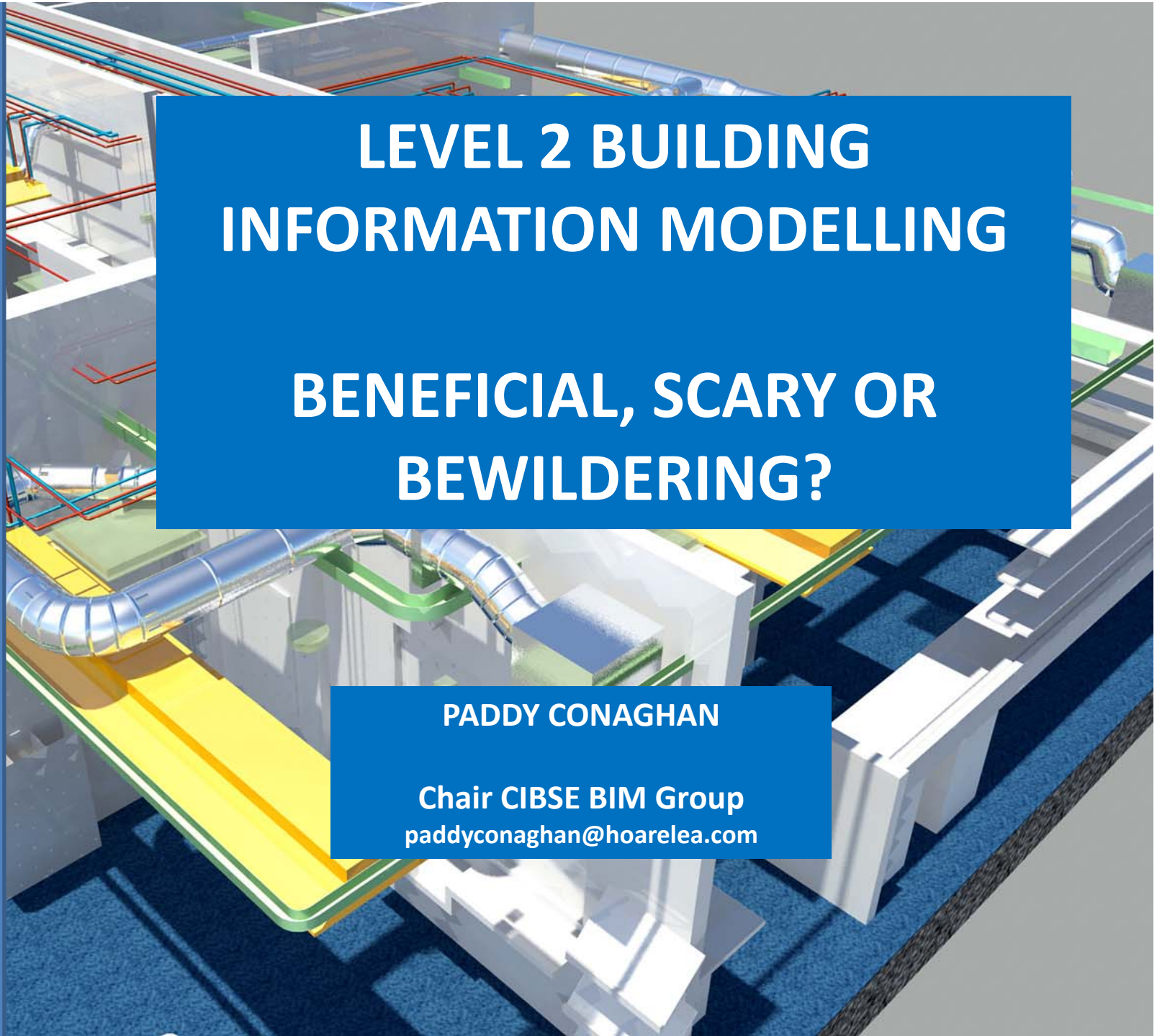


LEVEL 2 BUILDING INFORMATION MODELLING

BENEFICIAL, SCARY OR BEWILDERING?

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Chair CIBSE BIM Group
paddyconaghan@hoarelea.com



CIBSE BIM GROUP

Formed Spring 2011

70 members representing :

- Government's BIM Task Group
- Consultants
- MEP contractors
- Main contractors
- Manufacturers & trade associations
- FM operators
- BIM & modelling software vendors
- Freelance BIM object builders
- Buildingsmart
- Institutions: e.g., CIBSE, BSRIA
- Etc;

Founding aim :

- to create a specification for MEP BIM content creation
- To advance BIM in UK MEP Practice

BENEFICIAL BIM

HMP COOKHAM WOOD:



4%

MoJ extends BIM trials and saves £800k on first project

23 October, 2012 | By [Tom Fitzpatrick](#)

The Ministry of Justice has expanded its building information modelling trial projects programme and revealed its first project will save £800,000 through collaboration with main contractor Interserve.

Ministry of Justice head of project delivery Terry Stocks said that £800,000 had been saved on the new-build project at Cookham Wood through early collaboration on BIM and work with Interserve.

BENEFICIAL BIM

20 FENCHURCH STREET – THE WALKIE TALKIE:

DEVELOPERS – Landsec & Canary Wharf

PLAYERS – Rafael Vinoly, Canary Wharf Contractors, Hilson Moran & more....



ANALYSIS (Richard Bray of CWCL)

FEATURES

- Designed in Autodesk Revit from Stage D
- MEP design translated (via FABmep) to CAD Duct for installation & manufacture
- Setting out by Trimble robotic theodolite
- BIM model used for As Built information
- BIM model links to O & M database

OUTCOMES

Zero Clashes!

Zero core drilling!

BENEFICIAL BIM

20 FENCHURCH STREET – THE WALKIE TALKIE:

DEVELOPERS – Landsec & Canary Wharf

PLAYERS – Rafael Vinoly, Canary Wharf Contractors, Hilson Moran & more....



As Level 1 BIM (a geometric model only) but directly linked to O & M data base:

- Does it satisfy BIS BIM Strategy?

- Is Level 2 BIM really needed?

SCARY BIM



Model creators surrender all rights to DDC

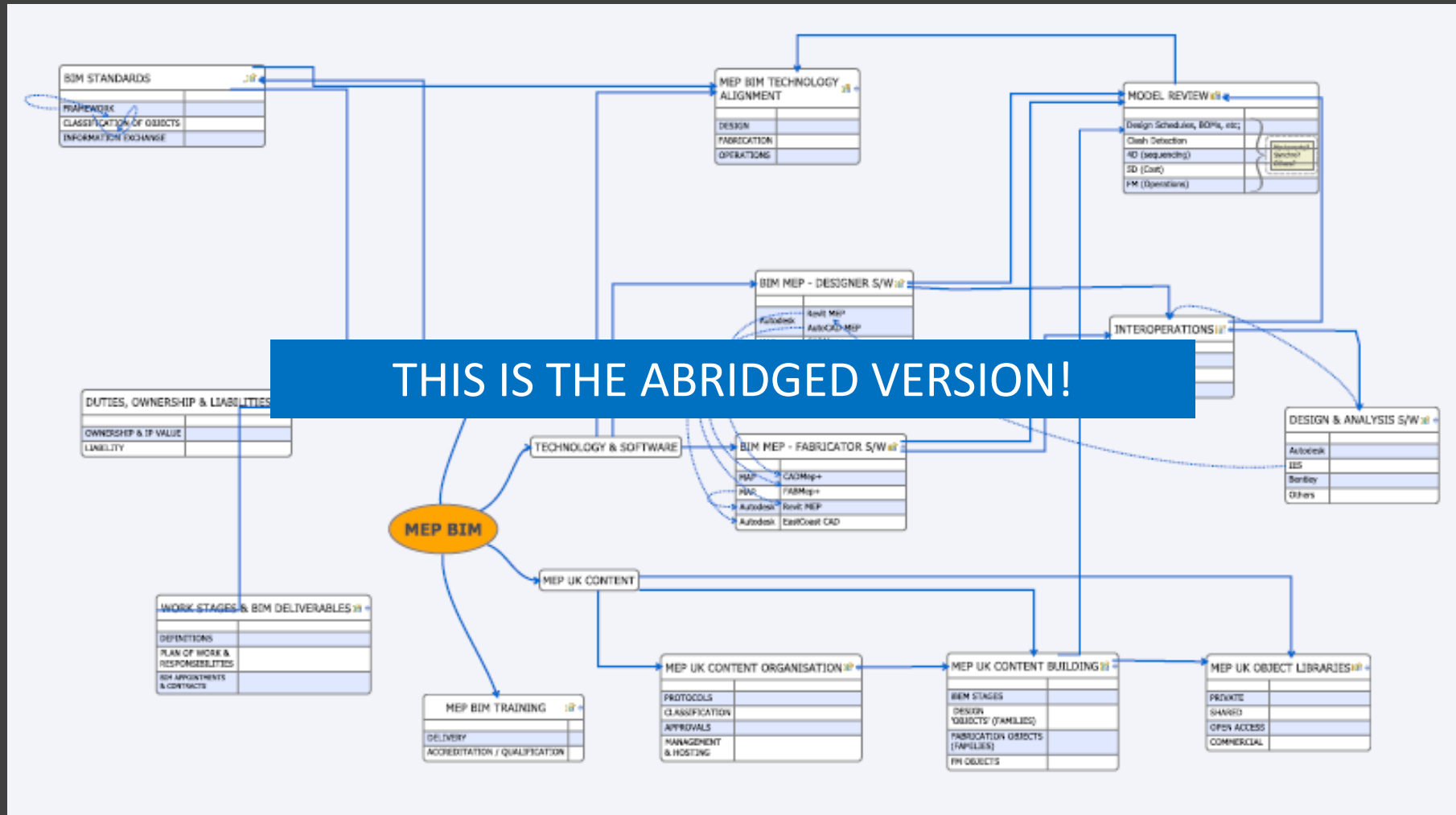
DDC may repeat the model for other jobs

DDC may patent the model and any invention in it.

DDC holds ownership of the BIMs including all inventions, ideas, designs, and methods contained within the model . This includes, but is not limited to; the content submitted as part of the BIMs itself . Outside resources, such as consultants and/or contractors, using the BIM are granted temporary use of it for the duration of the project . After project completion they are required to return all copies of the BIM to the DDC . DDC holds ownership of all the contents within the models from project conception (pre-schematic design) all the way to completion (construction).

BEWILDERING BIM!

THE CIBSE LEVEL 2 BIM GROUP 'MIND MAP' (20 MONTHS AGO)

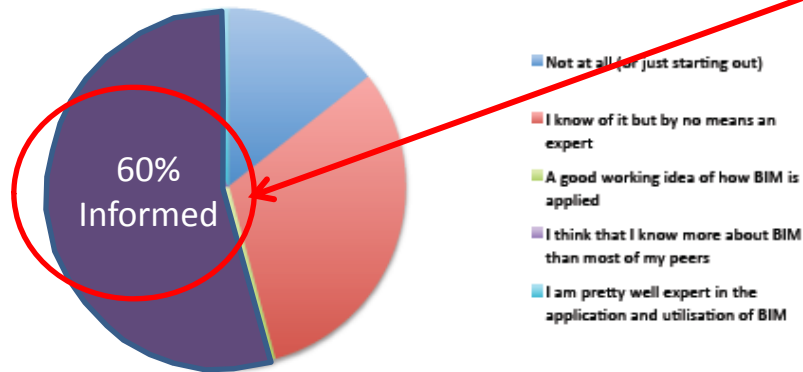


BEWILDERING BIM!

LEVEL 2 BIM 'KNOW HOW' IN BUILDING SERVICES

Consultants + Contractors

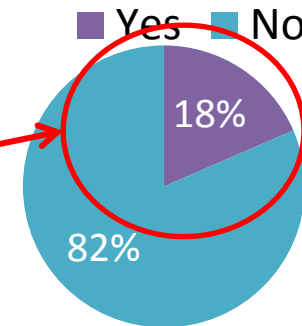
How well informed do you think that you are about BIM?



>60% OF UK CONSULTANTS & CONTRACTORS PROFESS EXPERTISE

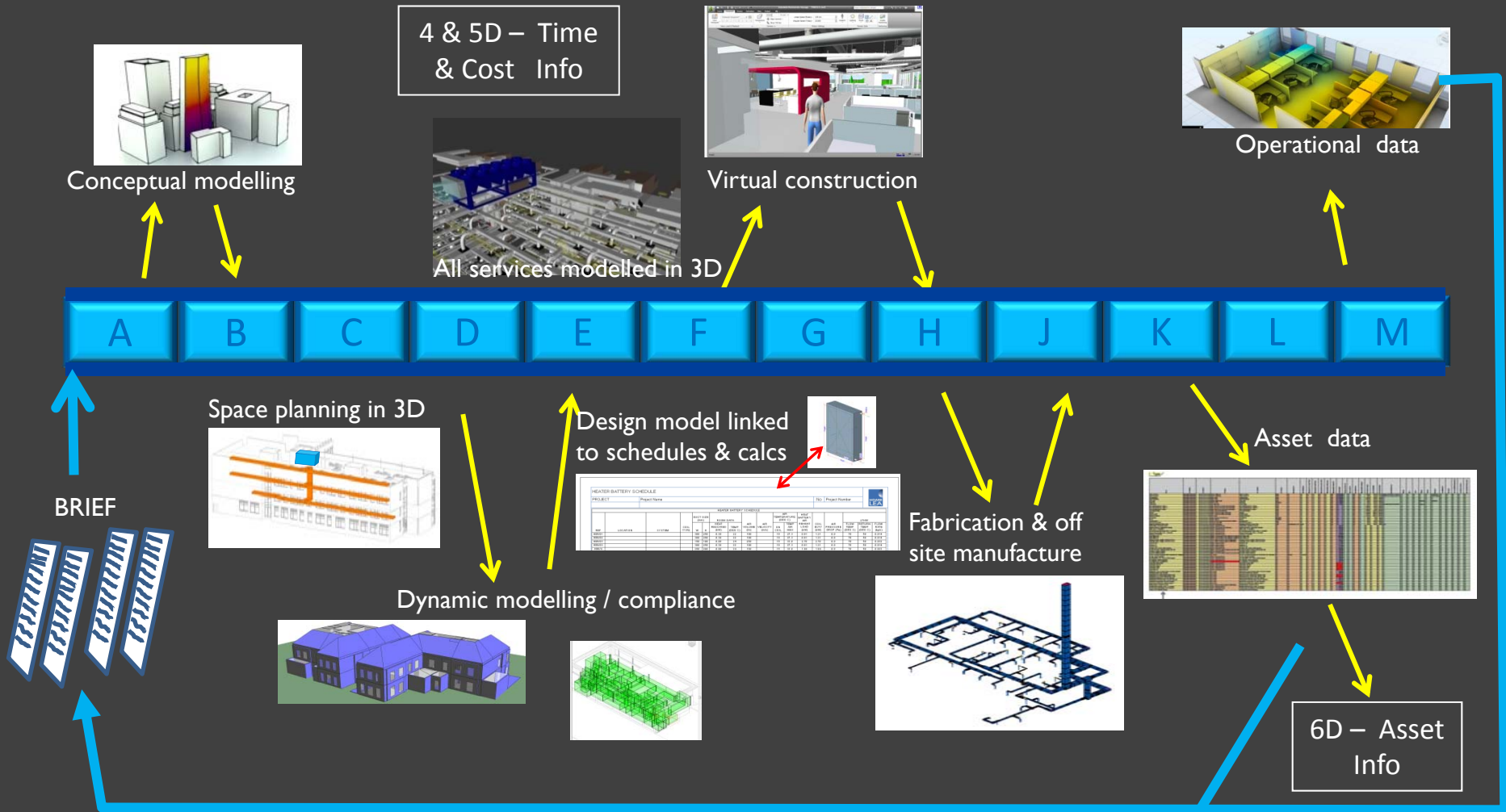
<20% OF UK MEP MANUFACTURERS INVOLVED

UK HEVAC Manufacturers
Do you have BIM models of your products?



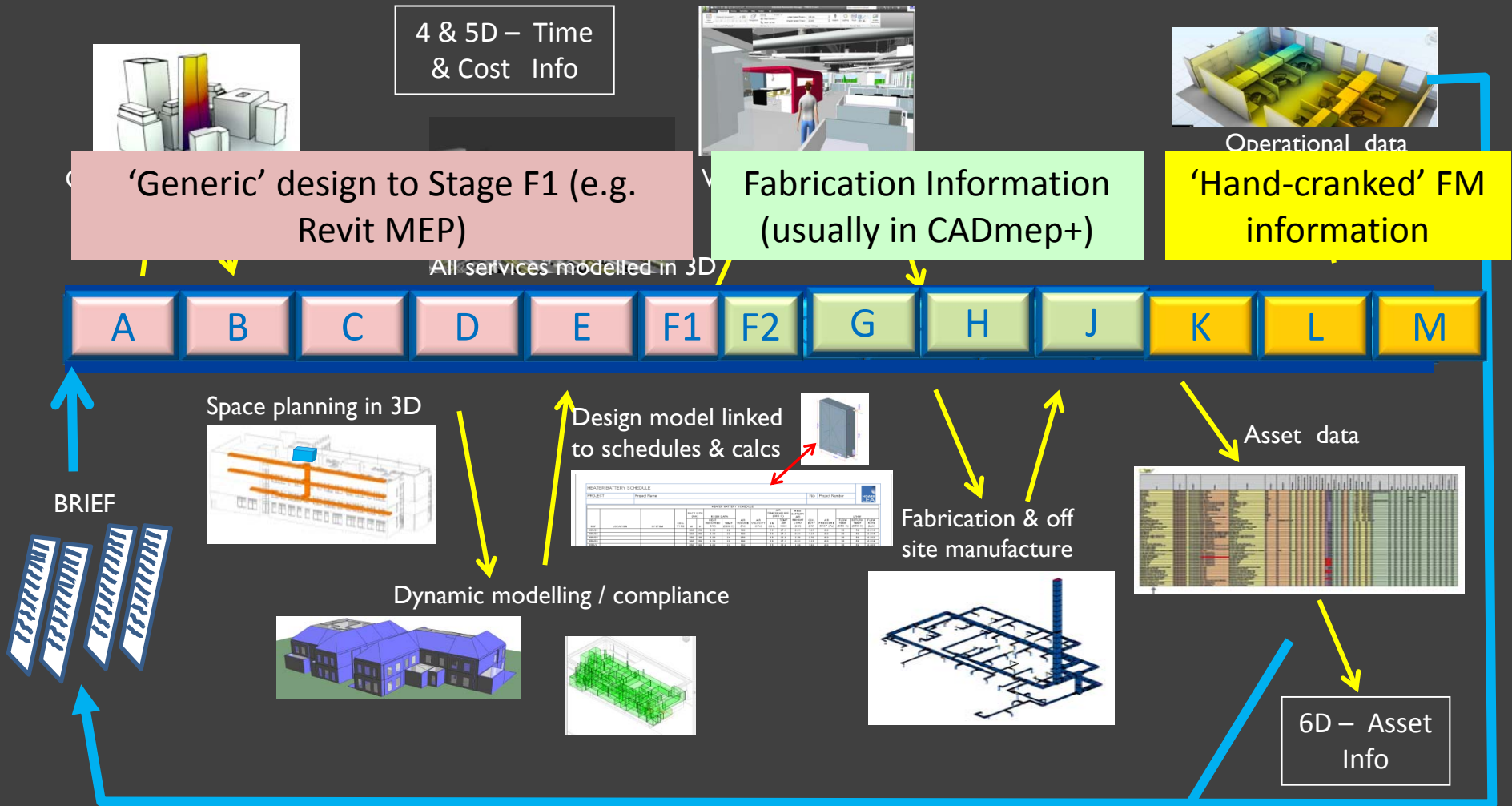
BEWILDERING BIM!

MEP BIM COLLABORATION - THE 'VISION'



BEWILDERING BIM!

MEP BIM COLLABORATION - THE 'REALITY'



BEWILDERING BIM!

MEP LEVEL 2 BIM PROCESS 'DISCONNECTS' SUMMARISED

Absence of product BIM data

BIM Platform switch from design to installation stage

Split process does not embed data in As Fixed Model

Level 2 BIM aims confounded?



DISCONNECTS ARISE WITH DATA – NOT GEOMETRY

SO CAN DATA BE HANDLED ANOTHER WAY?

BEWILDERING BIM!

WE HAVE MEP LEVEL 2 BIM DATA FORMATS:

- COBie (Construction Operations Building Information Exchange)

COBie IS PROJECT & F.M DATA SPECIFIC - SO CAN'T BE COMPLETED WITH PRODUCT DATA

- SPie (Specifiers' Properties Information Exchange)

SPie IS PRODUCT DATA & FITS COBie – BUT IT IS INCOMPLETE & FM FOCUSED

- PDTs - CIBSE'S Draft Product Data Templates

PDTs EXPAND SPie FOR WIDER USE BUT FULL ROLL OUT WILL BE HUGE & COSTLY.

- NBS – National Building Specification

ESTABLISHED DATABASE. BUT A SPEC - UNABLE TO DEAL WITH 200+ DATA FIELDS

- Putative formats, e.g., :-
 - VDI 3805
 - ISO 16757

STILL 'FLEDGLING' & DISLIKED BY MANY MANUFACTURERS (FOR IPR REASONS).

SO WHICH FORMAT SHOULD WE BACK? HOW'D YOU ENGAGE THE WHOLE INDUSTRY?



END
THANKS

Visit the CIBSE BIM Group's website:
www.bimtalk.co.uk