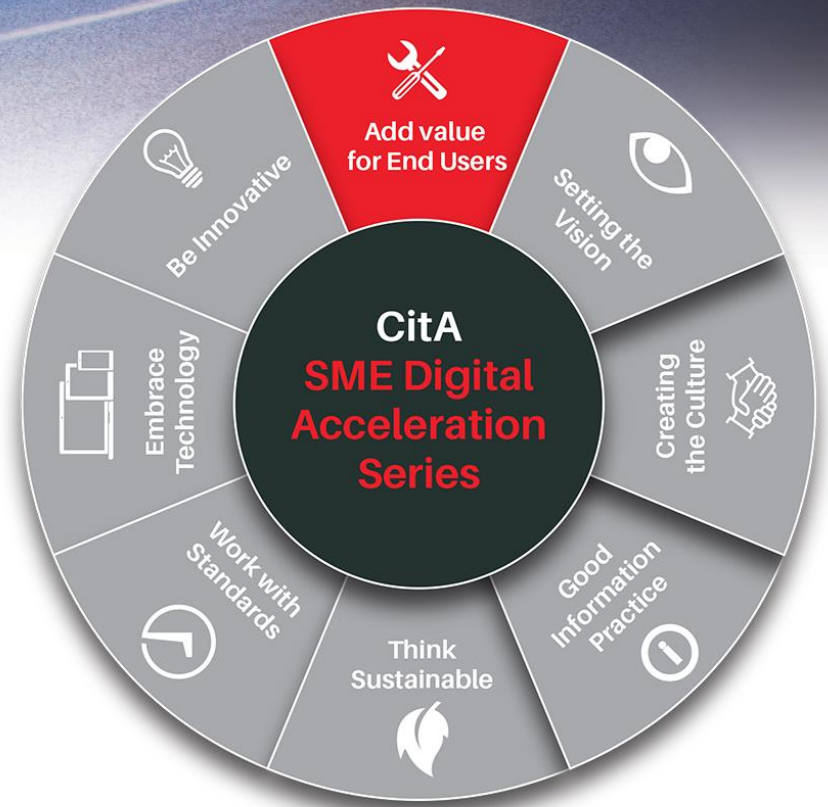


Add Value for End Users: Lifecycle BIM for effective facilities management



29th November 2023

The background of the slide features a long-exposure photograph of a road at night. The road is illuminated by a series of bright, glowing light trails in shades of red, orange, and yellow, which curve and swirl across the scene, suggesting motion and energy. The overall color palette is dark, with the light trails providing a strong contrast against the black and blue tones of the night sky and road.

SME Digital Acceleration Series

CitA

BIM for SME's: The Final Frontier

29:11:2023

About Me:

- DIRECTED AT MMA ARCHITECTS
- GRADUATED IN BSc. ARCHITECTURAL TECHNOLOGY IN 2002
- BECAME A CHARTERED ARCHITECTURAL TECHNOLOGIST IN 2011
- COMPLETED A MASTERS IN DESIGN MANAGEMENT IN 2012
- BECAME A REGISTERED ARCHITECT IN 2016
- MADE A FELLOW OF CIAT
- EXTERNAL EXAMINER ON NUMEROUS THIRD LEVEL COURSES
- RECENTLY LECTURED THE BIM COLLABORATION MODULE AT TUS (ATHLONE CAMPUS)

About MMA:

- ARCHITECTURAL PRACTICE BASED IN ATHLONE
- CURRENTLY RESTUCTURING AND WILL BE REBRANDING AND RELAUNCHING AS **ADAMSON MCGERR ARCHITECTS** IN 2024.
- WE ARE CURRENTLY 7 PERSONS IN TOTAL:

3 ARCHITECTS 4 TECHNOLOGISTS

BUT WE ARE GROWING AND WOULD BE DELIGHTED TO HEAR FROM ARCHITECTS & TECHNOLOGISTS LOOKING FOR A NEW CHALLENGE

- WE WORK IN ALL SECTORS:
SINGLE DWELLINGS/EXTENSIONS/HEALTHCARE/PHARMA/OFFICES/
LRD'S/POWER STATIONS/MODULAR CONSTRUCTION ETC.

Snapshot of Projects:



SECTORS:

- HOUSING
- OFFICES/RESEARCH
- HOSPITALITY
- HEALTHCARE
- INDUSTRIAL
- POWERSTATIONS
- RETAIL
- MODULAR/OFFSITE

Great year for MMA:



- ICE AWARD FOR SINGLE RESIDENTIAL DWELLING 2023 - WINNER
- CIAT AWARD FOR TECHNICAL EXCELLENCE SMALL TO MEDIUM 2023 - WINNER
- ATHLONE BUSINESS AWARDS 2023 – SME OF THE YEAR 2023



MY PRESENTATION TODAY, IS GOING TO POSE QUESTIONS TO THE INDUSTRY RATHER THAN PROVIDE ANSWERS!

I HOPE TO USE THIS PLATFORM TO INSPIRE CONSIDERATION AND THOUGHT AS TO HOW WE AS AN INDUSTRY CAN GAIN MORE ENGAGEMENT AND TRACTION WITH SME'S IN THE AREA OF FM.

THIS IS BASED MORE ON MY PERSONAL EXPERIENCES WITHIN THE INDUSTRY AND CONVERSATIONS WITH OTHER PROFESSIONALS THAN SPECIFIC EMPIRICAL EVIDENCE, HOWEVER, I BELIEVE MANY WILL RELATE TO IT.

FM is well developed in largescale projects.....We have FM experts, building management systems etc...
But what about the home....



Image: Facilitiesnet.com

FOR DOMESTIC SCALE PROJECTS, I AM LOOKING AT FM IN TERMS OF MANAGING THE HOME LIKE A MACHINE.

SMART HOME TECHNOLOGY EXISTS AND VERY ACCESSIBLE TO THOSE WHO WISH TO USE IT.

IT HAS HUGE POTENTIAL, AND MANY PEOPLE BENEFIT FROM BEING ABLE TO USE APPS ON THEIR PHONE TO SET TIMERS, TURN ON HEATING ETC...



"A HOUSE IS A MACHINE FOR LIVING IN"

LE CORBUSIER

ALEXA ETC.....

MVHR AND HEATING SYSTEMS ARE BECOMING EVER MORE INTELLIGENT

IT IS NOT DIFFICULT TO MANAGE SYSTEMS IN A DOMESTIC SETTING.



HOWEVER.....THE 'MACHINE' IS FAR MORE THAN HEATING SYSTEMS, LIGHTING ETC.

BIM LOOKS TO RECORD DATA AND WE STRIVE TO HANDOVER A MODEL FOR ASSETT INFORMATION.

HOWEVER AT DOMESTIC – IN PARTICULAR FOR ONE OFF DWELLINGS/EXTENSIONS/SMALL ESTATES.....THIS IS VERY DIFFICULT.

HARD PRESSED SELF BUILDERS ARE OFTEN UNWILLING TO INVEST IN THE 'ADDITIONAL COST' ASSOCIATED WITH SOMETHING THEY SEE LITTLE VALUE IN



THE REALITY OF DOMESTIC CONSTRUCTION IS THAT FOR A LARGE NUMBER OF PROJECTS, THERE IS A MAJOR DISCONNECT BETWEEN WHAT IS BEING SPECIFIED AND WHAT IS BEING CONSTRUCTED.....

MATERIAL AND PRODUCTS SPECIFIED AT TENDER STAGE...ARE ROUTINELY CHANGED BY CONTRACTORS AND CLIENTS WITH LITTLE OR NO NOTIFICATION TO THE DESIGNER.....

WE INSPECT AND WE RECORD CHANGES, BUT IT IS DIFFICULT TO QUICKLY AND EFFICIENTLY TRANSLATE THIS TO THE HANDOVER FILE AT THE END OF THE PROJECT – REQUIRES A LOT OF WORK...WORK THAT NO ONE WANTS TO PAY FOR!

DATA COLLECTION DURING AND AT THE PROJECT END IS EXTREMELY DIFFICULT...ON ALL PROJECT SCALES.



THE BCMS IS NOT REALLY FIT FOR THIS PURPOSE.....THE OPT OUT WAS THE DEATHKNELL FOR ANY POTENTIAL REAL RECORDING OF THIS DATA.

THE TECHNOLOGY IS THERE, BUT DO WE REALLY EXPECT A SMALL ARCHITECTURAL/ENGINEERING BUSINESS/MAIN CONTRACTOR TO PAY €5K PER YEAR FOR 10000 LICENCES ON ACC?? AND THEN THE FM BOLT ONS??

CONVERSELY END USERS ARE SPENDING WELL OVER €500K+ ON THEIR HOMES BUT HAVE NO DESIRE/KNOWLEDGE FOR INFORMATION ON MANAGING AND MAINTAINING THEIR MACHINE FOR LIVING.....

WHY DO WE NEED TO?

CAN WE BRIDGE THIS
GAP?



HAVING FM IN PLACE FOR SMALL DOMESTIC SCALE PROJECTS HAS MAJOR ADVANTAGES....

Micro level:

- Obvious maintenance, upgrading etc....
- Aid air quality, Heating control, and energy use.
- Greater control on quality of build.

Macro Level

- But also could aid the development of a 'National Housing Stock'
- Support meeting energy efficiency targets and carbon reduction goals WITH POTENTIAL FOR REAL TIME DATA and more accurate information.

CAN WE BRIDGE THIS GAP? OF COURSE WE CAN

THERE ARE APPS FOR RECORDING INSPECTIONS ETC. WE ALL USE THEM.....BUT THESE ARE VERY MUCH FOCUSED ON REGULATIONS

WHAT IF EVERY CONSTRUCTION PRODUCT WAS REQUIRED TO HAVE A QR CODE ON ITS LABEL....THAT COULD BE SCANNED BY THE DESIGNER AND BUILDER ON SITE AT POINT OF INSTALLATION.

THE LEVEL OF DATA THAT COULD BE INSTANTLY RECORDED AND GEOLOCATED/TAGGED TO THE SITE/BUILDING

IN MY OPINION, FM FOR THE SME IS ABOUT RECORDING WHAT IS GOING INTO THE BUILDING AT THE TIME OF ITS CONSTRUCTION

WHY? BECAUSE SPECS ARE CONSTANTLY CHANGED ONSITE OFTEN WITH NO NOTICE TO THE DESIGNER...

IT IS RARE THAT EVERYTHING SPECIFIED ON THE DRAWING ENDS UP IN THE BUILDING.

FM IS NOT COMPLEX IN A DOMESTIC ENVIRONMENT....BUT IT IS TIME CONSUMING.

THE MARKET IS CONSIDERED SMALL.....

WHAT GOOD IS HAVING THIS INFORMATION....WHAT USE?

THE FOCUS IN SMALL CONSTRUCTION PROJECTS IS GENERALLY ON QUALITY OF THE BUILD...AS SOON AS ITS COMPLETE EVERYONE MOVES ONTO THE NEXT PROJECT.

THERE ARE SYSTEMS AND SOFTWARES AND FM MANAGEMENTBUT IT NEEDS TO BE SIMPLIFIED FOR THOSE THAT ARE GOING TO USE IT:

- ARCHITECTS/ENGINEERS WHO ARE DOING THE INSPECTIONS
- THE BUILDER WHO IS DOING THE WORK
- INEXPENSIVE

CAN WE SEE A TRICKLE DOWN OF TECHNOLOGY TO ENSURE THAT THIS DATA CAN BE CAPTURED?



GLADSTON PETER: 45
INSTRUMENTS

**CAN/WILL THE INDUSTRY/GOVERNMENT STEP UP TO THE PLATE
HERE?**

WILL SOME OF OUR TU'S UNDERTAKE RESEARCH IN THIS SPACE?

HOW CAN WE MAKE IT VIABLE??

**CAN WE GET BUILDERS MERCHANTS AND PROVIDERS ON BOARD
TO HELP CAPTURE THIS DATA?**

**MAYBE ITS ALREADY THERE AND I HAVE JUST MISSED TO MANY
CITA EVENTS AND JUST DON'T KNOW ABOUT IT.....**

Retuning to our friend Le Corbusier:

Purist rules would lead the architect always to refine and simplify design, dispensing with ornamentation.

I hold that for SME/MICRO businesses in the industry, we need to find ways to simply the FM process that it becomes a basic exercise in recording information.

There also needs to be a focus on softwares that are for small projects and are priced accordingly.

The process needs to be simple and cost effective.



SO HAVING HAD MY LITTLE RANT, I AM NOW GOING TO TALK ABOUT THE REAL REASON

I AM HERE.....

The importance of attendance at these events....learning, sharing and bringing more people into this community of industry innovators.

Thank you to Alan and all the CITA Team for inviting me here today and for asking me to speak at the CITA Gathering 23.



Questions?



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**Thank you for
your participation**