BIM is a managed approach to the collection and exploitation of information across a project. At its heart is a computer-generated model containing all graphical and tabular information about the design, construction and operation of the asset.

At Glasgow Caledonian University (GCU), experts are - in partnership with our industry clients and standard setting organisations - developing knowledge on the implementation of BIM practices.

Building Information Modelling (BIM) at GCU is a centre of excellence with the aim of facilitating the construction industry's uptake of Level 2 BIM and accelerating the progression to Level 3, a fully integrated and collaborative process utilising 4D construction sequencing, advanced cost information and project lifecycle management information.

The Cabinet Office announced the Government’s new Construction Strategy in May 2011. The report announced the Government’s intention to require Level 2 BIM on its projects by 2016.

This has generated a lot of interest in BIM within
the construction industry, however, the industry appears to be struggling to find its feet as to what it needs to have in place before BIM based projects become a mainstream reality.

There are various prerequisites that need to be in place, mostly in relation to process protocols and standards, before the UK Government’s ambitions for achieving the productivity and other improvements through BIM can be achieved.

One of the key factors in achieving successful supply-chain integration in the construction sector is the accuracy, effective flow and intelligent use of information which BIM will encourage.

At GCU, Professor Bimal Kumar is Professor of IT in Design and Construction in the School of Engineering and Built Environment and is the key contact for BIM at the University. He has worked with various technologies and processes related to BIM for several years and has taught BIM in various parts of the world including USA and Singapore.

Professor Kumar has strong links with his peers. David Philp is Head of BIM Implementation for the UK Government’s Cabinet Office and is responsible for the mobilisation and implementation of Level 2 BIM across central government’s property portfolio by 2016. He has been appointed a Visiting Professor at GCU due to his unrivalled understanding of delivering BIM at a strategic level and the requirements of the Government. He is also Head of Building Information Modelling (BIM) at Mace, to further develop the consultancy and construction company’s design strategy and integrated BIM service. Mace has a three year plan to ensure that the BIM approach is implemented on 50 percent of projects.

Professor Chimnay Anumba, Head of the Department of Architectural Engineering at Pennsylvania State University in the USA, has been appointed a GCU Visiting Professor for the next three years. He is a leading expert in the field of Building Information Modelling processes and technologies.

He is past Chair of the European Group for Intelligent Computing in Engineering (EG-ICE) and has been on the governing Council of the Institution of Civil Engineers (ICE).

Professor Anumba’s research interests lie in construction engineering, advanced engineering informatics, concurrent engineering, knowledge management, collaborative communications and project management. He has over 450 publications in these fields and has secured support worth over £90m from industry, the National Science Foundation (NSF), the Department of Trade and Industry (DTI) and a variety of national and international agencies.

GCU has specialists in research into construction projects and how they are delivered. This research area encompasses planning of projects, management of all resources, protection of human life, process design and control, health, safety and environmental management systems, quality approaches and defects minimisation, materials and logistics control, building design and utilisation, and the use of IT systems within the wider construction industry. Businesses and public sector clients also regularly commission consultancy in the areas of building performance, fire safety design, and waste and resource management.

SCHOOL OF ENGINEERING AND BUILT ENVIRONMENT CONSTRUCTION

At Glasgow Caledonian University, we work with industry and public sector partners to ensure our expertise responds to the need for real-world innovation. GCU’s strategic business development and knowledge transfer teams work with academic experts in our Schools and Research Institutes to support businesses with a problem-solving approach.

Contact us to find out more about building a brighter future with GCU at www.gcu.ac.uk/business.

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