

BOS members' Christmas meeting

26 November 2024

@buildoffsite

#CollaboratingForImpact

Hosted by

ARUP

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Overview of Arup's current practice and key projects



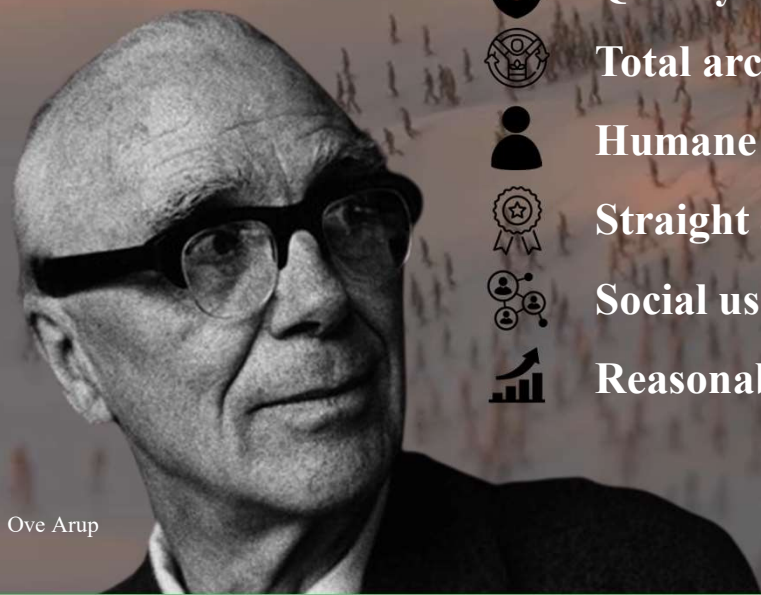
Sam Hopkins

Associate

NW&Y Property, Science & Industry

Arup

Welcome from Arup



Quality of work: we will ensure that the Arup name is always associated with quality.



Total architecture: we will take a holistic approach to our work.



Humane organisation: we will create an organisation that is human and friendly.



Straight & honourable dealings: we will act honestly and fairly in dealings with our staff and others.



Social usefulness: we will do socially useful work.



Reasonable prosperity: we will enhance prosperity for all Arup staff.

▼ Arcon House



39,000

Ove Arup



OUR INCEPTION

TODAY



A multidisciplinary service, actively advising clients and governments worldwide while continuing to offer engineering and specialist design expertise.

ARUP

FOUNDING MEMBER OF

BOS

2004

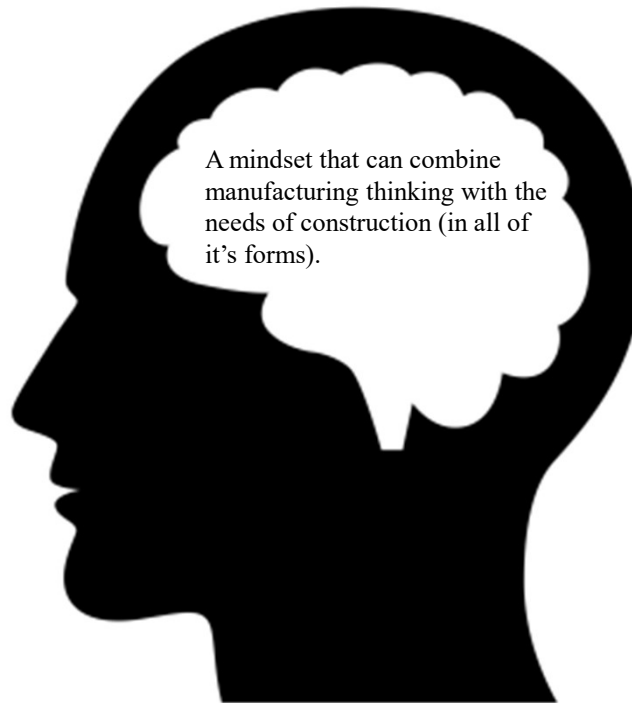
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It's a mindset...



We recognise that the realisation of benefits from a manufacturing approach are often compromised by the expectation that offsite producers have the same flexibility to deliver what traditional construction can deliver.

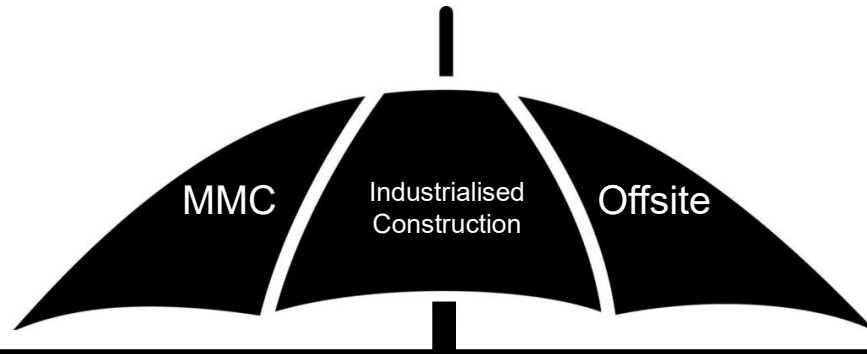


A mindset that can combine manufacturing thinking with the needs of construction (in all of it's forms).



We have a global pool of experts that understand the challenges to be addressed in delivering the benefits that offsite promises.

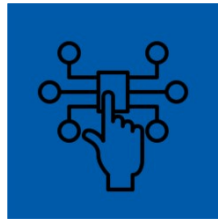
Capabilities



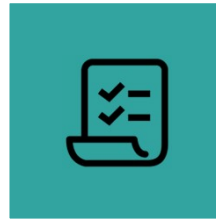
Engineering & Specialist Design



Architectural Design



Digital



Planning



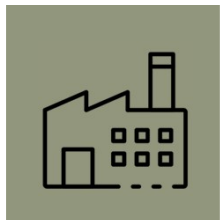
Strategy Development



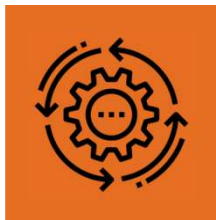
Business & Investment Advisory



Environmental & Social Governance



Facility & Operational Design



Operations Improvement



Supply Chain & Logistics

Sagrada Familia, Barcelona

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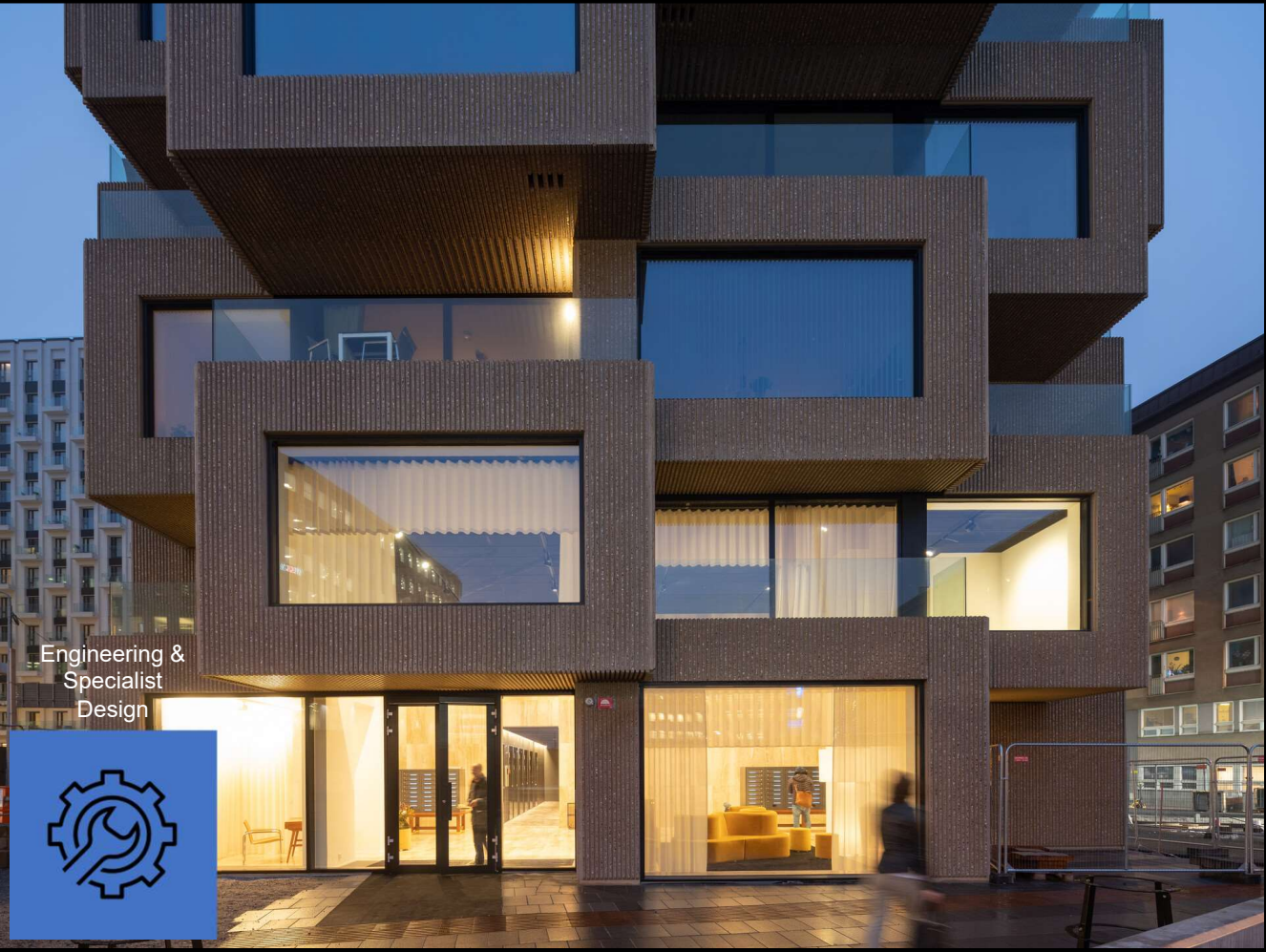


Engineering &
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Norra Tornen, Stockholm

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MMC on the Environment Agency’s Decarbonisation Technology Accelerator (DTA)

Innovation and change programme for testing, optimising and scaling-up low carbon solutions.

£22m Defra Funding

Aug 2024 – Mar 2027

MMC is one of six technology themes.

Inclusion of materials and 3D data opportunities.

Strategy
Development



Partnership:





Walls



Culverts



Headwalls



Hydraulic Structures

Shortlisted for MMC techniques...

Strategy Development



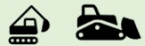
Partnership:



Focus Areas

Priority #1 – Most Mature

3D Machine Control



Enables operators of excavators, dozers etc. to accurately control movements based on 3D data

Example - use of 3D machine guidance at Black Potts Weir saved 6 weeks on programme...

Priority #2 – Longest to Deliver

Enhanced Site Processes



A range of techniques aimed at improving the efficiency of construction activities

3D Printing On-Site, Slip-forming, Robotic Plant, Drones, 360° cameras and 3D Capture.

Standardisation & Bulk Fabrication



Developing standardised designs for fabrication and procurement 'in bulk'

3D Printing Offsite



3D printing i.e. additive manufacturing using concrete, mortar or similar material in a factory setting

Novel Materials



Recycled or bio-based materials suited to fabrication, additive manufacturing or other MMC techniques

Modern Asset Designs



Re-thinking assets to make best use of modern technologies and adopt ultra-low carbon solutions

Strategy Development



Partnership:



Additive Manufacturing

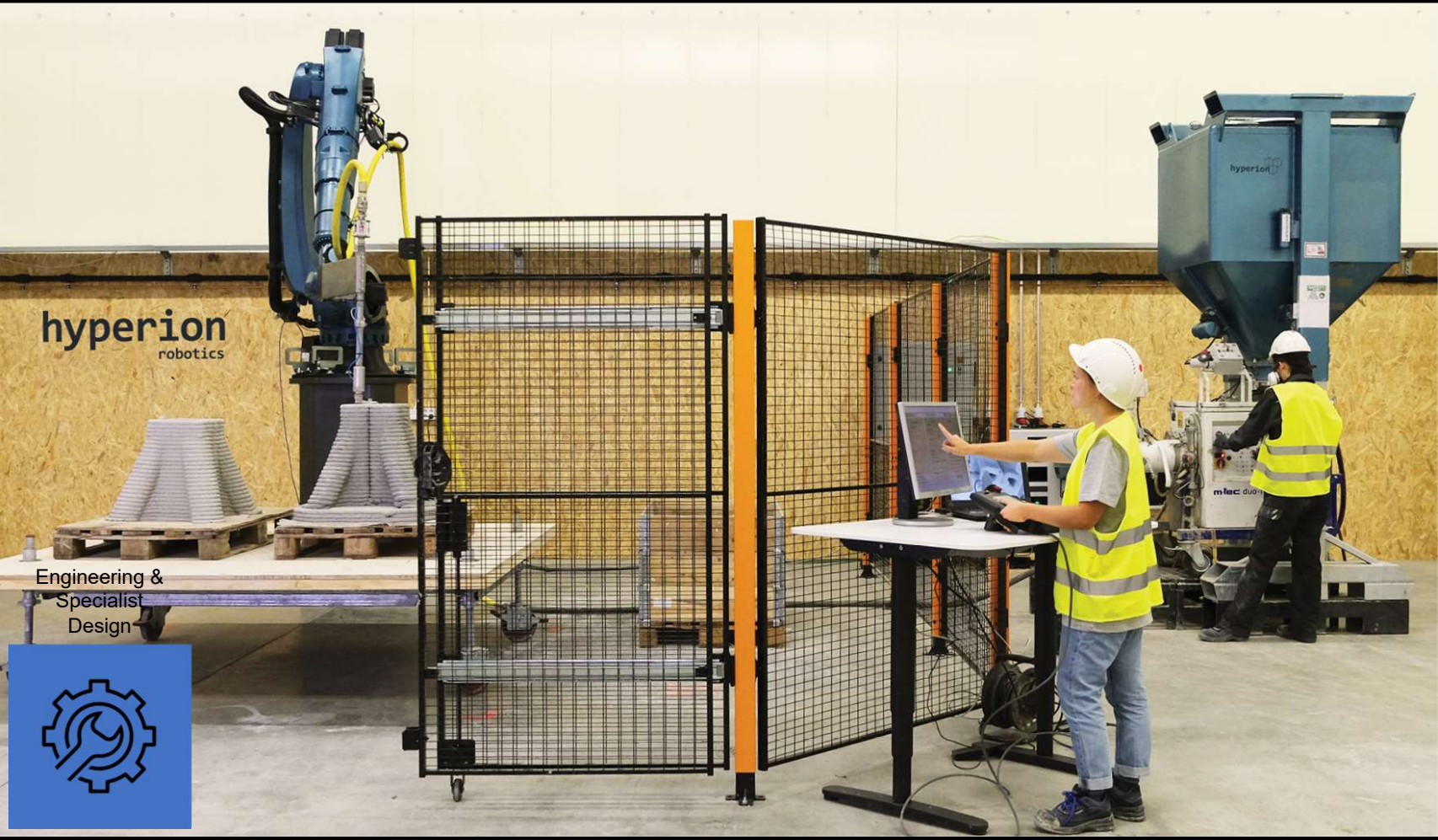
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Additive Manufacturing

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Contact Details

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