



**An Roinn Fiontar,
Trádála agus Fostaíochta**
Department of Enterprise,
Trade and Employment

Promoting Innovation in Construction

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Innovation & Competitiveness



“For an advanced economy like Ireland, innovation is the best way to generate sustainable, long-term productivity growth.”



White Paper on Enterprise
2022 - 2030



Impact 2030
Ireland's Research and Innovation Strategy



“Innovation is essential to drive Europe's competitiveness ...shapes markets, transforms economies, stimulates step changes in the quality of public services and is indispensable to achieve the overarching objectives of the twin green and digital transition”



New European Innovation Agenda
on the move



Report on the State of play
of the New European
Innovation Agenda

*“Enterprise-led research, development and innovation drives start-ups, competitiveness, productivity and high performance in the Irish economy... **contribute to Ireland's economic and societal resilience and transformation.**”*

Innovation in Construction



- **National Development Plan & Housing for All** : innovation adoption key to improving delivery outcomes.
- Opportunity and challenge to build a sustainable, resilient, construction industry – with innovation (and innovation adoption) at its core.
- MMC represents a significant and accelerating transformation in construction - more offsite manufacturing and assembly; application of new technologies, products and building systems; increased digitalisation; lower carbon; relieves onsite labour shortages; speedier delivery etc.
- Enabling innovation in construction/MMC development requires an ecosystem-wide, collaborative approach (incl. knowledge transfer from e.g. manufacturing)

Innovation in Construction



- 40% of the industry are not using any automated technologies.
- Other 60% are mainly using electronic systems for document management, e-procurement, mobile technologies, and tracking systems such as laser scanners
- Digital adoption is relatively low for the sector in Ireland - primary barriers for BIM implementation in Ireland were seen as a lack of in-house expertise (74%), no client demand (67%), and a lack of training (67%).
- Majority of firms believe that modular construction, innovative and sustainable materials, sustainability and energy will be of 'great' or 'very great' importance to their firm over next 10 yrs.
- The day to day running of the business, lack of time and lack of financial incentives are amongst the challenges to technology adoption within the sector.

*“A Detailed Description of Needs for the Irish
Construction/Built Environment Sector”*

EY Research commissioned by Enterprise Ireland,

2021

Enablers –

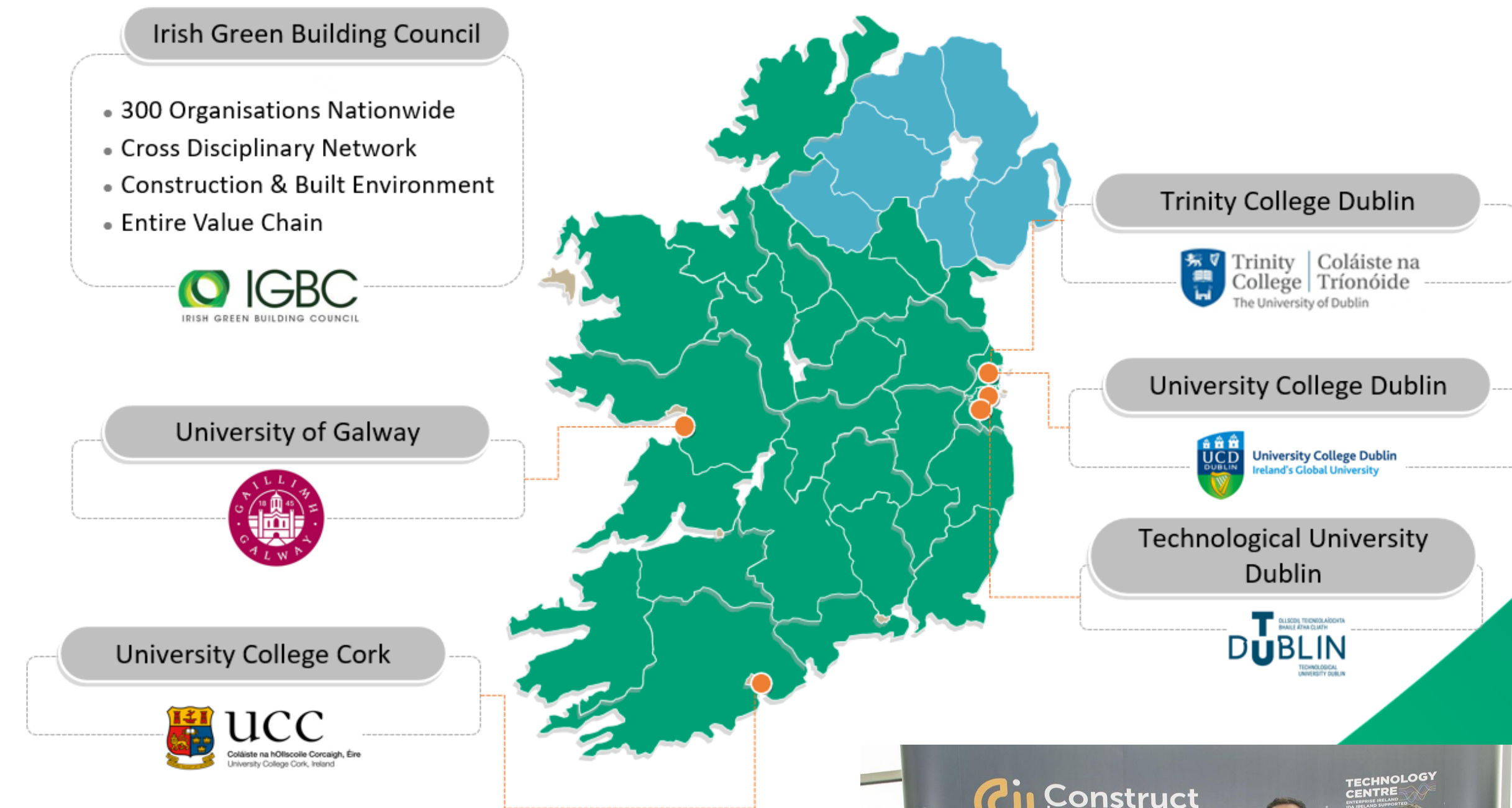


Technology
Centres

Enterprise
Ireland



- €5m - Industry focused National Research Centre for Construction Technology and Innovation
- 23 multidisciplinary research groups; 5 partner institutions; 300+ active researchers
- Range of research areas – MMC, Materials, Sustainability, Digital, Automation etc.
- State-of-the-art research and testing facilities
- Access national / international R&I funding
- Company networking and collaboration opportunities
- Seed funding calls for industry-academic research collaboration; significant housing research programme under Housing for All



Enablers – Ecosystem approach

- *MMC Roadmap & Leadership Group*



- MMC Leadership and Integration Group – chaired by DETE
[D/Housing, DPENDPR, DFHERIS, DECC, NSAI, EI, Construction Sector Group]
- Roadmap for MMC in Public Housing Delivery: (but relevance beyond housing...)
 - Public Procurement approaches
 - Regulation & Standards
 - Capital, Finance & Insurance
 - MMC Skills Development
 - Industry Competitiveness & Capacity
 - Policy execution, collaboration – driving a **continuous and live agenda**
- Promoting an integrated approach and knowledge transfer between key MMC initiatives
– Construct Innovate; MMC Demo Park; Build Digital; MMC Skills Development

Enablers – MMC Roadmap ongoing delivery



BuiltToInnovate

An initiative of Enterprise Ireland
under the Housing For All Plan.

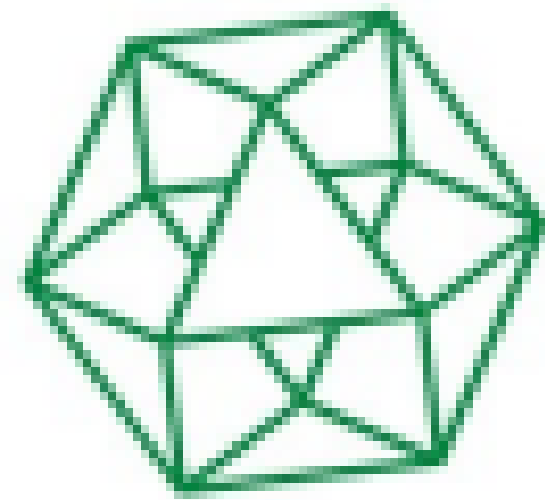
LEAN: funding for expertise, staff training and Lean implementation

DIGITAL: implementing productivity related digital systems

INNOVATION: R&D funding & Construction Industry Research Centre

- Focused on residential construction
- Implementing Lean training in both manufacturing and onsite environments.
- Improving the use of digital tools to drive company-wide productivity benefits.
- Advancing research concepts or process innovation ideas.

Enablers – MMC Roadmap ongoing delivery



NSAI
Agrément

- Dedicated resources for MMC Certification & Surveillance Audits and Ancillary Certification
- Further funding in 2024 to expand the team to support MMC growth and BIM certification
- Strengthened information supports for MMC
- Focus on achieving cycle time efficiencies

Enablers – MMC Roadmap ongoing delivery



- DHLGH Accelerated Social Housing Delivery Programme – Design & Build procurement, standardisation, training
- Two 3D volumetric residential pilot projects initiated in Wexford and Carlow
- MMC training – NBCO; Local Authorities; Mount Lucas MMC training programmes; Construct Innovate webinars; Skillnet MMC Skills platform etc.
- MMC Demonstration Park – Mount Lucas
- Expert Group on Future Skills Needs – assessment of MMC skills needs
- MMC Data Dashboard
- Construct Innovate – significant housing related research programme commencing