

B.I.M. – A Contractors Perspective

Jason A Smith - FInstCES
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An industry response to B.I.M.



A perspective on Productivity

New "Widescreen Wizard" remote control: Color-glass remote control offers full control that Color TV is easy to use. Its design is simple, the picture is clear, change channels, volume, mute, power and input buttons are large, simple to use and easy to see. Includes RCA Victor Remote!

21" \$495 in 1960

15" \$1000 in 1954

Now twice the picture at half the cost! The new RCA Victor 21" set with a 16.5" screen is a true 16:9 ratio. Includes Remote, the best picture quality and a 21" screen. RCA Victor sets are available in 16" and 18" sizes. Call 1-800-850-8500 for details.

TV like COLOR TV
RCA VICTOR
THE MOST TRUSTED NAME IN TELEVISION
TVhistory.TV



The Application of Digital Toolsets

21" \$495 1960 42" LCD TV £299 2011

20% Productivity



20% Productivity

- Safety
- Optimised solution
- Exploring the construction technology process and methodology
- Remove waste
- Quality
- Integrated Supply Chain
- Off-site and factory construction
- Engaged Client

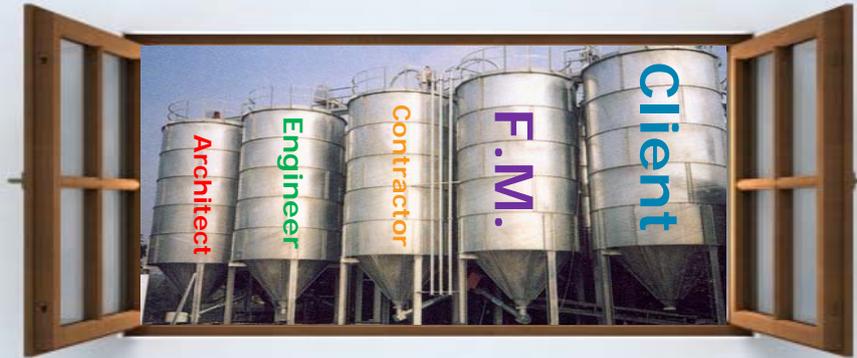
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The B.I.M. Window of opportunity



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The B.I.M. Window of opportunity



To break out of our silos

6

The B.I.M. Window of opportunity



Integrate the supply chain

7

The B.I.M. Window of opportunity



Re-move the waste

8

The B.I.M. Window of opportunity



To be more efficient

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The B.I.M. Window of opportunity



Safe by design (D.C+O)

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The B.I.M. Window of opportunity



Data – Supply Chain Mgt

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The B.I.M. Window of opportunity



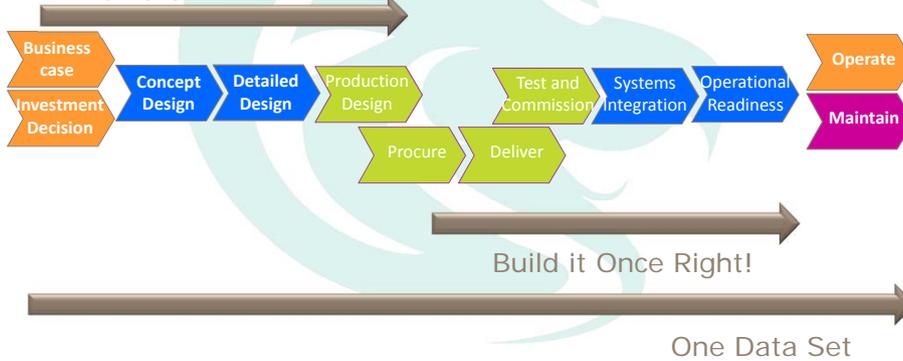
Optimise solutions
Throughout the project life-cycle

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The BIG BIM Opportunity

Optimisation of total solution:

- For Client
- For Construction
- For O & M

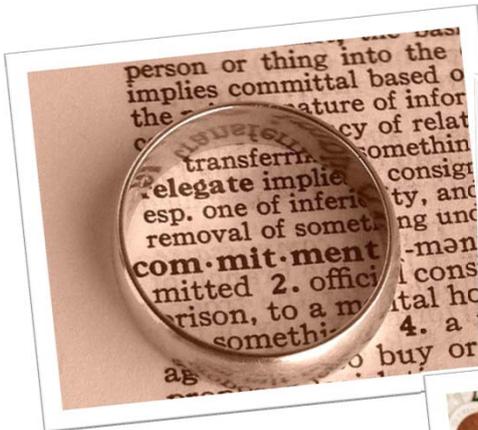


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Lessons from other industries



Use the digital tool set to drive fundamental re-thinking of productivity in our sector



B.I.M.? We do!

Strategic Relations

Resources & Education To underpin

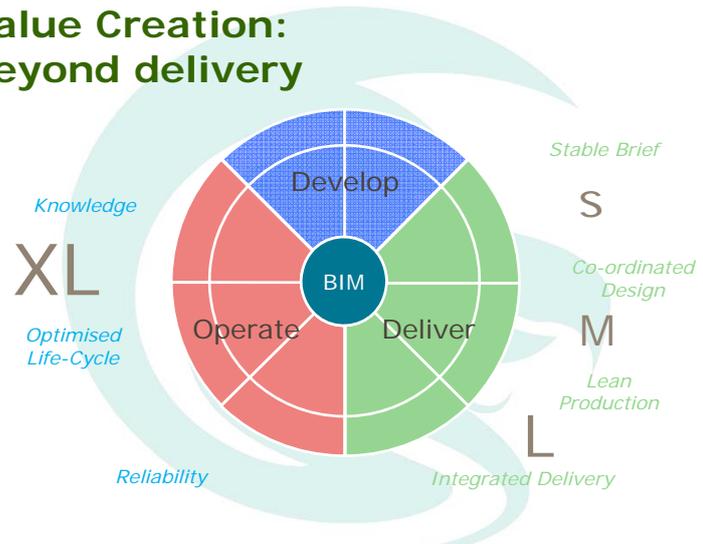
Tooling-Up

Scale Of Change

CHANGE AHEAD

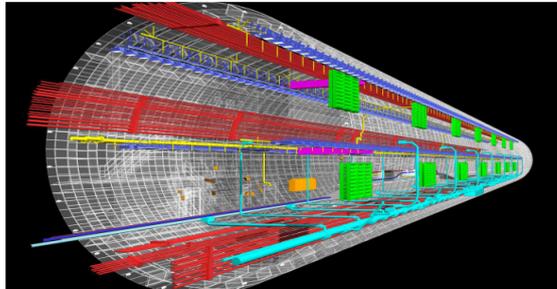
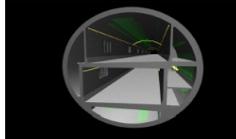
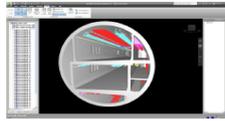


Value Creation: Beyond delivery



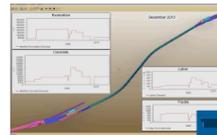
Ability to do things differently

Growing capabilities. From....



SR 99 Bored Tunnel, Seattle WA, USA

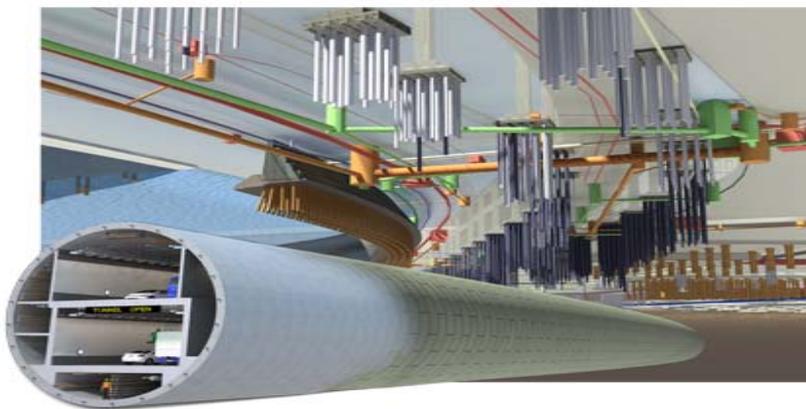
- Tunnel Cross Section co-ordinated model (500 ft)
- Colour coded by discipline
- Design validation for the RFP Cross Section report
- Attribute loaded 4D model (*nD*)



Balfour Beatty

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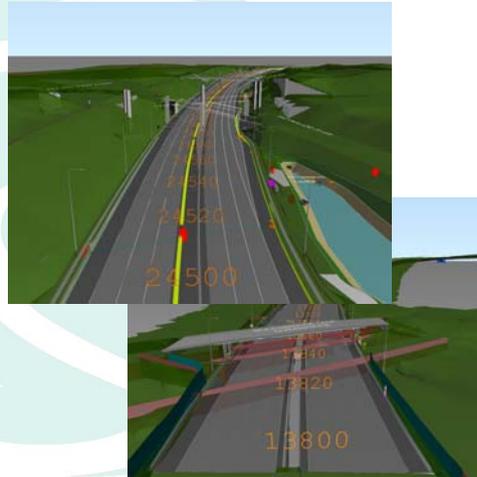
To this...



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To M25 Widening – Infrastructure BIM Model

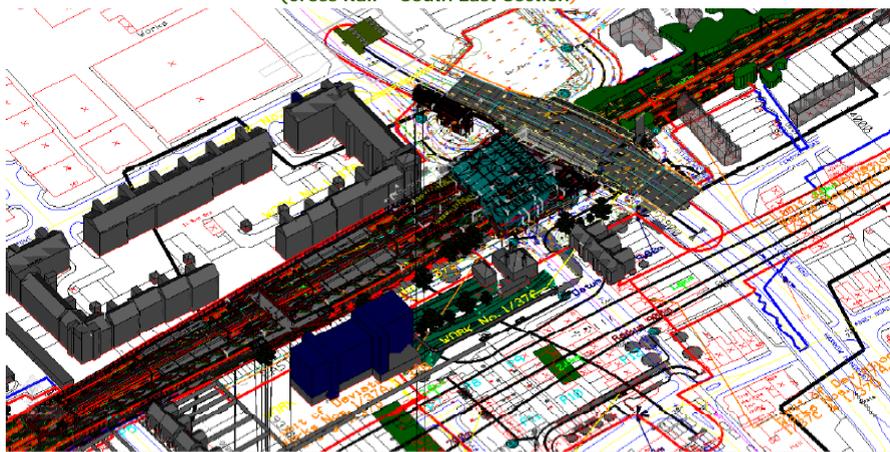
- Visualisations & Clash Detection
- Linear model
- Used for logistics & traffic management
- Close involvement with design suppliers and application vendors
- Mobile mapping system 3D GIS SIM
- Looking at future development



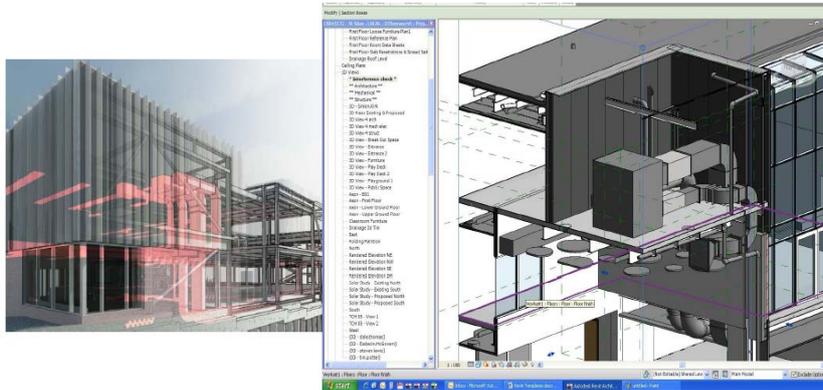
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To Fully co-ordinated 3D Bids

(Cross Rail – South East Section)



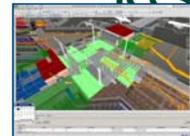
To our vanilla.....



For: field Project Controls And Mobile data Retrieval

Daily Key
Production
Activity Data

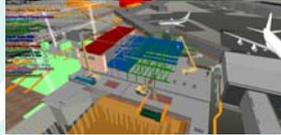
- 3D/4D As built model
- Weekly Progress Drawing
- Project Controls – EV & CPI, SPI
- Production 'S-Curves'
- BAA & JWA Reports



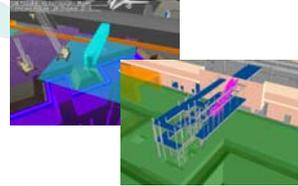
Using the 4D models



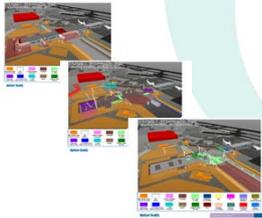
Interactive workshops and planning meetings



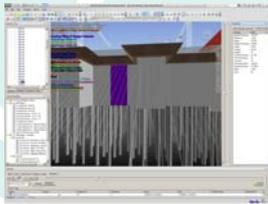
Review of site access, lay-down area availability, exclusion zone requirements and plant positions



Visual identification of overlapping working zones



Sequencing snapshots (any view point, any time) and animations



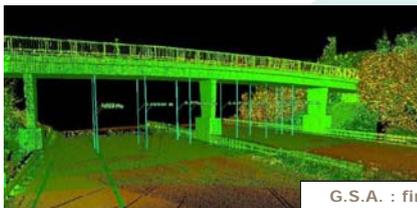
Visual gateway to construction sequence, project/logistics information and As-Built records



Time/Space conflict reports

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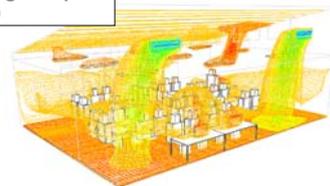
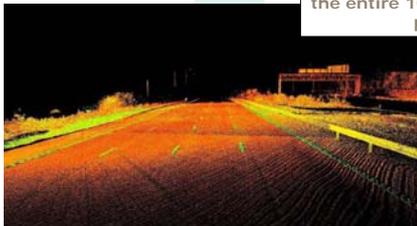
Complementary BIM Workflows



3D Laser Scanning



G.S.A. : first laser scanning project caught an error that saved enough money to fund the entire 10 building BIM pilot program



Asset Validation and Performance Optimisation

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We would be delighted if you
would join us in helping
transform our industry

When: now

***“keep doing
what you
always do
and you
will get
what you
always got”***