



# Glenveagh

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CitA Digital Skills Series  
2024

# Pre-Fabrication and Off-Site

GLENVEAGH HOMES / 28/02/2024





## Contents:

Section 1: About Glenveagh	<b>03</b>
Section 2: NUA Manufacturing	<b>06</b>
Section 3: MMC, Standardisation & Innovation	<b>12</b>
Section 4: Skills: Challenges & Solutions	<b>15</b>
Section 5: Final Thoughts	<b>18</b>



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## About Glenveagh

# Glenveagh is a leading Irish homebuilder

## At Glenveagh:

- We believe we have an obligation to identify **solutions that will contribute to resolving the current housing crisis**
- We pride ourselves on our ability to react and **utilize innovation to help find new ways of solving future challenges**
- We have successfully demonstrated this in the past and will continue to do so in the future.

## Our Vision:

- Glenveagh is committed to opening sustainable, high-quality homes to as many people as possible, in flourishing communities across Ireland.



*We at Glenveagh, are constantly striving to set a new benchmark in our sector, by delivering the maximum possible social benefit at the lowest possible environmental cost.*

# My experience & role within Glenveagh:

## My Journey to Date:

- I have over **25 years** of experience within the design and construction sectors, with **exposure** right across the **Globe**, from:
  - working in my home country of New Zealand,
  - Working in the Middle East
  - And eventually settling in Ireland.

## My Role:

- **Director of Design & Innovation at Glenveagh Properties PLC:**
  - I started my journey with Glenveagh six years ago
  - My department is the innovation hub of Glenveagh

*Exposure to the Global Residential Sector has shaped a mindset on how things can be done differently...*



Qasr Al Hosn, Abu Dhabi



Wanaka Residence, New Zealand



Housing Estate, Ireland



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# NUA Manufacturing

## Our Sustainable Manufacturing Facilities:

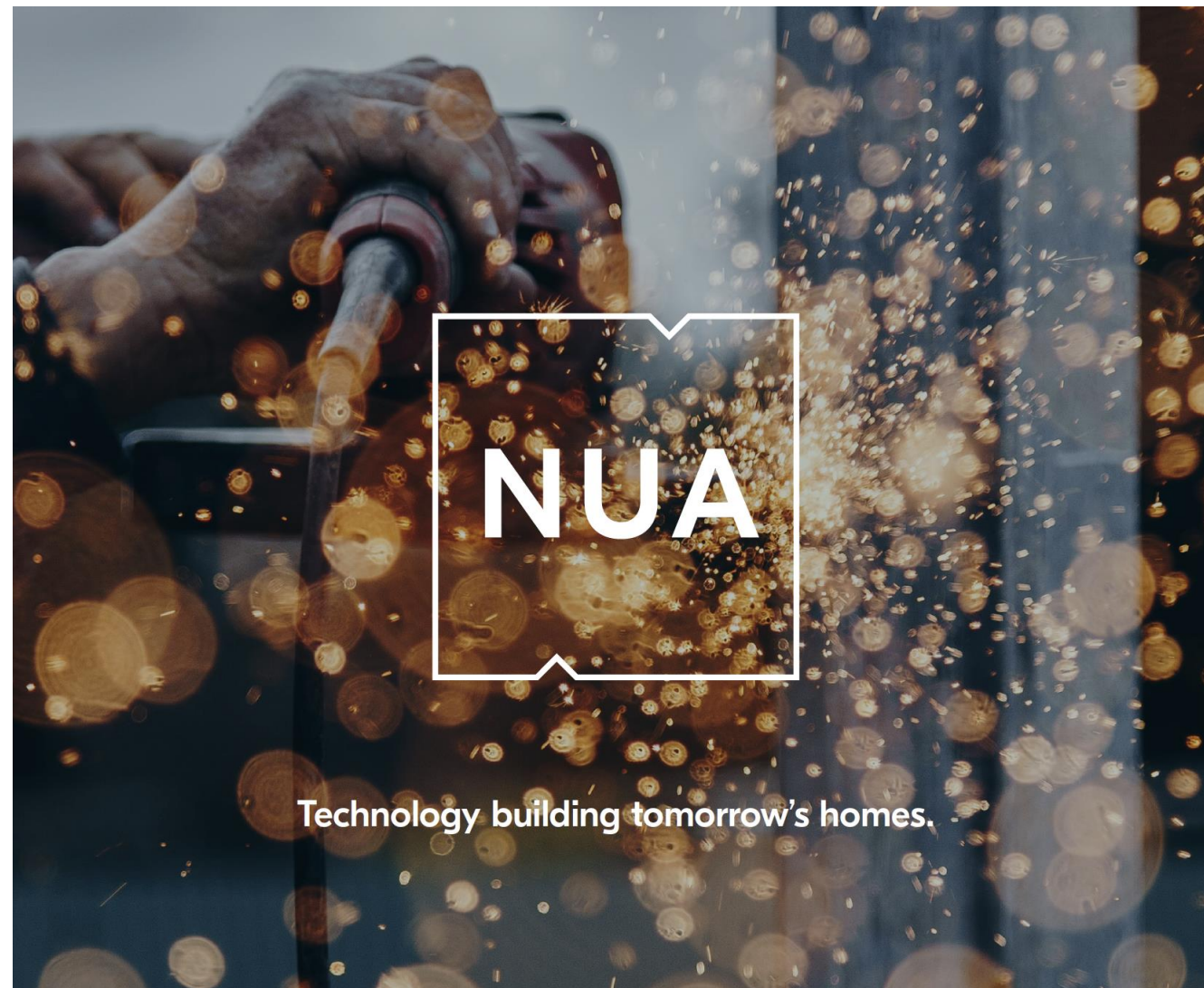
Introduced a Manufacturing Arm - Nua

### Why we did we invest in Off-Site Construction?

- To become vertically integrated.
- Guarantee long-term supply: align with growth targets
- To control critical path items
- Reduce delivery to market

### About Nua; How do we deliver our product?

- Invested in three strategically located facilities
- Secured a supply chain of over 4,000 units
- We optimise value through ongoing:
  - Enhancement of our Pre-Manufacturing Value (PMV)
  - Relentless Innovation and R&D
  - Implementation of best-practise Standardisation principals



## Dundalk Factory (Timber Frame)

- Existing **partnership** with Keenan Timber Frame.
- A highly-capable management team with **significant manufacturing** experience and track record.
- We continue to **make investments** in the factory when suitable to **maximise production** capabilities.
- Flexibility to **scale up** production when needed.
- **2024 Output:** We have a production target of **900 units**





## Arklow Factory (Timber Frame)

- We **acquired** Harmony Timber Solutions and **integrated** into the Glenveagh Group in 2022.
- **Rebranded** as NUA Manufacturing Ltd.
- Custom built **timber frame production** facility capable of delivering **450 units** per year.
- Strategically located to serve the **Southeast**
- **50** full time staff



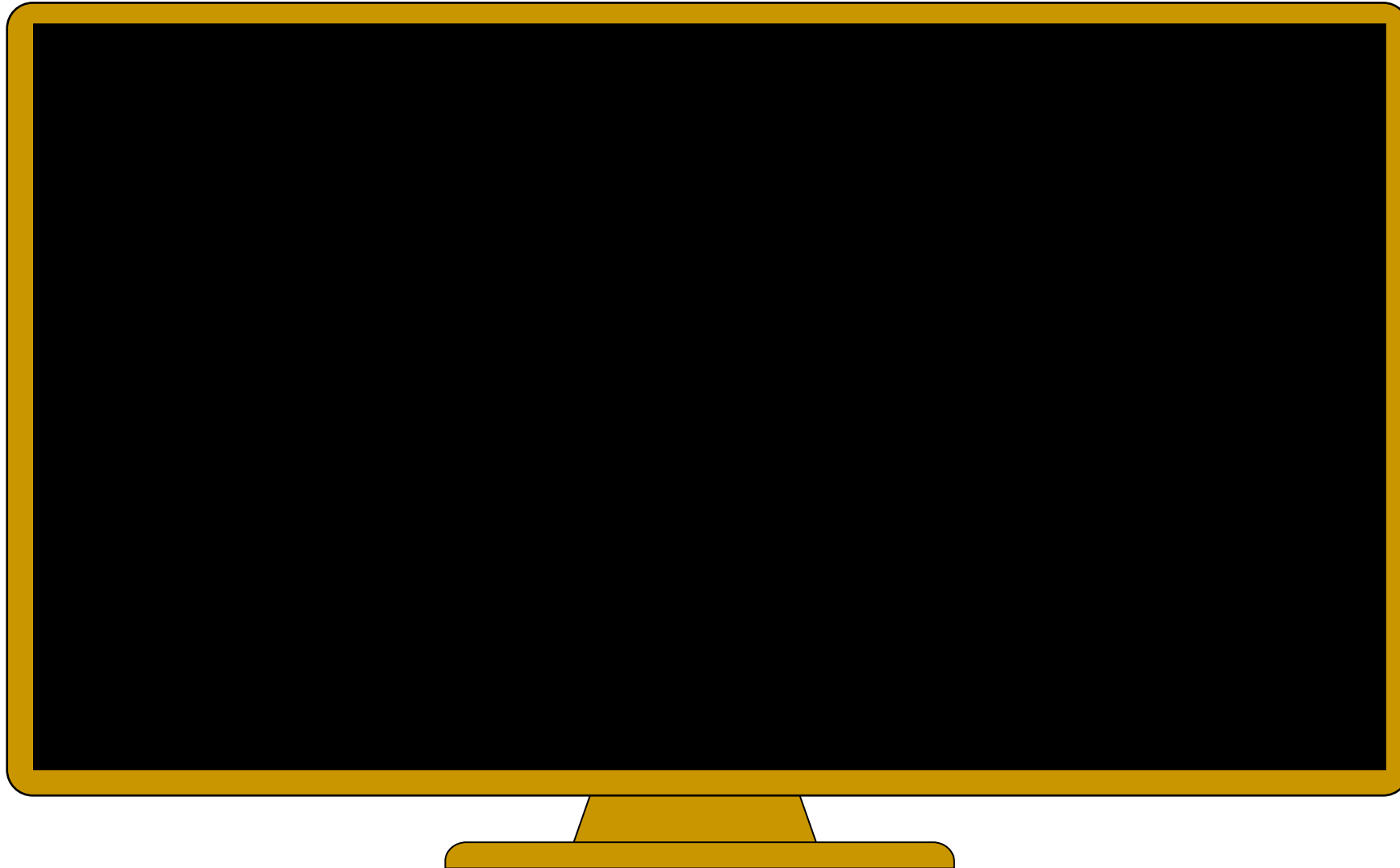
# Carlow Factory (Timber Frame and LGS)

- Located at the Former Braun Factory.
- Converted into a state-of-art TF and LGS manufacturing facility
- The factory was officially opened in **June 2023**.
- Currently **over 100** staff in the factory across both TF & LGS, with plans to **expand the team** as we increase production
- Ample capacity for the Business to **explore** automation, technology and PMV advancements (our innovation hub)
- **Future Unit Capacity:**
  - Timber Frame Capacity: **750 units**
  - Light Gauge Steel Capacity: **500 units**



## Nua Carlow Factory:

- A brief video to illustrating the transformation from the dormant Braun factory into an innovative Manufacturing Facility:





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## MMC, Standardisation & Innovation

# Why Pursue MMC?

*Innovation is vitally important to generate new ideas to the industry, which will lead to the discovery of new business models and new ways to manufacture.*

## Benefits of MMC



### MMC can dramatically improve:

- Productivity
- Housing Supply
- Quality
- Waste & Carbon Reductions
- Health & Safety
- And improve Viability & Affordability.

## The Key to MMC Success



### Best performing Cat 1 & 2 manufacturers:

- Full control of product and unit capacity.
- A secured supply chain.
- Advanced standardisation & DfMA principals
- Foster a culture of sustainable innovation
- And above all, they were aided by a sufficiently agile planning process that supports MMC

## For MMC to fulfil its potential



### Require Industry acceptance on:

- Standardisation
- Modernisation of Dwelling Design Standards (one set of nation standards)
- Regs need to consider carbon as an outcome
- Acceptance of Innovative, Low-Carbon, Light Weight façade systems.
- A more flexible planning system.

**Optimisation of MMC is key in rethinking how homes are designed and built, which is vital to speed up delivery of much-needed housing**

# Acceptance for Innovative Light Weight, Low Carbon Materials:

## What we are delivering today



### Why we require industry change:

- Today's construction methods are still very labour intensive.
- There is still a heavy reliance on cement, lime, plaster & steel.
- Production of these materials, such as, brick & block facades result, in high CO2 emissions.
- From the 1900's to today, carbon emissions have soared due to the lack of innovation.

## Route to Carbon Neutral Success



### Where we need to get too:

- We need to promote a culture of compliant, good quality, sustainable innovation in residential construction.
- We need to rethink & innovate in the fabric, construction methods & technologies we use.
- Typologies need to evolve through the use of:
  - Light Weight, Low Carbon Materials
  - The need to Incorporate DfMA Principals

## So, what is the Solution?



### The Solution is facilitating Offsite:

- Innovative Light Weight façade solutions provide an opportunity to optimise the full potential of offsite MMC construction.
- Light Weight Claddings installed offsite will deliver more sustainable and low-carbon housing, on time to the market.
- Europe has been using approved light weight facade solutions for over 4 decades. **Therefore is nothing to fear....**

**An education piece is required to demonstrate that the alternatives to brick & block can be just as successful in terms of lifecycle and quality**



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## Skills Challenges & Solutions

## The Current Situation: On-Site Skills Shortage

- The **Shortage of skills labour** across the industry has been well documented through several recent reports (Note 1: SCSl and Housing for All data).
- This is driving up **construction costs** and will continue to **stunt growth** potential.
- This shortage will inevitably require developers to **evolve** their business and delivery models.
- Potential future **risks**; rebuild programme post the Ukraine war.
- Cannot let the shortage of labour **continue to affect** the delivery of housing in the future.
- **Solution:** Transferring site-based construction activities to a factory, we believe is a tangible way of overcoming the industry's shortage of skills.





# Evolution of the Workforce

## Off-Site Manufacturing

- Offsite manufacturing can **attract** and **develop** non-skilled resource from across **other industries**
- Those with **skills** from **other** factory environments can also be **easily transferred** to the offsite industry.
- This will allow construction to **continue** development **despite** labour constraints in accordance with anticipated growth targets.
- With its **better** working conditions and **embrace** of technology, offsite can help the industry compete in **schools** and **universities** to attract the best talent.
- It can also help address the **chronic lack** of diversity in the industry.
- **Offsite manufacturing** can also help change the **culture** and **image** of the construction industry altogether





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Final Thoughts

## Final Thoughts:

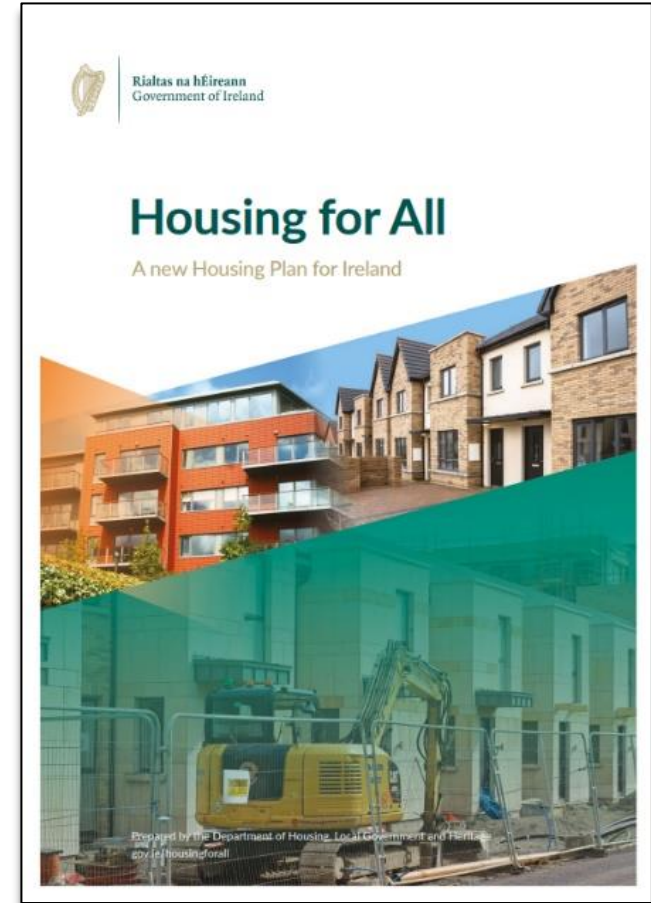
We believe now is an opportune time for both the **public** and **private** sectors to come together with one goal in mind; to **unlock** the full **potential** that Offsite MMC can have on the industry:

We propose the Government undertake a review the Quality Housing Guidelines which were originally published back in 2007, and update these in the interest of:

1. Reflecting new policy that have evolved since 2007
2. Adopt one set of national standards across all of Ireland
3. Ensure alignment with best-practice MMC & Standardisation principals
4. Uniformed Acceptance of alternative light weight low carbon claddings

***The Government has shown previously that it's not afraid to bring in measures that it thinks will help the housing situation. Therefore, we have the utmost faith that other measures can also be adopted to further improve access to sustainable, high-quality, MMC delivered homes.....***

Alignment with the Governments  
**Housing for All** plan objectives





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## Thank you