Digital Skills for Construction Project Managers

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Training and Development Manager

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Company Overview

Walls Construction is an Irish owned building contractor operating nationally with offices in Dublin and Cork.
The business was established by PJ Walls in 1950 and is today recognised as one of Ireland's leading construction companies, with a reputation for quality and building excellence and customer service.

In 2015, the executive team, supported by private investors including members of the Walls family, acquired the company and this investor blend has enabled us to continue to expand the business.

Critical to this growth is the strength of our clients and the relationships we have forged over the years with key subcontractor partners and other professionals. With a projected turnover of €570m in 2023, Walls are placed firmly in the Top 5 General Contractors in Ireland.

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Meet Carolina

Education

- Diploma in Mathematics and Physics
- BA Hons Psychology
- MSc in Applied Behaviour Analysis
- Diploma in Learning and Development

Experience

- Training and Development Manager
- Employee Assistance Programme Counsellor
- Researcher
- Practitioner in Behavioural Psychology
- Assistant Psychologist

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Traditional Project Manager Skills Set

Project Management Skills

Technical Knowledge

Leadership Skills

Time Management

Quality Management

Health and Safety Compliance

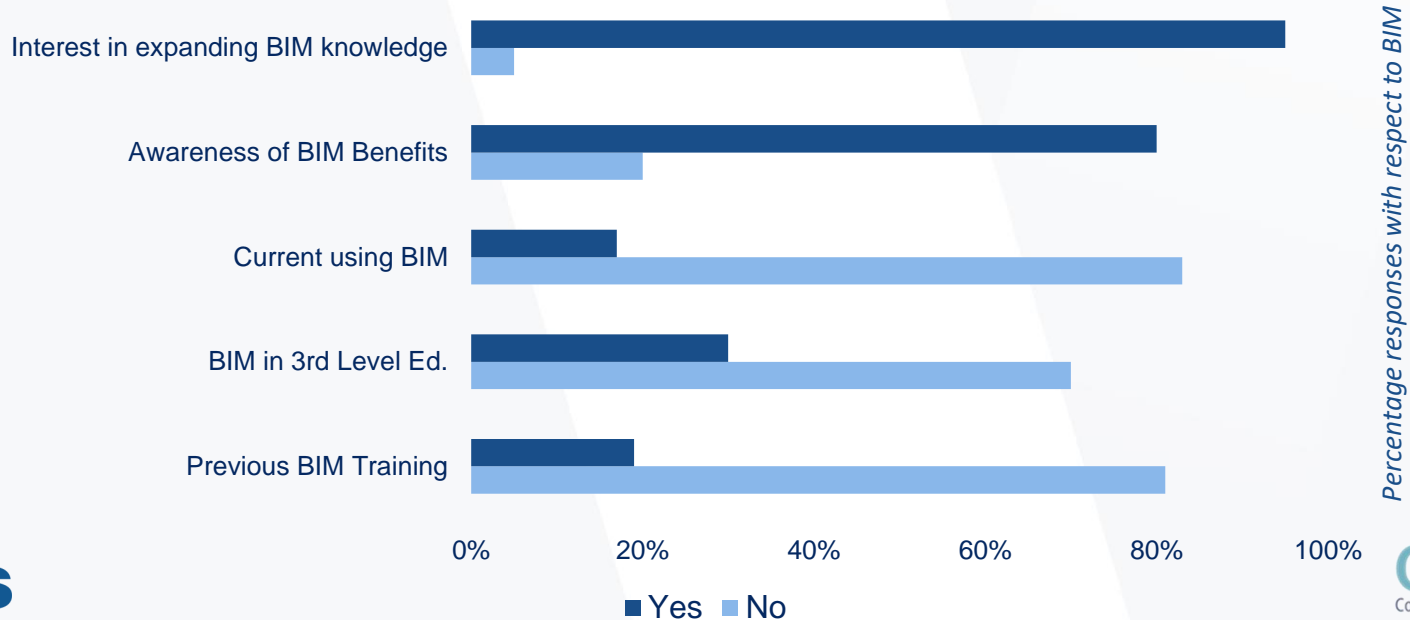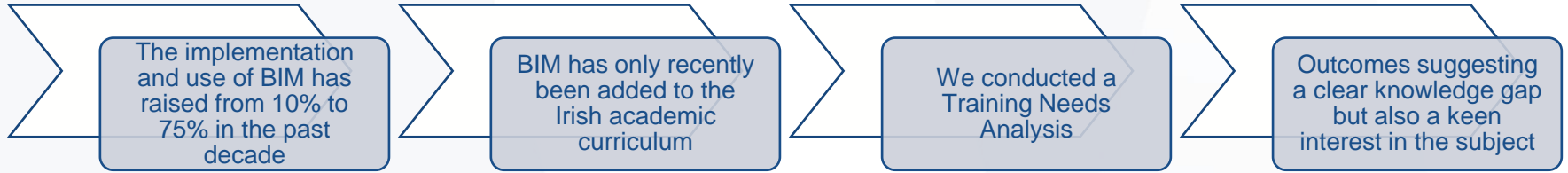Problem-Solving Skills

Budgeting and Cost Management

Client Relationship Management

Communication Skills

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Our Digital Transformation

The implementation and use of BIM has raised from 10% to 75% in the past decade

BIM has only recently been added to the Irish academic curriculum

We conducted a Training Needs Analysis

Outcomes suggesting a clear knowledge gap but also a keen interest in the subject

Percentage responses with respect to BIM

Chart categories (top to bottom):
- Interest in expanding BIM knowledge
- Awareness of BIM Benefits
- Current using BIM
- BIM in 3rd Level Ed.
- Previous BIM Training

X-axis: 0%, 20%, 40%, 60%, 80%, 100%

Legend: ■ Yes ■ No

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Our Digital Transformation – cont.

Digital technologies such as BIM can feel daunting to jump into

Introduce a tool that was user-friendly and could bring the familiar 2D drawings to life within the 3D environment
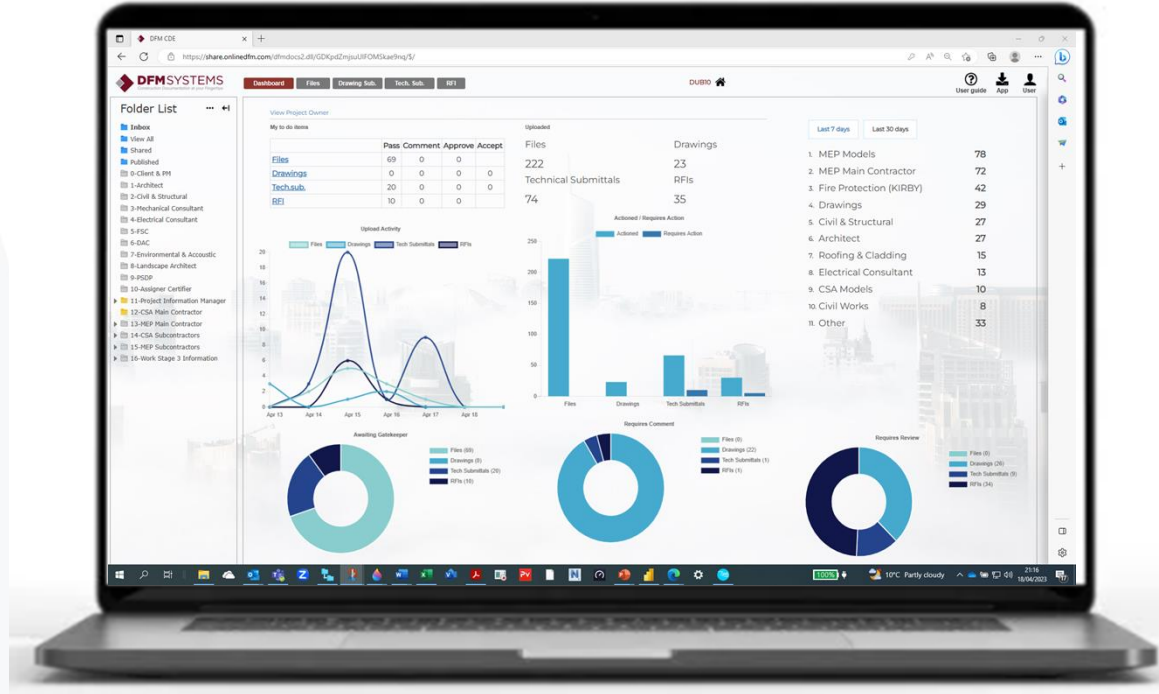
Introduce Dalux

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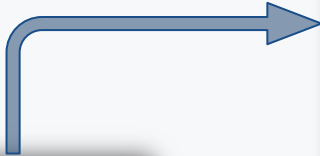Construction IT Alliance
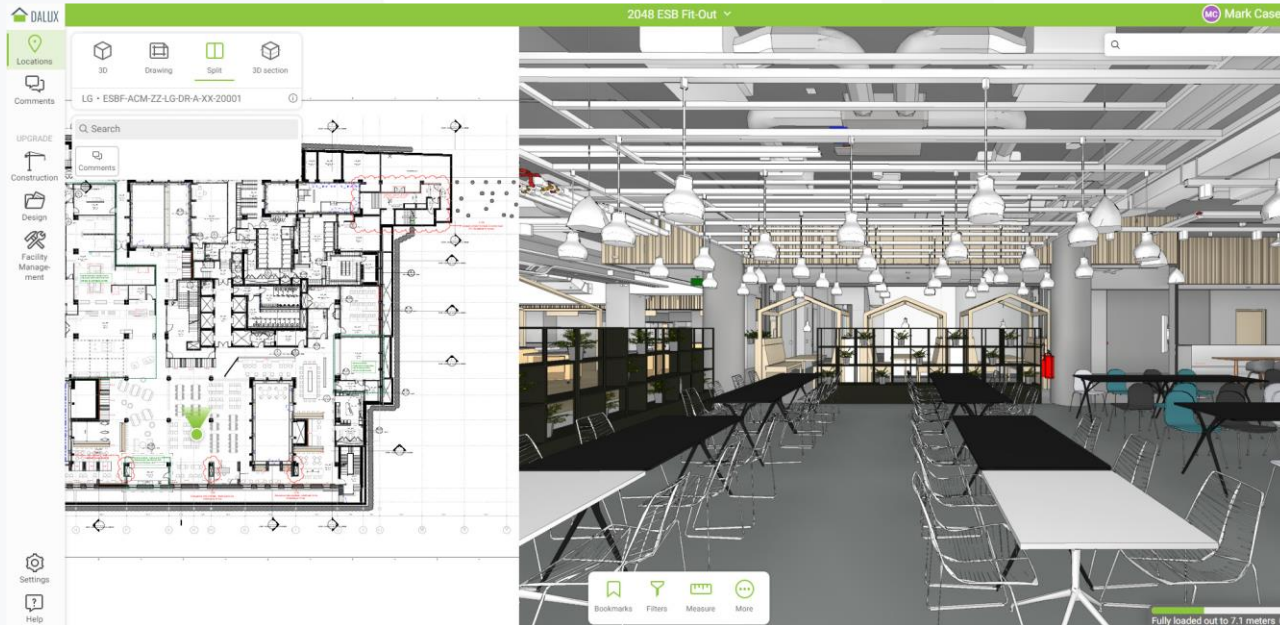
Our Digital Transformation – cont.
Common Data Environment (CDE)

📁 = View & Download only

📂 = Upload, View & Download

📁 = Virtual Folders (predefined filters e.g.: Shared/Published suitability code)

📁 = No access

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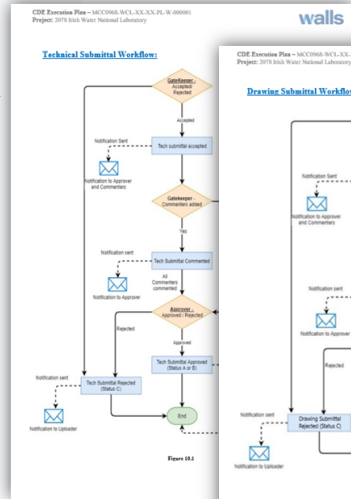
Our Digital Transformation – cont.
Workflows – Submittals & RFIs

Our Digital Transformation – cont.
File Naming Convention

2076 LDA Shanganagh

CDE Execution Plan

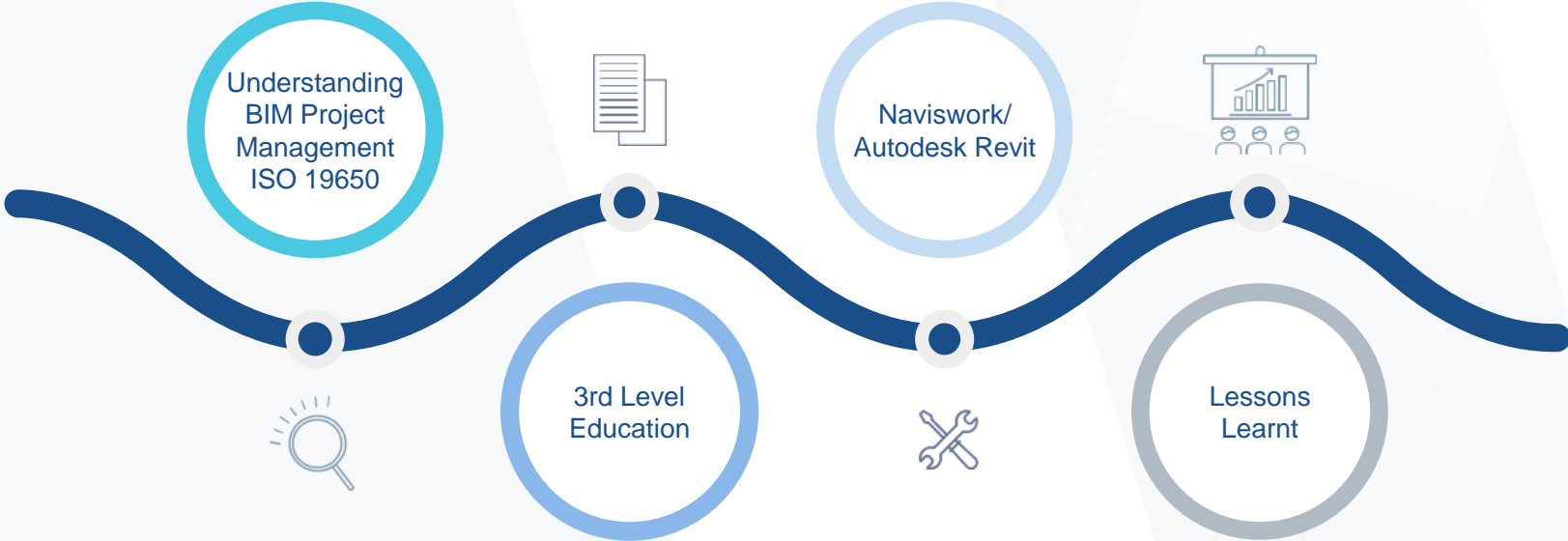| 1 Project	2 Originator		3 Volume/ System		4 Level/ Location		5 Type		6 Role		7 Number
Code = MCC0968	IW	Irish Water	00	Whole Site	B1	Basement -1	AF	Animation file (of a model)	A	Architect	000001 etc.
	MBP	Michael Barrett Partnership	ST	Site	00	Ground Floor	CM	Combined model (combined multidisciplinary model)	B	Building Surveyor	*(max of 6 characters)*
	RKD	RKD Architects	EW	External Works	01	Level 1	CR	Clash Rendition	C	Civil Engineer	
	RPS	RPS Group	ZZ	Multiple Zones	RF	Roof	DR	Drawing rendition (e.g.: .pdf)	E	Electrical Engineer	
	WCL	Walls Construction Ltd	XX	Not Applicable	ZZ	Multiple Levels	M2	2D model	F	Facilities Manager	
					XX	Not applicable	M3	3D model	K	Client	
							MR	Model rendition for other renditions, e.g., thermal analysis, etc.	L	Landscape Architect	
							VS	Visualization File	M	Mechanical Engineer	
							BQ	Bill of Quantities	O	Environmental Consultant	
							BR	Brief	P	PSDP	
							CA	Calculations	Q	Quantity Surveyor	
							CN	Contracts	R	Project Manager	
							CO	Correspondence	S	Structural Engineer	
							CP	Cost Plan	W	Contractor	
							CT	Certificates	X	Sub-Contractor	
							CW	Contract & Warranties	Y	Specialist Designer	
							DB	Database	Z	Assigned Certifier	
							DS	Data Sheet			
							ES	Equipment Schedule			
							FA	Final Account			
							FN	File Note			
							FT	Forms and/or Templates			
							HS	Health and Safety			
							IC	Instruction			
							IE	Information Exchange File (i.e.: COBie)			
							IP	Image File			
							IR	Inspection Record			
							MA	Manuals			
							MI	Minutes/ Action Notes			
							MS	Method Statement			
							PL	Plan			
							PP	Presentation			
							PR	Programme			
							RD	Room Data Sheet			
							RG	Register			
							RI	Request for Information			
							RP	Report			
							RL	RAID Log			
							SA	Schedule of Accommodation			
							SC	Schematic			
							SH	Schedule			
							SK	Sketch			
							SN	Snagging List			
							SP	Specification			
							SU	Survey			
							SW	Scope of Works			
							TI	Technical Information			
							TS	Technical Submittal			
							TP	Tenders and Proposals			
							VO	Variation Order			

Our Digital Transformation – cont.

Following the success of Dalux implantation and training, Walls invested in other courses that assisted out Projects Managers in navigating the world of BIM.

Understanding BIM Project Management ISO 19650

3rd Level Education

Naviswork/ Autodesk Revit

Lessons Learnt

Conclusion

Walls Construction is determined to play its part in increasing residential construction output in Ireland.

We are focusing on all aspects of Digital technologies: Laser scanning, VR, AR, OpenSpace, Synchro Pro Drones, EHS and QA apps etc

Our Digital Transformation is a continuing journey and every year we assess the skills gaps, not only of our project managers, but of all our staff.

By making BIM development and education a vital aspect of Walls, we gain invaluable possibilities including improving scheduling, improving snagging methods, preventing injuries, and aiding communication.

800+
CPD Hours to date

Digital technology can tackle long standing problems in the construction industry such as incompatibility among systems and manual processes that create waste, lead to cost overruns and reduced value for money.

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Thank you for listening

Any questions?