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Practical Example – a glimpse into the future?

Image for illustrative purposes only.

NTS Building -
12000m2

CST
CLEVELAND STEEL & TUBES LTD

The Telegraph
As featured by the Daily Telegraph Business club

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Remedial Work



Erection



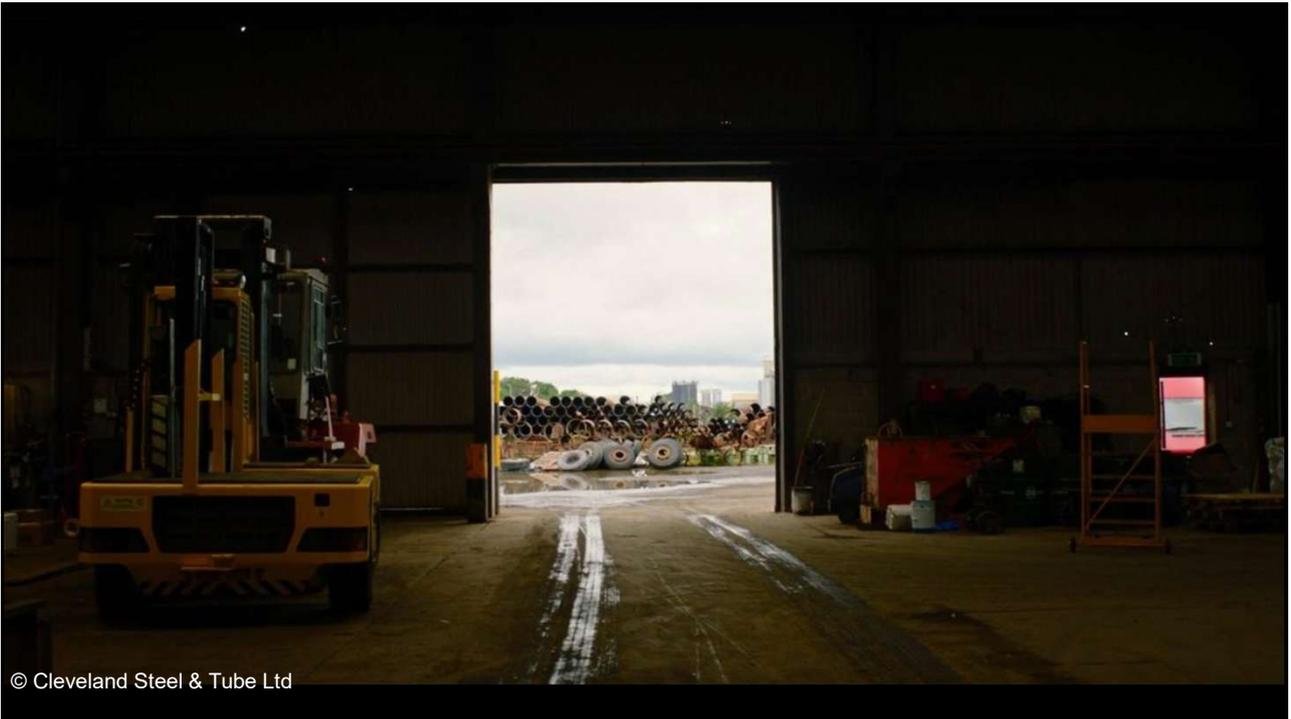
102

Finished Item

	Cost if new	Additional cost of reuse	Cost saving vs new	Net saving	Carbon saving (approx.)
Design/Admin	£312 000	£26 000	£162000	(£26000)	n/a
Ground works	£422 000	0	Planings = £130000 Muck = £133 000	£260 000	Haulage- 224T Co2 Stone – 52T CO2
Steel	£1020000	£160 000	£566 000	£566 000	1000T CO2
Cladding	£740 000	n/a	n/a	n/a	n/a
Floor	£950 000	n/a	n/a	n/a	n/a
Landscaping	£150 000				
Foundations	£132 000		Muck - £4000	£4000	4T CO2
Erection	£239 000	n/a	n/a	n/a	n/a
Totals	£3,776,000		£995 000	£969 000	1480T CO2



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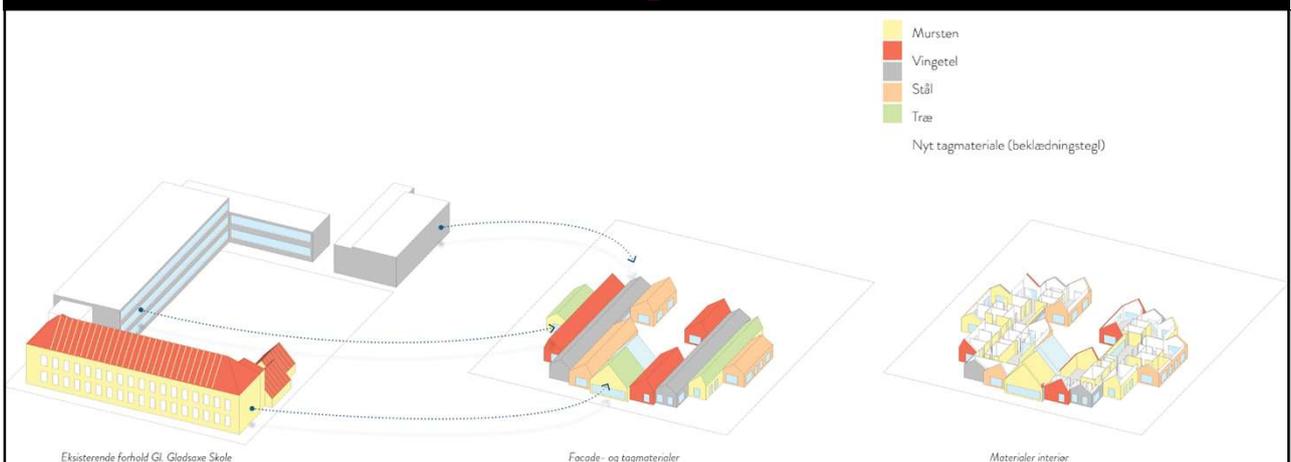
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© Cleveland Steel & Tube Ltd

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LENDAGER GROUP THE SWAN



© Lendager

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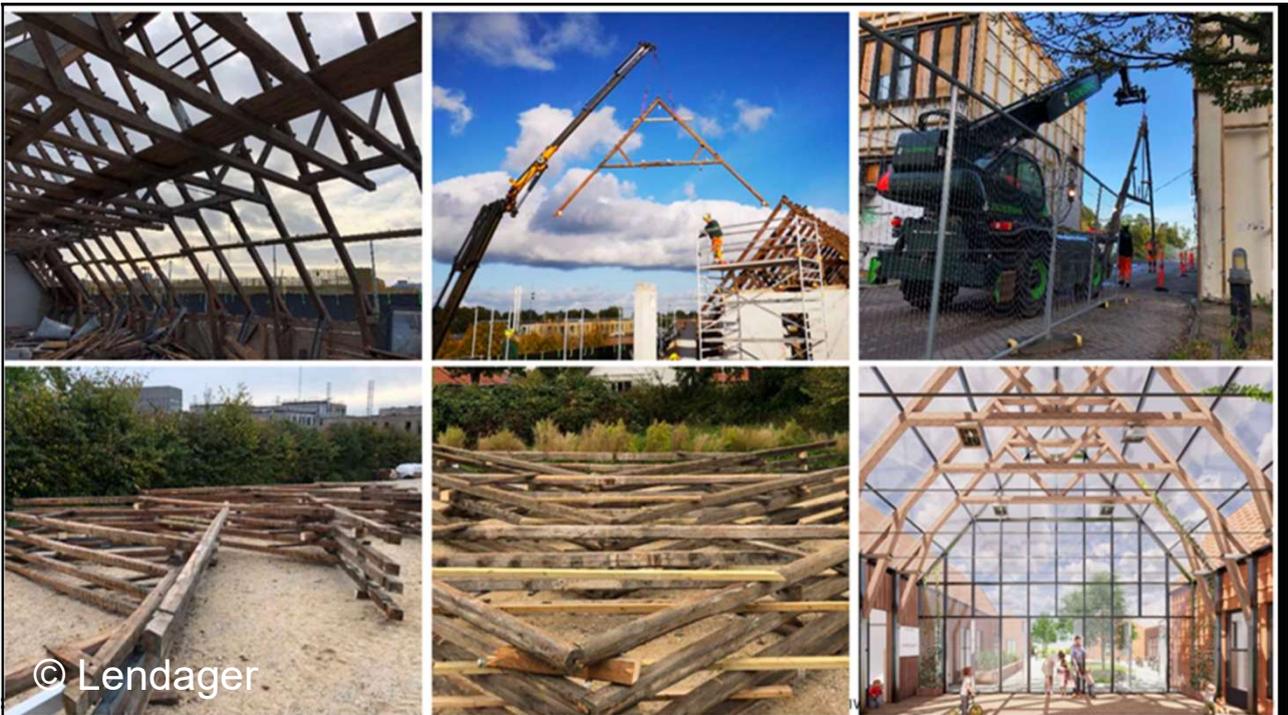
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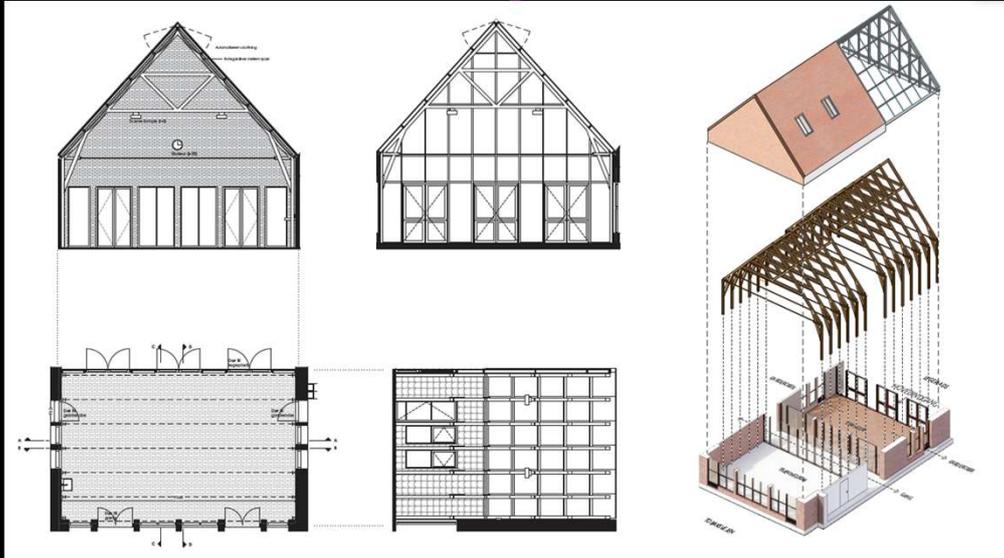


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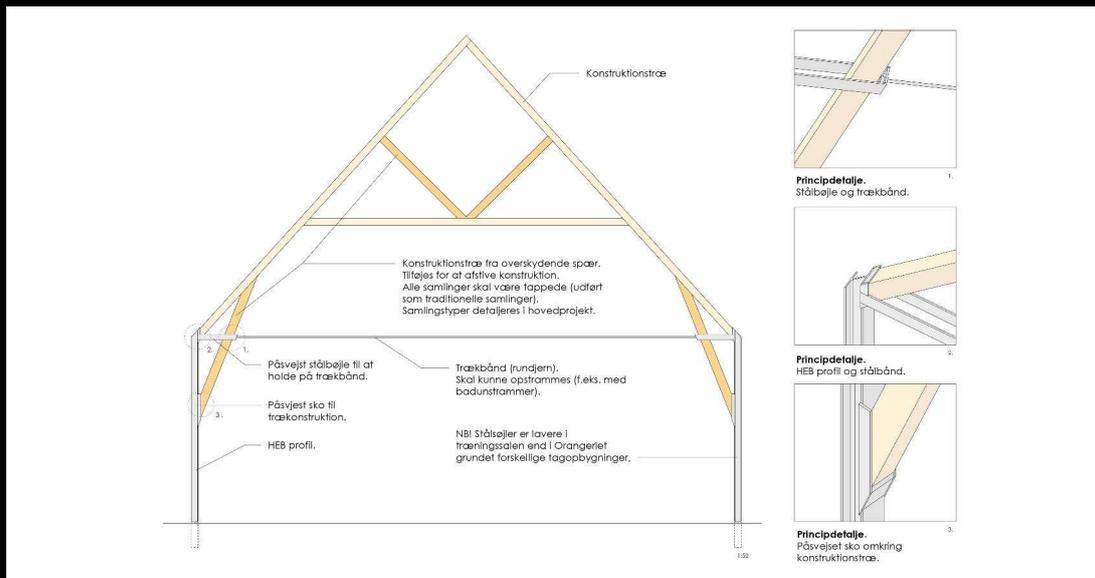
LENDAGER GROUP THE SWAN



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LENDAGER GROUP THE SWAN



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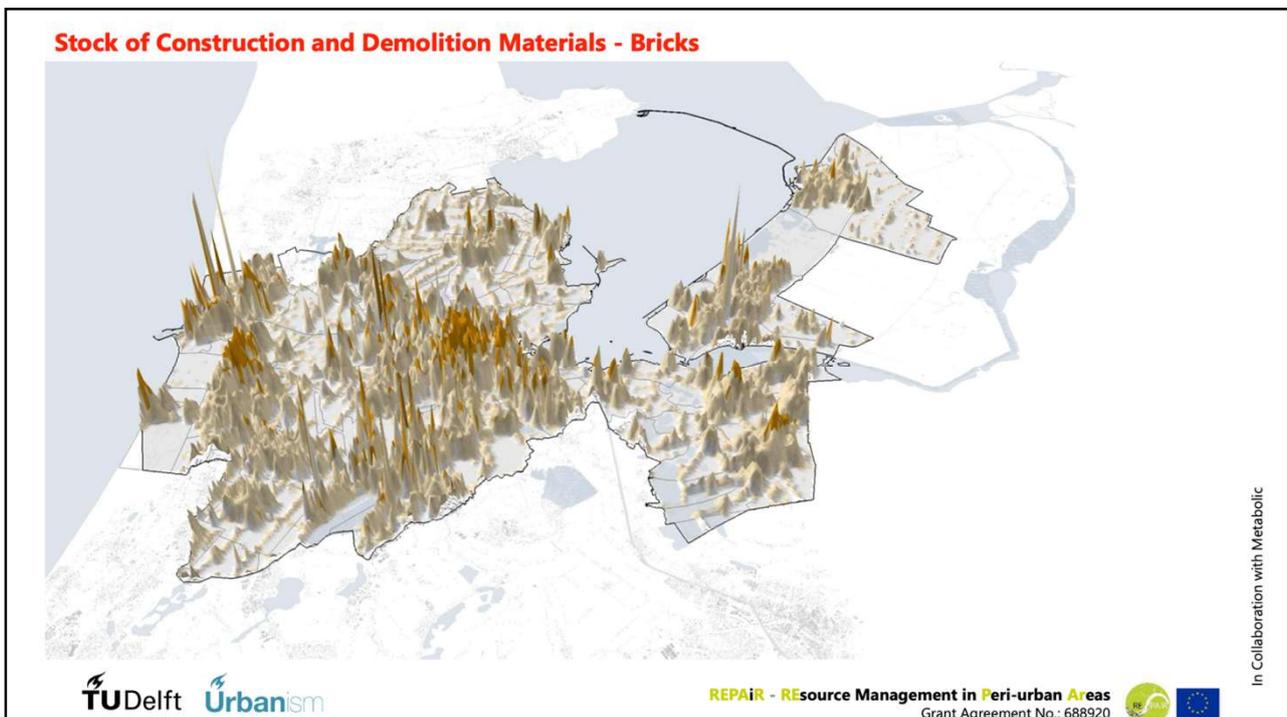
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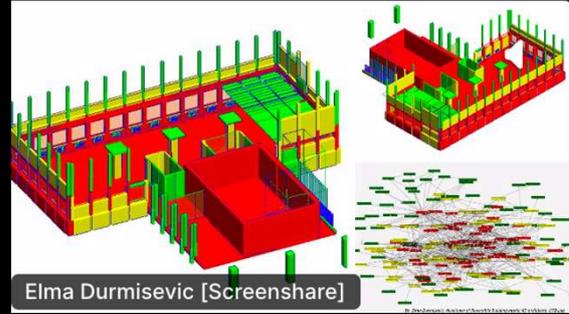
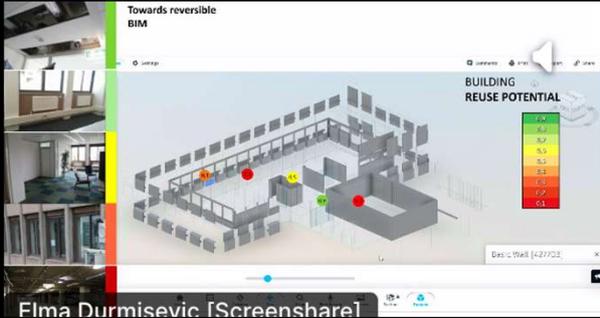
Digital Tools and Databases are emerging

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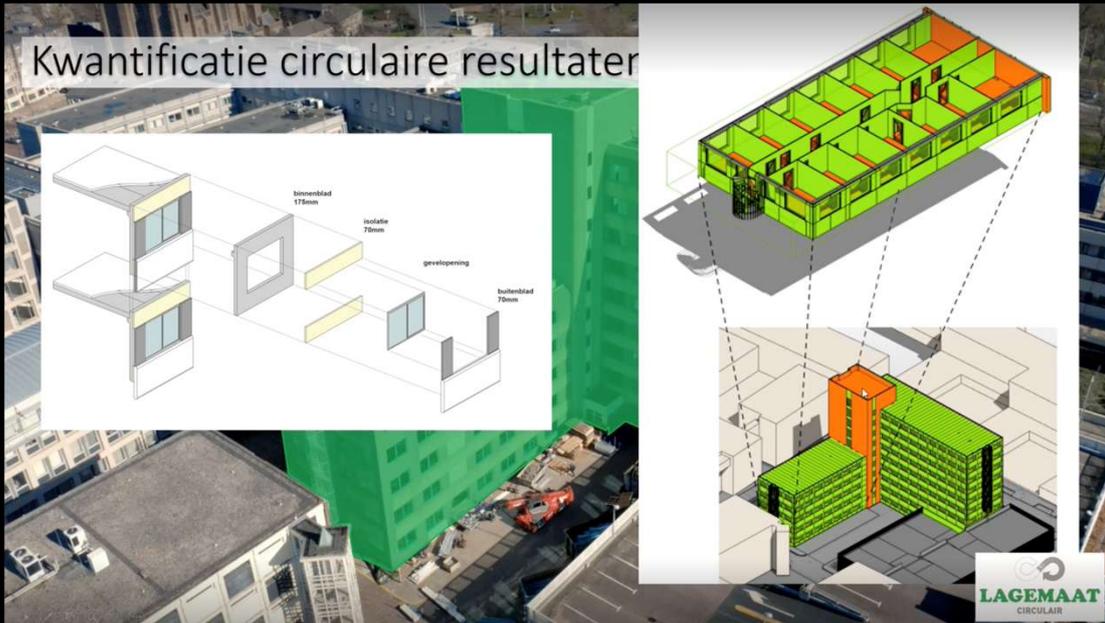
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A brief word about Dr. Elma Durmisevic of 4D Architects

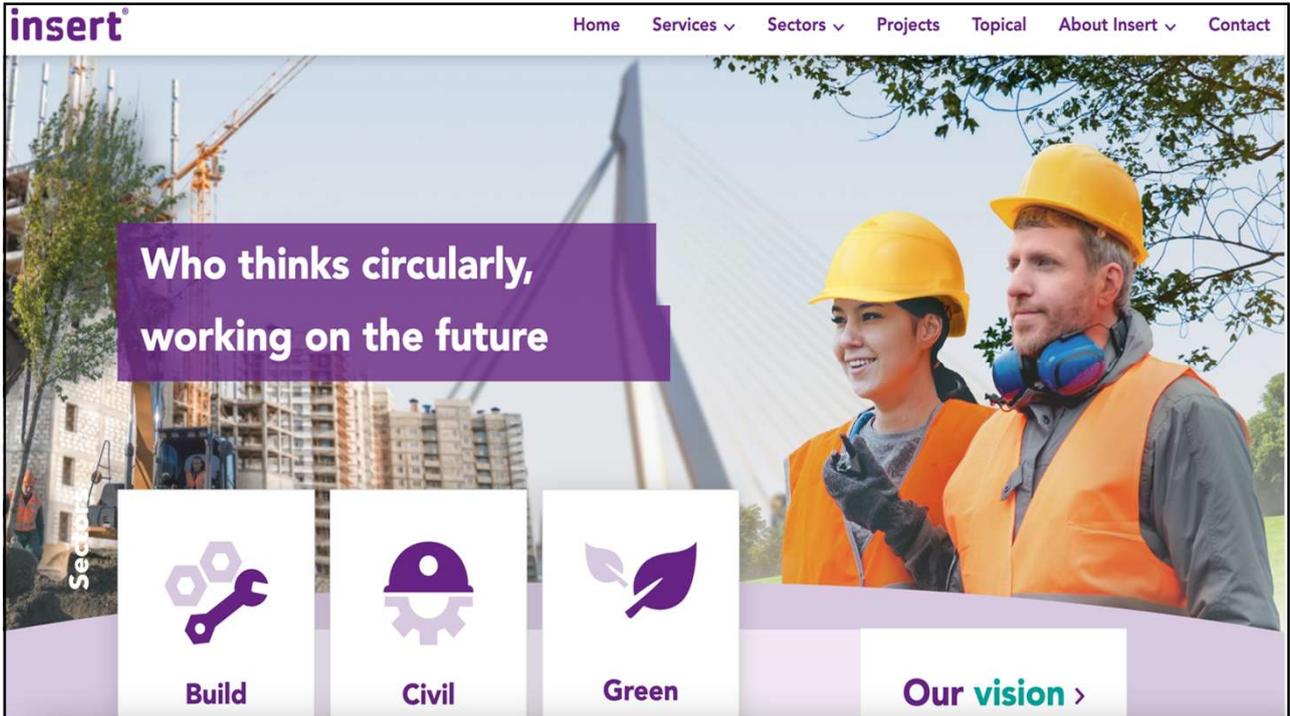


118

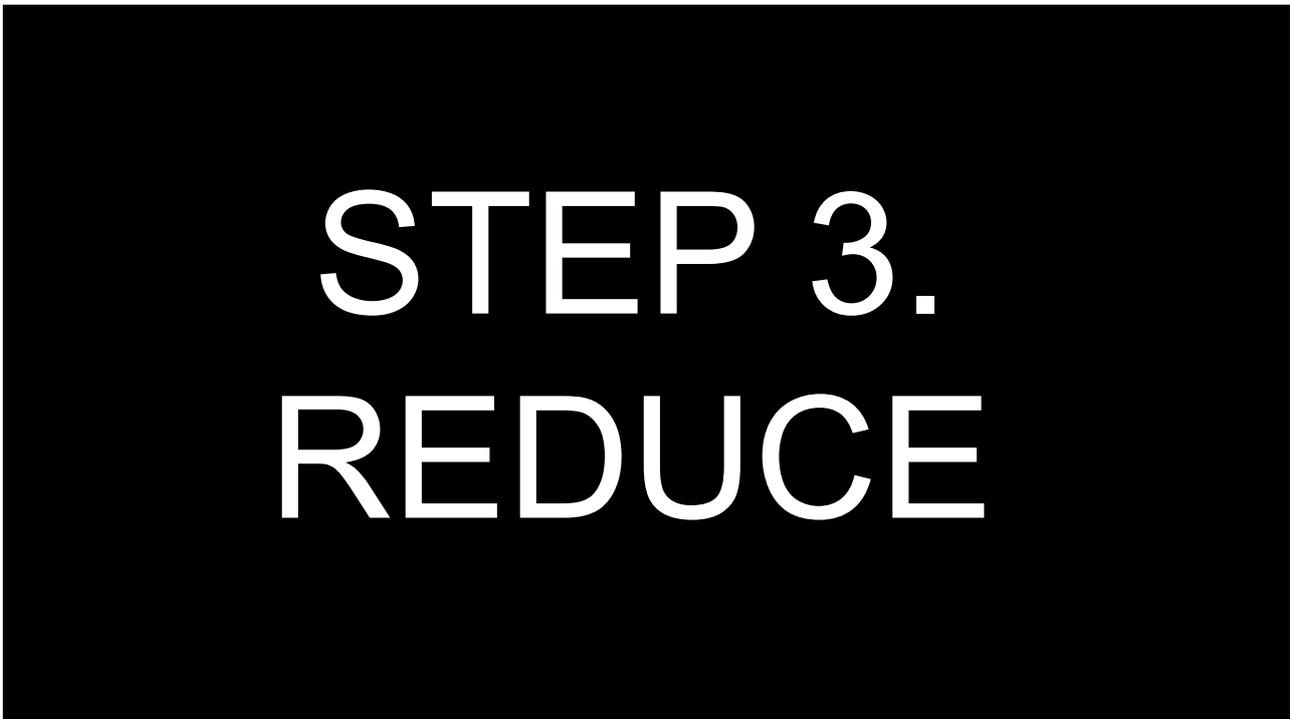
LAGEMAAT CIRCULAIR



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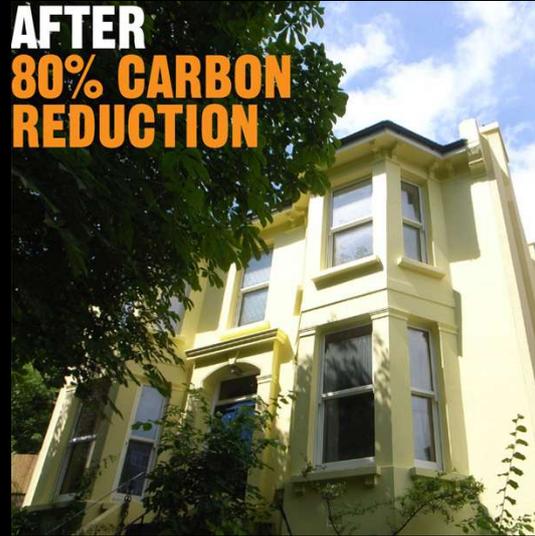
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Innovate UK funded *Retrofit the Future*

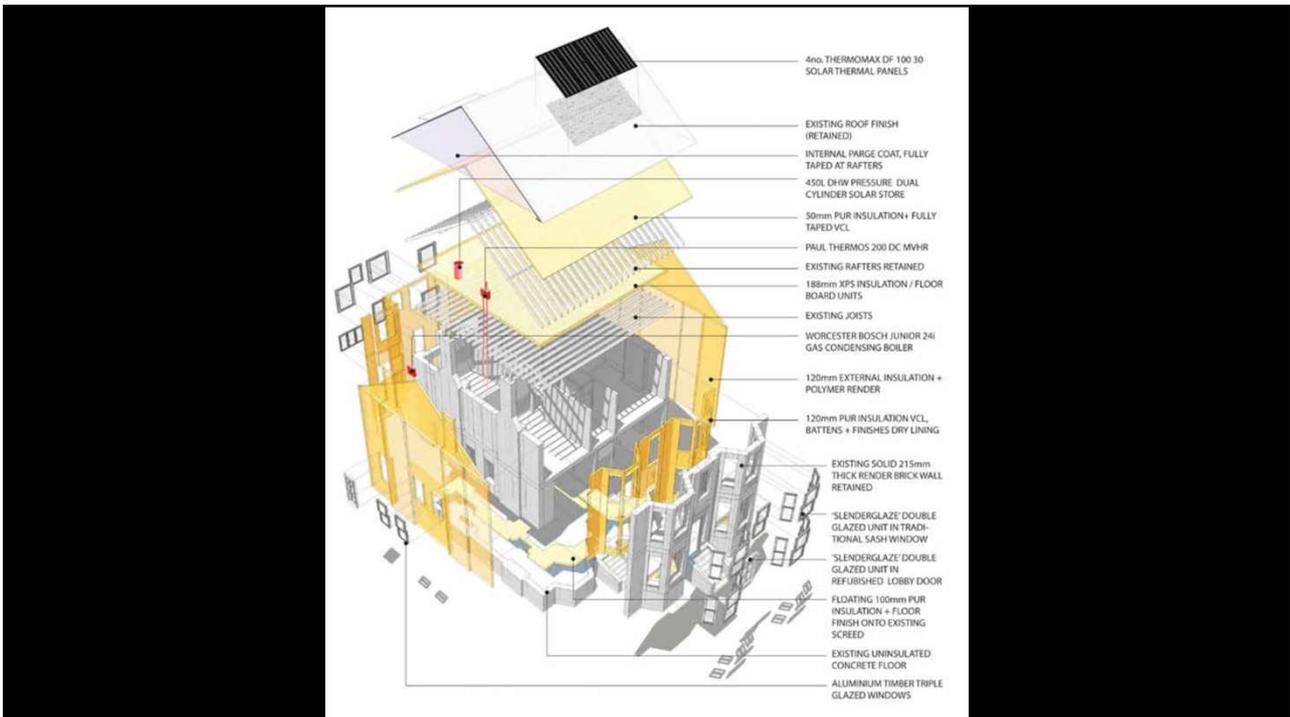
BEFORE



AFTER
80% CARBON
REDUCTION



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University of Brighton

Retrofit: A Working Methodology

Part of the Decarbonising of Social Housing Study
Commissioned by Lewes & Eastbourne District Council

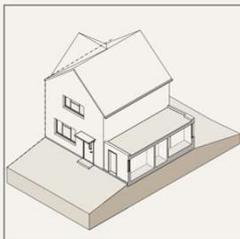
Completed September 2022
Updated 14th December 2022

Author: Duncan Baker-Brown FRSA ARB RIBA
Principal Lecturer University of Brighton
www.brighton.ac.uk

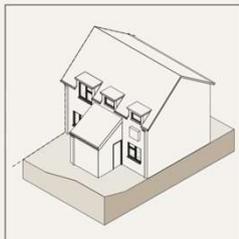
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Case Studies Summary

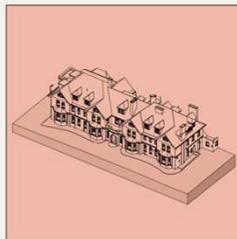
 In Depth Case Studies



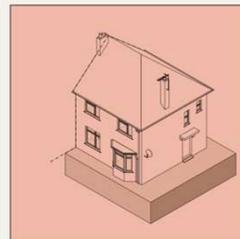
Property 01 - Glynde, Terraced House



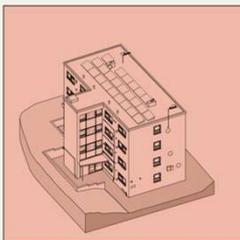
Property 02 - Muzster, Terraced House



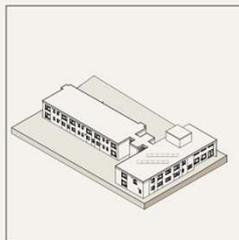
Property 03 - The Downs, Flats



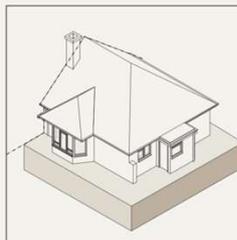
Property 04 - Command Road, Semi-Detached



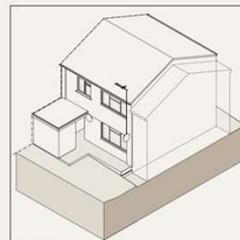
Property 05 - Lananik, Flats



Property 06 - Southland Court, Flats



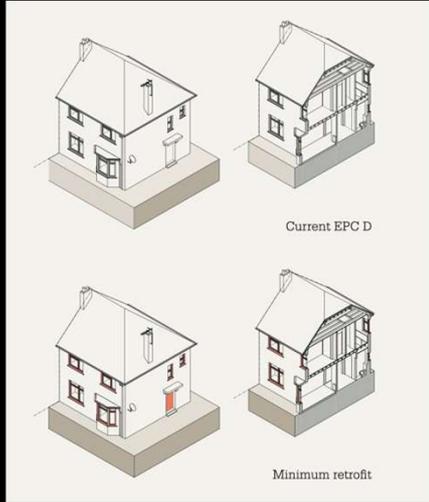
Property 07 - School Gardens, Bungalow



Property 08 - Foxglove, Terraced house

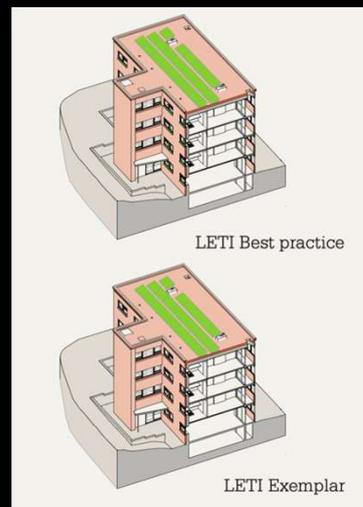
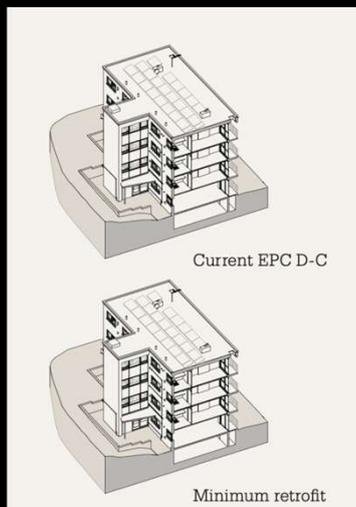
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De-carbonisation of Social Housing Stock



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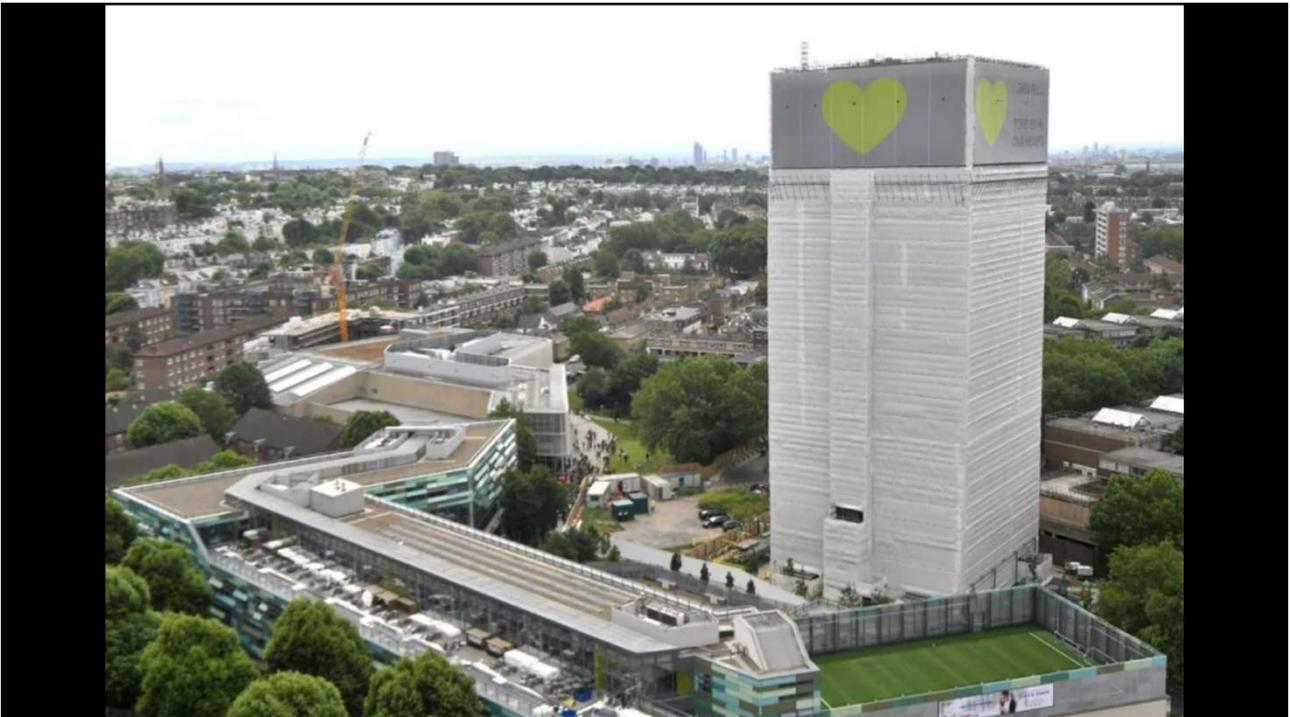
De-carbonisation of Social Housing Stock



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Creative Retrofit & Adaptive Re-Use is a HUGE opportunity for us all

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Remember - retrofit has to be more than external wall insulation and solar panels....

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Working with Existing Places

Lacaton & Vassal - Paris 17, Tour Bois le Petre - Druot



BEFORE

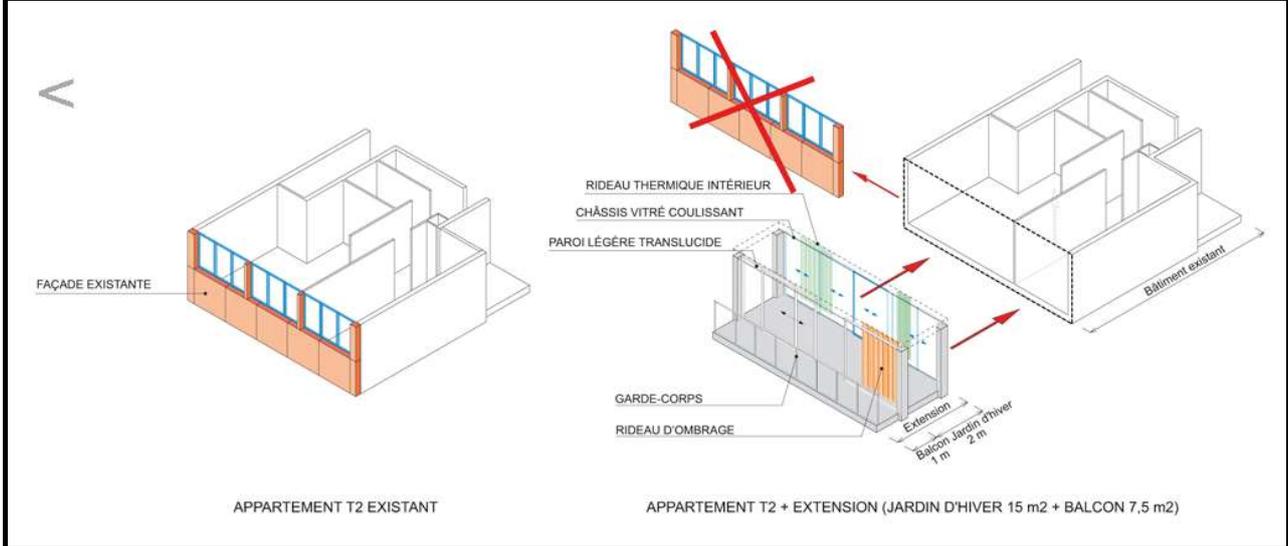


AFTER

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Working with Existing Places

Lacaton & Vassal - Paris 17, Tour Bois le Petre - Druot



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Working with Existing Places

Leach Court by BakerBrown Studio

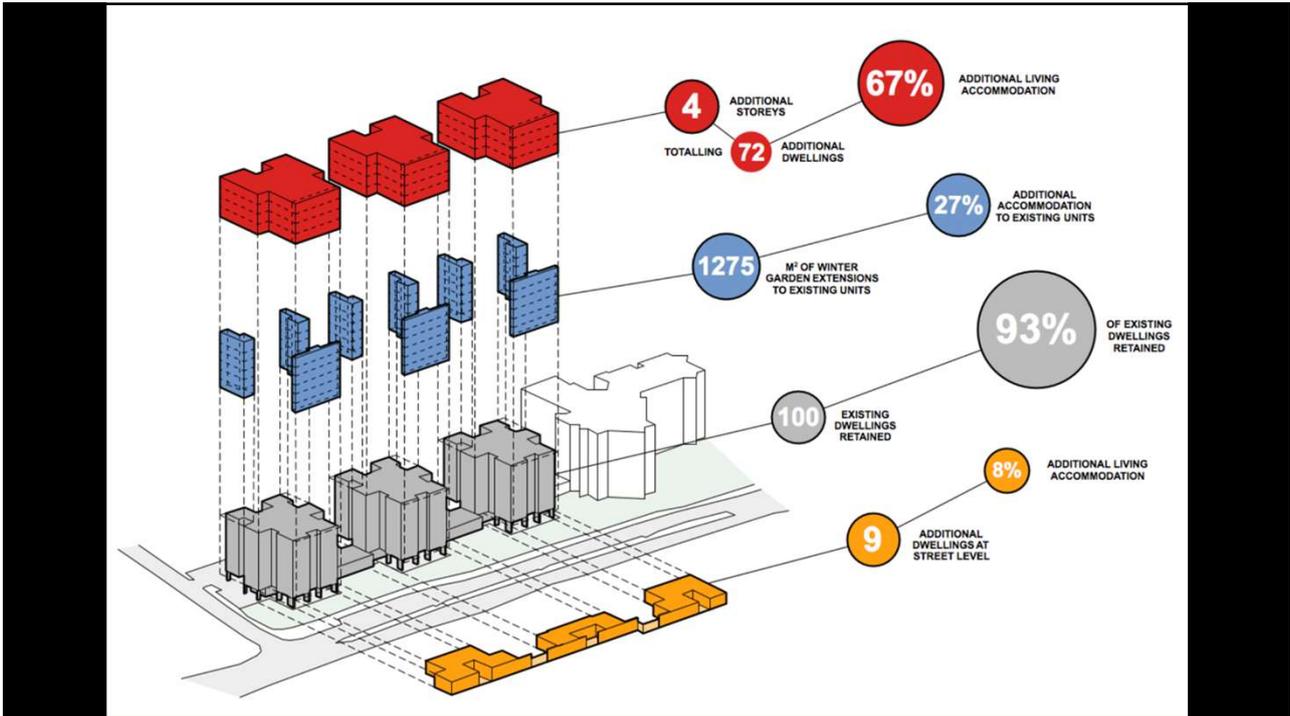


EXISTING STREET VIEW
PERSPECTIVE VIEW OF EXISTING BUILDING



PROPOSED STREET VIEW
PERSPECTIVE VIEW OF PROPOSED BUILDING

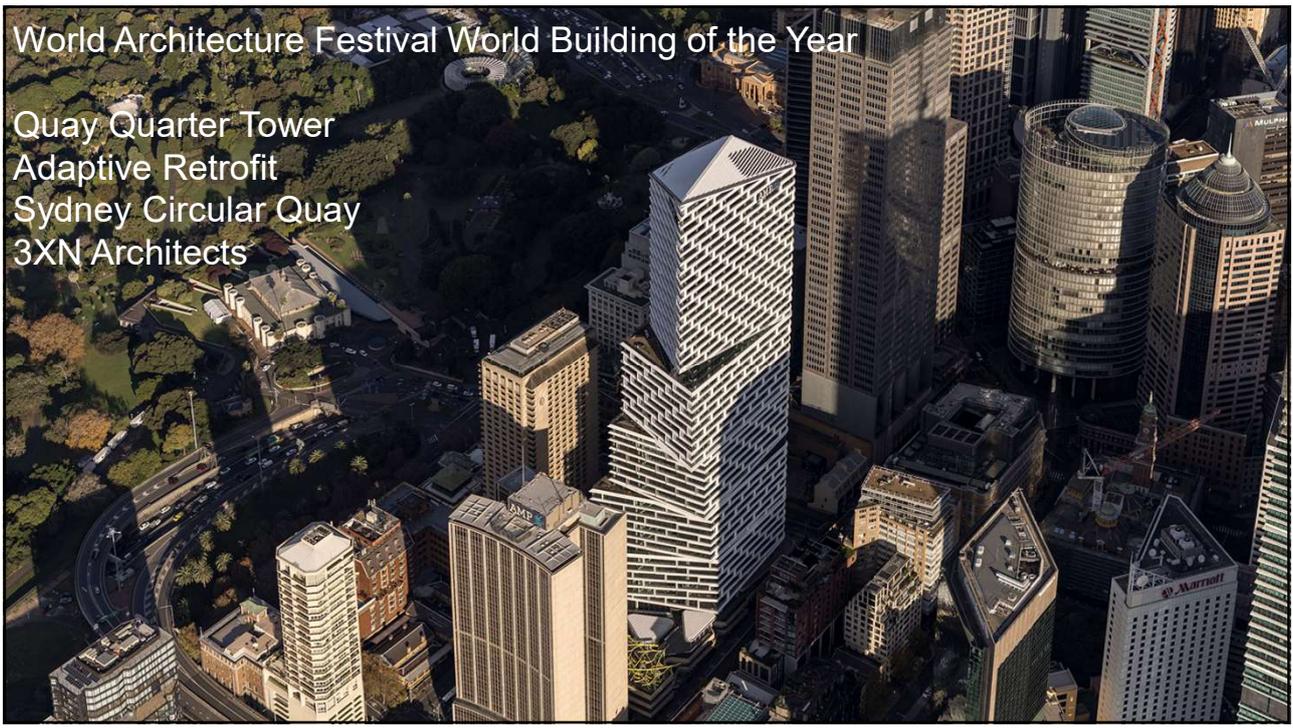
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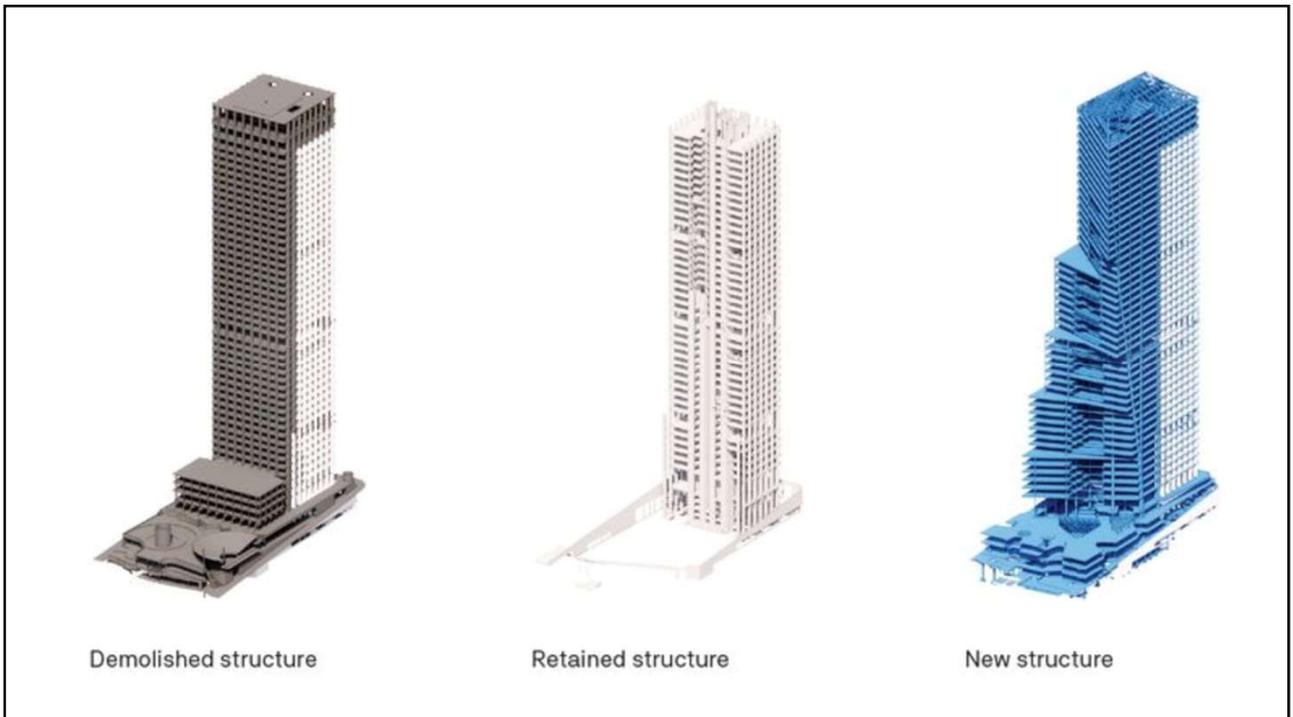
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Paddenbroek Education Centre by Jo Taillieu Architecten



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Paddenbroek Education Centre by Jo Taillieu Architecten



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Paddenbroek Education Centre by Jo Taillieu Architecten



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Paddenbroek Education Centre by Jo Taillieu Architecten



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Paddenbroek Education Centre by Jo Taillieu Architecten



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1 Triton Square, London Lendlease for British Land

- 20-year-old double skin façade refurbished & reused because manufacturer guaranteed upgrade
- Temporary re-manufactory set up near site to disassemble, upgrade and re-assemble glazing system
- 33,400 tonnes of concrete kept in-situ, i.e., not crushed
 - 1,843 tonnes of steel reused
- 40,000 tonnes of Carbon saved equivalent to annual energy consumption of 10,000 homes
- Saving more carbon in design & construction than the building will produce during its next 20 year lease

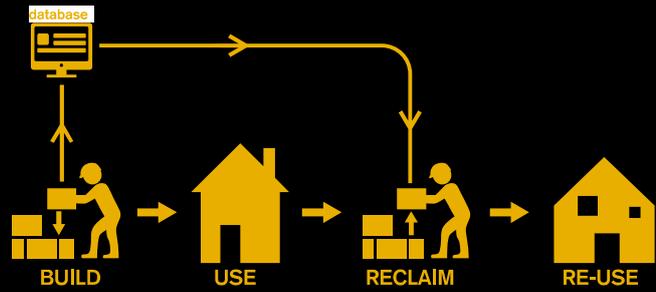
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STEP 4. CIRCULAR ECONOMY

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Peter Zumthor's Swiss Sound Box



BUILDINGS AS MATERIAL BANKS

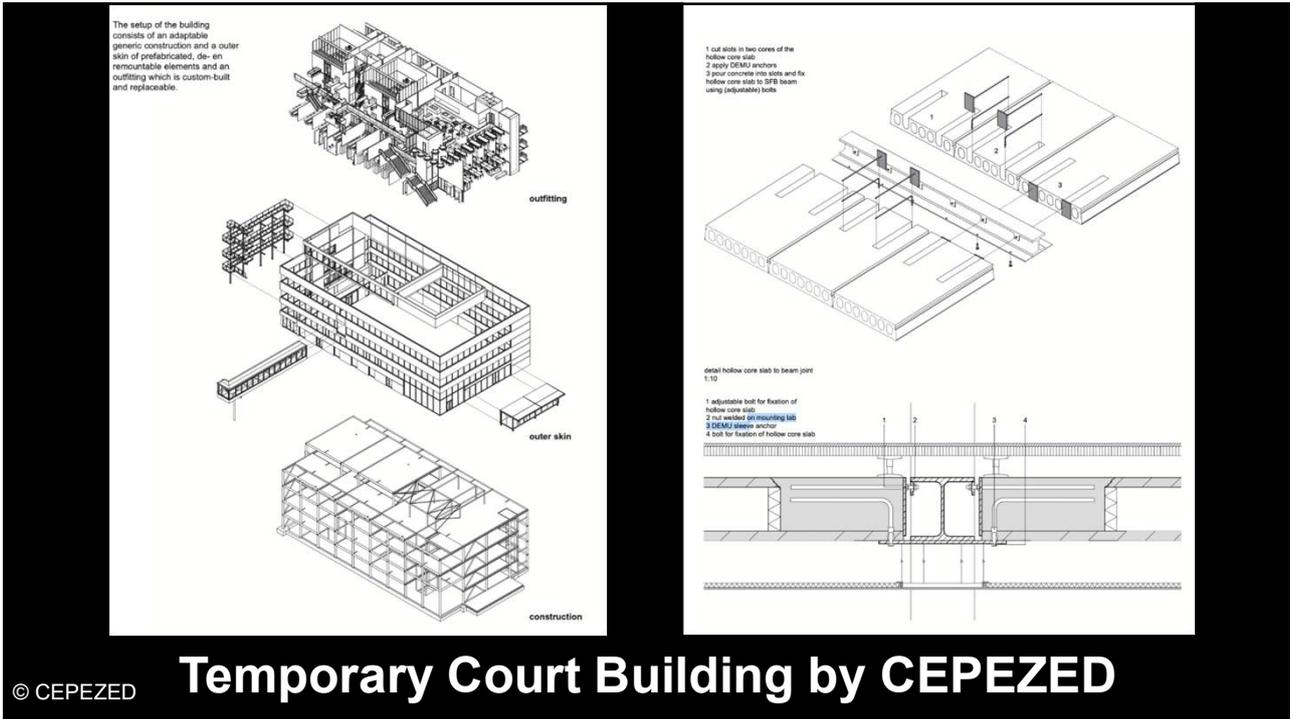
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Temporary Court Building by CEPEZED

© CEPEZED

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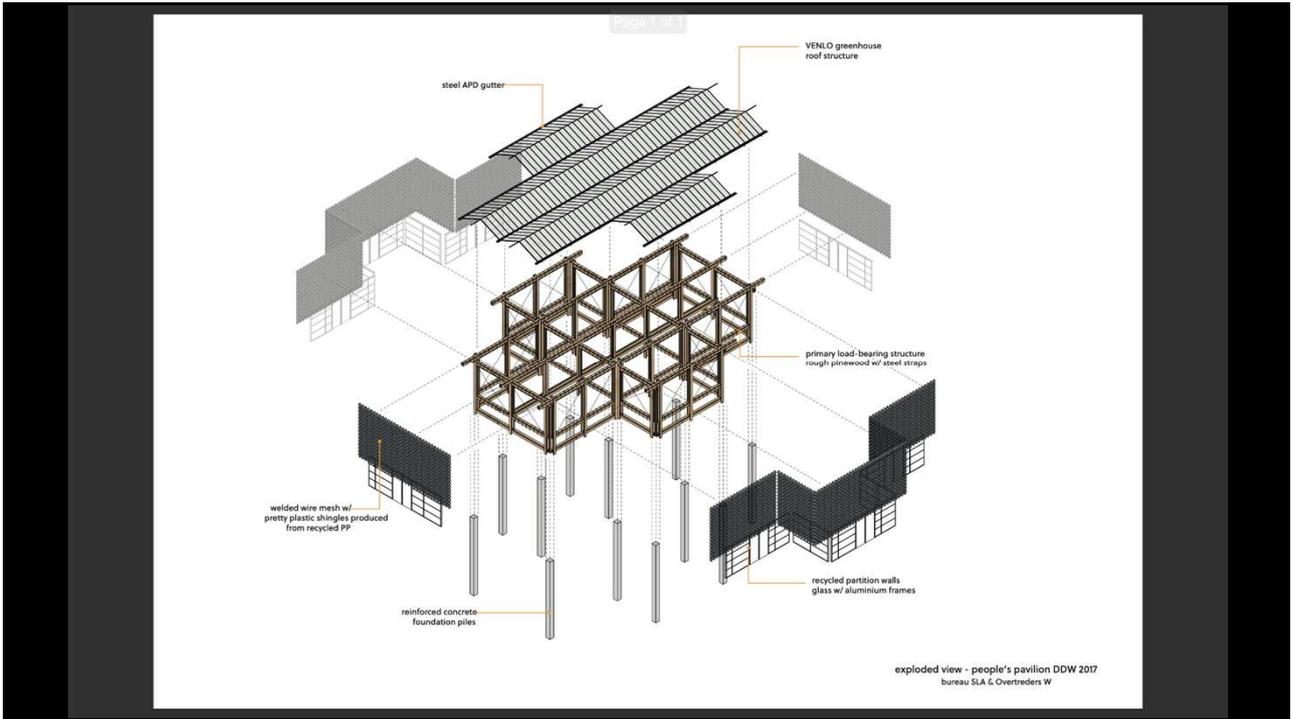
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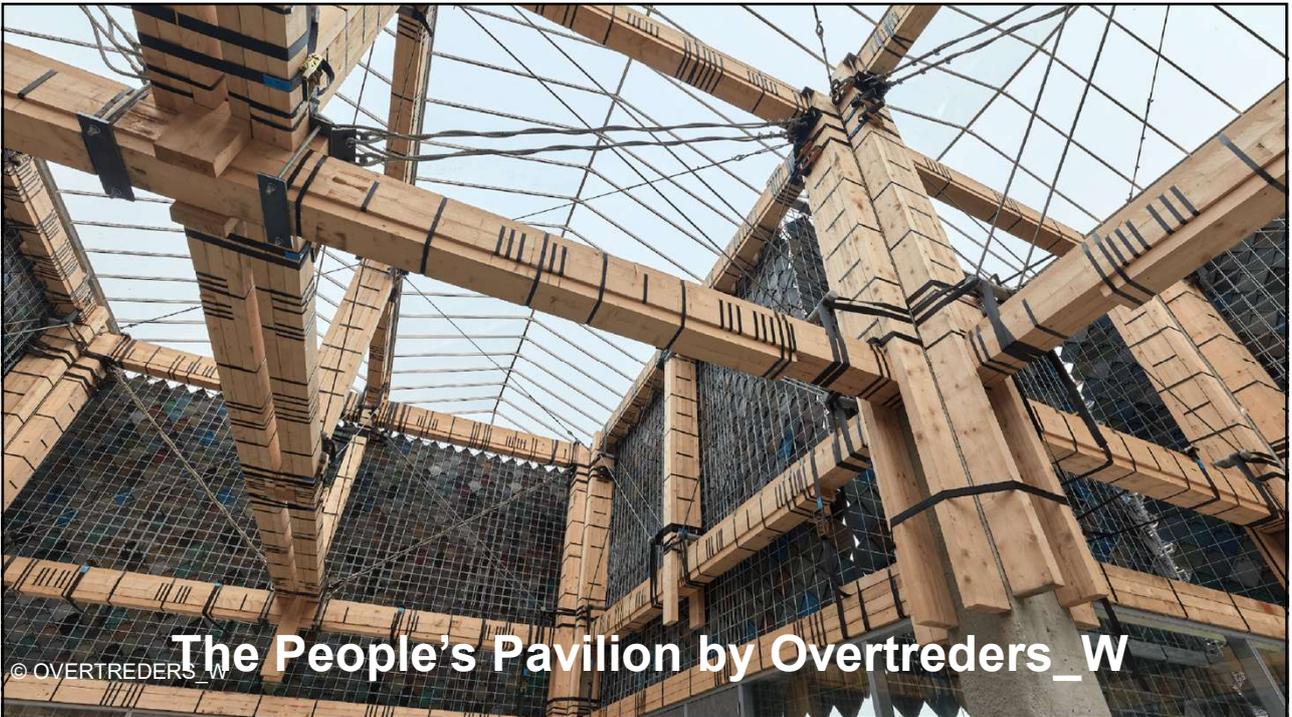
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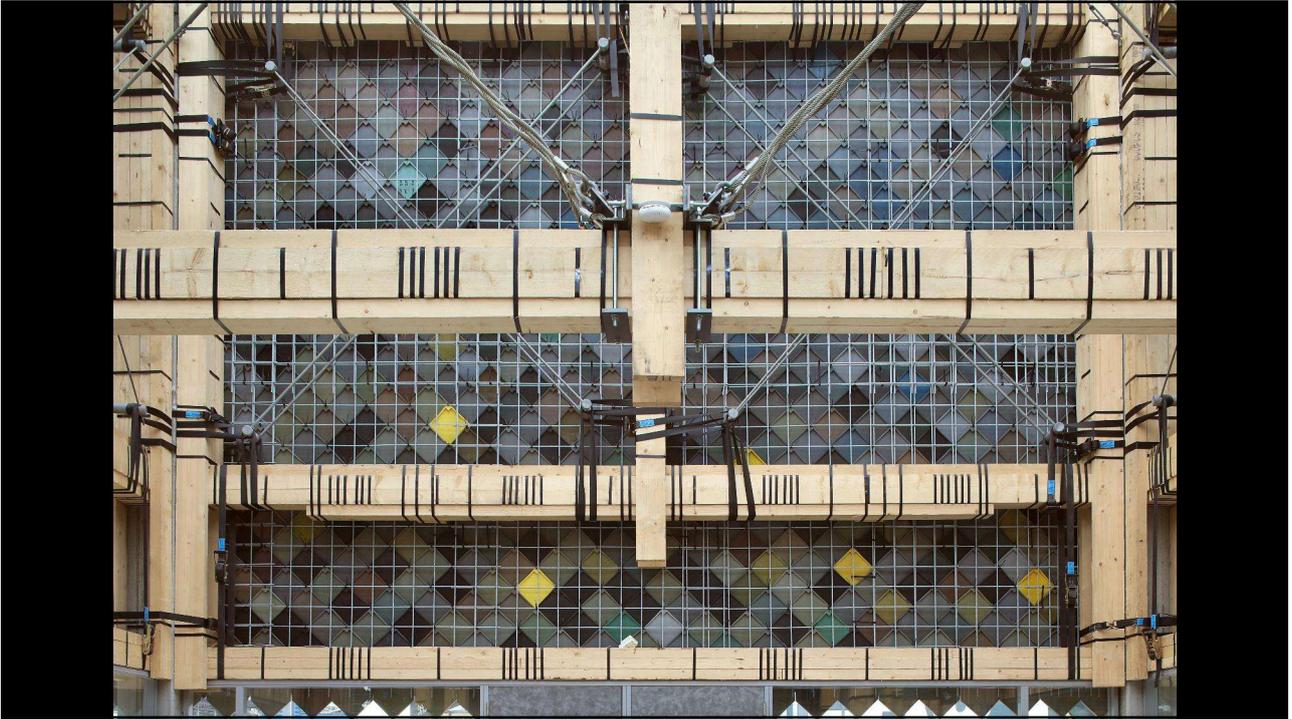
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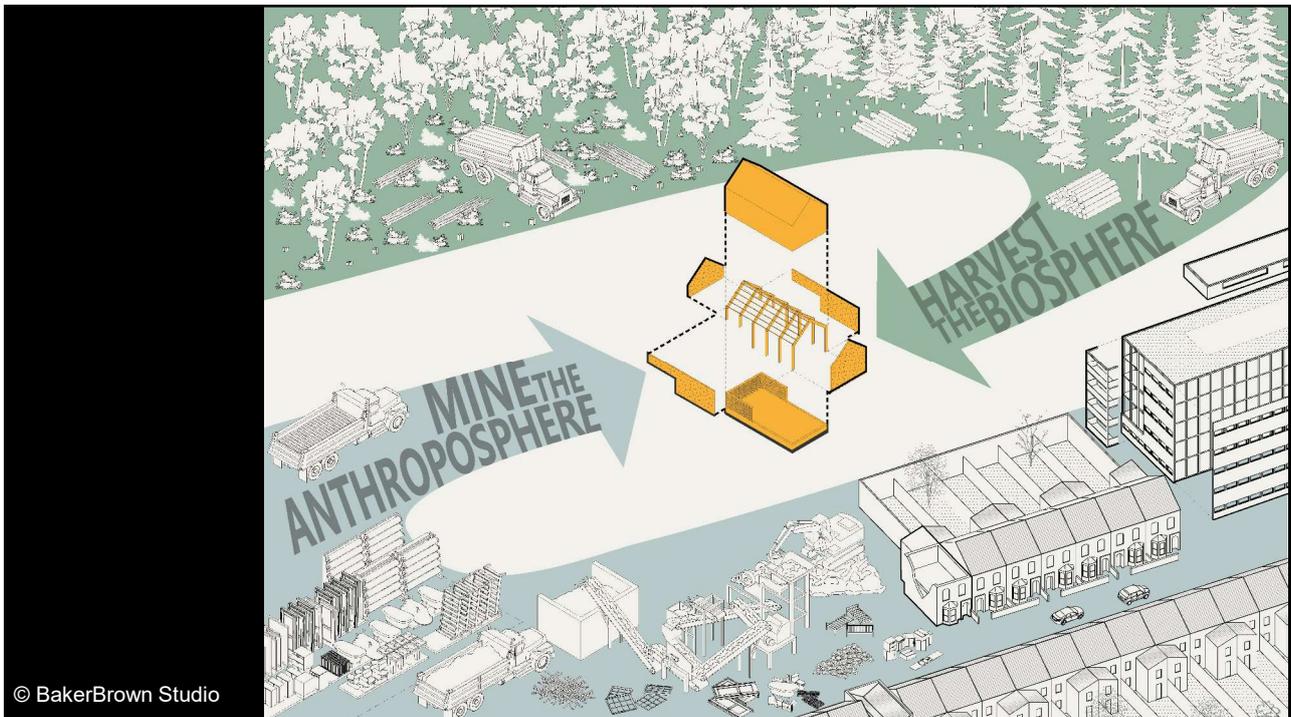
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And so, to summarise what systems change might look like?

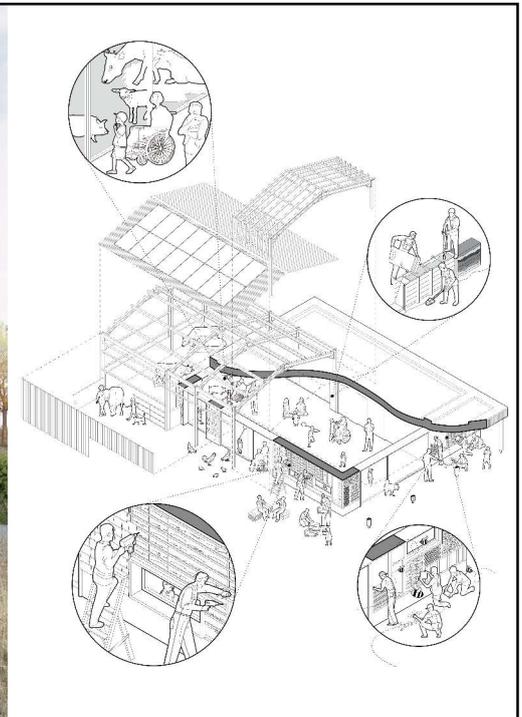
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BakerBrown

Architects & Circular Economy Specialists

Thank you!

Contact us
bakerbrown.studio +44 (0)1273 400319 info@bakerbrown.studio

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QUEEN'S
UNIVERSITY
BELFAST

Richard Nelson & Scott Farrar

'Don't Waste Buildings'

'How NOT to Waste Buildings'

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DON'T WASTE BUILDINGS

Don't Waste Buildings
The voluntary effort to make housing and development simpler and easier through the reuse of existing buildings.

Queens University Belfast – Sustainable Construction Conference – 24 February 2026

The slide features a background image of a multi-story brick building under renovation, with a yellow tint. A circular logo in the top right corner contains a yellow house icon and the text 'DON'T WASTE BUILDINGS'. At the bottom, there is a banner with the text 'Queens University Belfast – Sustainable Construction Conference – 24 February 2026' and some faint, illegible text on the left.

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Who is Don't Waste Buildings?

- Non-party political volunteer group est. 2023
- Put a spotlight on upfront carbon in construction & real estate
- Make the case for the productive reuse of existing buildings
- 2,200+ LinkedIn members
- Property developers, architects, engineers, housing experts, financiers, heritage experts, and others
- 6 Chapters in UK & Australia
- 6 Workstreams



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Our ask:

We are calling on the UK government to introduce policy clarity and financial incentives to make the reuse of existing buildings simpler and more profitable.



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1 policy move, 10 major impacts

By implementing a 'presumption of retention', we can...

				
Become a Circular Economy	Reduce waste	Meet housing targets	Improve health	Improve biodiversity
				
Re-skill workforce	Provide green jobs	Stimulate innovation	Grow green economy	Social impact

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Our role – six ways we will help

1. **Engage:** with politicians and policymakers
2. **Recommend:** Explore and recommend potential policies and financial incentives
3. **Inform:** Share information, collate reports, and record evidence and case studies of best practice
4. **Demonstrate:** the case for re-purposing existing buildings
5. **Collaborate:** with other organisations to amplify our collective voice
6. **Educate:** Engage with communities to spread the message locally

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How Financially Incentivising Retrofit Can Spark Economic Growth in the UK

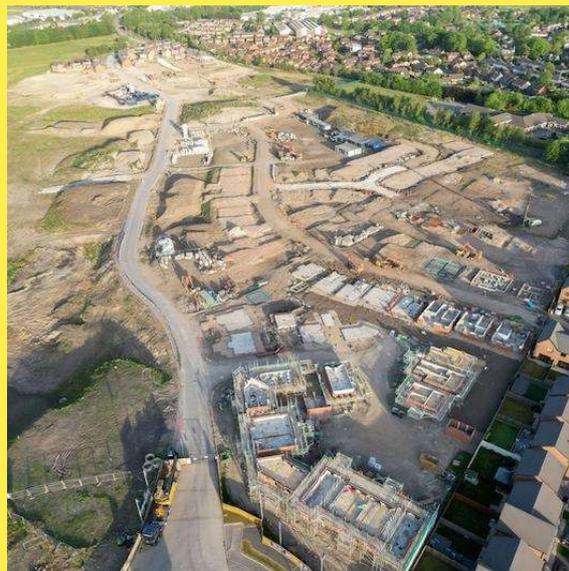
A Study of International Best Practice in Promoting Building Reuse

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UK taxes retrofit and rewards demolition

A missed opportunity

- New build housing = 0% VAT
- Retrofit & renovation = 20% VAT
- Multi-billion £ market distortion
- Contradicts climate policy
- Suppresses SME growth



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International evidence

Retrofit incentives pay back

Country	Policy	Fiscal Outcome
FR France	Reduced VAT (10% / 5.5%)	Net positive via increased tax base and formalised market
US USA	20% Historic Tax Credit	\$1.20–\$1.25 returned per \$1 spent
DE Germany	KfW subsidised loans	€1 public → €6–7 private investment
NL Netherlands	Green investment tax relief	€1 tax relief → €22 private investment
IE Ireland	Vacant home grants	Turns derelict assets into taxpayers
IT Italy	110% Superbonus	Huge growth, fiscally unsustainable (⚠️ design flaw)

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UK approach failing

Fragmented, small, short-term

- ✗ Stop-start policy (Green Homes Grant collapse)
- ✗ Small-scale grants (BUS too narrow)
- ✗ No structural reform
- ✗ No reuse incentive
- ✗ VAT distortion overwhelms everything

✓ France VAT Structural policy, systemic growth

✓ USA Tax Credit 40+ years stability

✓ Germany KfW Institutional & permanent

✗ UK Schemes Start → Stop → Reset → Cancel

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Sustainability is now financially material

Investors must now prove climate risk management

UK SRS S1 — General Sustainability Disclosures

Requires disclosure of sustainability-related financial risks and opportunities

Focus on governance, strategy, risk management, metrics

Material risks must be financially quantified where possible

UK SRS S2 — Climate-Related Disclosures

Mandatory reporting of:

- Scope 1, 2 and 3 emissions
- Climate transition risks
- Physical risks
- Capital deployment alignment with net zero

Based on TCFD framework

Designed for global capital markets

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Impact on property investment

Investors must now demonstrate:

- ✓ Portfolio decarbonisation pathways
- ✓ Reduced embodied carbon exposure
- ✓ Climate resilience strategy
- ✓ Alignment with national net-zero commitments
- ✓ Avoidance of stranded asset risk

Climate performance is now balance-sheet relevant.

Developments that increase embodied carbon exposure create reportable climate risk

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Embodied carbon becomes financial risk

Investors must now demonstrate:

New build = high upfront embodied carbon

Retrofit = 50–75% lower embodied carbon

S2 requires disclosure of transition risk exposure

Carbon-intensive assets risk:

- Stranded asset write-downs
- Higher cost of capital
- Lower investor appetite

Retrofit reduces reportable transition risk

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Capital allocation transparency

Under S1 & S2, investors must show:

How capital expenditure aligns with net zero strategy

How assets perform under climate scenarios

Retrofit:

- Improves EPC ratings
- Extends asset life
- Enhances energy performance
- Aligns with net-zero pathways

Demolition:

- Resets embodied carbon to zero accounting baseline — but increases real emissions
- Harder to justify under transition risk scrutiny

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Stranded asset exposure

High-emission buildings face:

- Regulatory tightening
- Rising carbon pricing
- Lending restrictions
- Insurance repricing

Retrofit-first strategy:

- Protects asset value
- Maintains liquidity
- Reduces refinancing risk

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Retrofit is the lower-risk strategy

Reporting Pressure Under S2	New Build	Retrofit
Embodied carbon disclosure	High risk	Low risk
Transition risk exposure	Higher	Lower
Stranded asset potential	Significant	Reduced
Net zero capital alignment	Harder to justify	Strong alignment

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The economic prize

What a UK 'retrofit revolution' could deliver

Retrofit can create more local jobs

Major re-skilling opportunity

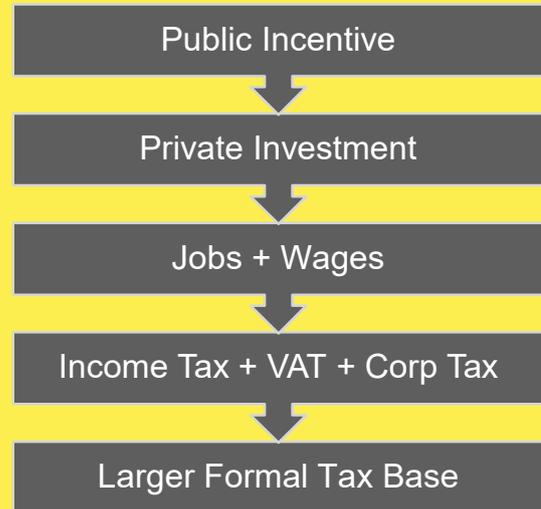
SME growth, new business innovation

Formalising "cash economy"

Increased income tax, VAT, corp. tax

Impact on NHS costs (£1.4bn linked to poor housing conditions)

Retrofit saves 50–75% upfront carbon



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Recommendation

Four smart, proven measures, based on global best practice

1. VAT Harmonisation (France example)

- Harmonise VAT between retrofit and new
- Remove demolition bias
- Formalise labour market

2. Tax Credits (US example)

- CGT relief for renovation
- SDLT discounts for vacant property retrofit
- Credits for reused materials

3. Targeted Grants (Ireland example)

- Focus on vacant buildings
- Revitalise town centres
- Deliver housing quickly

4. Subsidised Finance (Germany example)

- Use UK National Wealth Fund
- Low-int. loans + performance-based grants
- €1 → €6–7 style leverage

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This is investment, not expenditure

What a UK 'retrofit revolution' could deliver

- ✓ Net positive fiscal returns are possible
- ✓ Private capital crowds in
- ✓ SMEs grow, new businesses emerge
- ✓ Climate targets supported
- ✓ Empty buildings/areas regenerated
- ✓ Housing delivered more quickly

Current UK situation	Retrofit Revolution
20% VAT on reuse	Level playing field
Fragmented grants	Structural reform
Stop-start policy	Stable 10+ year framework
Limited GDP impact	Multiplier effect growth
Demolition bias	Circular economy leadership

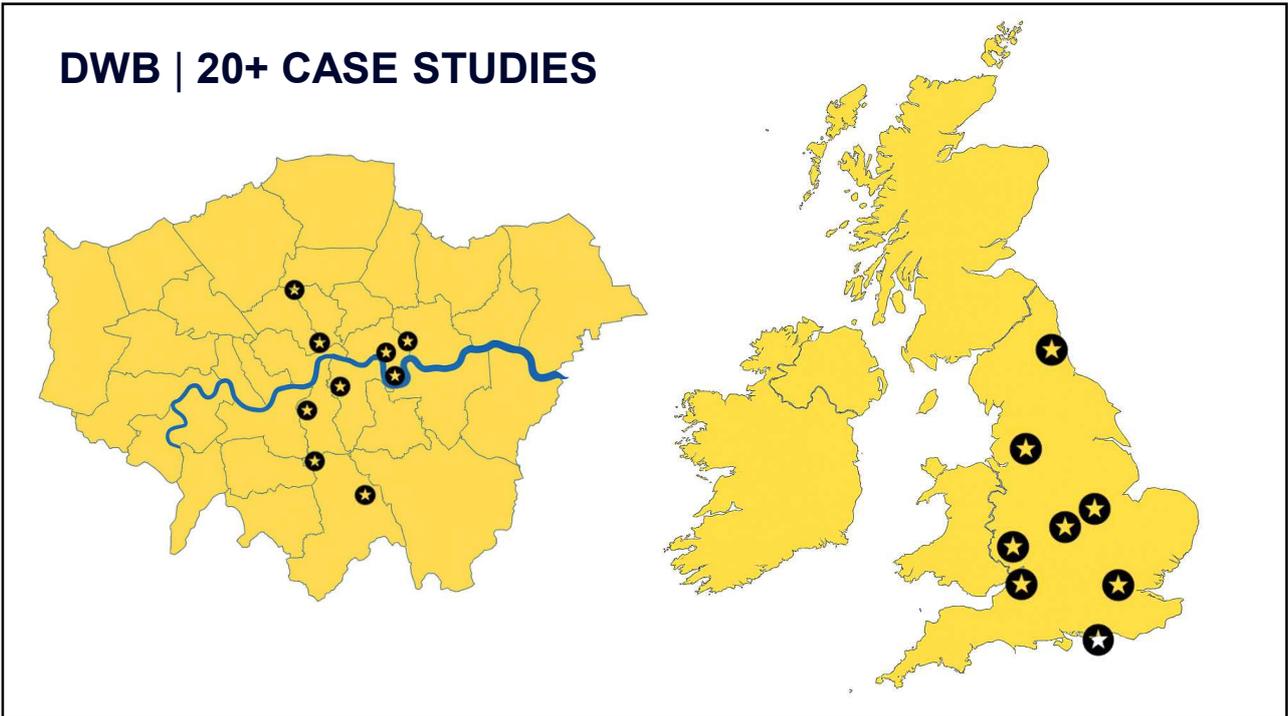
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CASE STUDY TOURS



**DON'T
WASTE
BUILD-
INGS**

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WHY?

-  To understand first hand the decisions, trade-offs and outcomes behind the retrofit.
-  We like to hear about the big environmental wins such as Embodied carbon reductions, Construction waste diversion from landfill and existing material re-use on site.
-  Beyond the environment we also like to hear about the wider social and economic benefits



The photograph shows a large, modern atrium with a high ceiling, wooden pillars, and a blue canopy structure. People are walking and talking in the space, which appears to be a public or commercial building.

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ENVIROMENTAL – STRUCTURAL REUSE

MAJOR CARBON REDUCTION FACTOR

Tower Bridge Court London
Architect: Stiff & Trevillion
Developer: Fore

Operational carbon: Net-zero (in use)
EPC rating: A (improved from D)

Reclaimed pre-World War II steel used at Tower Bridge Court was incorporated into one of the newly added upper storeys

Retaining structure + adding new building + circular principles of the
Carbon saved vs rebuild: 6,383 tCO₂e
Additional saving from reused steel: 48 tCO₂e
Reclaimed steel used: 20 thousand tons
Achieving net-zero



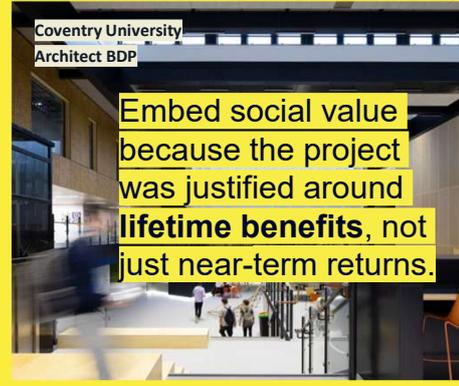
SOCIAL VALUE OF RETROFIT

Republic Mixed-Use Education Complex
Architect: Studio RHE
Developer: Trilogy

Republic shows how adaptive reuse can convert obsolete commercial space into long-term educational and innovation infrastructure, delivering social regeneration at scale without demolition.



SOCIAL AND ECONOMIC VALUE

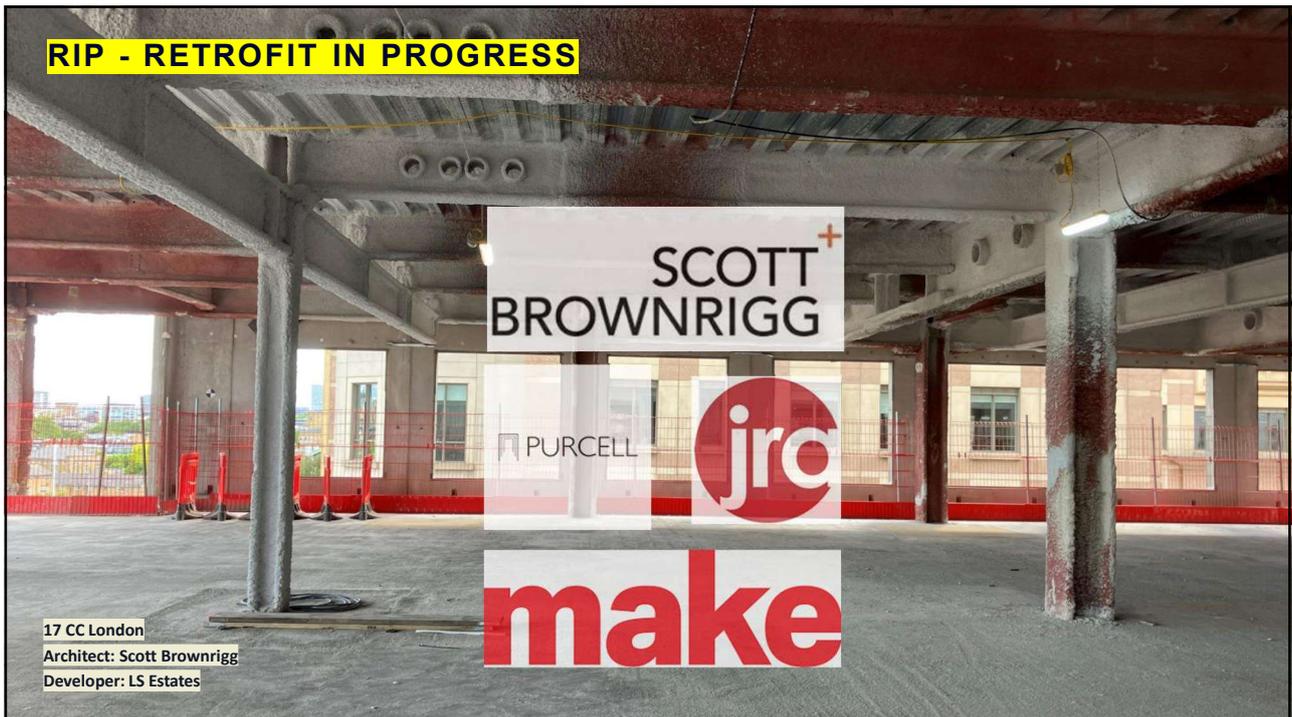


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SOCIAL VALUE FOR ALL



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STEPS FORWARD



PUBLISH - Case Study Insights Report which will feed into the wider don't waste buildings campaign.



REPORT - How financially incentivising retrofit in the UK can spark economic growth in the UK.

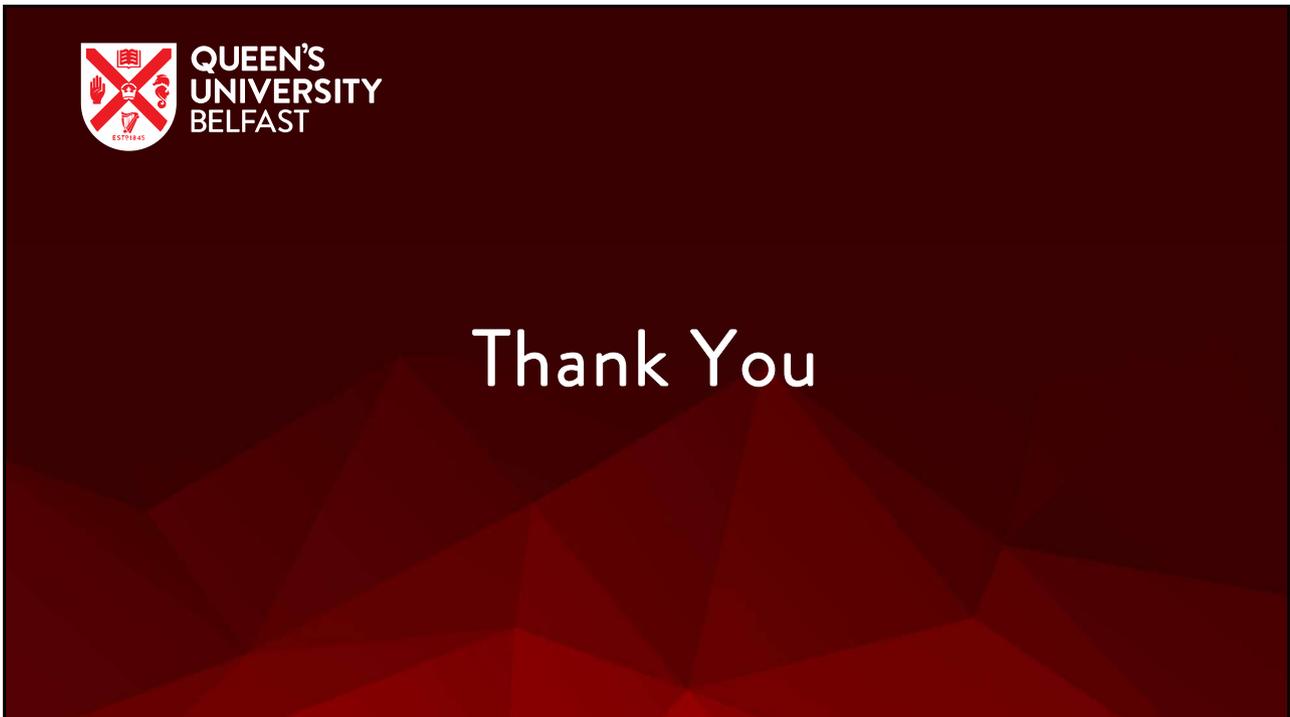


GUIDANCE – Retrofit Policy Guide

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