



Rialtas na hÉireann  
Government of Ireland

# Housing for All Plan

## Focus on Modern Methods of Construction (MMC)

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# Talk Overview - 25 slides



- 1. Housing for All (HfA)** Key Information; Budget & Targets; Pathways; Economic Sustainability; Construction Cost & Productivity;
- 2. Modern Methods of Construction (MMC)** Leadership & Integration Group; Public Procurement Roadmap; MMC Terminology; Regulations, Standards & Certification;
- 3. Other HfA MMC-related Actions** Demonstration Park; Accelerated Social Housing Delivery Programme; Skills & Training Development;
- 4. Related Innovation Activities** Construction Sector Group (CSG); CSG Subgroup; ConstructInnovate; Build Digital; Built to Innovate, Reference Information

# 1/25 Housing for All – A new Housing Plan for Ireland



- Key objective remains that ‘...everyone in the State should have **access to a home** to purchase or rent at an **affordable price**, built to a **high standard** and in the **right place**, offering a high quality of life’.
- Published in Q2 2021; updated with additional actions in Q3 2022
- In this presentation, all **action numbers** are from **Action Plan Update Q3 2022**



<https://www.gov.ie/en/publication/ef5ec-housing-for-all-a-new-housing-plan-for-ireland/>

<https://www.gov.ie/en/publication/da0d1-action-plan-update-and-q3-2022-progress-report/>



# 2/25 Housing for All - Budget and Targets

- **33,000 new homes per annum until 2030** | +300,000 new homes in total
- **€4bn investment per annum** - largest ever housing budget in the history of the State
- Housing completions (29,851) **surpassed 2022 target** (24,600). 2023 target is **29,000**.



| Tenure                                     | 2022          | 2023          | 2024          | 2025          | 2026          | 2027          | 2028          | 2029          | 2030          |
|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Social homes                               | 9,000         | 9,100         | 9,300         | 10,000        | 10,200        | 10,200        | 10,200        | 10,200        | 10,200        |
| Affordable & Cost Rental homes             | 4,100         | 5,500         | 6,400         | 6,400         | 6,100         | 6,300         | 6,400         | 6,300         | 6,300         |
| Private Rental and Private Ownership homes | 11,500        | 14,400        | 17,750        | 18,200        | 19,800        | 20,400        | 21,500        | 23,000        | 24,000        |
| <b>Total Homes</b>                         | <b>24,600</b> | <b>29,000</b> | <b>33,450</b> | <b>34,600</b> | <b>36,100</b> | <b>36,900</b> | <b>38,100</b> | <b>39,500</b> | <b>40,500</b> |



# 3/25 Housing for All Pathways

1. Homeownership & Affordability
2. Homelessness, Social Housing & Social Inclusion
3. New Housing Supply
4. Vacancy & Existing Stock

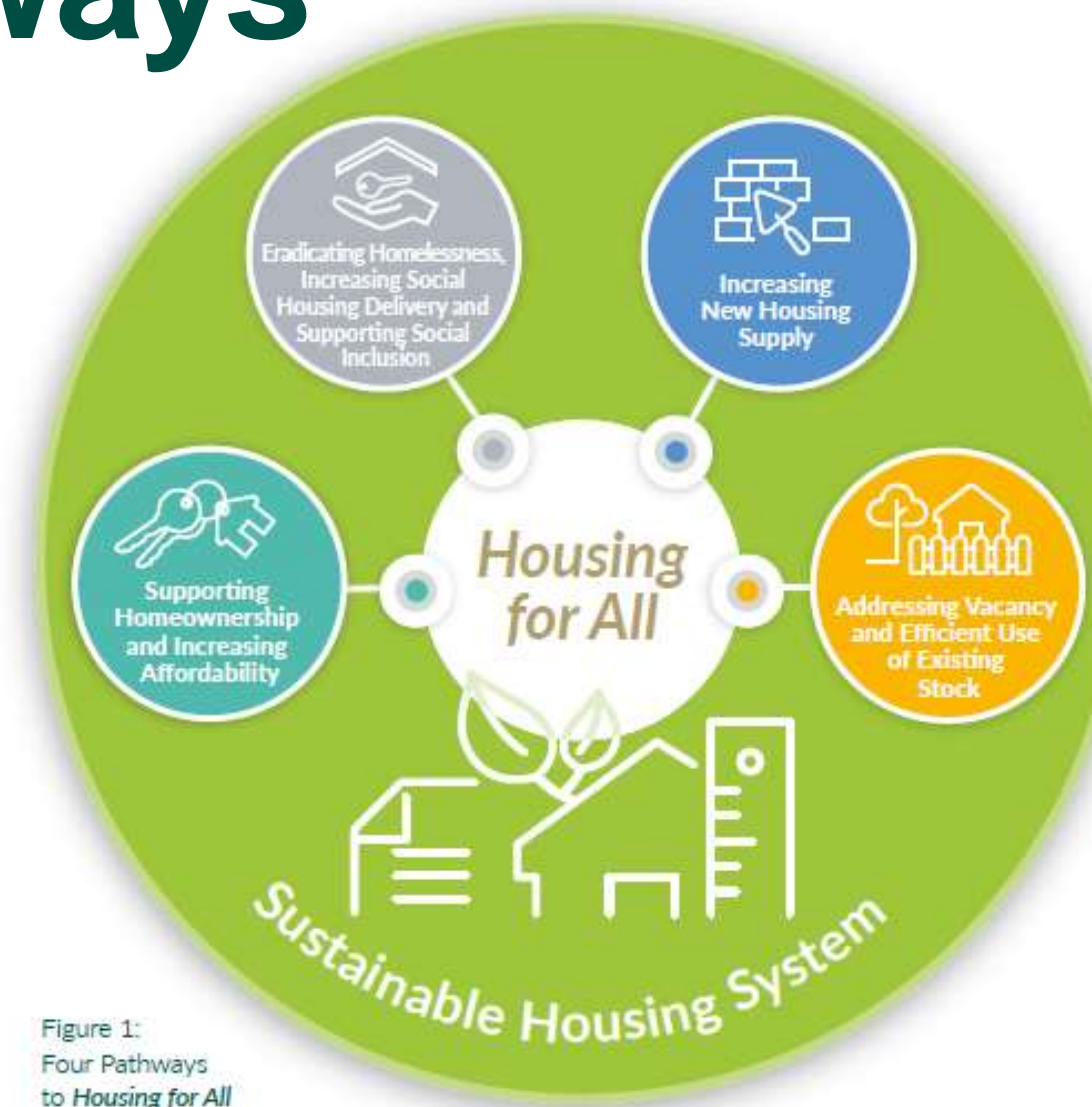


Figure 1:  
Four Pathways  
to Housing for All

Pathways supported by Chapter 5 Actions

## ‘Enabling a Sustainable Housing System’



# 4/25 Housing for All - Chapter 5



Department of Housing, Local Government and Heritage's (DHLGH) Residential Construction Cost and Innovation unit's work focuses on delivery of Actions in Chapter 5, **Section 5.3 Achieve Economic Sustainability**

- **Construction Cost Reduction** **Innovation | MMC** **Construction Sector Capacity**

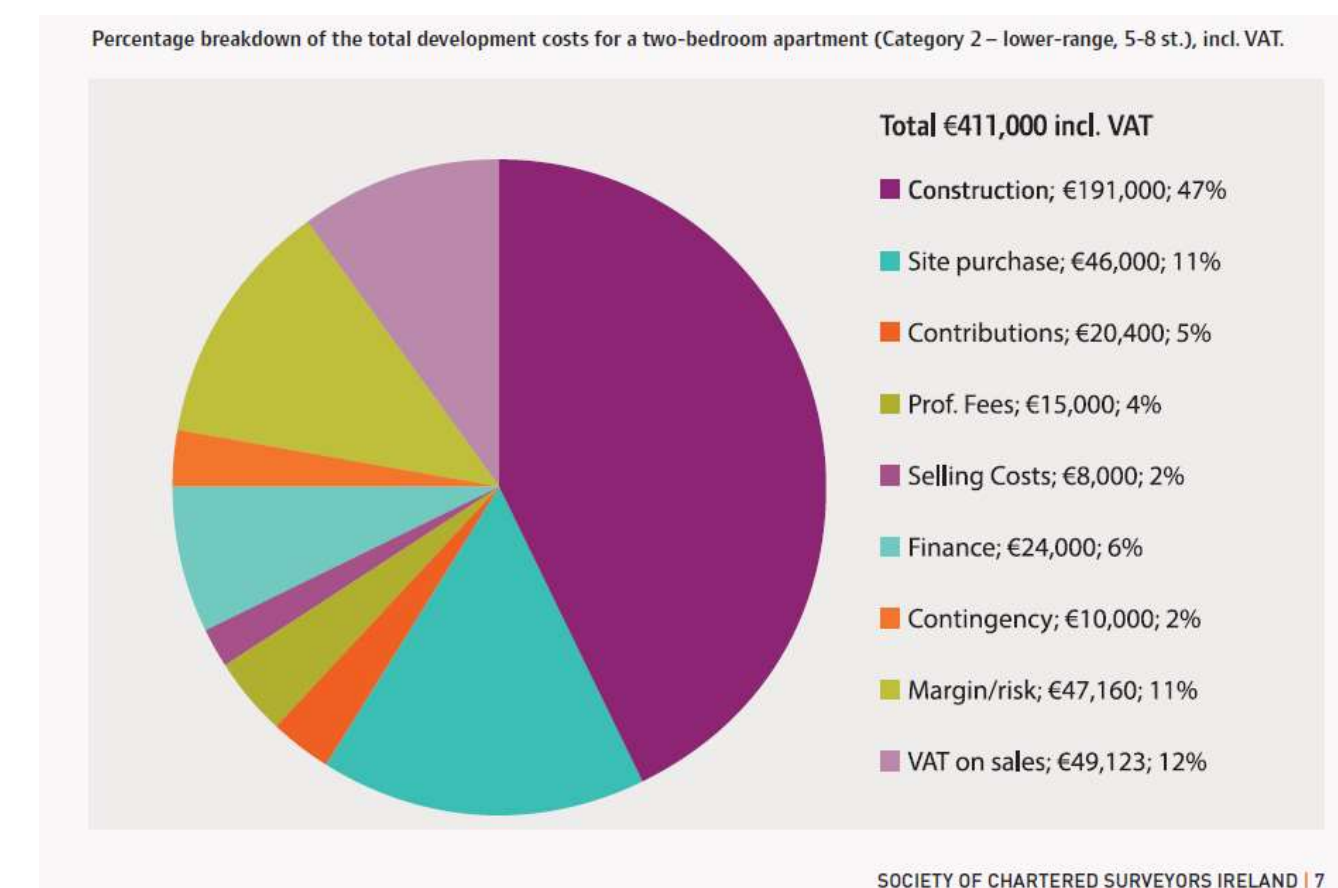
The housing system needs to be placed on a long-term economically sustainable footing. MMC has been identified as a key measure to enable productivity and the efficient delivery of housing.



# 5/25 Construction Cost & Productivity

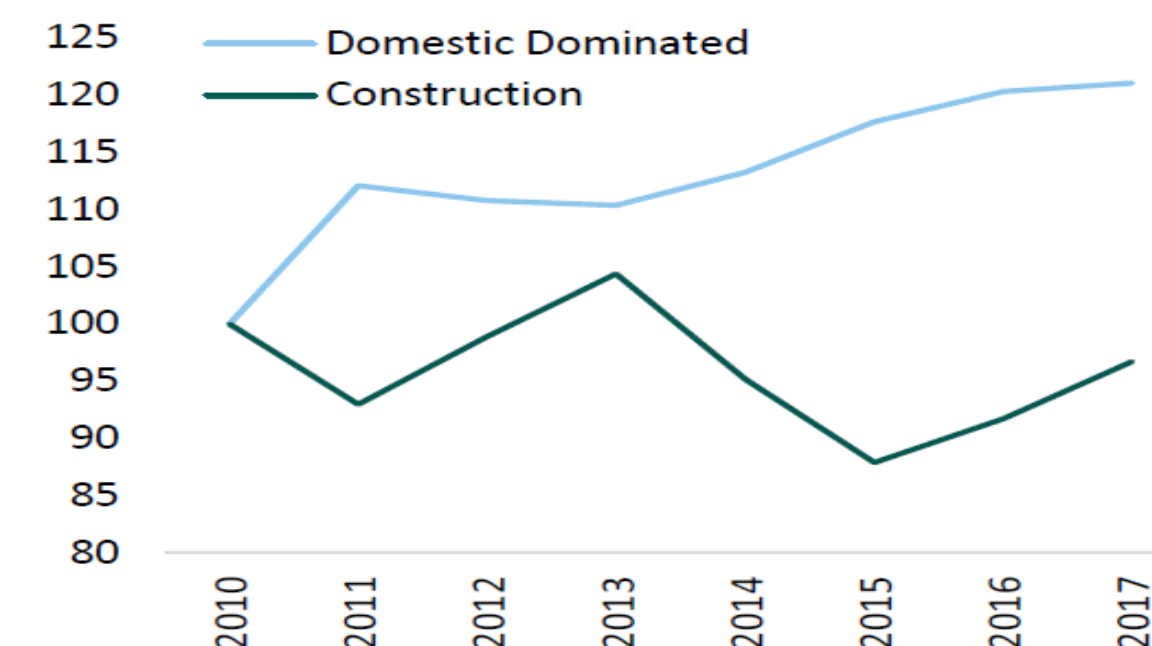


- Recent analysis – residential **construction costs** account for **about 50% development costs**.
- **Productivity** in the construction sector remains **below 2010 levels** and is less productive than EU average.
- **State Leadership needed** to address the shortfall in construction sector productivity and innovation that has been manifest for several years



<https://scsi.ie/real-cost-of-new-apartment-delivery/>

**Figure 10: Labour Productivity Index**



<https://www.gov.ie/en/publication/827c7-construction-sector-group-building-innovation/>

# 6/25 MMC Leadership & Integration Group



- MMC LIG established by **Department of Enterprise, Trade and Employment** (DETE) in **June 2022** to address productivity and innovation challenges identified in HfA and provide oversight and direction to related HfA Actions, in particular Action 13.2 (Public Procurement Roadmap)
- Chaired by DETE Assistant SecGen, Declan Hughes: Monthly Meetings
- Permanent Members: DHLGH, DFHERIS, DECC, DPENDPDR, CSG, EI, SOLAS
- In February 2023, first stakeholder event held, **Collaborate to Innovate**, with representatives from across the construction supply chain and the public sector to inform the development of the roadmap.



## 7/25 Action 13.2 – Public Procurement Roadmap



‘Develop an **incremental roadmap** with targets for **compliant MMC adoption in publicly procured residential construction**, working with the OGP, to include inter alia consideration of the **tender and evaluation process; design standardisation; skills development** and the sharing of best practice; **project aggregation**; further **MMC test projects**; and **sustainability and circular economy** principles. The provision of a public procurement roadmap for MMC will **build capacity** in the supply chain with resulting **delivery and cost reduction benefits.**’

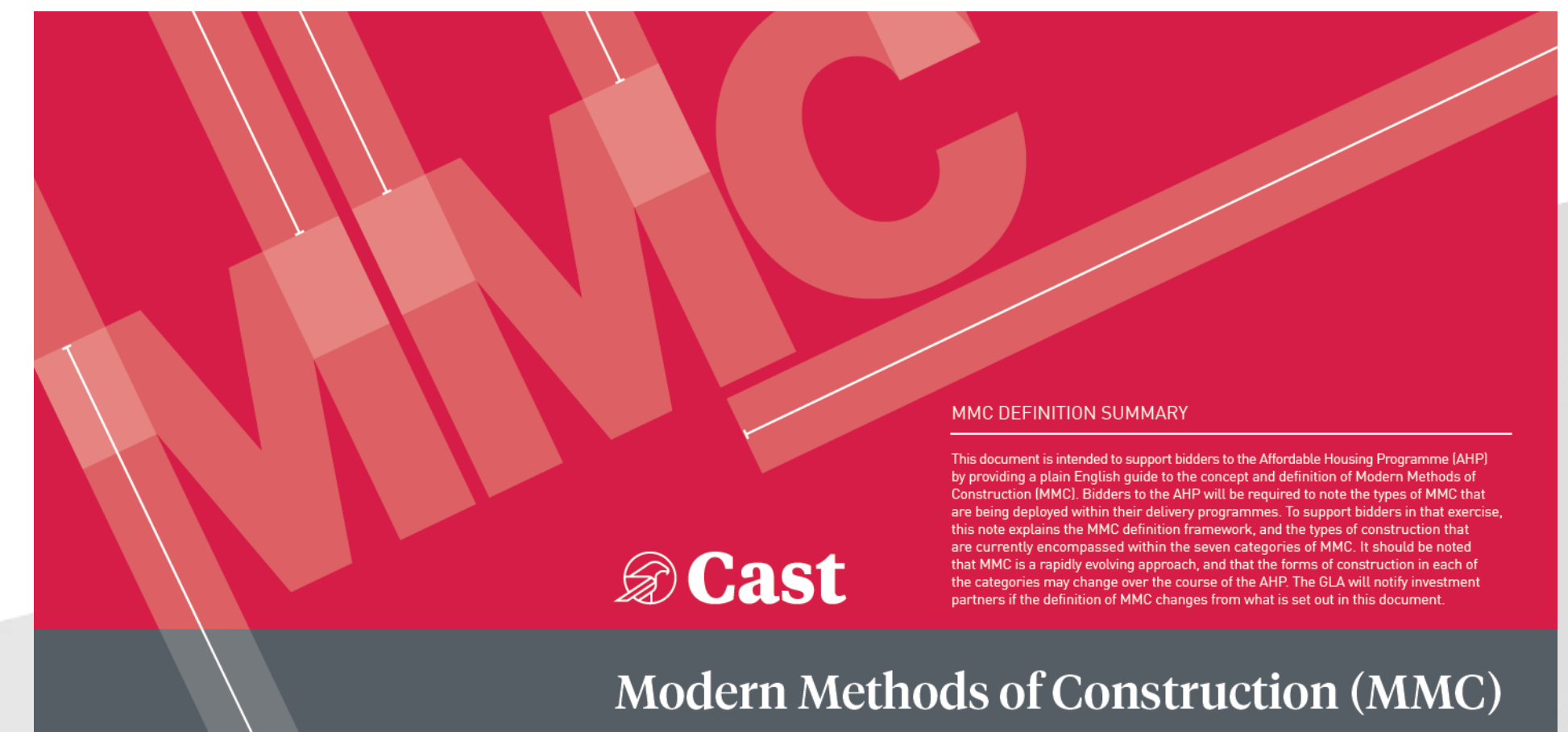
**DETE/ DHLGH – Q2 2023**

# 8/25 MMC Terminology



The term Modern Methods of Construction was developed by UK Research and Industry bodies. It is commonly used in the UK and Ireland since 2006 to describe **a range of manufacturing and innovative alternatives to traditional construction.** MMC has the potential to help boost onsite productivity and increase efficiency and environmental sustainability in housing delivery.

Modern Methods of Construction is the established terminology used to describe alternative methods of construction.



[Modern Methods of Construction working group: developing a definition framework - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

# 9/25 MMC Terminology cont'd



Modern Methods of Construction in the housing context can be grouped as follows:

- **Completed volumetric dwelling units**, factory-manufactured and delivered to site
- **Panellised components**, such as walls, roofs, and floors, factory-manufactured and assembled on site
- **Other innovative approaches** to improve onsite productivity across materials and process e.g. (robotics, drones, insulated concrete formwork, 3D printing, etc.)

# 10/25 Regulations, Standards, Certification



- All MMC systems must be of a **high quality, comply with all parts of the Building Regulations', Building Control requirements and achieve a 60-year durability** for all key elements. Innovative products and processes (including MMC and modular construction) generally are not covered by Technical Guidance Documents to the Building Regulations or existing standards. Compliance can be demonstrated through 3rd party certification such as **NSAI Agrément**.
- **15 Certified Systems** incl. Light Gauge Steel Frame, Insulated Concrete Formwork
- **NSAI I.S.440 Standard** for Timber Frame (TF)

# 11/25 Action 13.3 Demonstration Park



**‘Phase One of the National Demonstration Park for MMC is opened and operational.’  
DFHERIS– Q4 2023**

- Located at the National Construction Training Centre in Mount Lucas, Offaly and managed by **Laois-Offaly ETB & SOLAS**
- **Official launch in July 2022** with Minster Harris
- Phase 1 **Expression of Interest (EoI) launched in Dec 2022** and submissions have been received and evaluated.
- **Planning application** for site development to be submitted in **Spring 2023**.
- First demonstration **houses on site by end of 2023**.

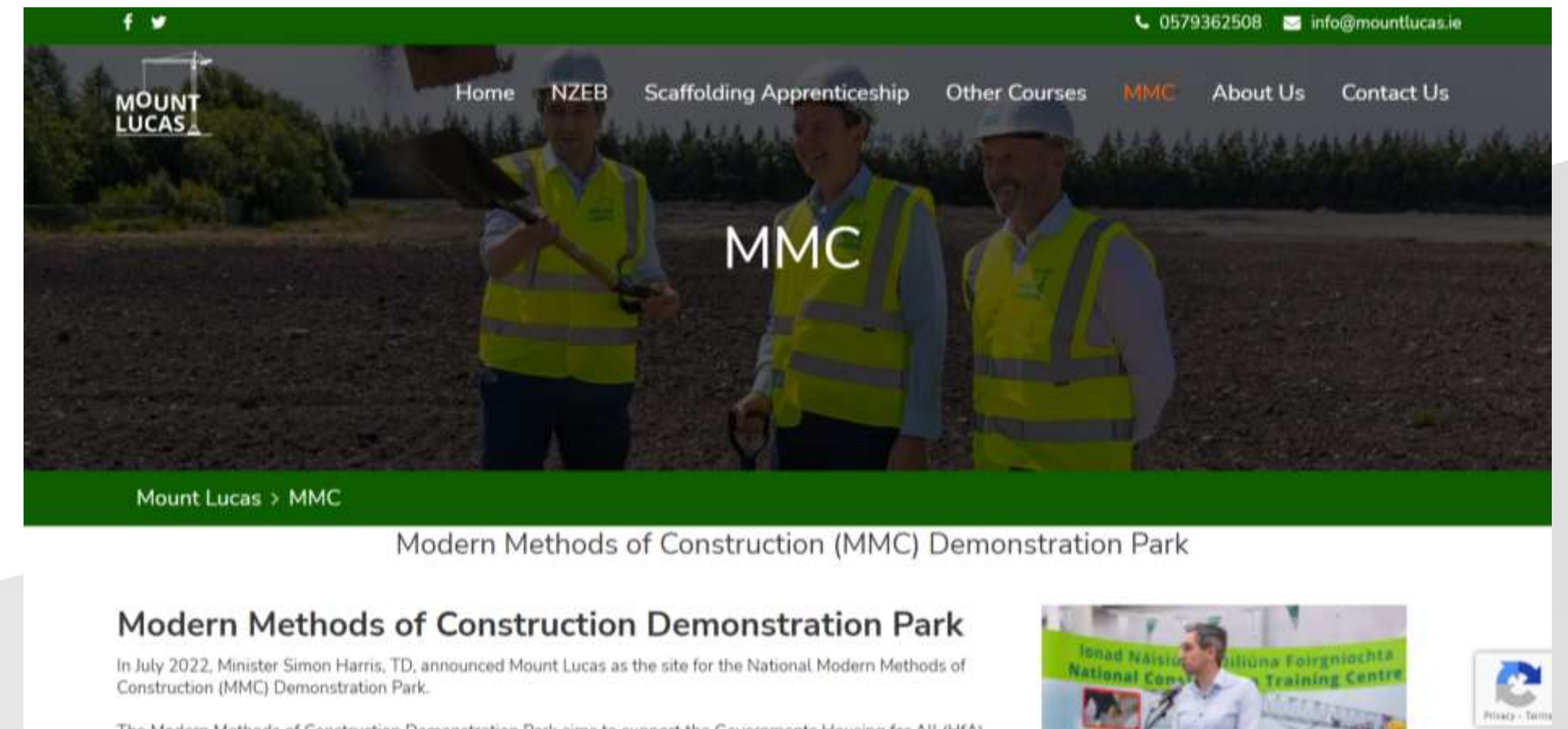


# 12/25 Action 13.3 Demonstration Park cont'd

‘The Demonstration Park aims to support the Government’s Housing for All (HfA) Strategy, and the commitment to delivering high-quality, affordable homes to meet the housing needs of all citizens.’

**Co-located with the National Construction Training Centre (NCTC)** which also provides training on:

- NZEB
- Scaffolding Apprenticeships
- Utilities Traineeship
- Construction Skills Certification Scheme



<https://mountlucas.ie/mmc/>

# 13/25 International Examples of Innovation Demonstration



breINNOVATION PARKS NETWORK

Innovation Parks Events News Contact Us

Willmott Dixon Building The Victorian Terrace The Sigma House

Renewables House Barratt Green House The Hanson EcoHouse

BE-ST Formerly Construction Scotland Innovation Centre

Search Accelerate to Zero Menu

Skills & Competencies Digital Modern Methods of Construction Retrofit Sustainability Leadership & Culture

Homegrown timber Advanced manufacturing Offsite Solutions Scotland Edinburgh Home Demonstrator

## Modern Methods of Construction

Deliver a more sustainable built environment through industrialisation and modern methods of construction

University of Salford MANCHESTER

### ENERGY HOUSE 2.0

A world leading energy performance test facility

home in the UK that takes sustainability beyond the current Future Homes Standards.

The Zed House Project, an eco house at Salford University by Barratt Homes.

#### CONTACT

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[CONTACT US](#)

[HOW TO FIND US](#)

[CAMPUS MAP](#)

ENERGY HOUSE 2.0

CSTB le futur en construction

EXCELLENCE SCIENTIFIQUE ET TECHNIQUE PLATEFORMES D'ESSAIS ACCOMPAGNEMENT DE L'INNOVATION ACCORDS & PARTENARIATS INTERNATIONAUX LE CSTB EN 2016 FR - EN

### Maîtrise des risques

#### IMMEUBLES EN BOIS ET SÉCURITÉ INCENDIE EN FAÇADE

Tandis que les immeubles multiétages se développent, leur conception à partir d'une structure bois peut désormais s'appuyer sur des solutions constructives reconnues...

[LIRE LA SUITE](#)

#### UNE CHEMINÉE POUR RÉSISTER AUX CYCLONES

Le CSTB a développé un concept de cheminée anticyclonique, qui permet de renforcer les maisons en région chaude soumises aux cyclones...

[LIRE LA SUITE](#)

#### NOUVELLES MISSIONS D'EXPERTISE DU CSTB POUR EDF

En 2016, le CSTB a engagé de nouvelles prestations d'études et d'essais pour EDF (Électricité de France), qui visent à améliorer la sûreté de ses installations industrielles. La mission consiste d'une part, à caractériser les performances de bâtiments qui intègrent de nouvelles dispositions constructives, et d'autre part, à vérifier que les constructions existantes continuent à satisfaire la réglementation. Celle-ci prévoit en effet des exigences renforcées depuis le séisme intervenu au Japon en mars 2011. Cette collaboration avec EDF autour de projets d'ampleur mobilise les experts du CSTB en mécanique des structures et ingénierie d'essais, ainsi que son Atelier de fabrication, qui réalise les corps d'épreuve.

# 14/25 Action 4.3 Accelerated SH Delivery Programme



‘Develop proposals to enable a **significant increase in public housing delivery** using **Modern Methods of Construction** (to include Rapid Builds), in light of the **urgent needs** associated with accommodating the Beneficiaries of Temporary Protection from Ukraine and **our longer term need for social housing.**’

**DHLGH– Q1 2023**

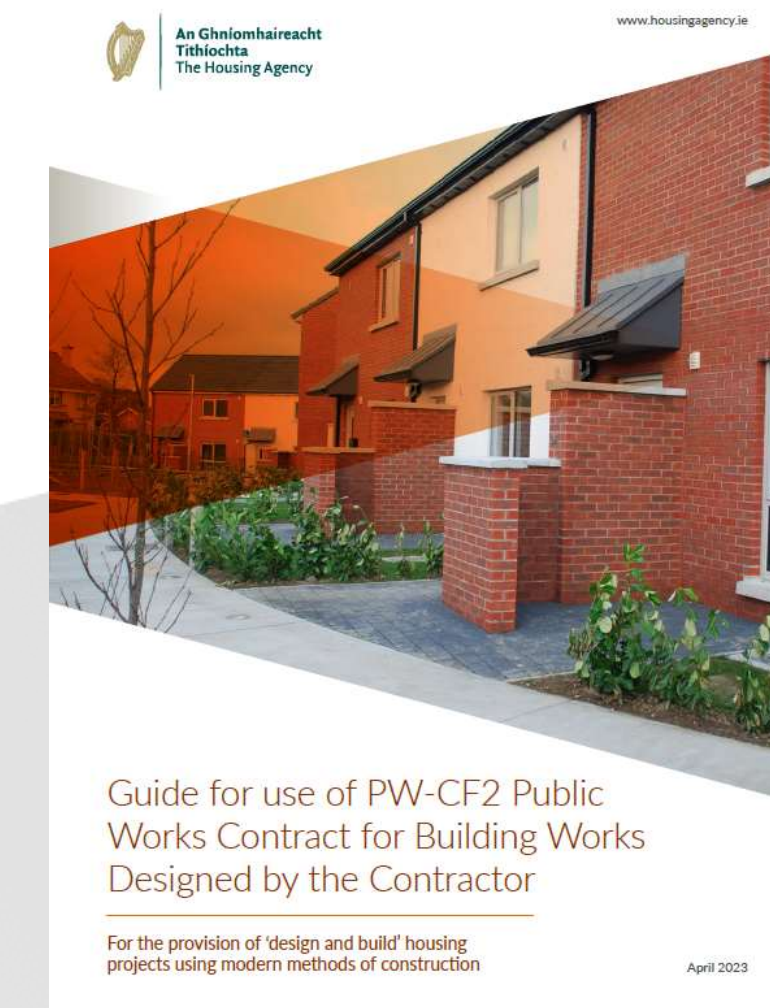
**Distinct from OPW’s emergency response work for temporary accommodation.**



# 15/25 Action 4.3 Accelerated SH Delivery Programme cont'd



- **€100M fund** provided in Dec 2022 to write-off of Local Authority **Land Legacy Debts**
- Some **exemptions from Part 8** Planning Process
- Commitment from LAs to be **on site by end of 2024**
- Commitment to **procure projects utilising HA & DHLGH guidance**
  
- Management Group in place – DHLGH, HA, LGMA, OGP
- 2 Subgroups in place - Procurement and Local Authority
  
- **32 sites to deliver up to 1200 dwellings in 12 LAs being assessed**
- Procurement guidance document ready for publication



# 15/25 Action 4.3 Accelerated SH Delivery Programme cont'd



## Pilot Programmes

- Successful pilots projects for **Design-Build/Rapid Delivery** programme were carried out by Fingal County Council from 2017- onwards.
- Other LAs such as Limerick, Meath, South Dublin and Dun Laoghaire-Rathdown CCs have developed projects in MMC.



Wellview - Fingal



Poppintree -DCC

# 16/25 Action 4.3 Accelerated SH Delivery Programme cont'd



## Examples of Current Programmes

- **Dublin City Council (DCC) Rapid Build Frameworks** has delivered several hundred new apartments and houses in LGSF & TF.
- **Wicklow Country Council (WCC)** are delivering significant number of their dwellings utilising LGSF, TF & new projects in ICF.



Bonham St. - DCC



Ard na Gréinne - WCC



Greenhills - WCC

## 17/25 Action 13.7, 13.8, 13.9 Skills & Training Development



‘Introduce training interventions for **public procurers** of residential construction to address any MMC knowledge gaps, working with the OGP.’

‘Introduce training interventions for **Building Control Authorities (BCAs)**, which would include training on relevant standards and certification processes, to address any MMC knowledge gaps.’

‘Working through the MMC Leadership and Integration Group and in conjunction with the relevant professional bodies and educational providers to develop a Continuing Professional Development (**CPD**) training programme for accreditation, to address identified skills gaps in MMC for **construction sector professionals**.’

**DHLGH– Q4 2023**

# 18/25 Related Innovation Activities

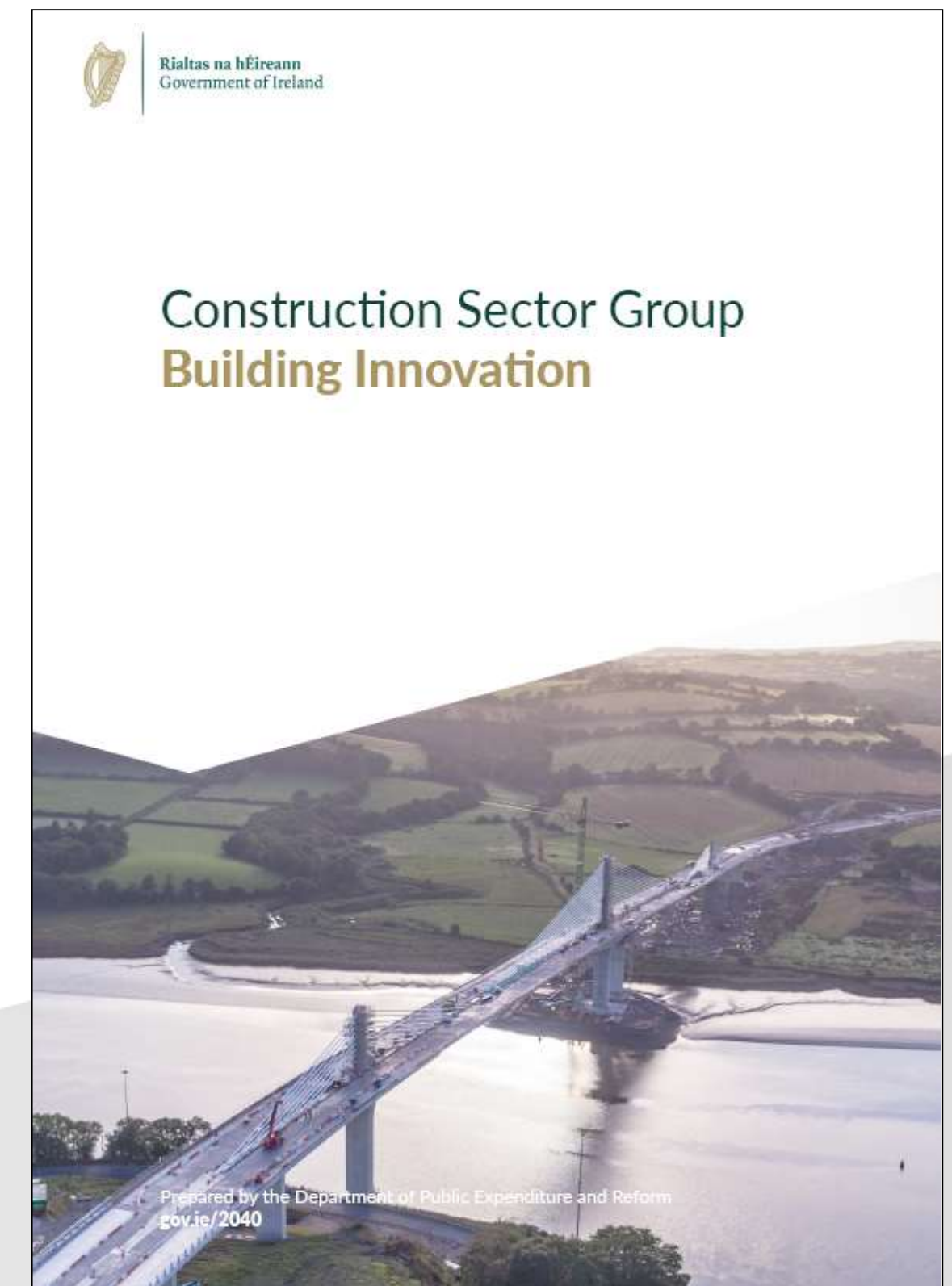


- State to play a central role in **leading and funding these actions** to ensure that levels of productivity and innovation materialise.
- Complemented by an increased focus for the **Department of Public Expenditure, National Development Plan Delivery and Reform (DPENDPDR)** and **Construction Sector Group (CSG)** on the **residential construction sector**.
- Complemented by the role of **Enterprise Agencies** (Enterprise Ireland), which will be expanded to include the provision of funding and supports for innovation and productivity-related projects in the **domestic residential construction sector**.



# 19/25 Construction Sector Group (CSG)

- Formed 2020 to support the delivery of **Project Ireland 2040** and comprises:
  - representatives of key **industry** bodies
  - senior representatives of **Government** departments & agencies with responsibility for **policy** & for the **delivery of infrastructure**
- Chaired by the SecGen of DPENDPDR : Quarterly Meetings
- Reports to the Minister for PENDINGPDR
- **Increased focus on residential construction**



<https://www.gov.ie/en/policy-information/cae030-construction-sector-group/>

# 20/25 CSG Digital Adoption and Innovation Subgroup



- Chaired by **PJ Rudden** of DPENDPDR : Monthly Meetings
- Implementation of **cost reducing innovations and productivity** measures.

## Members



## 7 Priority Actions



# 21/25 ConstructInnovate CSG Subgroup Priority Action 4



**‘Ireland’s National Research Centre for Construction Technology and Innovation**  
Making Ireland a global research and innovation leader for sustainable construction and built environment technology’

- **University of Galway, with TCD, UCD, UCC & Irish Green Building Council (IGBC) awarded contract**
- **Official launch in December 2022**
- **€5.5M work programme over 5 years**
- **Housing research - Year 1-3 priority**



<https://constructinnovate.ie/>



# 22/25 Build Digital CSG Subgroup Priority Action 7



‘The **Build Digital Project** will transform the **Irish construction** and built environment sectors by enabling all stakeholders...to improve their capabilities as **digitally enabled, standards-based, agile, collaborative, and sustainable** participants in the delivery of Project Ireland 2040.’

- Contract awarded to **TU Dublin**
- Official launch in **April 2022**
- **€2.5M** work programme over 5 years



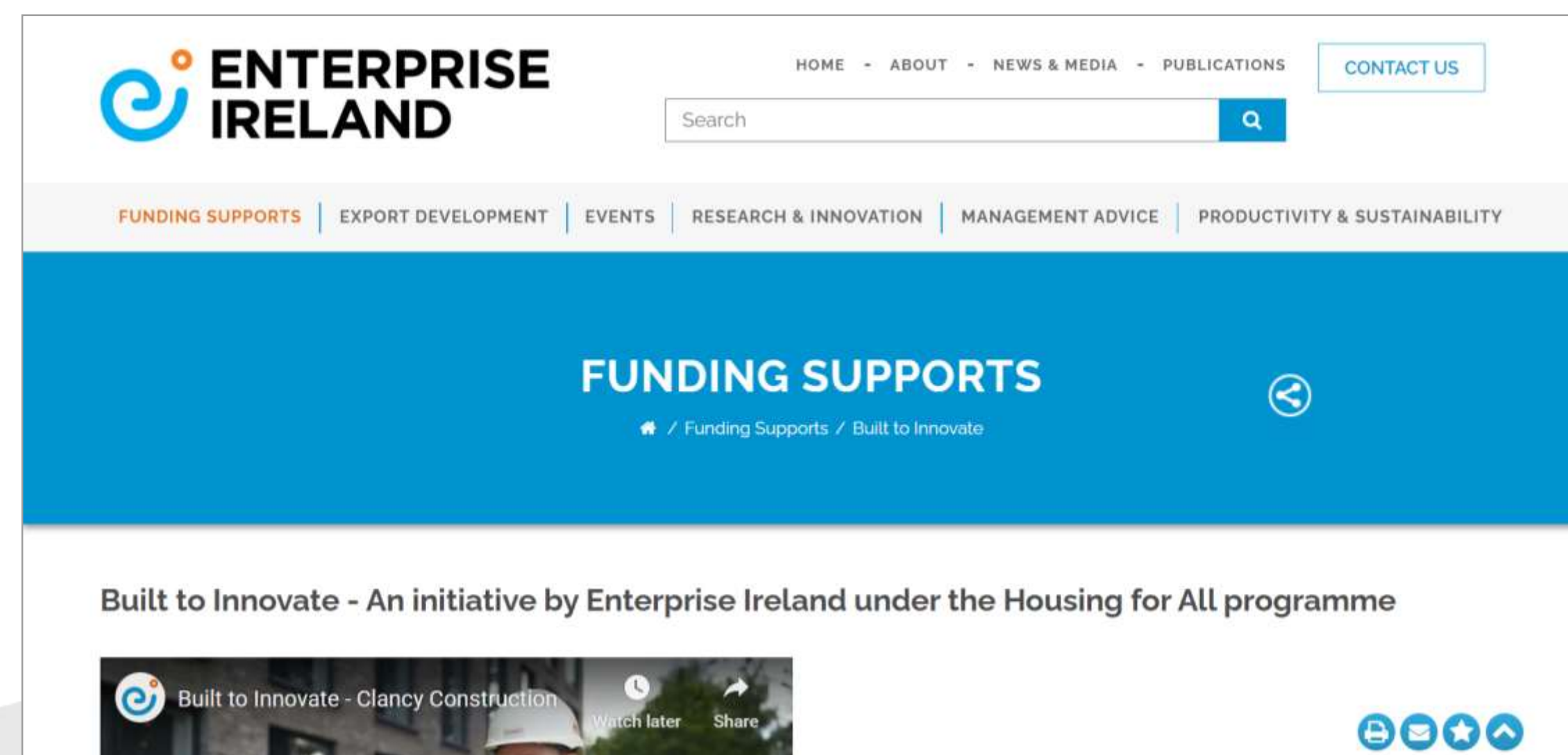
<https://www.builddigitalproject.ie//>

# 23/25 Built to Innovate Enterprise Ireland



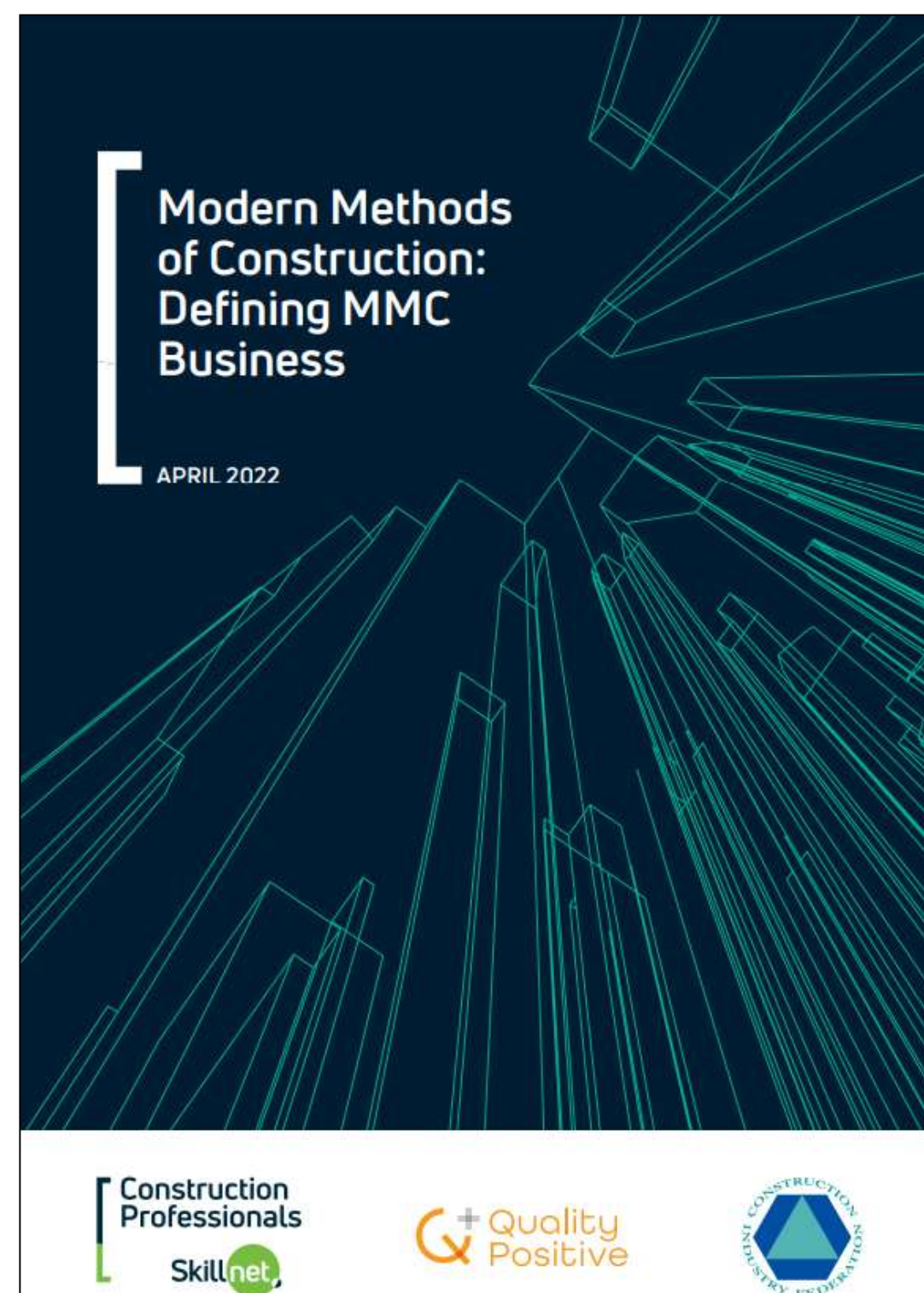
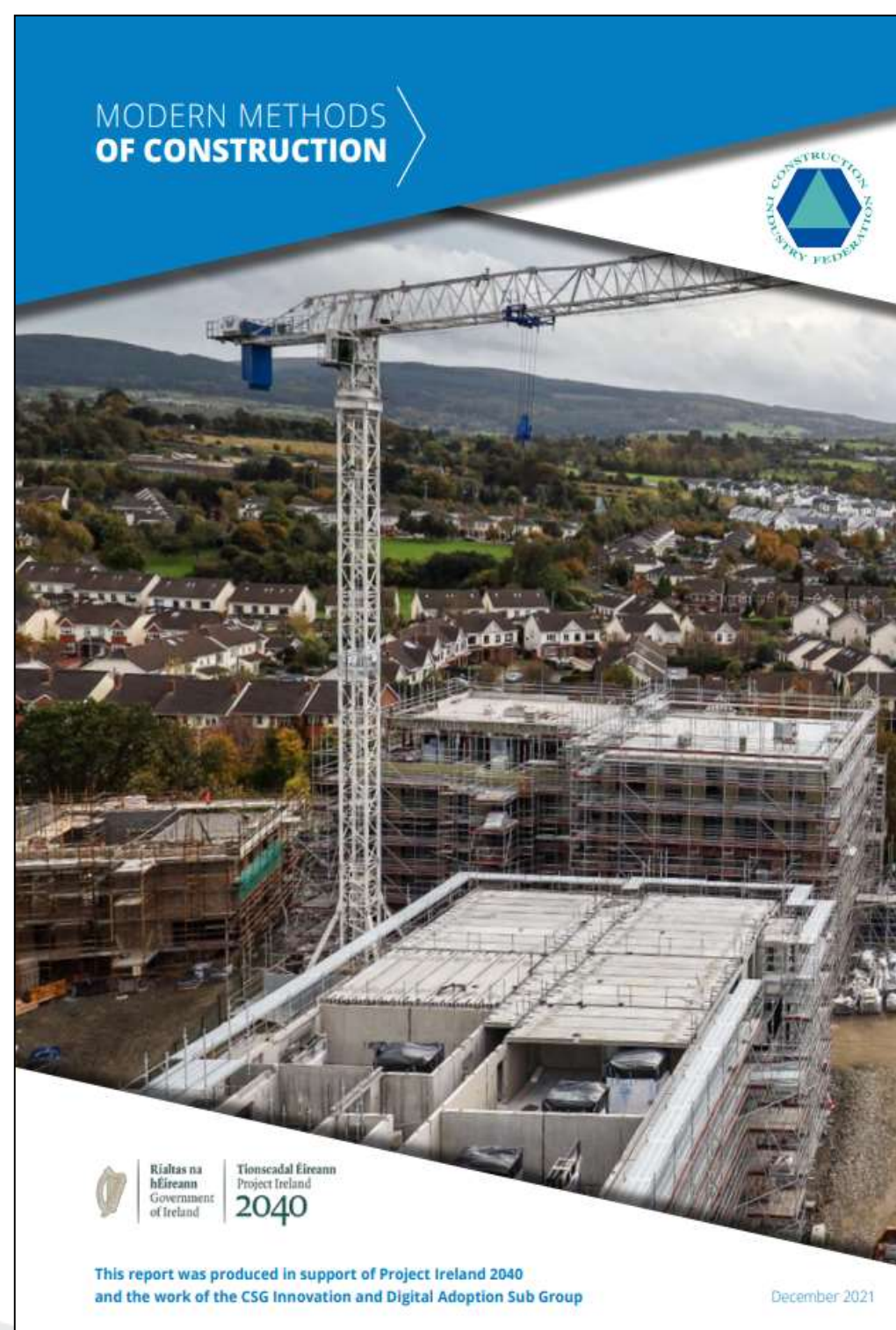
‘Initiated under the Government’s Housing for All programme, the Built To Innovate initiative seeks to **support Irish companies active within the residential construction sector** who wish to **enhance the operational performance** of their business via:

- Increasing the usage of **MMC**,
- Implementing **Lean training** in both manufacturing and onsite environments,
- Improving the use of **digital tools** - driving company productivity benefits
- Advancing **research** concepts or process innovation ideas’



<https://www.enterprise-ireland.com/en/funding-supports/Built-to-Innovate/>

# 24/25 Reference Information - Innovation, Productivity

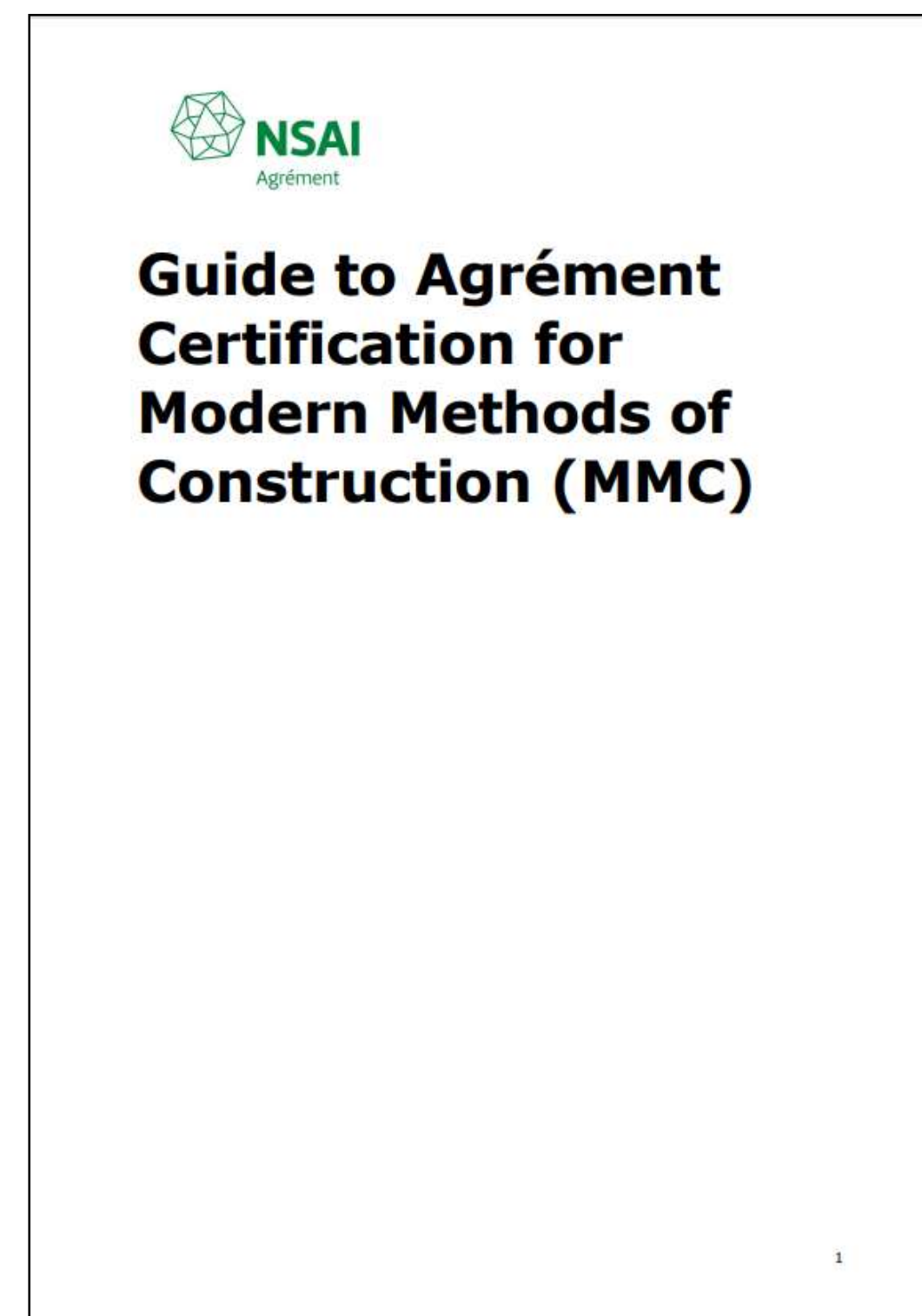
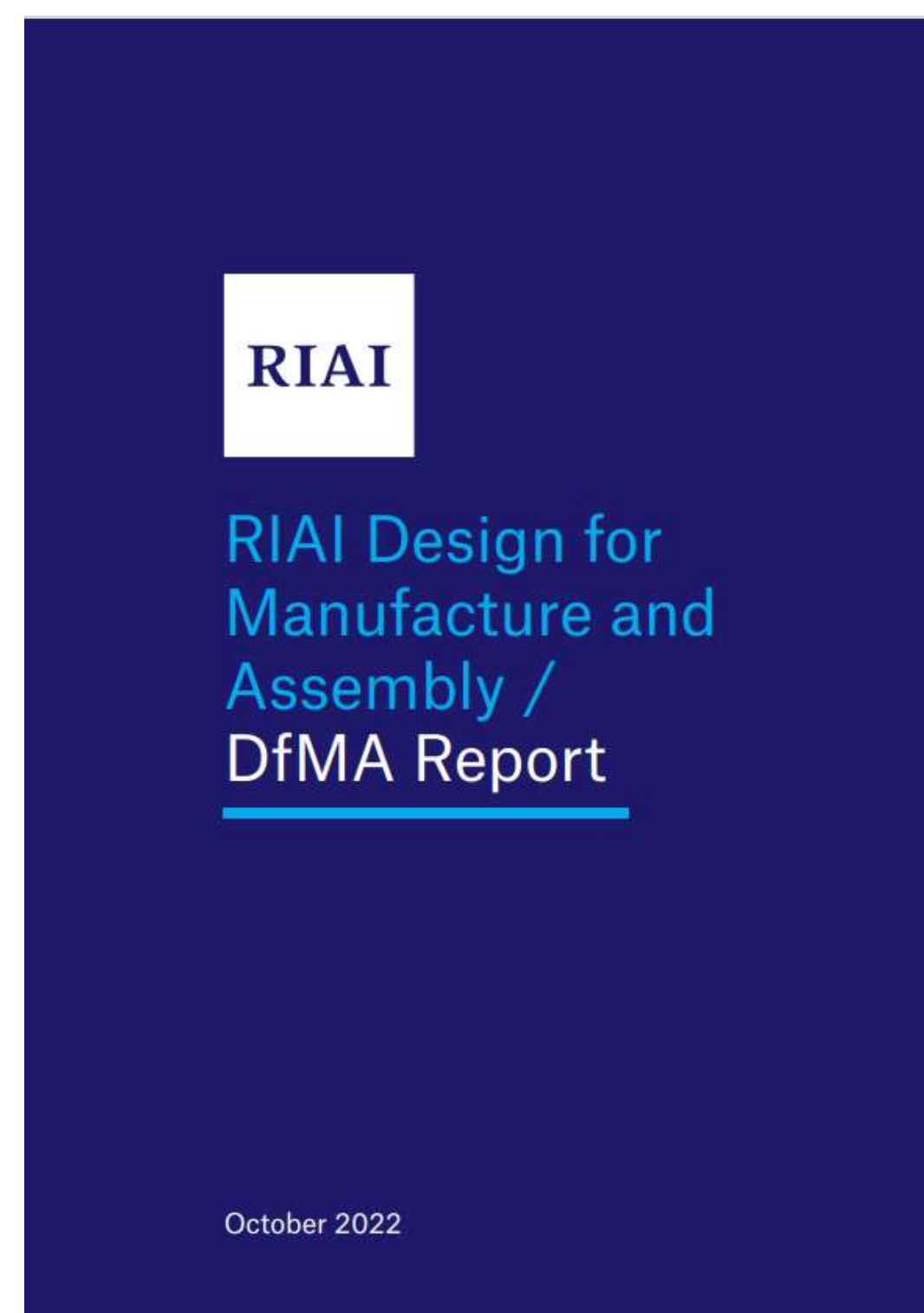


<https://cif.ie/wp-content/uploads/2022/01/1271-CIF-Modern-Methods-of-Construction-Report-v4.pdf>

<https://www.cpskillnet.ie/wp-content/uploads/2022/04/MMC-Skills-Needs-Research-Report-6-lo-res.pdf>

[https://assets.ey.com/content/dam/ey-sites/ey-com/en\\_ie/news/2023/ey-detailed-description-of-needs-construction.pdf](https://assets.ey.com/content/dam/ey-sites/ey-com/en_ie/news/2023/ey-detailed-description-of-needs-construction.pdf)

# 25/25 Reference Information - Innovation, Productivity



<https://www.gov.ie/en/publication/37606-build-2022-report>

[https://www.riai.ie/uploads/files/general-files/RIAI\\_DFMA\\_Report\\_2022\\_v5\\_04Oct22.pdf](https://www.riai.ie/uploads/files/general-files/RIAI_DFMA_Report_2022_v5_04Oct22.pdf)

[https://www.nsai.ie/images/uploads/certification-agreement/Guide\\_to\\_Agr%C3%A9ment\\_Certification\\_for\\_MMC.pdf](https://www.nsai.ie/images/uploads/certification-agreement/Guide_to_Agr%C3%A9ment_Certification_for_MMC.pdf)



# Many thanks!

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