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— HABITAT III — NETWORKING EVENT REPORT

Submitted by Lead Organization	
Name of lead organization	Oxford Brookes University
City and country where lead organization is based	Oxford, UK
Title of the event	Building Information Modelling as a Tool for Capacity Building for Sustainable Housing Upgrading in Informal Settlements
Date of Networking Event	10/19/2016
Networking Event room number	MR9
Name of partner organizations with city and country where these organizations are based	University of Sao Paulo, Brazil University of Cambridge, UK Bartlett Development Planning Unit - UCL, UK VTT Finland - Helsinki GNSH - UN-Habitat - Nairobi, Kenya
Number of participants	100
Percentage of women participants	40%



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**Background information on
Networking Event (themes, issues,
context).**

The success of low income housing projects in the global South, including settlement upgrading, requires the participation of all stakeholders including residents. However, traditional participatory methods are limited in involving the wider community, tend to be dominated by specific community interest groups and therefore often fail to enable genuine coproduction and bottom up decisions making. Major technical constraints here relate to tools for wider collaborative practices and information sharing. Emerging BIM and related mobile devices can overcome such constraints by facilitating deeper participation of residents and other community stakeholders (e.g., CBOs, NGOs) in housing and community upgrading. The technologies can greatly enhance residents' capacities to easily participate in the design and execution of upgrading and housing projects. BIM systems can be linked to mobile devices through freely available mobile apps and cloud-based systems that now have increasing penetration among all income groups including informal communities. Accordingly residents' requirements can be captured through their direct input into the project BIM system and merged with existing housing data to gain in-depth understanding of design optimisations and their implications for housing and occupants. This will also enable virtual assessment of design options by residents and other stakeholders that allows their informed participation in the decision making process. The proposed event, therefore, aims to introduce and critically appraise a new approach to building local community capacities through the use of BIM and mobile technologies in the design and delivery of sustainable housing and settlement upgrading. This will include demonstrating how BIM can be used to collect, analyse and model housing performance data; managing development and upgrading projects' information; and how residents and other stakeholders can participate constructively in the lifecycle of the sustainable housing and upgrading delivery using emerging mobile/cloud BIM.



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<p>Concise summary of the event proceedings, including key points discussed.</p>	<p>The session started with a presentation on the application of BIM as a tool in managing sustainable housing upgrading projects in informal settlements and was followed by three periods of discussions from the panel and contributions by the audience. As part of this the event introduced and critically appraised a new approach to building local community capacities through the use of BIM and mobile technologies in the design and delivery of sustainable housing and settlement upgrading. This included demonstrating how BIM can be used to collect, analyse and model housing performance data; managing development and upgrading projects' information; and how residents and other stakeholders can participate constructively in the lifecycle of the sustainable housing and upgrading delivery using emerging mobile/cloud BIM. Therefore the event achieved the following: 1 - Introduced and critically examined a new approach to participatory low income housing and settlement upgrading in global South 2 - Started a dialogue on wider application of socio-technical approaches based on BIM and cloud based technologies for local capacity development and enhancing participatory methods for housing and settlement upgrading 3 - Enhanced capacity and knowledge of participants in using BIM-based approaches for low income housing and infrastructure delivery more generally</p>
<p>Full name, title, and organization of the 1st speaker</p>	<p>The main partnerships have been between the panelist to help develop the idea further and also expression of interest for further discussion from a number of participants including representatives from the Swiss Federal Institute of Technology and Federal University of Rio Grande do Sul in Brazil.</p>
<p>Full name, title, and organization of the 2nd speaker</p>	<p>Prof. Ramin Keivani - Oxford Brookes University</p>
<p>Full name, title, and organization of the 3rd speaker</p>	<p>Dr. Henry Abanda - Oxford Brookes University</p>
<p>Full name, title, and organization of the 4th speaker</p>	<p>Prof Alex Abiko - University of Sao Paulo</p>
<p>Full name, title, and organization of the 5th speaker</p>	<p>Dr Maximilian Bock - University of Cambridge</p>
<p>Full name, title, and organization of the 6th speaker</p>	<p>Dr Cassidy Johnson - Bartlett Development Planning Unit</p>



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Full name, title, and organization of the 7th speaker	Carmen Antuna - VTT Finland
Full name, title, and organization of the 7th speaker	Mr. Gregor Herda - UN-Habitat