London | Bristol | Dublin | Dubai

and



Taking Stock on the Practical and Legal Implications of BIM

Andrew Croft, Beale & Company Casey Rutland, Arup Associates Wednesday 16 September 2015

Introductions

- + Andrew Croft
- + Solicitor, Beale & Company
- +44 (0) 20 7469 0412, a.croft@beale-law.com



- + Casey Rutland
- + Associate Director, Arup Associates
 - @caseyrutland

#BIMinar









Taking Stock on BIM



#BIMinar

London | Bristol | Dublin | Dubai



Webinar Outline

Practical Considerations

- + What "BIM" actually means and how it impacts on the design process;
- + Current best practice in relation to BIM, both at an organisational and project level.

Legal Considerations

- Common legal questions regarding the use of BIM, including:
 - Copyright;
 - Responsibility for Models;
 - Insurance;
 - Disclaimers; and
 - Interoperability.
- + How is BIM reflected contractually?

#BIMinar



Practical Considerations

- + Casey Rutland
- + Associate Director, Arup Associates

#BIMinar

London | Bristol | Dublin | Dubai



IN A nut shell

#BIMinar

London | Bristol | Dublin | Dubai





DIGITISING the industry

#BIMinar

London | Bristol | Dublin | Dubai



ACCESS to company INFO

#BIMinar

London | Bristol | Dublin | Dubai



ACCESS to project INFO

#BIMinar

London | Bristol | Dublin | Dubai



ACCESS to staff INFO

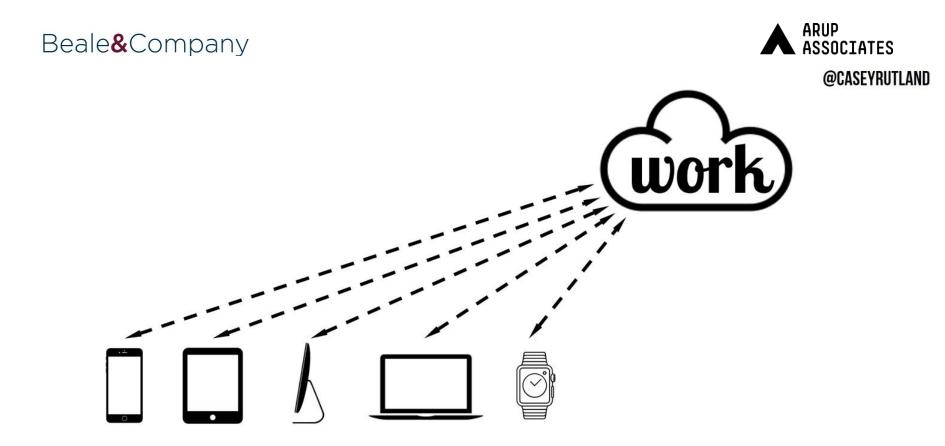
#BIMinar

London | Bristol | Dublin | Dubai



#BIMinar

London | Bristol | Dublin | Dubai



#BIMinar

London | Bristol | Dublin | Dubai



BIN BIN SFOR of everyone

#BIMinar

London | Bristol | Dublin | Dubai





TOP 10 Challenges

#BIMinar

London | Bristol | Dublin | Dubai



#10

#BIMinar

London | Bristol | Dublin | Dubai



BIM **DOESN'T** affect me

#BIMinar

London | Bristol | Dublin | Dubai



#9

#BIMinar

London | Bristol | Dublin | Dubai



BIN DO

is for nerds

#BIMinar

London | Bristol | Dublin | Dubai



#8

#BIMinar

London | Bristol | Dublin | Dubai



#BIMinar

London | Bristol | Dublin | Dubai



1 don't have TIME I

to 'do' BIM

#BIMinar

London | Bristol | Dublin | Dubai





PROCRASTINATION.

#BIMinar

London | Bristol | Dublin | Dubai



#7

#BIMinar

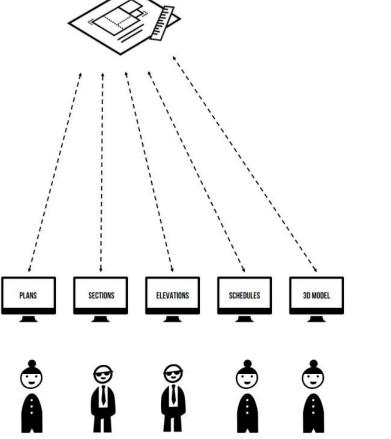
London | Bristol | Dublin | Dubai



BIN Costs Too Much &

#BIMinar

London | Bristol | Dublin | Dubai



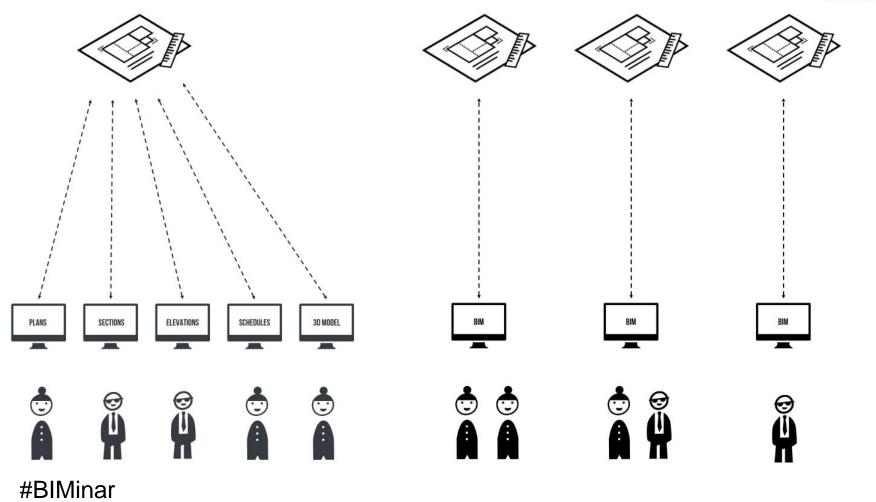
#BIMinar



London | Bristol | Dublin | Dubai



@CASEYRUTLAND





#6

#BIMinar

London | Bristol | Dublin | Dubai



Asking for SOMETHING you don't UNDERSTAND

#BIMinar

London | Bristol | Dublin | Dubai



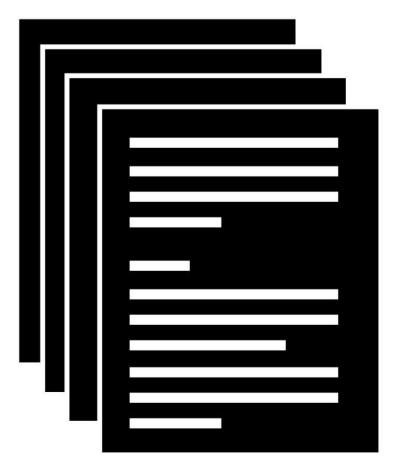
QUCASEY RUTLAN

#5

#BIMinar

London | Bristol | Dublin | Dubai





STANDARDS

#BIMinar

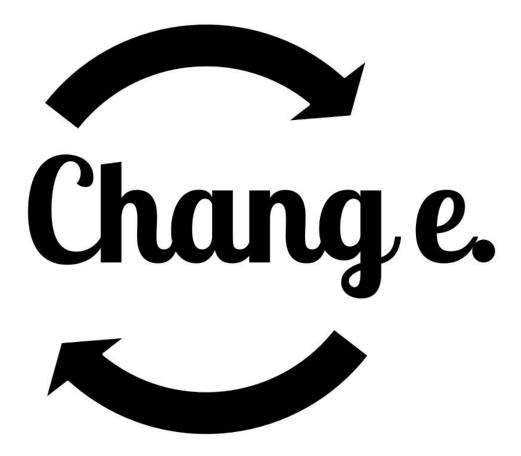


#4

#BIMinar

London | Bristol | Dublin | Dubai





#BIMinar

London | Bristol | Dublin | Dubai



#3

#BIMinar

London | Bristol | Dublin | Dubai



@CASEYRUTLAND

BINA is all about SOFTWARE right?

#BIMinar

London | Bristol | Dublin | Dubai



#2

#BIMinar

London | Bristol | Dublin | Dubai



PINK fleshy BISSE

#BIMinar

London | Bristol | Dublin | Dubai



#1

#BIMinar

London | Bristol | Dublin | Dubai



People see these as an OBSTACLE to adopting a **BETTER WAY OF WORKING!**

#BIMinar

London | Bristol | Dublin | Dubai





How does BIN IMPACT DESIGN?

#BIMinar

London | Bristol | Dublin | Dubai





less waste

#BIMinar

London | Bristol | Dublin | Dubai



To a company of the second sec

#BIMinar

London | Bristol | Dublin | Dubai





#BIMinar

London | Bristol | Dublin | Dubai





COMMUNICATION

#BIMinar

London | Bristol | Dublin | Dubai







#BIMinar

London | Bristol | Dublin | Dubai





急LIGNMENT

#BIMinar

London | Bristol | Dublin | Dubai





Best practice BBNN @ ORGANISATION

#BIMinar

London | Bristol | Dublin | Dubai



Who are you?



CLIENT





DESIGNER

CONTRACTOR









QS



MANUFACTURER

#BIMinar

London | Bristol | Dublin | Dubai



#BIMinar

London | Bristol | Dublin | Dubai



Who are you? $\stackrel{\bullet}{\texttt{V}}_{\texttt{LIENT}} \stackrel{\bullet}{\texttt{V}}_{\texttt{DSIGNER}} \stackrel{\bullet}{\texttt{V}}_{\texttt{DNTRACTOR}} \stackrel{\bullet}{\texttt{PM}} \stackrel{\bullet}{\texttt{PINTER}} \stackrel{\bullet}{\texttt{DIILDER}} \stackrel{\bullet}{\texttt{DIILDER}} \stackrel{\bullet}{\texttt{V}}_{\texttt{DIILDER}} \stackrel{\bullet}{\texttt{V}}_{\texttt{DIILDER}}$

IT AFFECTS YOU ALL BUT DIFFERENTLY.

#BIMinar

London | Bristol | Dublin | Dubai





BUT IN THE SAME WAYS 🔁

#BIMinar

London | Bristol | Dublin | Dubai

#BIMinar

London | Bristol | Dublin | Dubai



Beale&Company

CHANGE MANAGEMENT

CONSISTENCY

STANDARDS

LEAN APPROACH





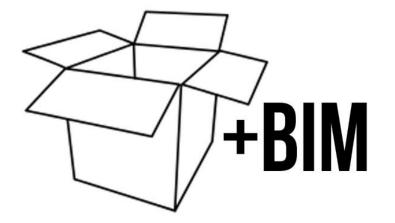
R







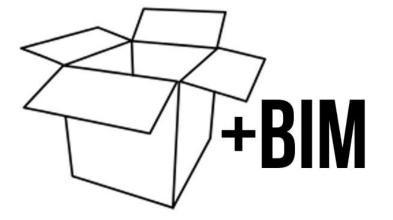




#BIMinar

London | Bristol | Dublin | Dubai







#BIMinar

London | Bristol | Dublin | Dubai





#BIMinar

London | Bristol | Dublin | Dubai



EGAL 5

#BIMinar

London | Bristol | Dublin | Dubai





PROCESS ------

#BIMinar

London | Bristol | Dublin | Dubai





SECURITY 🕱

#BIMinar

London | Bristol | Dublin | Dubai





#BIMinar

London | Bristol | Dublin | Dubai





INFORMATION (6)

#BIMinar

London | Bristol | Dublin | Dubai





CLASSIFICATION 3

#BIMinar

London | Bristol | Dublin | Dubai





SOFT LANDINGS

#BIMinar

London | Bristol | Dublin | Dubai





Best practice BIN @ PROJECT LEVEL

#BIMinar

London | Bristol | Dublin | Dubai





Commercial arrangement

#BIMinar

London | Bristol | Dublin | Dubai





PLANNING

#BIMinar

London | Bristol | Dublin | Dubai





PLANNING (***) over the second second

#BIMinar

London | Bristol | Dublin | Dubai





PLANNING

#BIMinar

London | Bristol | Dublin | Dubai





#BIMinar

London | Bristol | Dublin | Dubai





#BIMinar

London | Bristol | Dublin | Dubai



SHARE ••••

#BIMinar

London | Bristol | Dublin | Dubai





DIGITALLY 人员

#BIMinar

London | Bristol | Dublin | Dubai





consistently

#BIMinar

London | Bristol | Dublin | Dubai





Use the BIN STANDARDS

#BIMinar

London | Bristol | Dublin | Dubai



Legal Considerations

- + Andrew Croft
- + Solicitor, Beale & Company

#BIMinar

London | Bristol | Dublin | Dubai





BIM – Legal Issues





- + BIM will impact on rights and obligations (and liability).....
- + can be managed if clear about:
 - what "BIM" means on the project;
 - responsibilities of the project team; and
 - -how team will collaborate.
- + Important on any project.

#BIMinar

Common Concern: BIM will involve taking more risk

- + No UK case law on implications of BIM.
- + ...but should only involve onerous obligations if you agree to them!

"….solely responsible for the <u>suitability and integrity</u> of the selected software and any information, drawings, specifications or other information extracted from the model. "

(CIOB Complex Projects Contract (clause 11.3.4)).

- Consider any BIM protocol and contractual provisions carefully.

#BIMinar

www.beale-law.com





@ANDREWIANCROFT



Common Concern: Losing Intellectual Property Rights (IPR)

- Licence should suffice.



- + CIC Protocol ownership remains with party producing Model.
- + BIM used as excuse to transfer IPR.
- If assign IPR <u>cannot</u> use on other projects.
- More important to protect IPR re Model Objects etc?





Common Concern: BIM blurs lines of responsibility

- + "Ownership of information remains with the originator, although it is shared and reused, <u>only the originator can change it</u>".
 - PAS 1192-2, Para 9.2.2, Note 3
- + Responsibility clear....if BIM Execution Plan agreed and PAS 1192:2 followed.
- + Record keeping important.
- + "Level 3"?

#BIMinar



ARUP ASSOCIATES



Common Concern: BIM will not be covered by insurance

- CIC Best Practice Guide for PI insurance (Griffiths & Armour, BIM Task Group).
- "There were no perceived issues that would prevent designers from obtaining PI insurance when working on projects delivered at BIM Level 2."
- If agree to something outside policy, won't be covered hosting data/CDE?
- Integrated Project Insurance "the only insurance product capable of supporting BIM Level 3" (Stephen Bamforth, Griffiths & Armour).

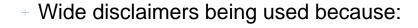
Speak to insurers.#BIMinar



ARUP ASSOCIATES

@ANDREWIANCROFT

Common Concern: Disclaiming liability for use of a Model



- unable to verify content of Model;
- basis of collaboration has not been agreed, e.g. in:
 - Protocol (Model Production and Delivery Table); and/or
 - BIM Execution Plan;
- Models not contractual deliverable.
- + Importance of due diligence before Models issued/used.
- Disclaimers may become less restrictive if basis on which Models shared agreed at outset.



#BIMinar



Common Concern: BIM and software issues

- + Interoperability software speaking different languages.
- + Unlikely to be able to recover from software provider.
- + CIC Protocol, CI 5.2 no liability for data corruption.
- + Manage-
 - BIM Execution Plan agree how team will collaborate;
 - Verification if format changed, check Model; and
 - IFC (Industry Foundation Classes), Open BIM.



#BIMinar



How is BIM being reflected contractually?



- Level 2 does not require significant amendments, if roles and responsibilities clear.
- CIC Protocol:
 - Must be incorporated into contracts.
 - Models contractual deliverable;
 - Permitted Purpose LOD;
 - Define responsibilities in MPDT;
 - Information Requirements; and
 - In contracts of all project team for consistency.

#BIMinar





How is BIM being reflected contractually? (cont.)

- + NEC3, JCT, ICC limited amendments published.
- + CIOB Complex Projects Contract Clause 11 and Appendix C.
- + Bespoke contracts/protocols.
- + Consistency between contracts and use of BIM?
- + Importance of discussing BIM pre-contract.



#BIMinar



Collaborative Contracts



- + Likely to see more collaborative contracts.
- + Joint ventures.
- + PPC2015 "a strong basis for BIM levels 2 and 3".
- + Integrated Project Insurance alliancing:
 - Gain/Pain share linked to success of project;
 - IPI steps in if any issues; and
 - no blame culture.

#BIMinar

Conclusion

- + BIM will impact on rights and obligations (& liability),
- + ... can be managed if understood at the outset.
- + Agreeing basis of collaboration is key.
- + Make sure contracts reflect project approach to BIM.
- + Likely to see more collaborative contracts









Questions?

#BIMinar

London | Bristol | Dublin | Dubai