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Establishing Key Performance Indicators to Measure the Benefit of introducing the Facilities Manager at an Early Stage in the Building Information Modelling Process - Presentation

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The CITA BIM Gathering

14th - 15th November 2013
at the Guinness Storehouse

Establishing Key Performance Indicators to measure the benefit of introducing the Facilities Manager at an early stage in the Building Information Modelling Process

By
Barry McAuley , Dr. Alan Hore, Prof. Roger West

- Presented by
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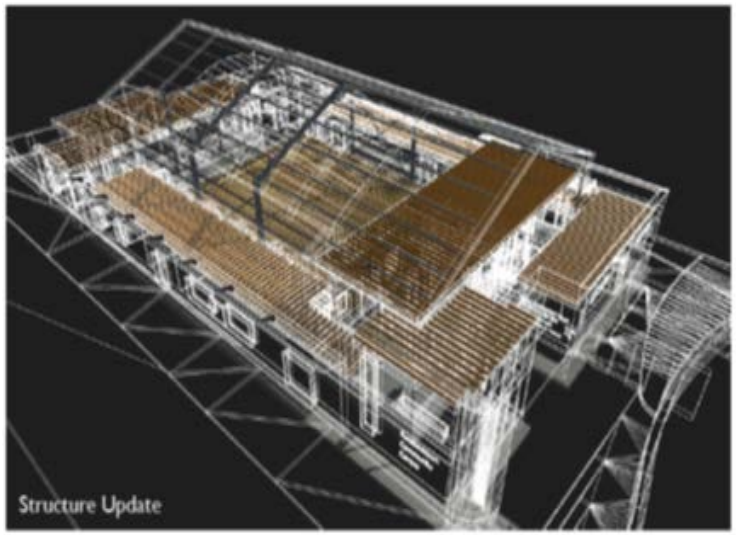
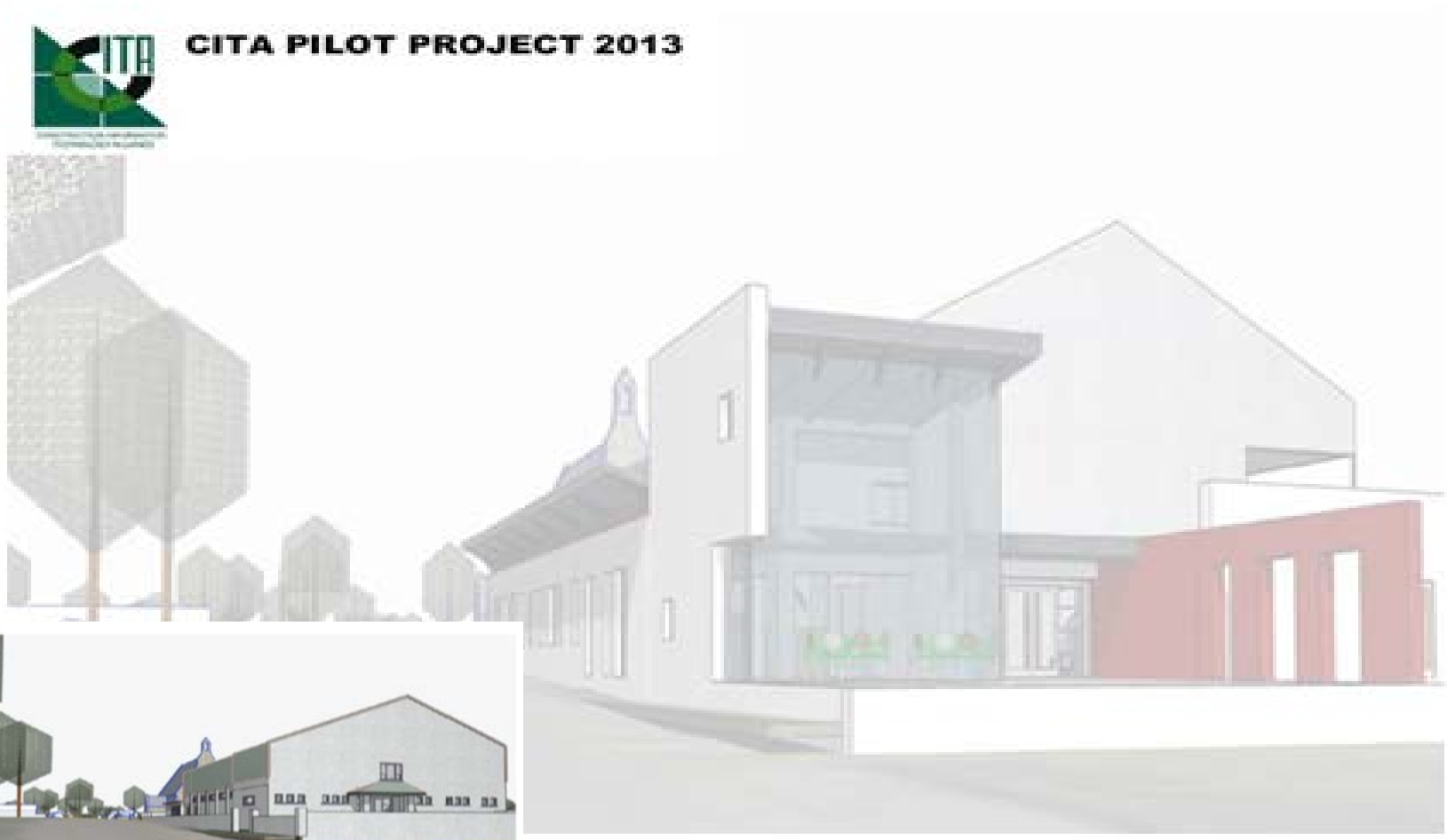
Background

- Building Information Modelling
- BIM for FM
- The Role of the Facilities Manager in the BIM Process.



Literature Review



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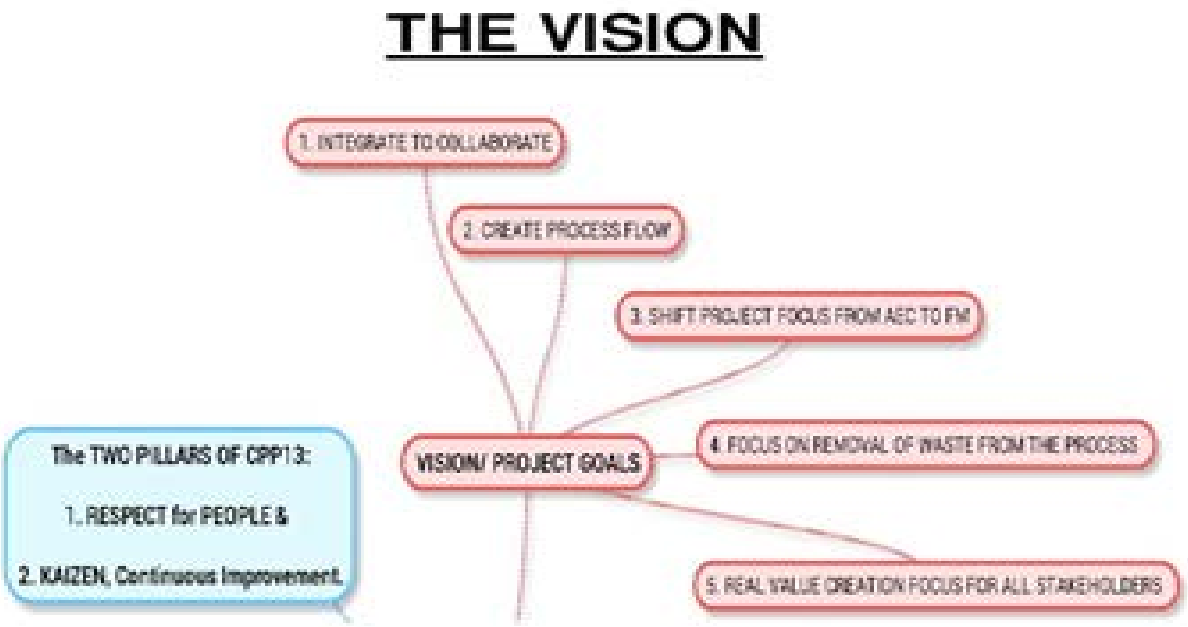

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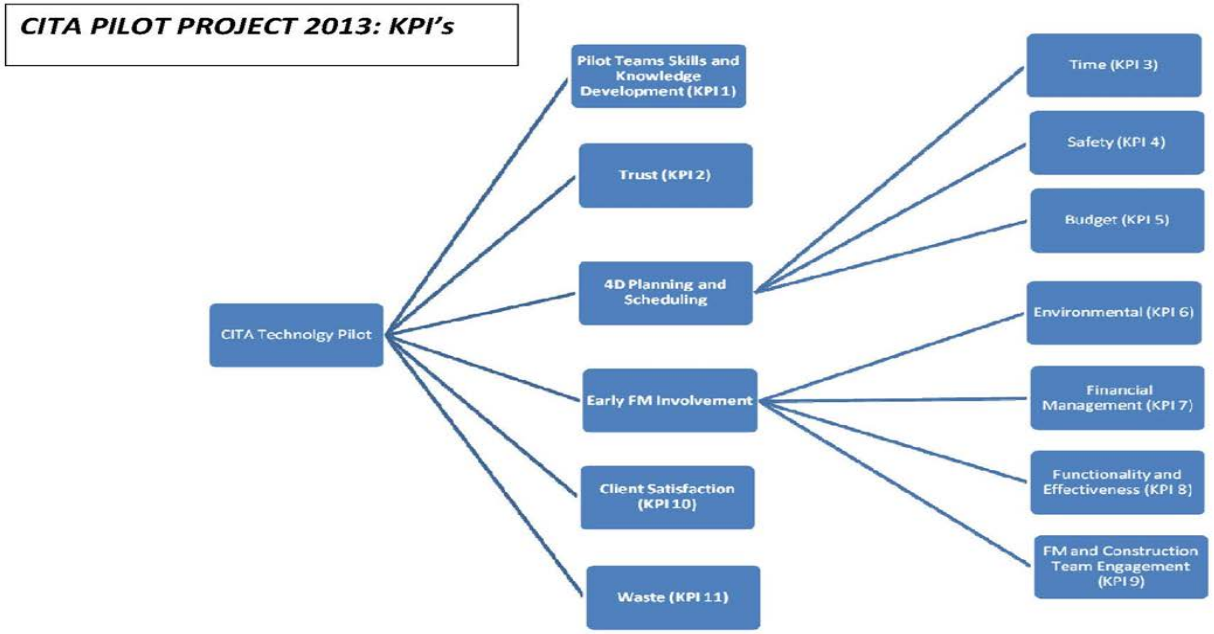
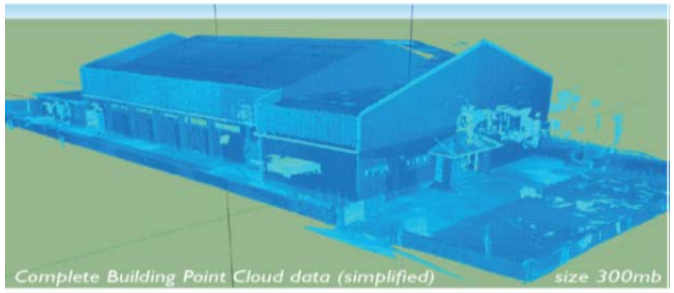
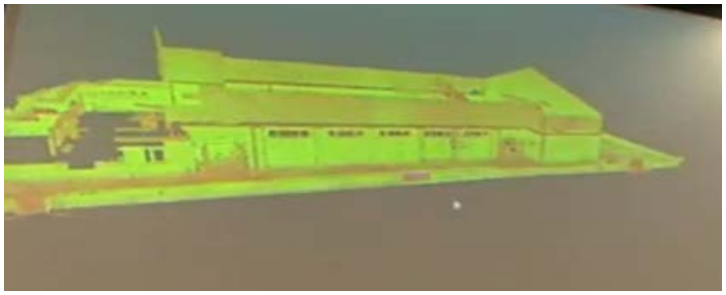
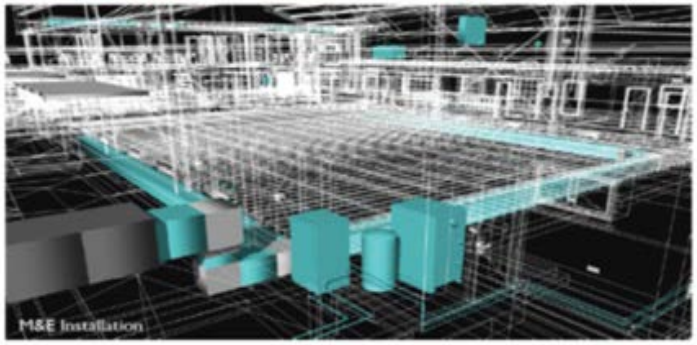


Compiled by Barry McAuley, DIT Researcher, on Behalf of the CITA PILOT PROJECT TEAM 2013 (20.02.2013) Page 4 of 4

Literature Review







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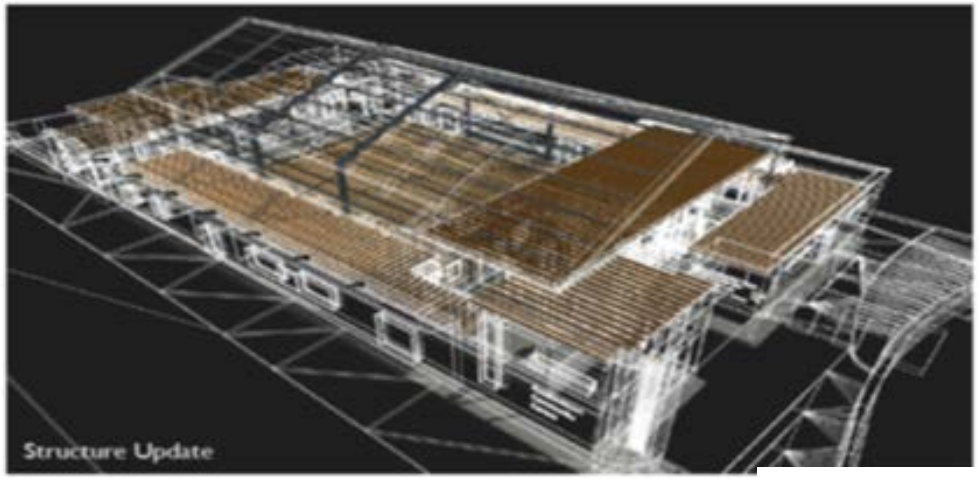
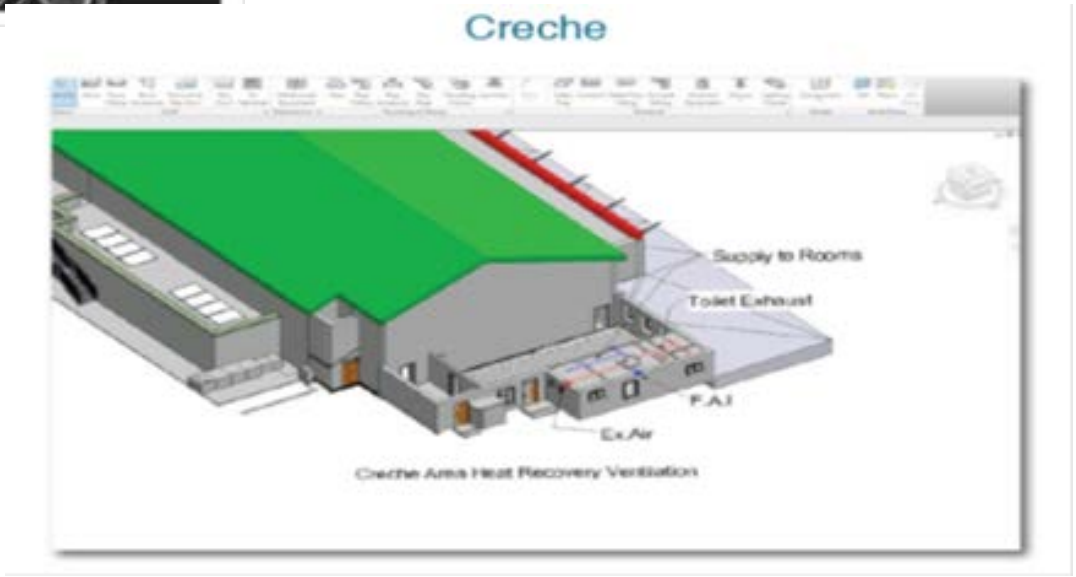




- **KPI 1 - Skill and Knowledge**
  - 70% of the team reported some to significant change across the board.
  - The FM Team where the only pilot team members who have had no change/
- **KPI 2 – Trust**
  - 80% of the pilot team members reporting some to significant change.
  - The FM Team reported no change in trust in regards to other disciplines or effective communication within the plot team.
- **KPI 3 – Time**
  - Divided opinions in regards to reduction in the pilot programme by using 4D technologies/
  - FM and QS team reporting no change/
- **KPI 4 – Safety**
  - The views were split in regards to 4D technologies providing an advantage in regards to health and safety.
  - FM team reporting no change.
- **KPI 5 – Budget**
  - 83% of the pilot team believed that 5D technologies have been an advantage in predicting budgets.

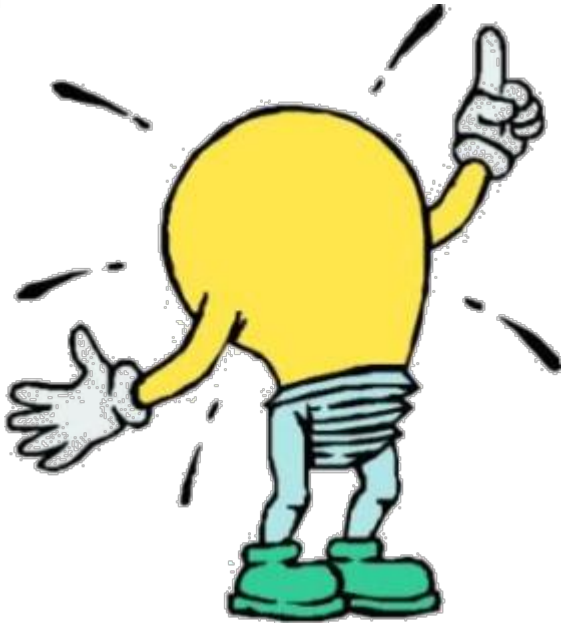
- **KPI 6 - Environmental**
  - 75% claimed some to a significant change from having early FM input in regards to the measurement of energy usage.
  - There has been very little done in this regard to date as noted by the FM Team.
- **KPI 7 – Financial Management**
  - 75% state that the Facilities Manager can help improve operational expenditure.
  - The FM Team have noted that early indications suggest that it will cost more at design stage for FM Involvement.
- **KPI 8 – Functionality and Effectiveness**
  - 87.5% noted advantages across the board in regards to early FM involvement in increasing the Functionality & Effectiveness.
  - Contractor stated that there has been no change from early FM involvement.
  - The Architect acknowledged that advance knowledge and FM systems choice means advanced ways to simulate and optimise the systems to be installed.
- **KPI 9 - FM and Construction Team Involvement**
  - The whole pilot team believed that the Facilities Manager can bring some to significant added value
  - The FM team believed the Facilities Manager can bring added value / change to the design team but there has been little involvement to date.

- **KPI 10 – Client Satisfaction**
  - 50% of the respondents claimed that there has been a significant change in the clients awareness.
  - 81% reported some to significant change in the clients budgeting.

- **KPI 11 – Waste**
  - All of the pilot team claimed that technology can help reduce construction and C02 waste in some to a significant way.

Overall Findings

- All of the pilot team are in the agreement that the Facilities Manager can play a significant role in ensuring the most functional and practical structure can be realised.
- The Facilities Manager can help ensure that the most relevant data is embedded into the model.
- Facilities Manager is unsure of the benefit that they can provide.
- Concern that it will cost more at design stage for FM Involvement.
- Facilities Manager can bring added value to the design team but as of yet there has been little involvement.



Further Study

- Measure KPIs and interview all pilot participants.
- Develop a unique set of KPI's that can be used to help measure and guide Facility Manger interaction within the BIM process from an early stage.
- Advocate the adoption of a more robust Lean FM.

Q&A

Thank You!

http://www.cita.ie/cita_pilot_project_2013.asp