

EDA Business Forum

Thorpe Park – Leeds

24th September 2013

BIM (Building Information Modelling)

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Overhead Cable Management Systems

Legrand Electric Limited



Global specialist
in electrical and
digital building
infrastructures

The Legrand Group...

global leader in its field

COMPANY OVERVIEW

Legrand has a complete offer, tailored to the commercial, industrial and residential markets. With a presence in more than 70 countries and a workforce of 31,000 people, Legrand made sales of 4 billion euros in 2012. Legrand's electrical and digital infrastructures market is valued at approximately 65 billion euros.

INNOVATION

The driving force behind Legrand's development. With an increasing investment in research and development (circa 5% of sales) and more than 4,000 active patents, the Legrand Group is focused on maintaining a high rate of new product launches that present innovative solutions to the market.

PRODUCT RANGES

Control and monitoring of installations, cable management, power distribution, distribution of "voice-data-image" systems ... Legrand provides numerous solutions for managing lighting, heating, energy, networks and access in buildings.





Legrand in the UK... powered by specialists

In the UK Legrand has developed a customer focused structure which harnesses the power of its market leading specialist brands to deliver innovative, integrated solutions for every phase of construction.



POWER DISTRIBUTION

From transformers, through rising main busbars and distribution boards to power track, desk modules and lighting control...



CABLE MANAGEMENT

Legrand's established Swifts, Salamandre, Cablofil and Arena-Walsall ranges give our cable management business division a firm leadership position in the UK.

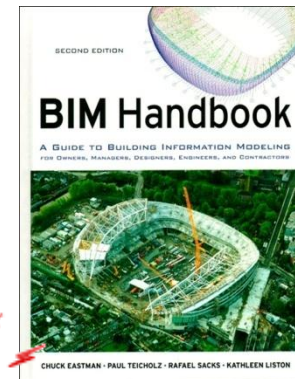
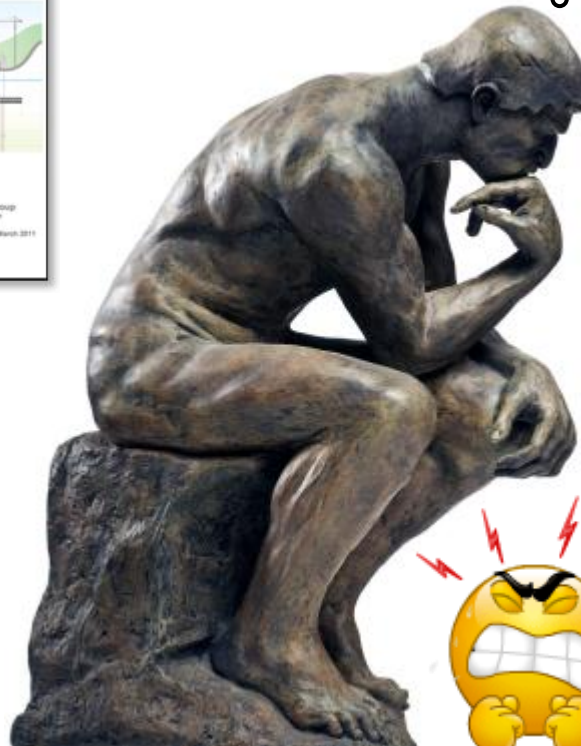
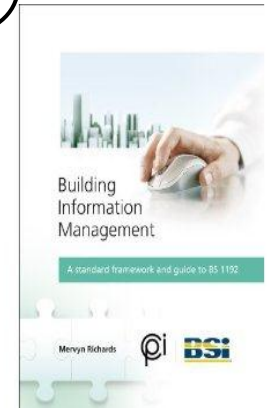
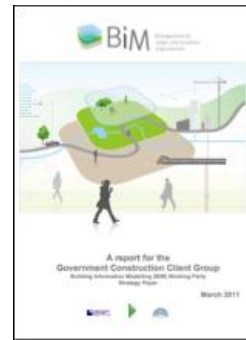
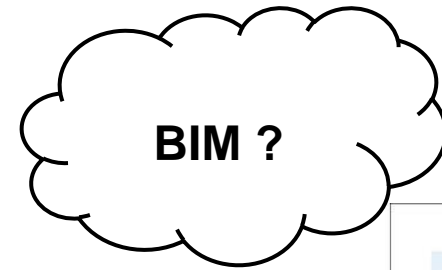


WIRING DEVICES

Much more than just a vast selection of switches and sockets... this business division also includes door entry systems, home systems, lighting control and consumer units.

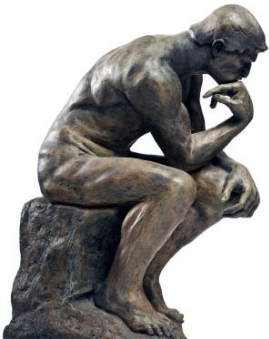


BIM...definition ?



BIM...what it is

- BIM is a concept, a mindset
- BIM is essentially 'value creating' collaboration through the entire project lifecycle
- The process of creating a computer model of a building project that can be used to design, analyse, build, manage, refurbish and even demolish that building
- BIM = Building Information Modelling
or better still...
• BIM = Better Information Management



BIM...what it isn't

- BIM is a concept, a mindset
- BIM is essentially 'value creation through the entire project life'

It's not just a new technology application

It's not just 3D

...process of creating a collaborative project that can be used to design, analyse, build, manage, refurbish and even demolish that building

- BIM = Building Information Modelling

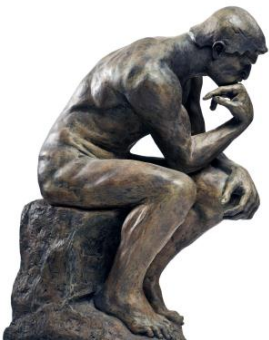
or better

- BIM = Better Information

It's not 'next generation',

Sometimes it's easier to

it's here NOW

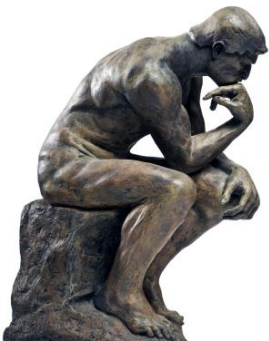


BIM...& the Government

- Buildings use 46% of all energy – up to 70% in cities
- Construction uses 53% of primary materials
- Construction has second biggest environmental footprint after food
- 13 million tonnes of materials delivered & **NOT USED**
- 90 million tonnes of waste – 3 times domestic output
- 21% of all hazardous waste in the UK is construction

The HMG BIM hypothesis

“Government as a client can derive significant improvements in cost, value and carbon performance through the use of open sharable asset information”

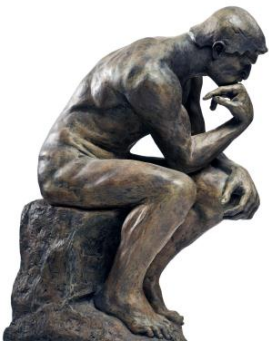


BIM...& the Government

“Is our sector fit-for-purpose for a future low carbon economy ?”

- 20% savings to be made in terms of cost by 2020
- 26% reduction in carbon by 2020
- 80% reduction in carbon by 2050

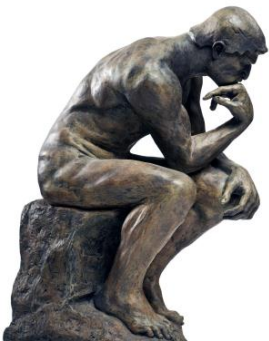
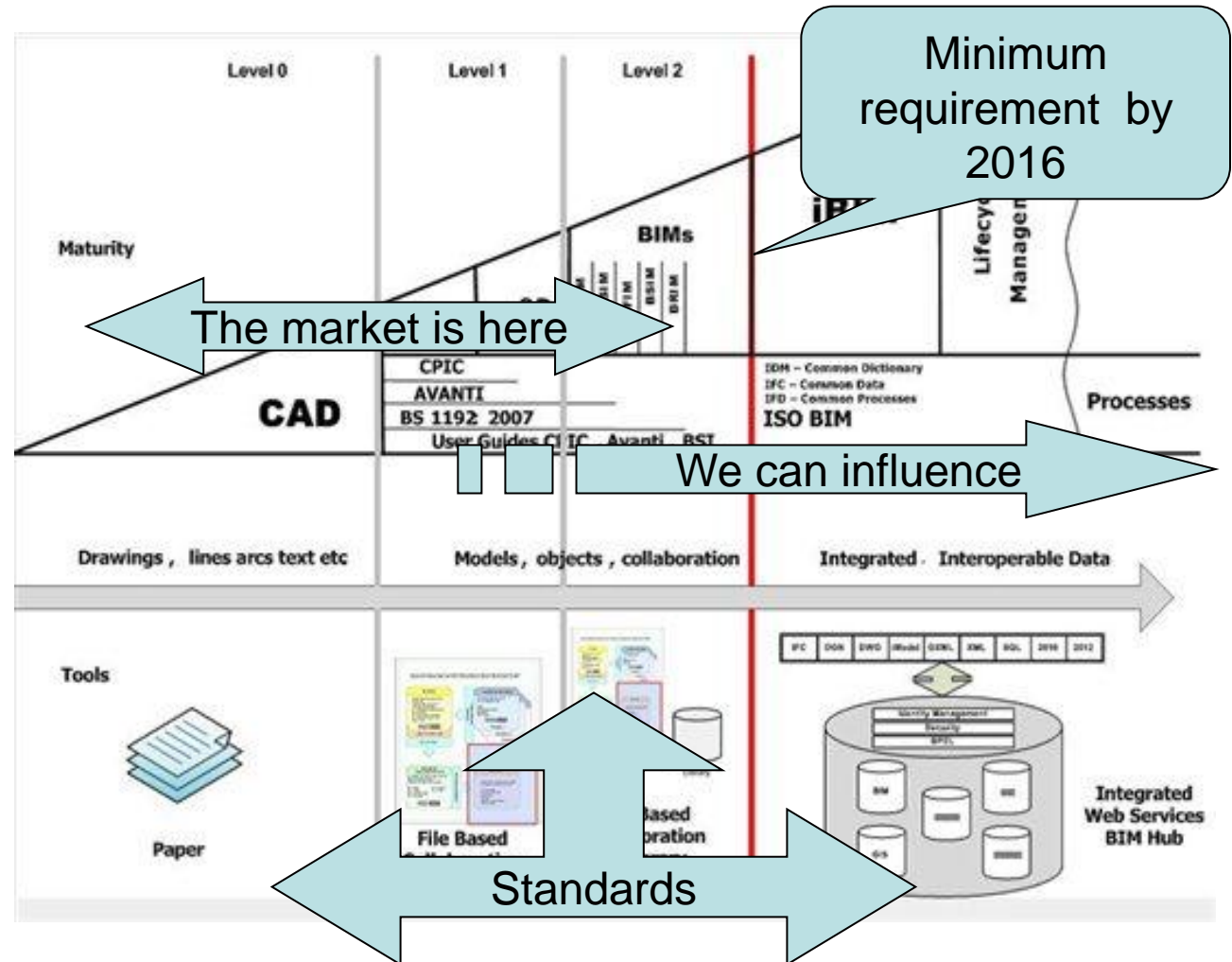
Cash v Carbon





**MAKE IT IN
GREAT BRITAIN**

BIM...level 2 BIM by 2016



ReviewShare

3D Destination: ReviewShare Viewer

Current File:

Created	04/12/2007 10:48:44
Modified	04/12/2007 11:25:02
Area	A3
Discipline	EQUIPMENT
Reference	/P-1002A
Status	Disapproved


paul.burton (Paul.Burton@avra.com) 04/12/2007 10:48:47

These are the pumps that need replacing

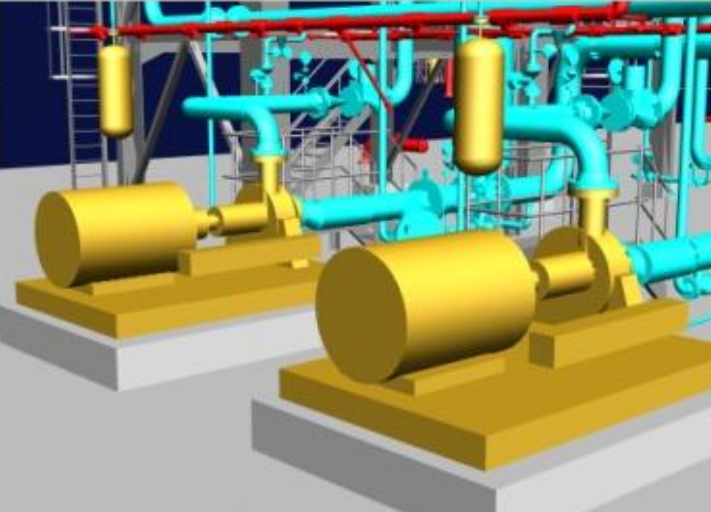


ReviewShareViewer

Home Markup Navigation Dimensions Clipping



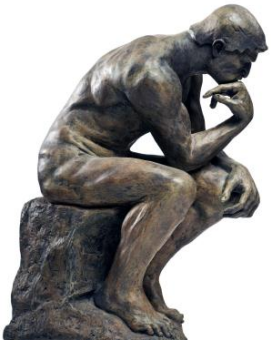
Model Tree



Click and drag to slide the objects.

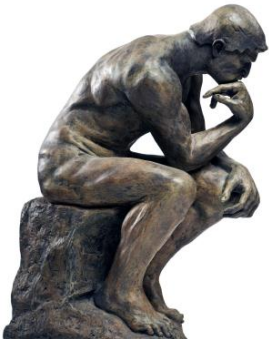


BIM...it's all about the 'i'



BIM...the benefits

- Project information held in one place for the whole of its lifecycle
- 3D modeling systems enable design teams to work concurrently within the same project model
- In traditional design, 2D drawings passed between consultants and manually checked
- With BIM, intelligent models of the building can be passed between consultants and be combined into a single model
- BIM also aids clearer communication to everybody involved in a project
- With the future addition of 'cost', 'time' & 'FM' BIM offers not only 3D but 4D, 5D & even 6D capabilities



BIM...and Legrand



BIM...and Legrand



3D specification data for engineering software

(BIM – Building Information Management)

- PP&M (Process, Power and Marine)
- Transport
- Infrastructure

- Ongoing commitment to customer support
- Product catalogue integration into modelling software systems
- Allow designers to place parts into a 3D environment
- Enable procurement to run itemised & part numbered bill of materials

BIM...and Legrand



- Swifts cable ladders – Topaz, Sapphire & Emerald
 - HDG, D, SS



- Swifts cable trays – MRF, SRF, XRF
 - PG, HDG, D, SS



- Salamandre surface cable trunking – MGR, MGIP (IP4X)
- Cablofil wire mesh – CF30, CF54, CF105
 - EZ, HDG, SS



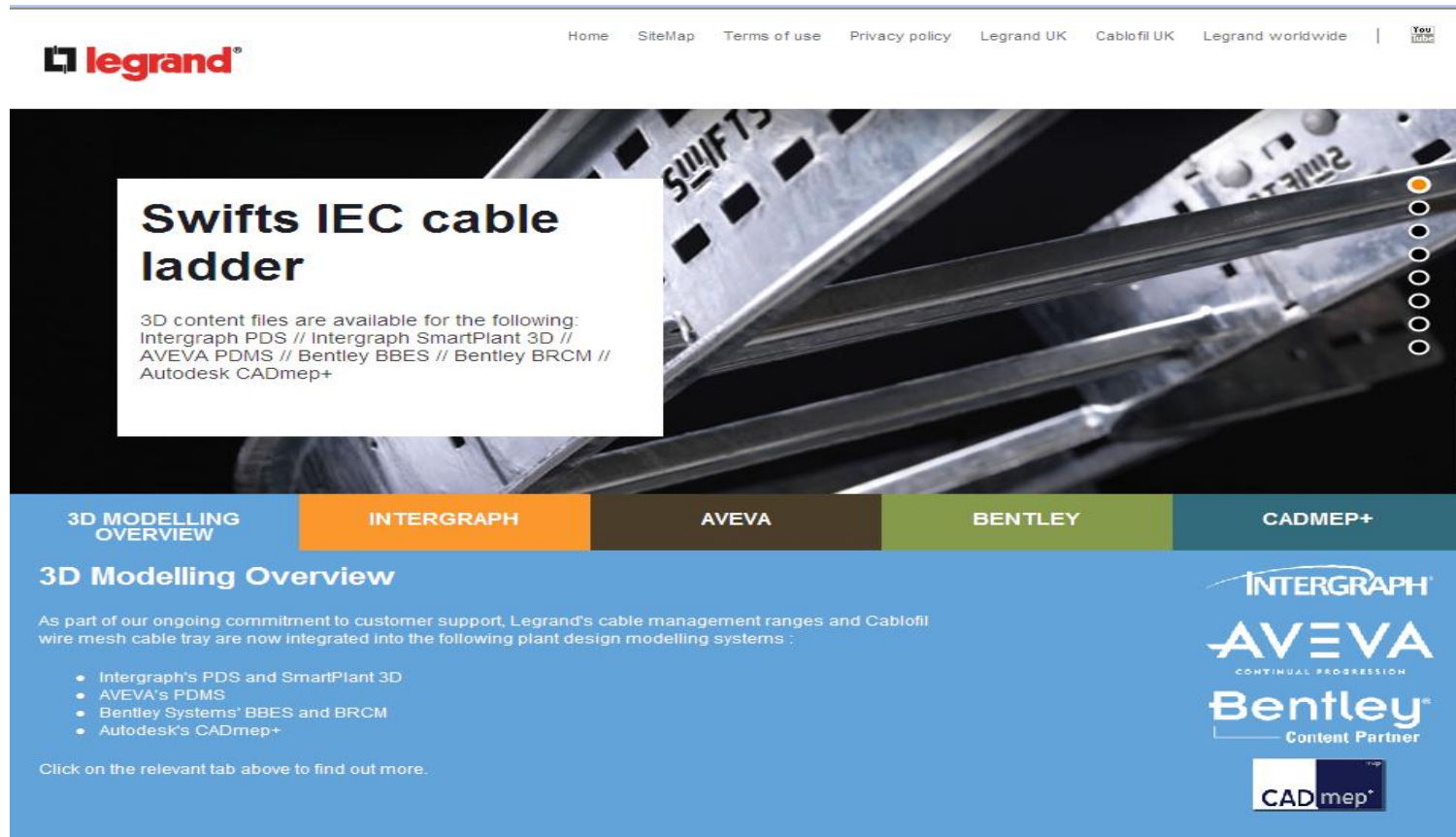
BIM...where to find our data

System name	Primary markets served	Products	When?	Where?
PDS & SmartPlant 3D	PP&M (plants, ships & onshore / offshore facilities)	Swifts cable ladder Swifts cable tray Cablofil wire mesh	Now	www.legrand3d.co.uk
PDMS	PP&M (plants, ships & onshore / offshore facilities)	Swifts cable ladder Swifts cable tray Cablofil wire mesh Salamandre trunking	Now	www.legrand3d.co.uk
BBES & BRCM	Transport & Infrastructure	Salamandre trunking Swifts cable ladder Swifts cable tray	Now	Contact Bentley Systems www.bentley.com
Fabrication CADmep	Infrastructure	Swifts cable ladder Salamandre trunking & lighting trunking	Now	Contact Autodesk www.map-software.com



Legrand 3D website

www.legrand3d.co.uk



The screenshot shows the Legrand 3D website interface. At the top, the Legrand logo is on the left, and navigation links (Home, SiteMap, Terms of use, Privacy policy, Legrand UK, Cablofil UK, Legrand worldwide) and a YouTube icon are on the right. The main content area features a large image of a cable ladder with a white text box on the left. The text box contains the title 'Swifts IEC cable ladder' and a list of supported 3D software: Intergraph PDS, Intergraph SmartPlant 3D, AVEVA PDMS, Bentley BBES, Bentley BRCM, and Autodesk CADmep+. Below this is a horizontal navigation bar with five tabs: '3D MODELLING OVERVIEW' (blue), 'INTERGRAPH' (orange), 'AVEVA' (brown), 'BENTLEY' (green), and 'CADMEP+' (teal). The '3D MODELLING OVERVIEW' tab is selected, displaying a blue background with the title '3D Modelling Overview'. Below the title, a paragraph states that Legrand's cable management ranges and Cablofil wire mesh cable tray are integrated into various plant design modelling systems. A bulleted list follows, listing the supported software. At the bottom of this section, a link says 'Click on the relevant tab above to find out more.' On the right side of the page, there are logos for Intergraph, AVEVA (with the tagline 'CONTINUAL PROGRESSION'), Bentley (with the tagline 'Content Partner'), and CADmep.

Swifts IEC cable ladder

3D content files are available for the following:
Intergraph PDS // Intergraph SmartPlant 3D //
AVEVA PDMS // Bentley BBES // Bentley BRCM //
Autodesk CADmep+

3D MODELLING OVERVIEW INTERGRAPH AVEVA BENTLEY CADMEP+

3D Modelling Overview

As part of our ongoing commitment to customer support, Legrand's cable management ranges and Cablofil wire mesh cable tray are now integrated into the following plant design modelling systems :

- Intergraph's PDS and SmartPlant 3D
- AVEVA's PDMS
- Bentley Systems' BBES and BRCM
- Autodesk's CADmep+

Click on the relevant tab above to find out more.

INTERGRAPH
AVEVA
CONTINUAL PROGRESSION
Bentley
Content Partner
CADmep

BIM...

