets



Waltham Forest, London





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  - high streets
  - pavements



Westminster, London





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# Low-cost solutions

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  - squares and parks
  - high streets
  - pavements
  - streets
  - gardens



Community Garden, London





# Engagement and Mobilisation

## Activate the community

- Identify aspects of the project that can include the community in the design, delivery, maintenance and operation.
- Mobilise the existing skills (and develop new skills) in the community. These can improve all aspects of the project, create shared responsibility and ownership and deliver outcomes that satisfy a larger share of the community.







# Review Objectives



Hull Public Realm Regeneration





# Specification



Charter Square, Sheffield





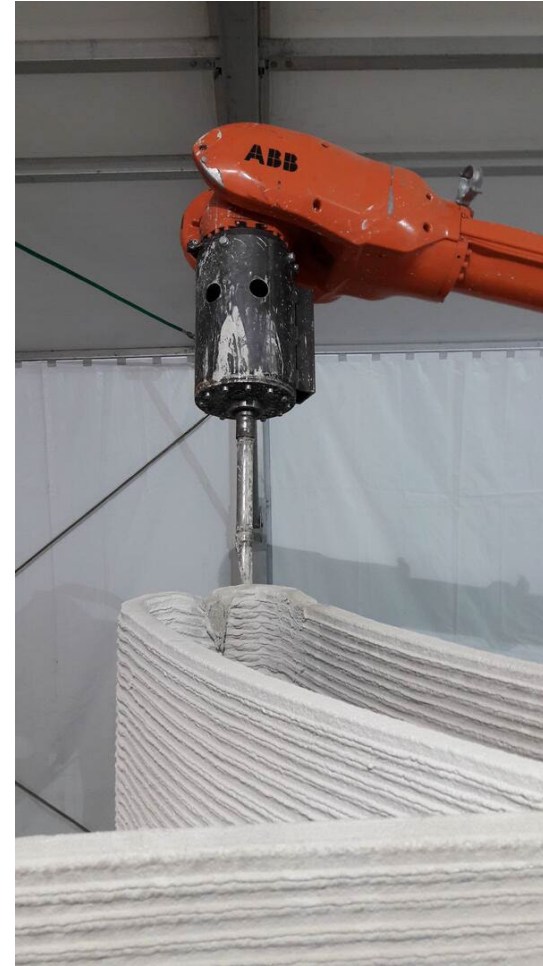
# Phased delivery



St Peter's Square



# Modern Methods of Construction







Department for Levelling Up,  
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# Contractor Engagement



Victoria North Manchester



# Collaboration

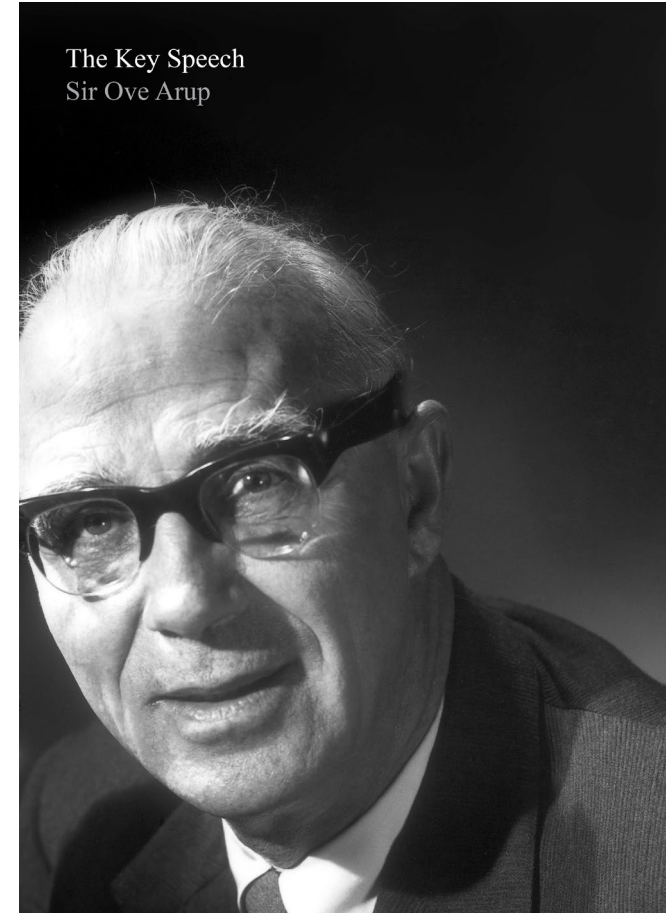






# Empower your team

*"Total Architecture implies that all relevant design decisions have been considered together and have been integrated into a whole by a well organised team **empowered** to fix priorities."*





Dare to share!

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OUR APPROACH IS HOLISTIC DECISION MAKING BALANCED ACROSS KEY METRICS



**TOTAL  
Carbon**



**Buildability,  
Disassembly  
& Re-use**



**Cost**



**Programme**



**Product**



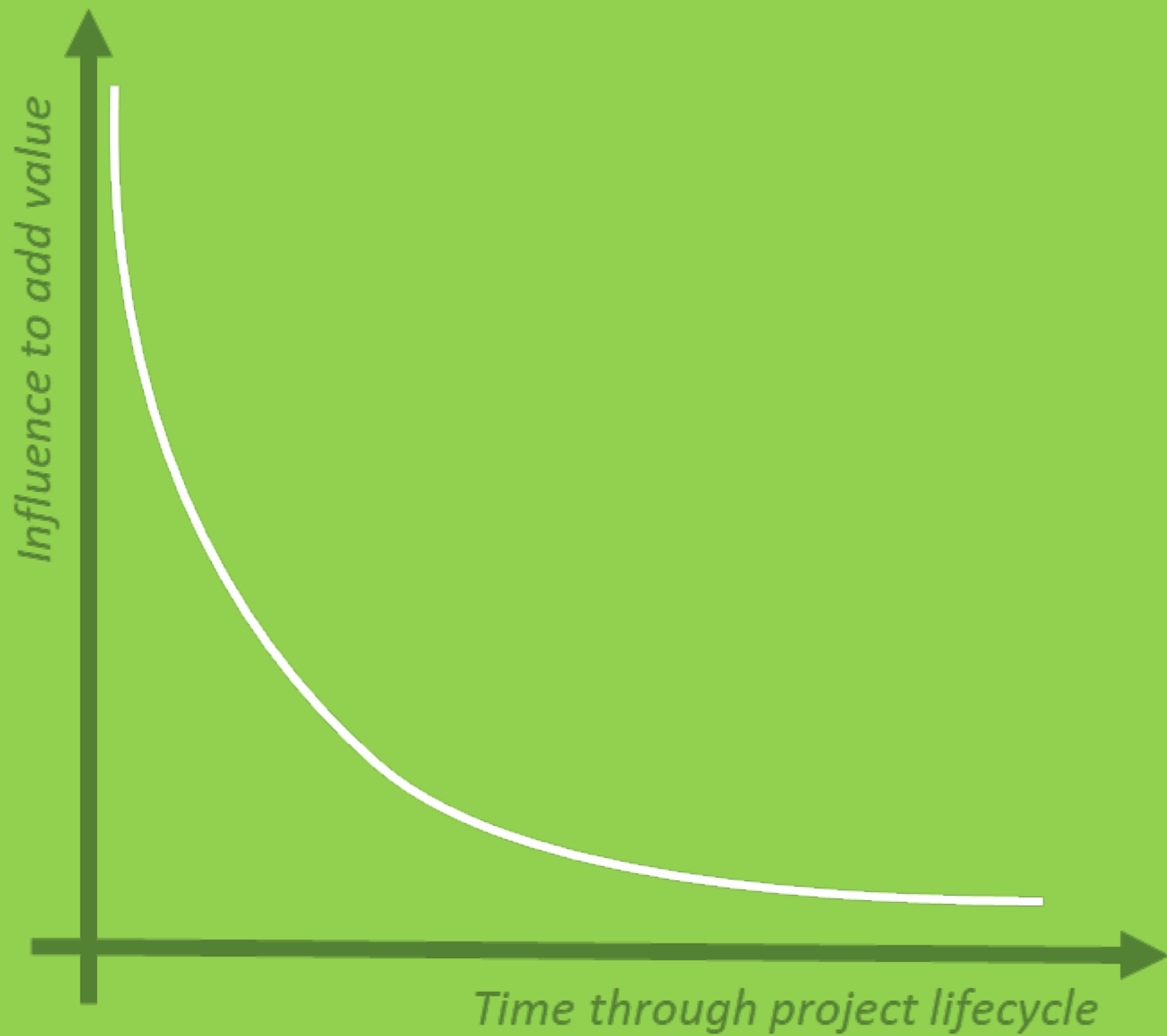
**Risk**



**Societal  
contribution**







**DON'T JUMP INTO SOLUTIONS TOO SOON!**

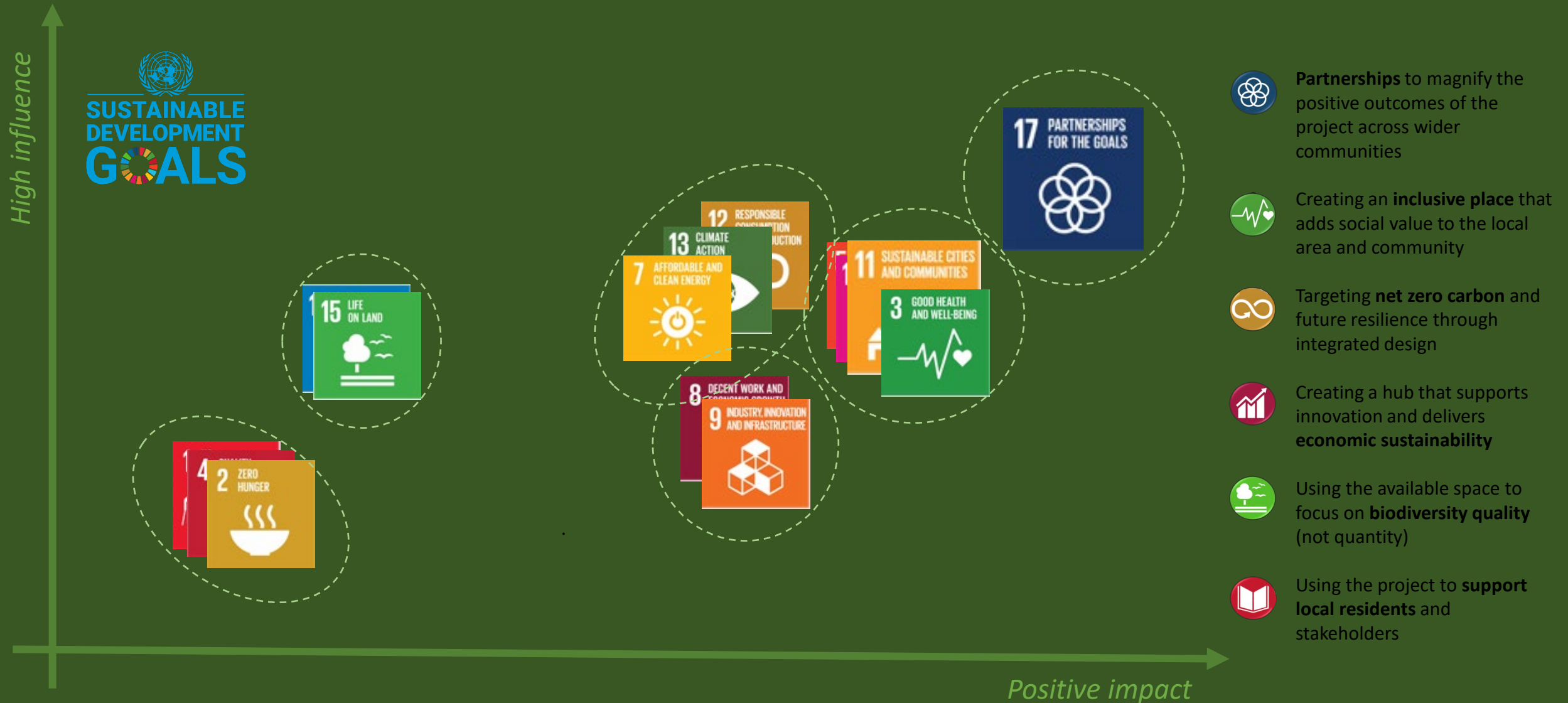




What's our why?

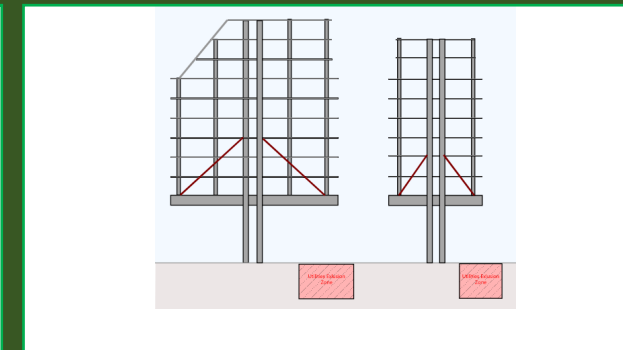
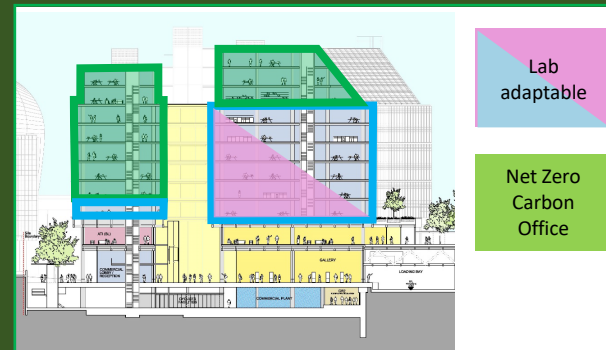
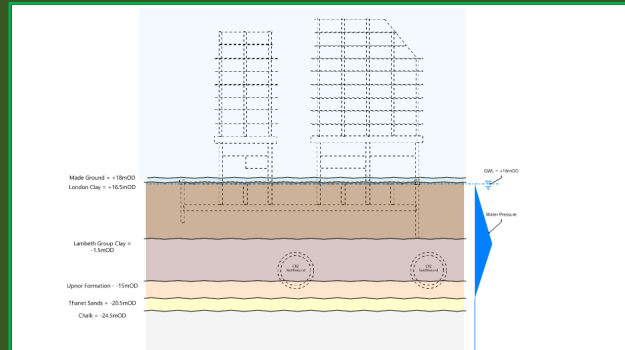
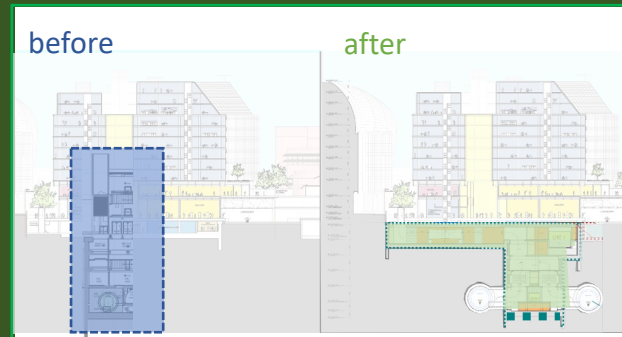
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# Arup UNSDG Workshop process defines opportunity and creates stakeholder consensus ...





... allowing all project decisions to consider sustainability impact, **articulating value** to a wider audience



**REDESIGNING AND INTEGRATING CROSSRAIL**

- 24% CO<sub>2</sub>e  
- 35% excavation  
+ 115,000 sq ft

**WORKING WITH THE GROUND CONDITIONS TO MINIMISE BASEMENT AND FOUNDATIONS**

- 30% CO<sub>2</sub>e  
Increased ecological value

**CREATING A BRIEF FOR THE SUSTAINABLE LAB OF THE FUTURE**

- 67% CO<sub>2</sub>e  
- 43% operational energy

**SITING AND SHAPING THE BUILDING TO ELEGANTLY AVOID SITE CONSTRAINTS**

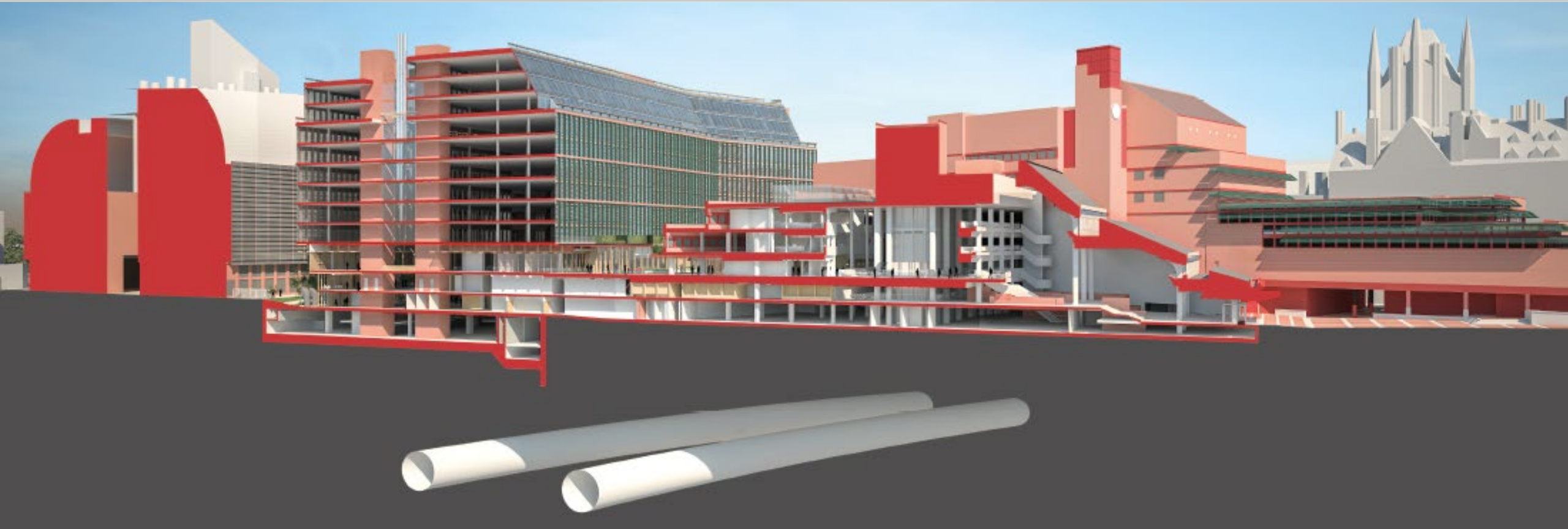
- 20% CO<sub>2</sub>e  
+ 350m<sup>2</sup> community garden



# PROJECT TEAM & STAKEHOLDERS

BRITISH LIBRARY

Project Overview



**STANHOPE**

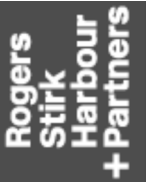


BRITISH LIBRARY  
CONSERVATION  
CENTRE

TWENTIETH  
CENTURY  
SOCIETY



The  
Alan Turing  
Institute

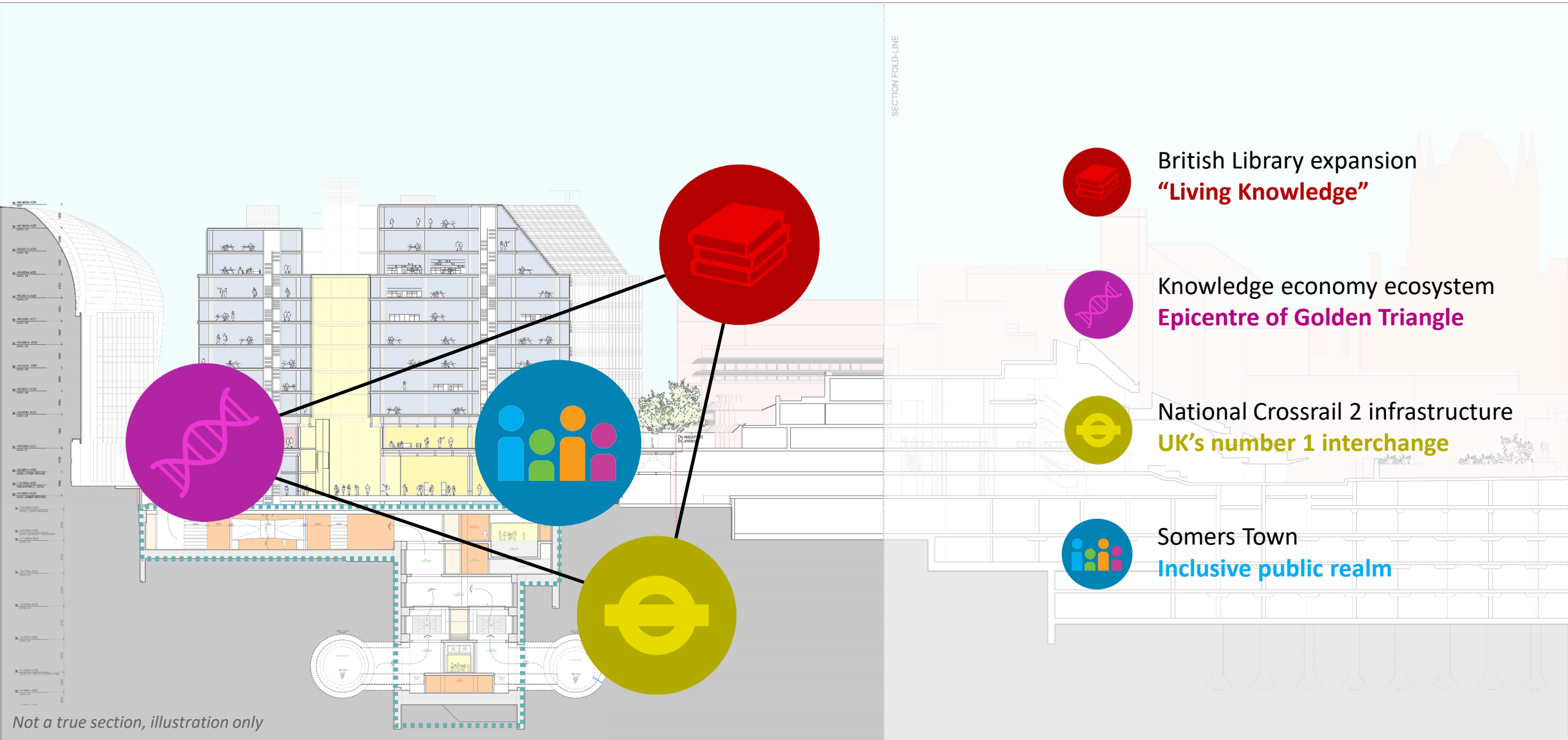


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# OUR MOST SUSTAINABLE ACHIEVEMENT IS INTEGRATING MULTIPLE USES



British Library expansion  
**“Living Knowledge”**



Knowledge economy ecosystem  
**Epicentre of Golden Triangle**



National Crossrail 2 infrastructure  
**UK’s number 1 interchange**



Somers Town  
**Inclusive public realm**

SECTION FOLD-LINE

Not a true section, illustration only

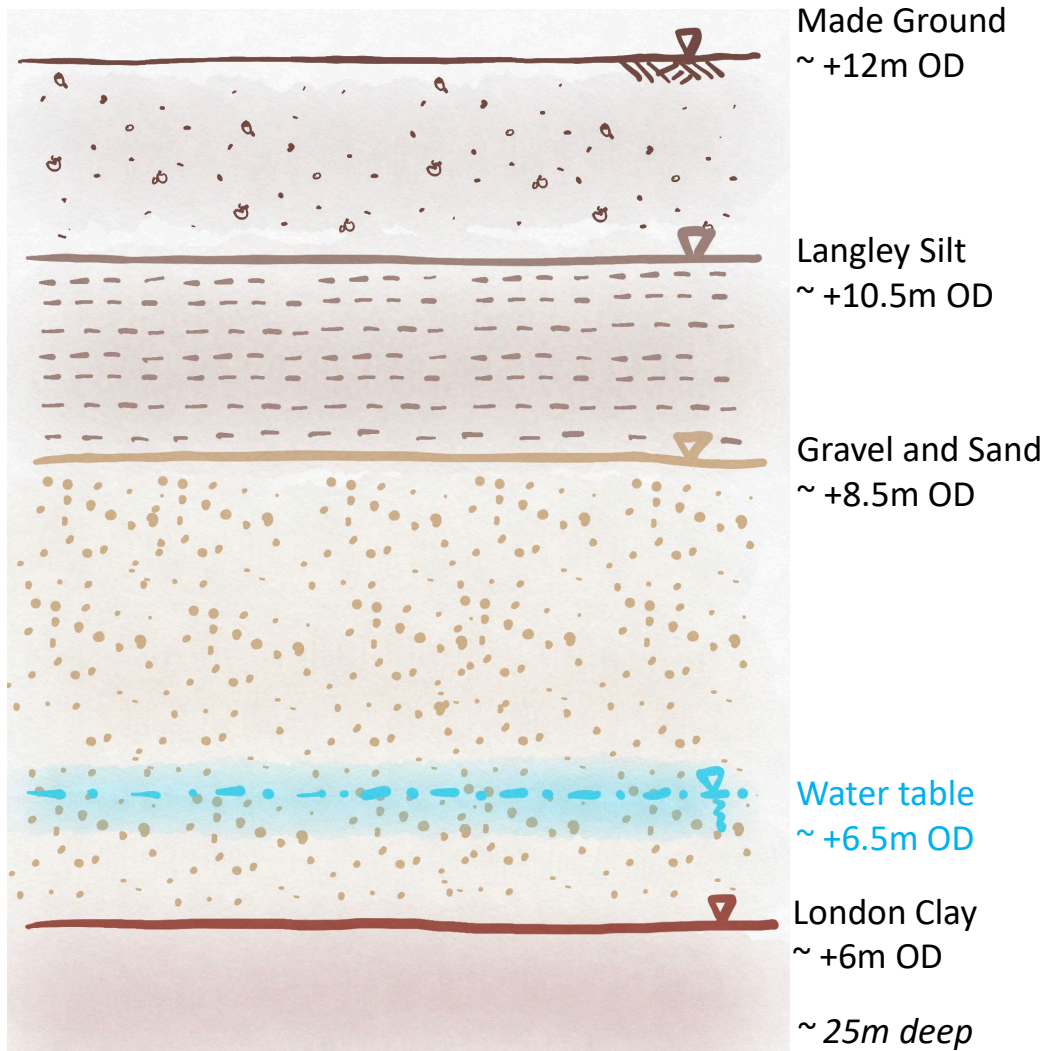
Design knowingly

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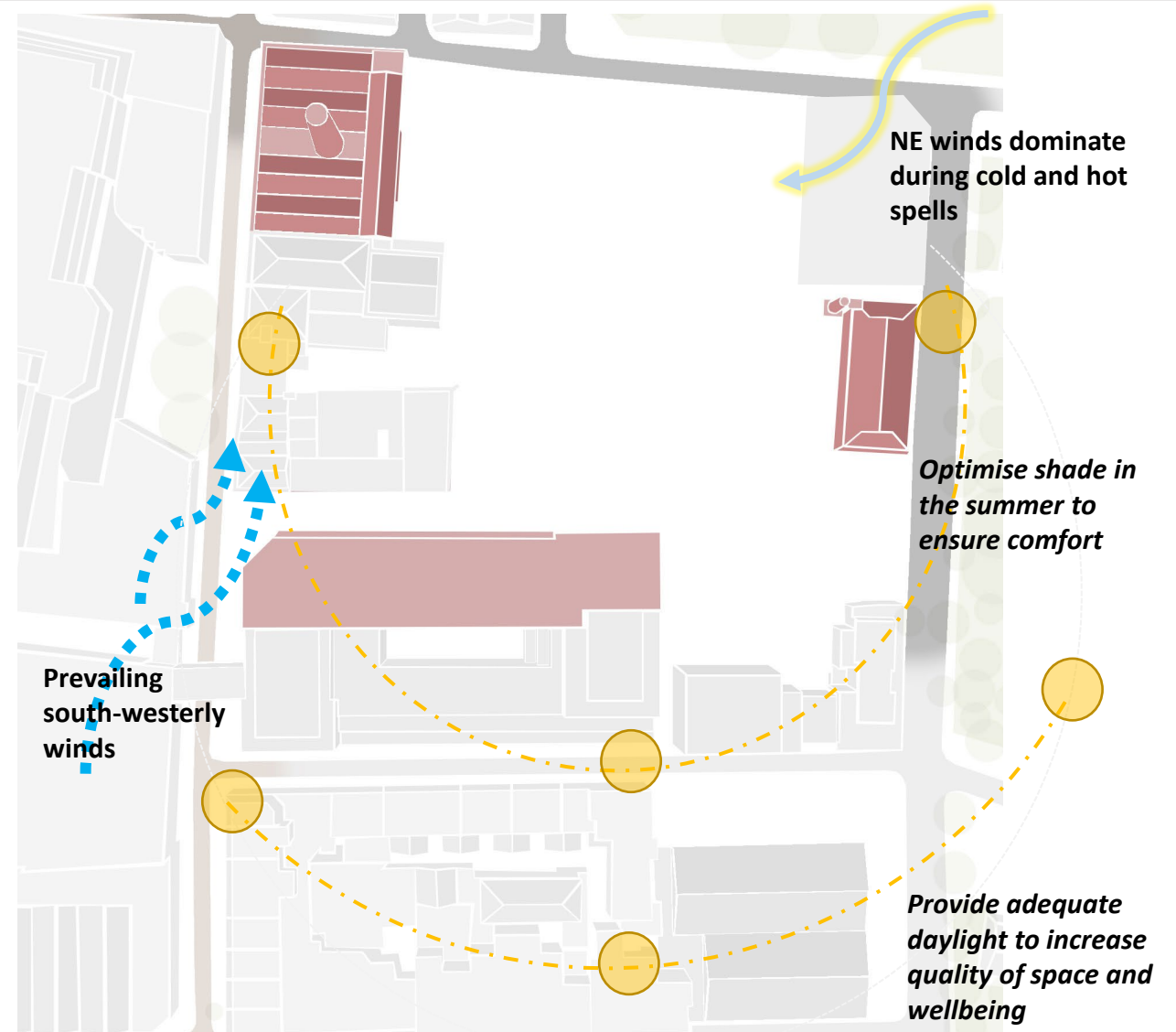


# BENEFIT FROM THE SITE'S NATURAL CAPITAL

Recommendation: optimise form and siting by working with the site conditions



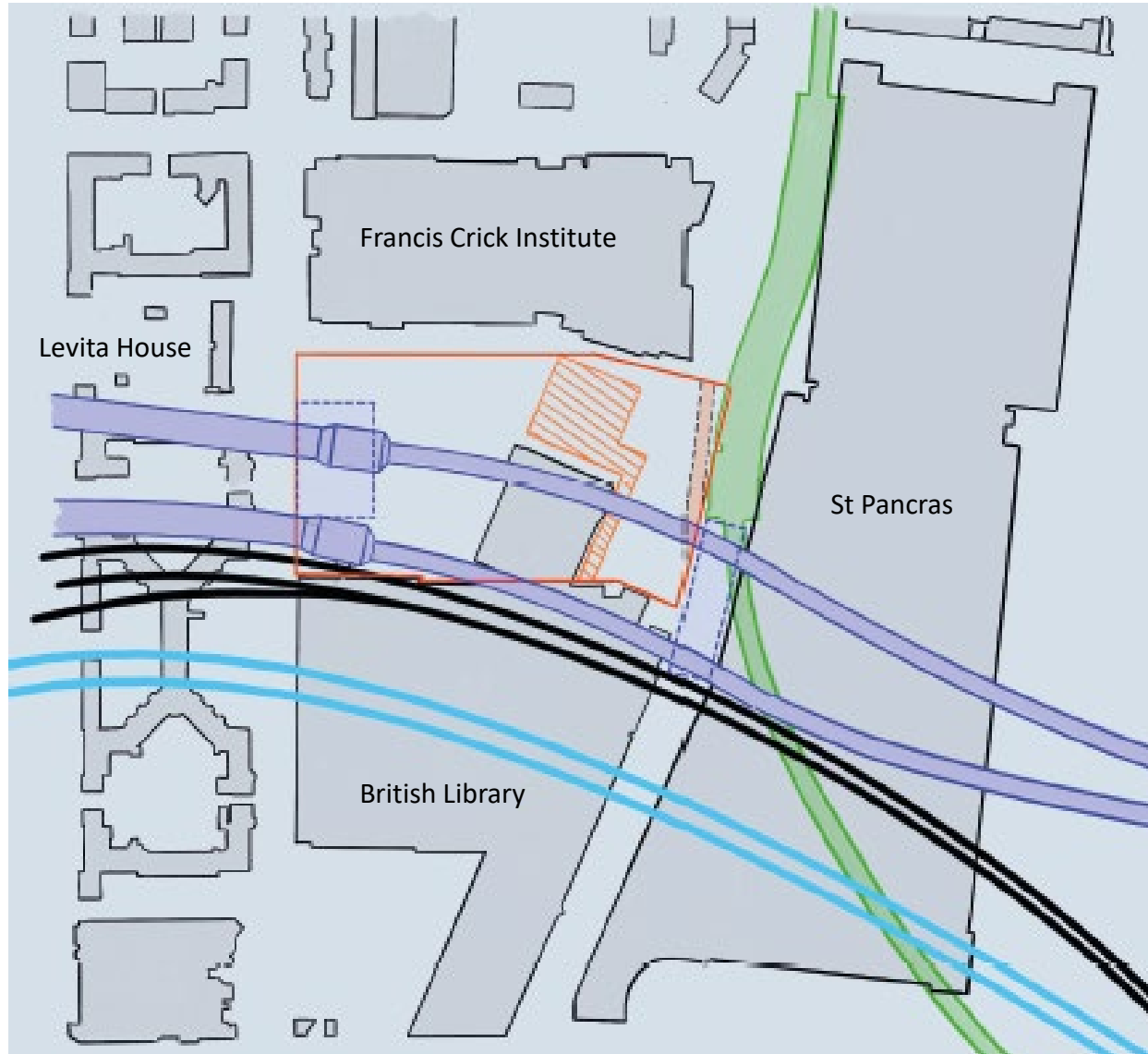
*Assumed geology based on nearby sites*



*Establishing the site's climatic conditions (initial study)*

# BENEFIT FROM THE SITE'S NATURAL CAPITAL

## Project Example: British Library Extension



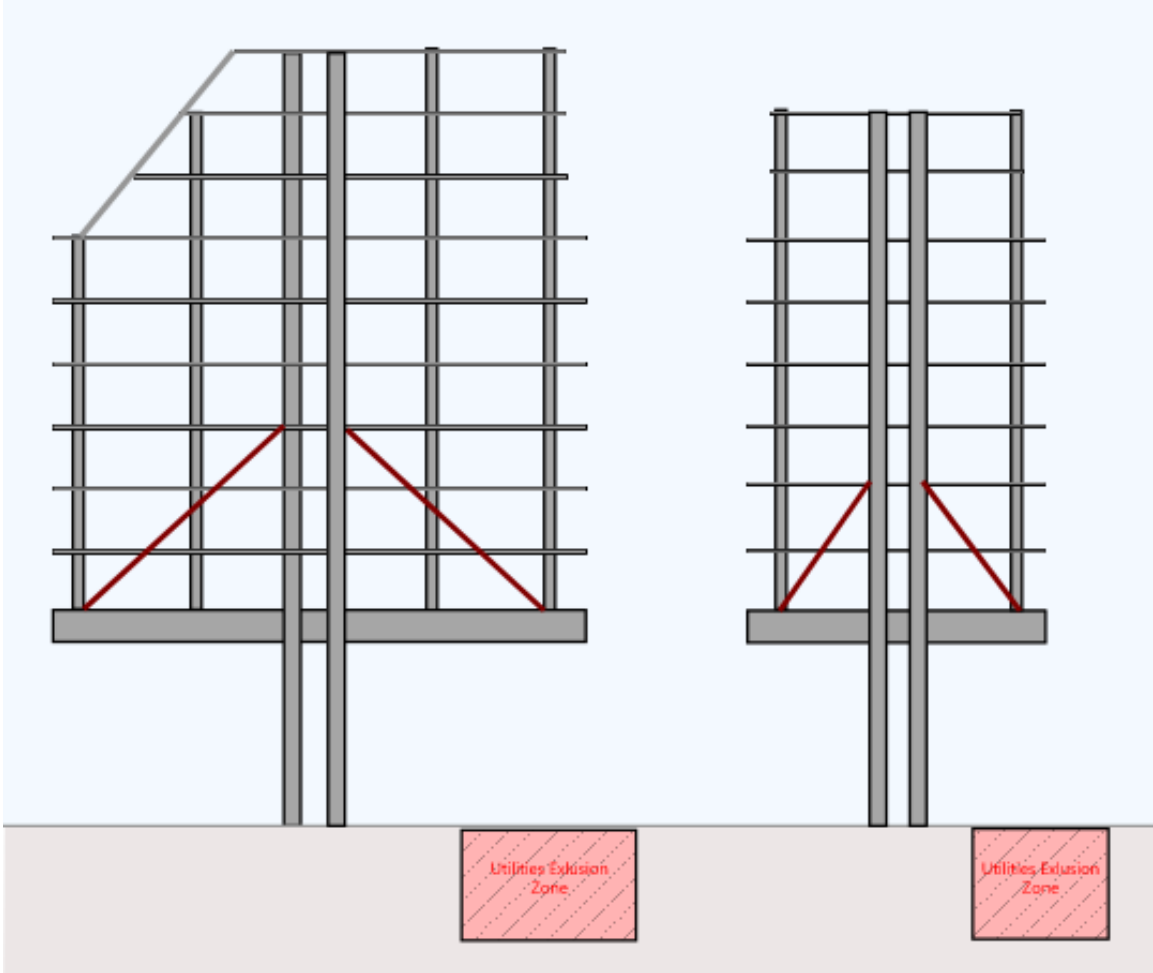
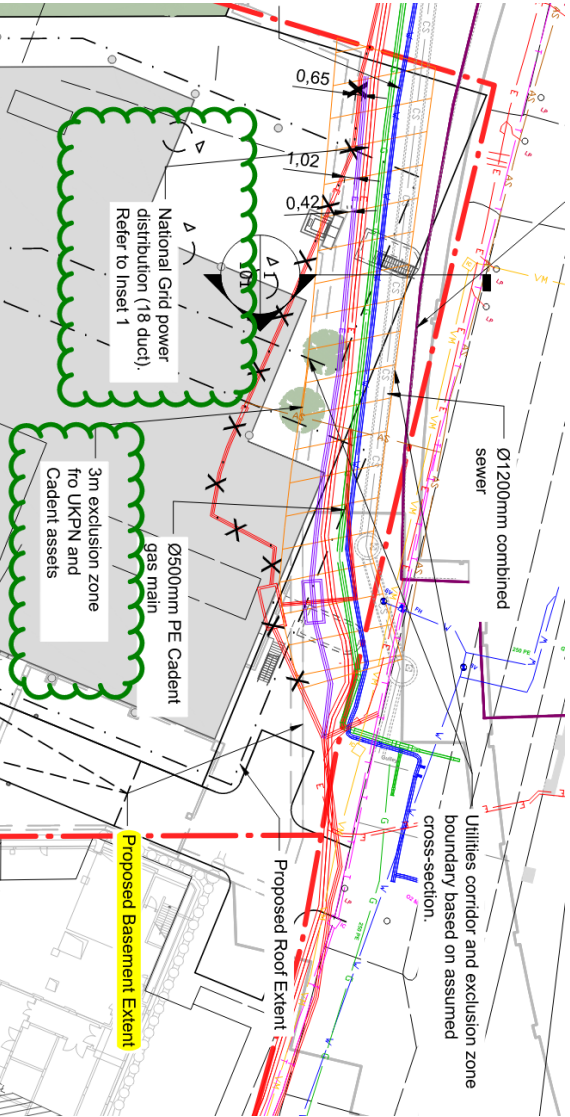
- North:
  - Francis Crick Institute, with high sensitivity to noise and vibration.
  - Dangoor Walk, public right of way to be maintained
  - FCI medical gas servicing bay
- East:
  - Midland Road
  - Infrastructure Corridor (CR2 to eventually relocate SE portion)
  - Thameslink
  - Grade 1 Listed St Pancras Station, with key views over the Barlow Shed
  - CR2 egress to St Pancras
- South:
  - Grade 1 Listed British Library
  - Logistics bay, to remain live throughout construction
- West:
  - Grade 2 listed Levita House residential
  - Services within Ossulston Street
  - Substation on site, to be demolished and replaced
- Below:
  - 2015 CR2 safeguarding exclusion zone (TfL DA)
  - CR2 agreed infrastructure (TfL DA)
  - Existing live LUL tunnels
- Above:
  - Protected views (e.g. over Barlow Shed) restricting planning envelope
- On site:
  - BLCC, to be temporarily relocated, demolished and replaced
  - Tank Farm, to be demolished and replaced
  - Victorian brick pier footings across site





# BENEFIT FROM THE SITE'S NATURAL CAPITAL

Recommendation: optimise form and siting by working with the site conditions



- 20% CO<sub>2</sub>e  
+ 350m<sup>2</sup> community garden  
£m's saved

Promote a culture that  
nurtures inquisitive minds

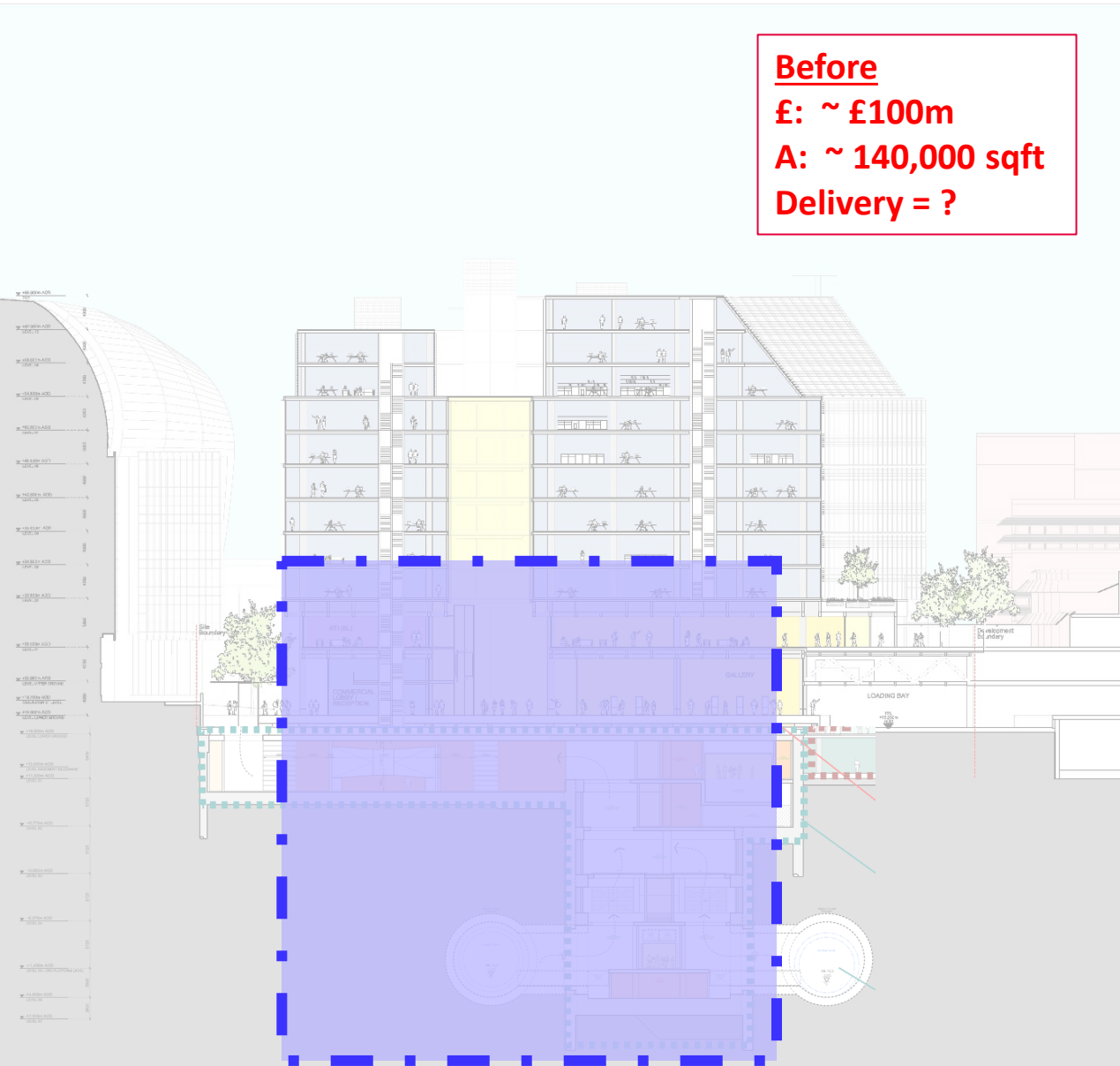
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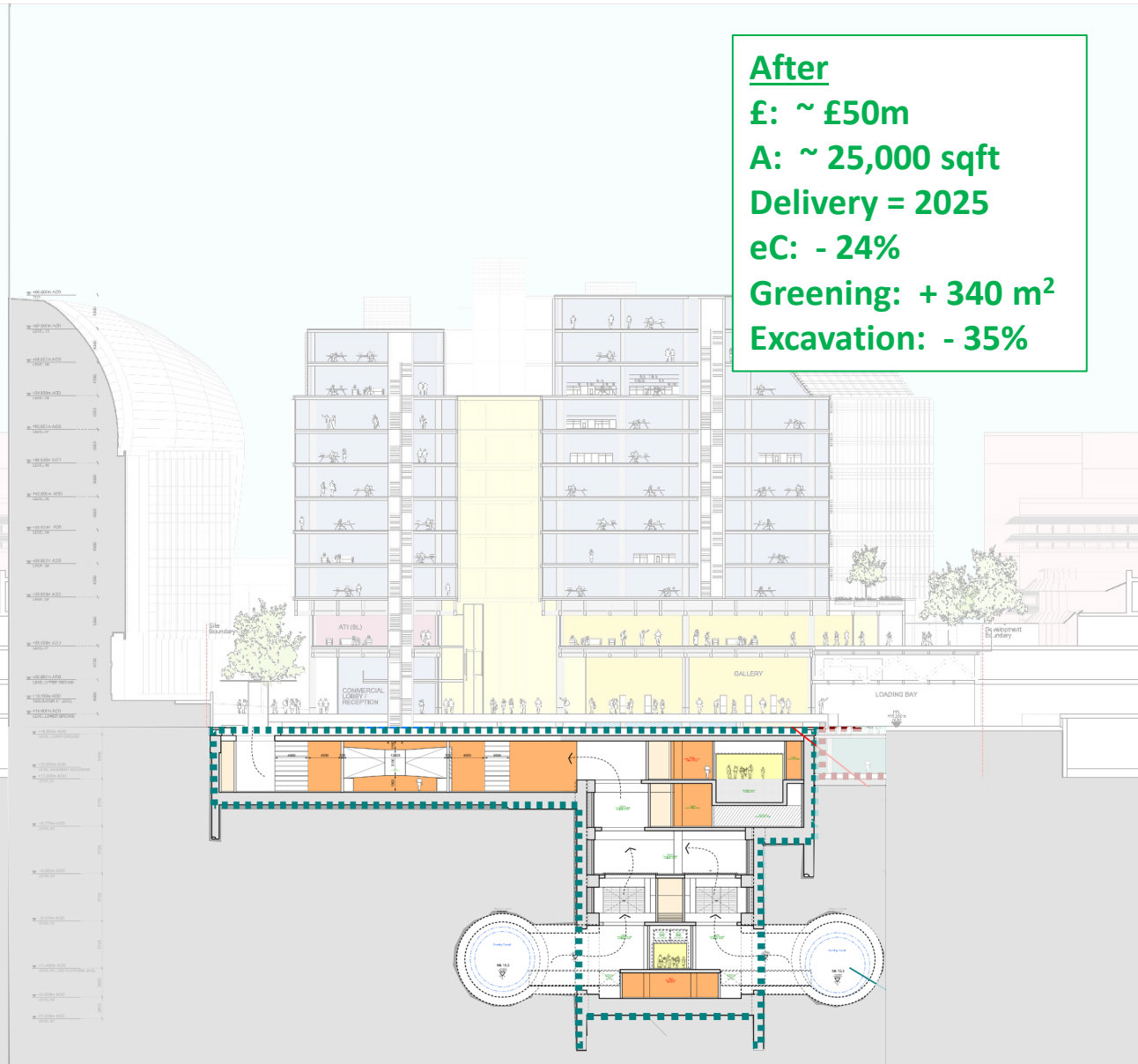


# A UNIQUE OPPORTUNITY TO SHRINK-WRAP CROSSRAIL INFRASTRUCTURE

**Before**  
£: ~ £100m  
A: ~ 140,000 sqft  
Delivery = ?



**After**  
£: ~ £50m  
A: ~ 25,000 sqft  
Delivery = 2025  
eC: - 24%  
Greening: + 340 m<sup>2</sup>  
Excavation: - 35%



Develop a common language

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# LINKING TO LOCAL AUTHORITY PRIORITIES

Strong growth and access to jobs

- Jobs for local people
- Opportunities for local young people
- Well paid and flexible work
- More opportunities for start-ups, SMEs and VCSEs
- Healthy workplaces
- Safe and Secure supply chains
- More opportunities for disadvantaged people

Clean, vibrant and sustainable places

- Climate impacts are reduced
- Better places to live
- Improved air quality
- Sustainable procurement is promoted
- Increased recycling and reduced waste

Safe, strong and open communities

- Creating more interactive and inclusive spaces
- Residents engaged in service design
- Tackling issues of isolation and exclusion
- Children given a better start in life

Healthy, independent lives

- Healthier active neighbourhood
- Increased access to health and support services
- Crime is reduced

Homes and housing

- Minimising and helping to address homelessness and rough sleeping



## RESULTING IN SPACES DEDICATED TO SUPPORTING LOCAL EMPLOYMENT, SKILLS AND BUSINESS



1. Affordable workspace
2. Focused retail
3. Learning centre
4. Business centre





## AND WELCOMING, HIGH QUALITY PUBLIC REALM



- 5. 250m<sup>2</sup> Community learning garden
- 6. Publicly accessible foyer
- 7. A diversity of open space



# LEADING TO AN EARLY AND HOLISTICALLY CONSIDERED DESIGN FOCUS ON CREATING A COMFORTABLE OUTDOORS FOR COMMUNITY BENEFIT



Time in nature can decrease blood glucose significantly

39.7%

A range of factors influencing the comfort and experience of visitors were examined:



Thermal comfort



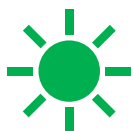
Air quality



Wind comfort



Acoustics

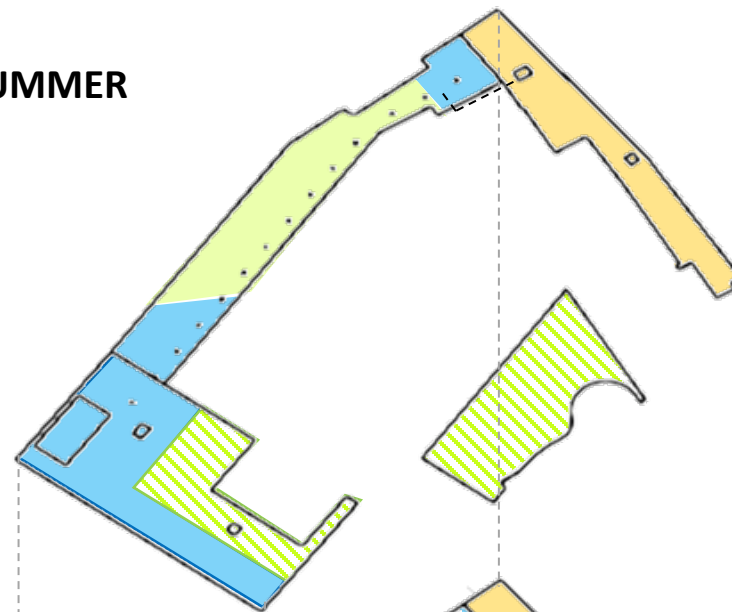


Daylight and sunlight



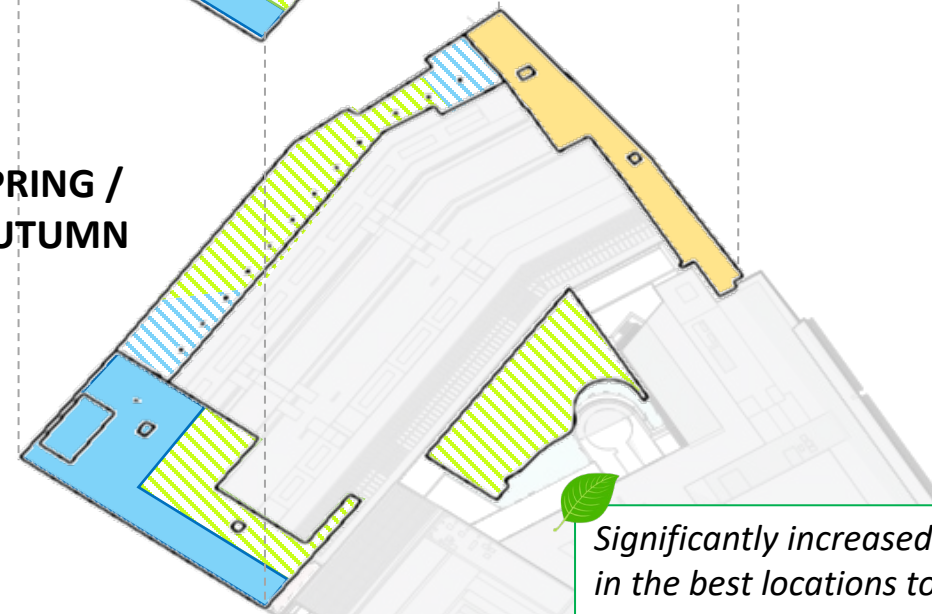
Urban Heat Island

SUMMER



- Sitting
- Standing
- Strolling
- Walking
- Seasonal variability

SPRING / AUTUMN



*Significantly increased public realm in the best locations to dwell*

Projects just enable good things to happen

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# British Library Extension brokers long term social value



> 3,000 new jobs



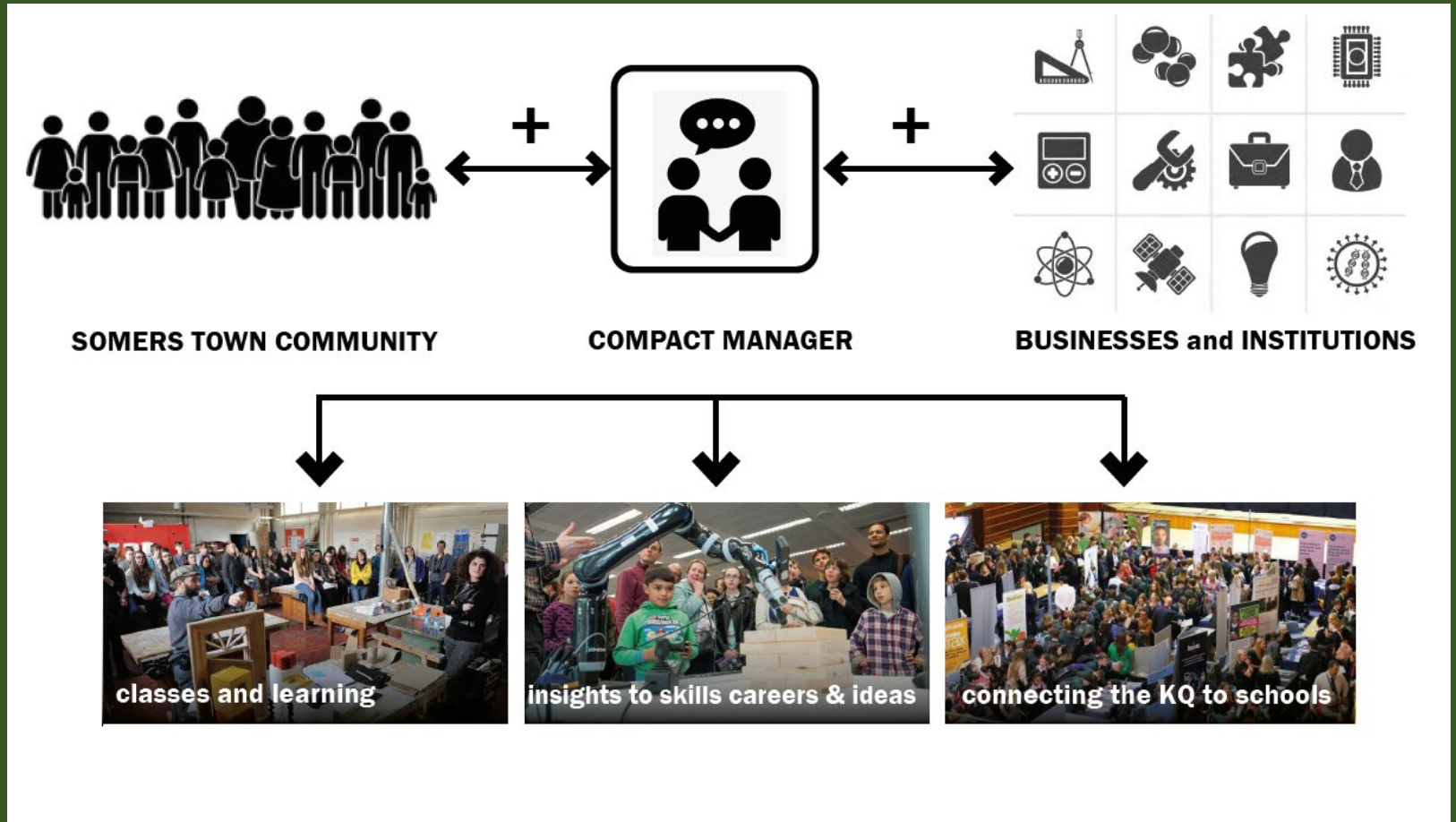
+ £27.2m social value  
over next 8 years



> £2.4bn additional  
economic value  
*over 10 year period from opening*



~ £53m additional  
spending in Camden  
*over 10 year period from opening*



So What?

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# Towns Conference

**Zach Wilcox**

June 2023



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