

## **2d/3d Theme - Outline for Response/Approach**

Question - How important is the provision of 3d modelling? For some the data without models is viewed as adequate.

### How useful is 3d in Operations?

Operations is largely based on high volume low value transactions (repairs, compliance checks, servicing, component replacement). For most of these transactions 3d modelling is not required or expressly beneficial.

Having access to the data and being able to update the data based on the transaction is arguably more important for this type of transaction. Using 2d plans may assist in terms of the location of building components and information.

Some transactions however could benefit from access to a 3d model;

- Major component replacement such as large M&E systems
- Composite component replacement (kitchens and bathrooms)
- Repairs where a detailed understanding of concealed construction or services is required.
- Building safety cases
- Building refurbishment/remodelling

### If 3d has some benefits, what are the barriers?

Creating/maintaining models comes with a cost. It could be argued that the cost is not offset by the benefits delivered.

How users access and interact with models is a challenge. A range of CAFM systems are used but the ability to deploy 3d models to users as a core part of transactional process is not the norm. Deploying this further to out in the field for operatives and to web portals for customers adds additional complexity.

There are many software offerings within the BIM community, but these seldom offer out of the box interoperability with CAFM systems. Further, these offerings seem seldom aimed at organisations with property portfolios like RPs where highly diverse and complex property mixes, allied to an infrequent presence at the property itself set how RPs operate out from the norm.

Keeping models up to date is essential. An out of date model that misrepresents reality can be more dangerous than no model at all. Many stakeholders interact with our buildings and harvesting the information from a range of staff, consultants, contractors and others, ensuring good data provenance is challenging. System and process design that keeps the data behind the model as well as where appropriate the model up to date can be challenging in terms of the system design itself but also the gap in skill sets often within asset management professionals.

### Thoughts on way to progress theme

The business case for investment is highly relevant to 3d modelling. Suggest this could be a contribution to a wider cross sub-group workstream that considers all aspects of the return on investment of BIM?

Engagement with the wider CAFM system supplier community for the sector to understand their current R&D plans around BIM. This could inform then a broader piece of work seeking to influence development of their solutions around standardisation?

	Data only	Photogrammetry	3D model
Pros	Cost	Data validation	Data validation
	Ease of capture	Easier and quicker tendering	Easier and quicker tendering
	Ease of business integration	Holistic understanding of building	Holistic understanding of building
	Meets current requirements	Opens up further possibilities such as resident repair reporting	Opens up further possibilities such as resident repair reporting
		Allows for hybrid system where greatest complexity/risk is	Allows for hybrid system where greatest complexity/risk is
		Compliance and assurance	Compliance and assurance
		Two systems: one where data can be accessed by all staff, one where technical access data and model	Two systems: one where data can be accessed by all staff, one where technical access data and model
		Futureproofing	Futureproofing
		Ease of use for future employees - digital natives	Ease of use for future employees - digital natives
		Lack of off the shelf platforms available	Lack of off the shelf platforms available
		No requirement for 3D modelling skills	Can include photogrammetry
			Sustainability: heat loss/gains, first time fixes etc.
Next steps		Work with providers to develop a platform suitable for Registered	Work with providers to develop a platform suitable for Registered

	Providers	Providers
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