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Department of Enterprise, Tourism and Employment

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Department of Agriculture, Food and the Marine

TIMBER IN CONSTRUCTION
STEERING GROUP

Market Opportunities for

Timber in Construction in Ireland

Final Report | October 2025

Table of Contents

Foreword

This report is about demonstrating the market opportunities for timber products in our construction sector. It brings together the data and analysis to show the significant potential to use more timber in construction, to add value to the timber we produce in Ireland, and to do so while reducing the carbon emissions of the buildings products we use.

This research provides public data on the baseline of timber products used in our construction sector for the first time, and models future scenarios to outline the market opportunities for timber products in construction in Ireland, with a particular emphasis on value-added product categories such as Mass Engineered Timber (MET).

The research highlights that using more timber products in construction sector can play an important role in meeting this Government's commitments in housing delivery and in decarbonisation, by recognising opportunities across the value chain to improve the sectors competitiveness and capacity to innovate.

I extend my thanks to Minister Healy-Rae for his leadership on this agenda and Professor Owen Lewis, who is chair of the Timber in Construction Steering Group, as well as Neil Kerrigan of Enterprise Ireland, who chaired the subgroup on Market Opportunities.

This report provides a comprehensive evidence base for the market opportunity of the Timber in Construction Sector in Ireland. Timber product manufacturers, professional services firms and construction sector stakeholders worked closely with Arup on the report, and it reflects the inputs of the full value chain. These inputs supported the development of the Timber Construction Scenario Model, which has been used to forecast the market opportunities for the sector. The report documents a vibrant sector with clear routes to grow and innovate.

I look forward to the publication of a final summary report by the Timber in Construction Steering Group, and its recommendations for policy makers. This report on Market Opportunities sits alongside equally important work on regulation, standards, public procurement and demonstration projects, research and development needs, and public awareness. This work collectively will inform the recommendations of the Timber in Construction Steering Group and Government policy.

I would like to extend my sincere thanks to the members of the working group for their engagement with this analysis. I know it will provide a useful resource for stakeholders both in the private and public sectors and makes an important contribution to the development of the sector.

Peter Burke T.D.

Minister of Enterprise, Tourism and Employment

Foreword

Ireland's construction sector is at a pivotal juncture, facing the dual challenge of rapidly increasing housing supply while meeting ambitious climate commitments under the Climate Action Plan. Timber, as a low-carbon construction material, presents a compelling opportunity to address both challenges.

The Timber in Construction Steering Group was established to create the conditions to increase the use of timber in Irish construction whilst ensuring the highest degree of building safety and property protection; to examine regulatory and standardisation challenges; and to maximise the use of home-grown timber in construction. The Steering Group is supported by five thematic groups comprising of members representing key industry bodies, as well as senior representatives of relevant government departments and agencies with responsibilities for policy and the development of sectors.

This report identifies significant market opportunities for timber in construction, particularly in housing, where timber frame systems and Mass Engineered Timber products can accelerate delivery, reduce emissions, and support modern methods of construction.

The study establishes a baseline of timber use in the Irish construction sector and through surveys and interviews with stakeholders, provides valuable insights into the future opportunities for timber in construction. It provides a comprehensive snapshot of how timber is currently being sourced, used, and perceived across the construction value chain.

Ireland's construction sector is currently misaligned with its 2030 carbon reduction targets, particularly in the area of embodied carbon. Despite timber's status as a low carbon construction material, its adoption remains limited especially in mid-rise buildings due to existing regulations that require updating and practices that no longer reflect current best standards.

The scenario modelling in the report reveals that under current conditions, timber will remain underutilised outside of scheme housing, leaving a significant carbon displacement potential unrealised. Without a shift in construction norms and materials, Ireland risks falling short of its Climate Action Plan goals. This is not merely a policy ambition, it's a national imperative. Urgent regulatory reform and changes in construction practices are essential to unlock the environmental and economic benefits that more sustainable building approaches can deliver.

The report's findings make clear that the time for action is now: reforming building regulations, investing in education and skills, and supporting domestic timber innovation are essential steps toward a climate-aligned construction future. The findings highlight the urgent need for coordinated action across policy, procurement, education, and industry to unlock timber's full potential.

I want to gratefully acknowledge the inputs of the Thematic Group on Market Opportunity members, and the expertise of Arup who drafted the report. The Timber in Construction Steering Group is producing a number of reports which collectively will provide key recommendations to maximise the use of home-grown timber in construction.

Ireland's new Forest Strategy places a strong emphasis on using wood, and it is crucial that we create the necessary conditions to support positive change in our polices and to build more sustainably.

Prof. J Owen Lewis

Chair Timber in Construction Steering Group

Acknowledgements

We would like to acknowledge the valuable work and contributions of the members of Thematic Group 1 (Market Opportunity), the Chair of the Timber in Construction Steering Group, and all those who generously gave their time for one-on-one stakeholder interviews. We also extend our sincere thanks to all contributors who participated in surveys and shared data, whose insights and information were instrumental in informing this work.

Disclaimer

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While every effort has been made to ensure the accuracy and reliability of the information provided, users are encouraged to independently verify any critical information prior to making decisions based on it. The Department shall not be liable for any loss, damage, or inconvenience arising from the use of this information.

The Excel-based Irish Timber Construction Scenario Model is intended for indicative analysis only and should not be relied upon for detailed forecasting or investment decisions. While the model integrates stakeholder data and published sources, Arup and DETE do not guarantee the accuracy or completeness of its outputs and accept no liability for decisions made based on its use.

Displaced Carbon

The insights presented in this report regarding the carbon displacement potential of timber are based on data sourced from the Irish Green Building Council in the Irish National Policy Brief (INDICATE), and Benchmarks on Embodied Carbon (A1-C4 exec B6 & B7) and Mass-Timber Construction (CLT and Glulam), based on Project Data by D/RES Properties (2025). Arup has not independently verified or validated the underlying data from these sources. Arup has used the available data to inform comparative assessments against other sources and to support the development of preliminary insights. These preliminary insights do not consider RMI (Repair, Maintenance, and Improvement) activities (i.e. consider only new build activities). The recommendations in this report emphasise the need for a dedicated and detailed carbon displacement study.

Executive Summary

Overview

Timber, particularly in off-site timber systems and Mass Engineered Timber (MET) products, offers a strategic, sustainable solution to Ireland's infrastructure delivery needs. This report highlights timber's pivotal role in reshaping Ireland's construction landscape, identifying substantial and scalable market opportunities that extend well beyond current adoption levels.

Timber construction is poised for rapid expansion, especially in residential housing, where modern methods of construction (MMC) and offsite manufacturing can accelerate delivery, reduce embodied carbon, and support industrialised building approaches. Scenario modelling developed for this study projects timber usage to grow from 668,000 m³ in 2025 to circa 1 million m³ by 2030, with MET products forecasted to represent 12% of market volume in 2030, under the most ambitious adoption pathway.

These projections signal a significant shift in market dynamics, with timber emerging as a cornerstone of Ireland's low-carbon construction future.

Scenario 1 (Business As Usual) outcomes indicate that timber adoption could reach 40% of all new buildings by 2030

Through extensive stakeholder engagement including surveys and interviews with sawmills, manufacturers, developers, architects, and public agencies this study establishes a robust baseline of use of timber in construction (refer to page 18 for details) and uncovers a strong appetite for expansion. While barriers such as regulatory uncertainty, skills shortages, and limited awareness persist, the sector is evolving. There is growing momentum behind offsite construction, domestic manufacturing, and the integration of timber into public procurement frameworks.

To unlock timber's full potential, the report outlines ten strategic recommendations spanning policy reform, industry development, education, and data enhancement. These actions are designed to catalyse investment, accelerate adoption, and position timber as a primary material in Ireland's future construction economy.

Executive Summary

Desktop Research

The desktop research conducted for this study provides a foundational understanding of Ireland's timber construction landscape, highlighting the evolving regulatory environment, market dynamics, and the structural, legislative, and perceptual barriers that limit the widespread adoption of timber in construction. Key points include:

Topic	Insights Summary
 **Regulatory Environment**	• The regulatory framework in Ireland is gradually evolving to support increased timber use, but significant challenges remain, particularly in fire safety and certification requirements. • The National Development Plan (NDP) 2021–2030 supports the promotion of MMC, sustainability, and innovation in the built environment, areas where timber plays a key role. • The revised Energy Performance of Buildings Directive (EPBD) requires Member States to calculate whole life-cycle carbon emissions for new buildings by 2030, which will drive regulatory changes in Ireland. Refer to page 23 for further details.
 **Market Overview**	• Ireland's use of wood in construction is low compared to other European countries, but there is strong market interest in timber's potential, especially in offsite, modular, and MMC applications. • The market faces several structural challenges, including regulatory constraints, a lack of domestic manufacturing capacity for MET products, and a shortage of skilled labour.
 **Barriers to Adoption**	• Certification processes are duplicative and costly, with limited recognition of European Technical Assessments (ETAs) and an existing Agrément certification process that presents challenges for industry stakeholders. • Skills shortages and limited timber education in engineering and architecture programs hinder industry growth and confidence. Inconsistent enforcement of regulations and guidance across local authorities introduces additional challenges and uncertainties for developers and builders

Executive Summary

Stakeholder Insights

The market and stakeholder insights section synthesises perspectives gathered through five tailored surveys, and over 20 follow-up interviews across the timber value chain, including stakeholders from sawmills, timber product manufacturers, builder merchants, developers, architects, and government bodies. These engagements revealed both enthusiasm for timber's potential, and concerns around cost, regulation, and supply chain reliability. Key points include:

Topic	Insights Summary
 **Market Insights**	• Stakeholders expressed strong interest in the potential of timber, particularly in residential construction and in MET products like Cross Laminated Timber (CLT) and glued laminated timber (Glulam). However, concerns persist around cost, skilled labour, regulation, and supply chain reliability, especially given the sector's reliance on imported timber, despite the production of C16 grade Irish timber. MET is seen not only as a sustainable material but as a catalyst for innovation, investment, and export-led growth in the built environment. • Stakeholders emphasised the need to develop domestic processing capabilities to convert Irish-grown timber into higher-value, structural products and promoting cascading uses of timber and waste materials.
 **Barriers to Adoption**	• Capital investment in engineered wood production facilities is required, currently minimal government support limits growth. Stakeholders also noted the difficulty in securing investment without long-term public contracts, which are essential to de-risking large-scale manufacturing. • The lack of skilled labour and awareness of timber construction across the industry was considered a significant barrier to adoption. Stakeholders expressed support for partnering with educational institutions to deliver targeted training, as well as supporting pilot projects using MET to demonstrate structural capabilities, helping to build industry capacity and confidence. • Long-term supply of timber was highlighted as a potential barrier to growth. Expanding sustainable forestry and diversifying timber species were considered key.
 **Conclusions**	• Confidence in timber's role will depend on regulatory clarity, strategic investment, and market development efforts that support the use of long-lived, construction-grade timber products. These actions are essential to unlocking timber's full potential in Ireland's construction sector, delivering both climate benefits and new market opportunities across the forestry and building industries.

Executive Summary

Market Model “Scenario 1 – Business as Usual” Insights

The market insights section combines stakeholder perspectives with data-driven outputs from the Irish Timber Construction Market Model that was developed for this study. It provides a detailed picture of timber use in Ireland's construction sector and projects timber demand, market value and carbon emissions under different policy and investment scenarios. Key points include:

Topic	Insights Summary
Timber Usage	• Timber usage in construction in Ireland is projected to increase significantly from 668K m³ in 2025 to approx. 1,038K m³ in 2030, with a compound annual growth rate (CAGR) of 9%. • Key Growth Opportunities: 1. Timber Frame: The market is expected to shift significantly towards timber frames, which will account for 48% of both volume and value in 2030. 2. Mass-Engineered Timber: The adoption of MET, including products like CLT and Glulam, is projected to increase substantially. Based on scenario 1 (BAU), MET will represent 12% of the volume and 27% of market value in 2030.
Conclusions	• Recommendations include supporting SMEs in off-site manufacturing, fostering regional timber construction clusters, expanding the MET product range, creating timber-based solutions for non-residential buildings, developing processing capabilities to convert homegrown timber into higher-value products, establishment of a national timber knowledge, development and innovation (KDI) facility as identified by the Enterprise Ireland Timber Sector Leadership Group, partnering with educational institutions, and running awareness campaigns.

Key Insights – 2025 Market	Timber Volume	Market Value
Total construction timber	668,000 m³	178M €
- Homegrown construction timber	353,000 m³	77M €
- Imported construction timber	315,000 m³	101M €
- Timber used in New Build	352,000 m³	93M €
- Timber used in RMI market	316,000 m³	85M €
Mass-Engineered Timber (MET)	36,000 m³	24M €
Panel Products	192,000 m³	18M €

Executive Summary

Displaced and Carbon and Carbon Reductions Analysis

The carbon simulation section with preliminary insights is based off scenario modelling conducted as part of this study. It demonstrates that increased adoption of timber in construction could deliver substantial carbon savings by 2030.

The insights presented regarding the carbon displacement are based on different sources and have not independently verified or validated. Arup has used the available data to inform comparative assessments against other sources and to support the development of preliminary insights. These preliminary insights do not consider RMI (Repair, Maintenance, and Improvement) activities (i.e. consider only new build activities). The recommendations in this report emphasise the need for a dedicated and detailed carbon displacement study.

Topic	Insights Summary
Climate Action Plan 2030 and gap to target	• The government's Climate Action Plan 2025 sets ambitious targets to "decrease embodied carbon in construction materials" by **at least 30% by 2030** (Government of Ireland, 2025a). • Timber can play a pivotal role in helping Ireland meet its target, through its low embodied carbon and displacement potential.
Best-Case Scenario Outcome	• Scenario 3: Based on scenario 3, timber adoption could reach 70% of new residential buildings by 2030. The 2030 market is estimated at 1,785K m³ timber and 589M €, with a carbon displacement potential of 2.8M tCO2e. • Scenario 3, sawn wood and new build residential: Based on scenario 3, adoption could reach 70% of new residential buildings by 2030, equating to 868K m³ of sawn wood annually, with a carbon displacement potential of 2.1M tCO2e in 2030.

Metric	Scenario 1: Business as Usual	Scenario 2: Moderate Increase	Scenario 3: Accelerated Adoption
2025 Market Volume of Timber Construction	668K m³ total	687K m³ total	760K m³ total
2025 Market Value of Timber Construction	€178M total	€183M total	€202M total
Embodied Carbon Reduction	Partial progress; timber use limited to 40% of housing units	Moderate progress; 52% of housing units timber-framed	Strong alignment; 70% of housing units timber-framed
2030 Carbon Displacement Potential	~1.6 MtCO2e	~2.3 MtCO2e	~3.7 MtCO2e
2030 Carbon Reductions Potential	~1.2 MtCO2e	~1.7 MtCO2e	~2.8 MtCO2e

Executive Summary

Strategic Recommendations and Next Steps

To help move the Irish timber industry up the value chain and capture more of the value of our wood domestically, this report emphasises the importance of accelerating the adoption of timber. The recommendations and actions detailed in this report are designed to unlock market opportunities by addressing barriers that have been identified through stakeholder engagement.

Strengthen Partnerships Across the Supply Chain

To realise this opportunity, stronger collaboration is needed between sawmills, timber frame manufacturers, and roof truss producers. Aligning domestic supply with the evolving needs of the construction sector will enable Irish-grown C16 timber to be processed and supplied in formats suitable for engineered systems. This will reduce reliance on imports, improve supply chain resilience, and retain more value within Ireland's economy.

Drive Familiarisation and Break Down Perceptions

A critical market opportunity for Ireland's timber sector is to break down long-standing perceptions and build widespread familiarisation with timber as a modern, high-performance construction material. Many in the design and construction ecosystem remain unfamiliar with the benefits, safety, and versatility of timber especially Irish-grown C16. Education and cultural shift are essential to unlocking demand and accelerating adoption.

Strategic Growth Sector

The use of timber in construction should not be seen just as a climate solution, but as a strategic industrial opportunity for Ireland. It has the potential to drive rural economic development and create exportable expertise in engineered timber systems and modular construction.

Promote Off-Site Timber Systems for Market Expansion

Off-site timber systems represent a key pathway to increasing timber use in Ireland. These systems enable faster delivery, reduced on-site labour, and improved quality control making them especially attractive for housing delivery and public sector projects. By prioritising off-site construction in public procurement frameworks and supporting pilot projects, Ireland can create a consistent pipeline of demand, de-risk investment in manufacturing, and normalise timber construction as a mainstream market solution.

Assess Domestic Manufacturing for Imported Products

Establishing manufacturing facilities for products that are currently imported such as MET will unlock significant market opportunities. Domestic production will not only reduce exposure to international supply chain risks but also support rural job creation and industrial development. A feasibility study and business case established to assess this opportunities and how joint ventures can help de-risk early investment and accelerate the growth of a robust, homegrown timber manufacturing sector.

Coordinate Sector Alignment and Incentivise Early Adoption

The creation of the Knowledge Development and Innovation (KDI) facility will be pivotal in driving implementation, monitoring progress, and maintaining sector alignment. This body should coordinate knowledge sharing, technical guidance, training, education, advocacy and promotion on behalf of the sector. Recognising the sectors strategic significance, there is potential for the KDI to take a leading role in delivering on many of the recommendations outlined Timber in Construction Steering Group (TICSG) and research, development, and innovation would be therefore be focused holistically across the entire supply chain, delivering an integrated approach to business, marketing, & technology. Temporary financial incentives should be introduced to encourage early adoption of Irish timber and off-site systems.

1. Introduction

Context

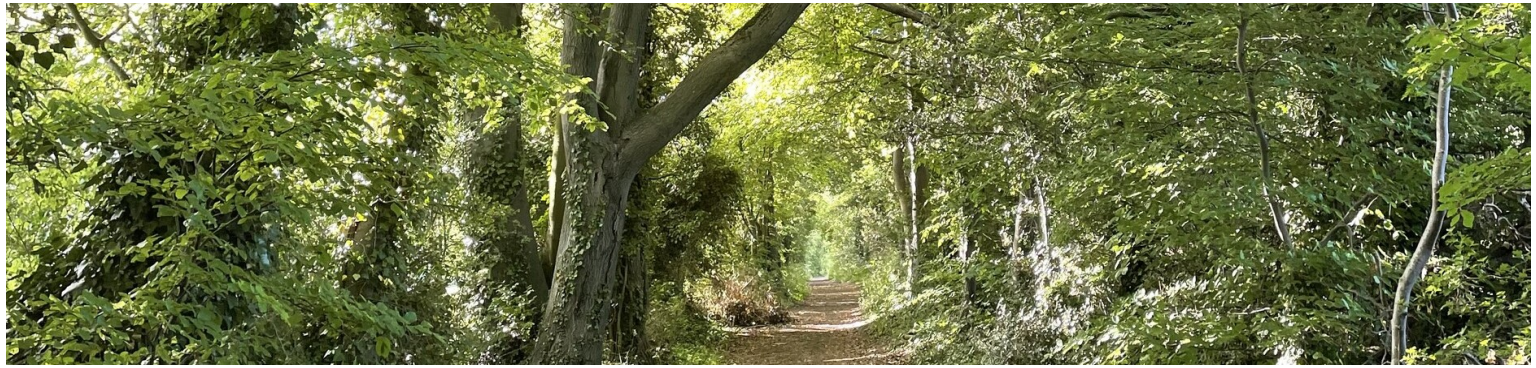
Timber has gained significant traction in the construction industry, driven by innovations in engineered wood products and a global shift towards sustainable building practices. Its strong structural performance, renewability, and low-carbon footprint have positioned it as a key material in modern construction projects.

In Europe, where the production and consumption of MET products have seen substantial increases, timber has become a widely adopted construction material, particularly in building construction. This shift is being reflected globally, with timber's versatility and sustainability offering unique solutions to some of the most pressing environmental challenges in the industry.

The government's Climate Action Plan 2025 sets ambitious targets to "decrease embodied carbon in construction materials" by **at least 30% by 2030** (Government of Ireland, 2025a).

As a readily-available low carbon construction material, timber is poised to play a crucial role in helping the country meet its carbon reduction goals, particularly through the use of MET in mid-rise applications (COFORD, 2022). This growing recognition of timber's benefits aligns with the global push to decrease the environmental impact of the construction sector.

Additionally, the demand for housing in Ireland continues to rise, intensifying challenges related to labour shortages and high construction costs. According to the IFAC, a nearly 50% increase in construction workers are estimated to be needed (Euroconstruct, 2024).



Meeting this growing need while also addressing sustainability and climate obligations requires innovative and scalable solutions. Timber, particularly in offsite and modular construction systems, offers a significant advantage in its ability to address labour shortages. Its potential for modular construction also supports faster delivery, lower emissions, and modern construction methods, positioning it as a key material in Ireland's future construction landscape. The EU Deforestation Regulation (EUDR) will also place a strong emphasis on sourcing timber that is sustainably harvested and not linked to deforestation, reinforcing the importance of responsible supply chains in meeting environmental targets.

This study seeks to establish a baseline of timber use in the Irish construction sector and to identify potential market opportunities. Through surveys and interviews with stakeholders across the timber and construction industries, this report provides valuable insights into the future opportunities for timber in construction leveraging its potential to meet Ireland's targets and housing needs.

Introduction

Background

The Timber in Construction Steering Group (TICSG) was established to create the conditions to increase the use of timber in construction whilst ensuring the highest degree of building safety and property protection; to examine regulatory and standardisation challenges; and to maximise the use of home-grown timber in construction. The Group is supported by five thematic groups (TG) comprising of members representing key industry bodies, as well as senior representatives of relevant government departments and agencies with responsibilities for policy and the development of sectors. These thematic groups include:

Thematic Group 1 Market Opportunity	Focuses on identifying and expanding the economic potential for timber in construction by analysing market trends and assessing opportunities for value added products.
Thematic Group 2 Regulation, Standards and Compliance	Works to ensure timber construction meets safety and performance standards by addressing regulatory barriers and updating codes to reflect modern timber technologies.
Thematic Group 3 Public Procurement and Demonstration Projects	Encourages the use of timber in public sector projects through supportive procurement policies and showcases successful timber builds to inspire broader adoption.
Thematic Group 4 Research and Development	Supports innovation in timber construction by advancing research into new materials, techniques, and performance metrics, and promoting practical applications of findings.
Thematic Group 5 Communication, Education, Training and Public Awareness	Aims to build understanding and support for timber construction through targeted outreach, professional training, and public education initiatives.

TIMBER IN CONSTRUCTION STEERING GROUP

Scope and Objectives

This study, led by Timber in Construction TG1, operating under the cross-governmental and industry Timber in Construction Steering Group, which was established to explore and promote the market potential of timber as a sustainable construction material in Ireland. Its work supports national climate goals, particularly those outlined in the Climate Action Plan, by identifying pathways to reduce embodied carbon in construction through increased timber use.

TG1's remit is to assess the current landscape of timber use in construction, identify barriers and enablers, and develop evidence-based recommendations to expand timber's role in the built environment. This includes both domestic and imported timber, with a focus on increasing the use of home-grown timber and supporting the development of engineered wood product (EWP) manufacturing in Ireland

Please see the following for more information on the **Timber in Construction Steering Group**.

2. Methodology

This chapter outlines the methodology and approach adopted to establish a robust baseline for timber use in Ireland's construction sector and to identify future market opportunities. Grounded in the Double Diamond framework, the approach combined extensive stakeholder engagement with data-driven analysis to inform the development of a scenario tool that evaluates market value, timber volume, and carbon emissions.

CHAPTER AIMS

- Highlight the diverse data sources used to ensure a comprehensive evidence base.
- Introduce the Irish Timber Construction Scenario Model capable of providing insights relating to the market value, timber volume, and carbon emissions under different future conditions.

CONCLUSIONS

- Stakeholder engagement revealed critical barriers and opportunities, shaping the direction of the final recommendations.
- The integration of multiple data sources enhanced the robustness of the analysis and supported the development of a dynamic scenario tool.
- The scenario tool provides a strategic lens for evaluating timber's potential contribution to Ireland's housing and climate goals.

Methodology

Approach

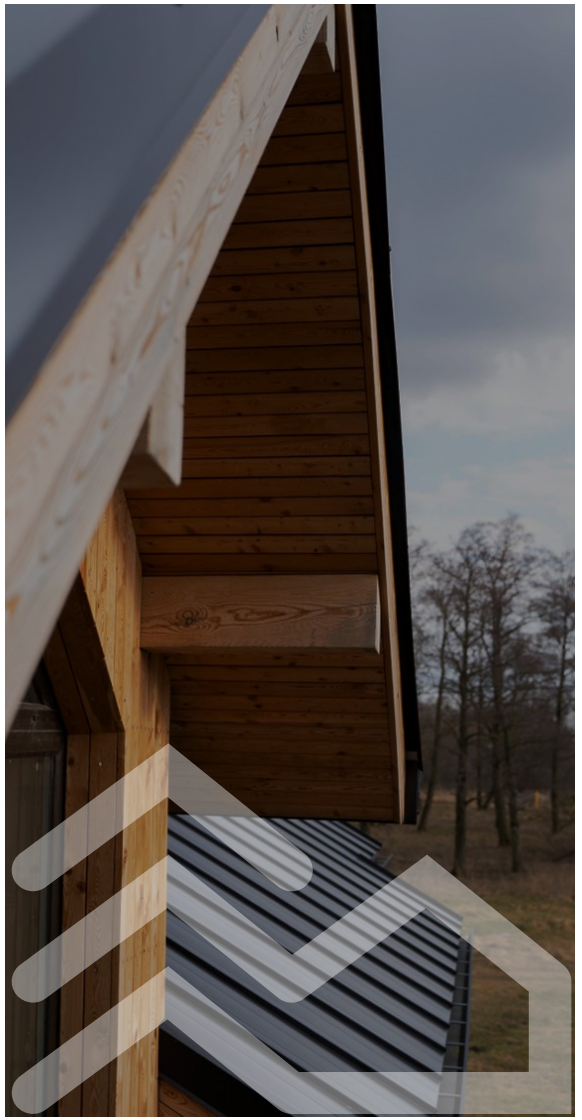
The approach adopted for this study was designed to ensure both breadth and depth of insight across Ireland's timber construction sector. At its core was a structured stakeholder engagement process, beginning with the identification and categorisation of key actors across the value chain from sawmills and manufacturers to developers, architects, and public agencies. This mapping exercise ensured that all relevant perspectives were captured, laying the foundation for a comprehensive and inclusive analysis. The Steering Group played a pivotal role in this process, leveraging their networks to ensure broad representation and helping to address early concerns around data sharing and engagement risks.

Tailored surveys combined quantitative metrics with open-ended questions ensuring that the data gathered was not only robust but also directly aligned with the project's objectives. Five distinct surveys were developed, each tailored to the specific stakeholder group, and refined through a collaborative process involving internal review and feedback from the Steering Group. The surveys were built using JotForm to facilitate ease of access and data collection. Pilot testing ensured clarity and alignment with the study's aims.

Thematic analysis of the survey responses helped surface key patterns in timber usage, supply chain dynamics, and regulatory challenges. To validate and deepen the findings from the surveys, targeted follow-up interviews provided an opportunity to explore emerging themes in greater detail, clarify ambiguities, and gather additional context that might not have been captured through survey responses alone. Interview participants were selected with input from the Steering Group to ensure a representative cross-section of the timber construction value chain. Stakeholders also shared a range of datasets which were integrated into the analysis to enhance the evidence base and support triangulation of insights.

The survey and interview data were analysed using both statistical and content analysis techniques. Quantitative responses were assessed for trends, averages, and distributions, while qualitative responses were coded thematically to identify recurring sentiments and insights. These findings were cross-referenced with external data sources such as CSO, EuroConstruct, United Nations Economic Commission for Europe (UNECE) and industry reports to validate and enrich the analysis.

The insights gathered through this multi-layered approach informed the development of an Irish Timber Construction Scenario Model designed to model market value, timber volume, and carbon emissions under different future conditions. This tool, along with the findings from stakeholder engagement, underpin the final report's strategic recommendations. Together, they provide a data-driven foundation for identifying market opportunities and investment decisions to support the growth of timber in Ireland's construction sector.



Methodology

Stakeholder Engagement

To support the development of a detailed baseline for timber use in Ireland's construction sector, the surveys were designed to capture a wide range of data across several key thematic areas. These included timber usage patterns, investment appetite, purchasing decisions, and supply chain characteristics. The information gathered through these surveys provides a comprehensive snapshot of how timber is currently being sourced, used, and perceived across the construction value chain and market opportunities available.

The surveys were designed to capture structured, quantitative data across five key stakeholder groups in the Irish timber construction sector: sawmills, manufacturers, builder merchants and import agents, architects and developers, and public agencies and associations. Each survey was tailored to the specific role and influence of the stakeholder group within the timber value chain. The design process involved collaboration with the Steering Group to ensure that the questions were relevant, clear, and aligned with the study's objectives. A total of 90 responses were received across the five groups, with the highest participation from public agencies, universities, NGOs, and associations (38 responses), followed by architects and developers (20), manufacturers (15), sawmills (9), and builder merchants/import agents (8).

To validate and enrich the survey findings, follow-up interviews were conducted with a representative sample of stakeholders. These interviews allowed the team to explore emerging themes in greater depth, clarify ambiguous responses, and gather qualitative insights that complemented the quantitative data. The interviews provided valuable context on issues such as regulatory interpretation, market perceptions of Irish timber, and the practical challenges of adopting MET products. They also helped identify strategic opportunities and barriers to timber adoption, particularly in relation to supply chain resilience, skills availability, and policy alignment.

This mixed-methods approach ensured that the data collected was both statistically robust and grounded in real-world experience.

Thematic Areas

The thematic areas outlined below were designed to guide data collection and stakeholder engagement, ensuring a comprehensive understanding of the key factors influencing timber use in Ireland's construction sector.

Timber use – Assess use of timber across different typologies, type of timber used, level of Irish timber / amount of imported timber and volumes of timber products utilised in various construction applications. This will help establish a detailed baseline of timber use in the sector.

Investment appetite – Explore the factors influencing investment decisions of stakeholders e.g. developing value-added timber products, such as Engineered Wood Products (EWPs).

Purchasing decisions – Insights into purchasing decisions, including preferences for indigenous versus imported timber, and the barriers and drivers affecting these choices.

Supply chain – Assess the supply chain at a granular level, detailing product types, sources, and volumes. This includes evaluating the availability of skills, value capture opportunities, and resilience to external shocks.

Regulatory and market dynamics – Understand how current regulations, certification requirements, and market conditions influence timber adoption, including perceived risks and opportunities for policy intervention.

Methodology

Data Collection

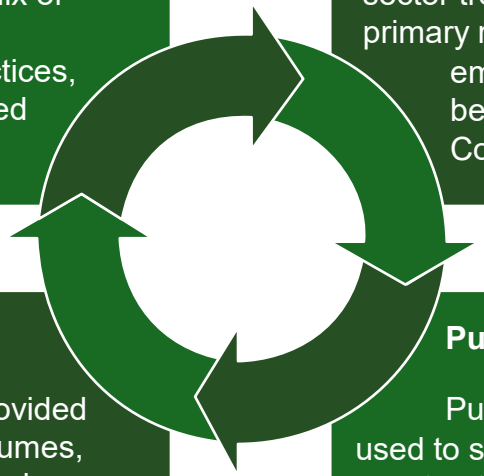
A robust and structured approach to data collection was employed to ensure comprehensive insights into the Irish timber construction sector. The methodology was designed to capture both quantitative and qualitative data from a wide range of sources, enabling a nuanced understanding of market dynamics, stakeholder perspectives, and regulatory challenges. The data collection strategy was built around four key sources:

Survey Data

Five distinct surveys were developed, each tailored to a specific group: sawmills, manufacturers, builder merchants and import agents, architects and developers, and public agencies and associations. The surveys included a mix of multiple-choice and tabular input questions to gather structured data on production volumes, sourcing practices, product types, market segments served, and perceived barriers to timber adoption.

Open Data

Open sources such as the Central Statistics Office (CSO) or Eurostat and publicly available industry reports provided macroeconomic context, national statistics, and construction sector trends that helped validate and triangulate findings from primary research. Open data also supported the high-level embodied and displaced carbon simulations, with benchmarks from INDICATE (Irish Green Building Council in the Irish National Policy Brief).



Data Shared by Stakeholders

Stakeholders such as manufacturers and sawmills provided data relating to detailed production figures, output volumes, and sourcing splits between domestic and imported timber that enriched the overall analysis. The granular data provided helped to build a more accurate baseline of timber usage in Ireland. Due to the commercially sensitive nature of this information, it is not publicly available and is therefore not explicitly outlined in this report.

Purchased Data

Purchased datasets such as EUROCONSTRUCT were used to supplement the analysis with market forecasts, construction output projections. These datasets added depth to the market modelling and scenario planning components of the study, enabling the team to assess Ireland's timber market potential. By integrating these four data streams, the methodology ensured a comprehensive and credible evidence base to support strategic recommendations.

Methodology

Irish Timber Construction Scenario Model

As part of the study, an Excel-based modelling tool ('Irish Timber Construction Scenario Model') was developed adopting the data gathered to model future timber use in construction across Ireland. This tool integrates a range of factors including carbon emissions, market value, and supply chain dynamics to provide a comprehensive view of timber's potential in the built environment.

It enables users to explore how shifts in material use, building typologies, and sourcing strategies could influence national sustainability goals and housing delivery targets. The model's outputs offer critical insights into the role of timber in decarbonising construction and unlocking market opportunities.

Market Value

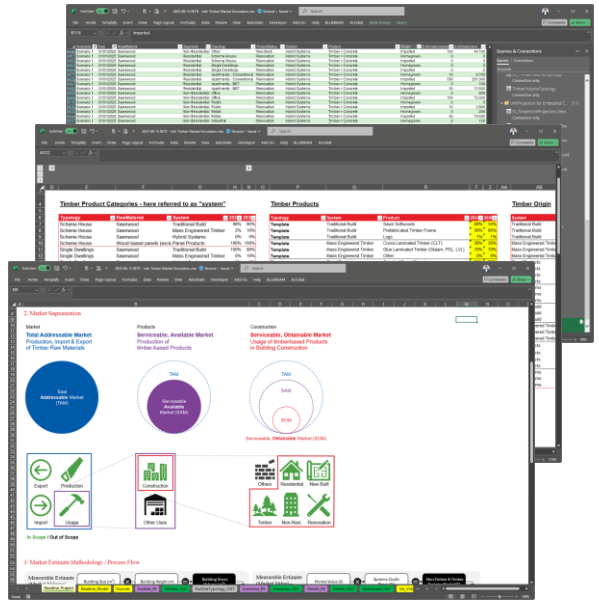
The model estimates the economic value of timber used across various construction scenarios providing a clear picture of the financial potential of timber adoption. This output helps assess the commercial viability of timber-based construction and supports investment planning, procurement strategies, and policy development aimed at expanding the timber market in Ireland.

Timber Volume

Timber volume is calculated by quantifying the total amount of timber products required across different building types and construction scenarios. The output offers a granular view of material demand, helping to identify supply chain requirements and potential bottlenecks. It also supports strategic planning ensuring that timber supply aligns with projected construction demand.

Carbon Emissions

The carbon emissions output focuses on displaced emissions comparing the embodied carbon of timber products with that of conventional materials across various building types, calculating the net carbon savings per scenario. The environmental benefits of timber construction can be quantified and its contribution to national climate targets assessed. It helps demonstrate the role of timber in decarbonising Ireland's built environment.



Extract from the Irish Timber Construction Scenario Model

Methodology

Model Scenarios and Parameters

To inform the development of the model presented in this report, a series of scenarios were constructed based on detailed stakeholder engagement and survey data.

These scenarios reflect a range of building typologies including scheme houses, single dwellings, apartments, and public buildings and incorporate both new-build and renovation contexts.

Each scenario integrates insights on timber product composition, sourcing (domestic vs. imported), and sector-specific demand patterns. By grounding the model in real-world data and sectoral trends, the scenarios provide a robust framework for forecasting timber usage and identifying strategic opportunities for increased adoption across Ireland's construction landscape.

The underlying building output targets can be adjusted in the excel simulation model, provided alongside this report, in line with construction sector output projections and Government targets, to inform policy makers on an enduring basis.

Scenario	Forecast Demand	Policy	Model Projection	Outcome
Scenario 1 – Business as Usual	**Residential**: based on projections of the Central Bank as of June 2025 with ca. 260,000 units until 2030 Central Bank of Ireland (2025). **Non-Residential**: ca. 111,000 units to built between 2025 to 2030 (target of 18,333 for '25 – '27, minimally higher for '28 – '30), based on Euroconstruct.	No significant changes in government policies or market conditions affecting timber use are anticipated.	**Buildings:** Annual increase of 3% to 5% in timber usage in residential and 5% to 20% in non-residential new build projects. **MET apartments**: annual increase of market share of total apartments from 2028 of 50%. **RMI** projection based on Euroconstruct prognosis.	**65% of scheme homes** and **40% of all housing units** will **use timber** as a primary structural material by 2030 (up from 50% and 28% in 2024). **MET apartments** to increase from 2% MET share in 2024 to 15,8% in 2030. **RMI** estimated at 352,000 m³ and 93M € in 2025.
Scenario 2 – Moderate Timber Use Increase	**Residential**: To maintain comparability, the scenario takes the same baseline as scenario 1. Non-Residential: same as scenario 1.	Publication of national technical guidance for timber in construction, addressing regulatory challenges for low/mid rise construction (including fire safety and durability) and for both timber and MET construction	**Buildings:** Annual increase of 5% to 10% in timber usage in residential and 20% to 30% in non-residential new build projects. **MET apartments**: annual increase of market share of total apartments from 2028 of 75%. **RMI** same as scenario 1.	**77% of scheme homes** and **52% of all housing units** will **use timber** as a primary structural material by 2030 (up from 50% and 28% in 2024). **MET apartments** to increase from 2% share in 2024 to 36,2% in 2030. **RMI** same as scenario 1.
Scenario 3 – Accelerated Timber Adoption	**Residential**: Contrary to scenarios 1 and 2, scenario 3 takes the government's goal to build 300,000 homes until 2030, "housing for all" as baseline, with an annual increase of 10%. Non-Residential: same as scenario 1.	Same as scenario 2, but additionally, comprehensive training, guidance and upskilling of construction professionals	**Buildings:** Annual increase of 7.5% to 10% in timber usage in residential and 30% to 50% in non-residential new build projects. **MET apartments**: annual increase of market share of total apartments from 2028 of 100%. **RMI** same as scenario 1.	**82% of scheme homes**, and **56% of all housing units** will **use timber** as a primary structural material by 2030 (up from 50% and 28% in 2024). **MET apartments** to increase from 2% share in 2024 to 85,8% in 2030. **RMI** same as scenario 1.

Methodology

Market Segmentation

The timber construction market is part of a wider **market landscape**, usually structured by the TAM/SAM/SOM methodology.

The Total Addressable Market (TAM) is the Production (Removals), Import and Export of Timber Raw Materials. The Serviceable, Available Market (SAM) is the production of timber-based products (End Use categories). The Serviceable, Obtainable Market (SOM) is the usage of timber-based products in construction of buildings.

The model and report closely examine the usage of timber in construction in residential and non-residential buildings, in new build and renovation (RMI: Repair, Maintenance, Improvement) projects. For carbon, RMI was not modelled, due to missing data.

Product Category	Project Type	Volume	Value	Carbon
Timber Build System	New Build	✅	✅	✅
	RMI	✅	✅	❌
Mass Engineered Timber	New Build	✅	✅	✅
	RMI	✅	✅	❌
Panel Products	New Build	✅	✅	✅
	RMI	✅	✅	❌
Hybrid Systems	New Build	✅	✅	✅
	RMI	✅	✅	❌

Methodology

Model Scenarios and Parameters

The model estimates outputs using a combination of stakeholder survey data, industry benchmarks, and published sources such as CSO, Euroconstruct, and reports. This blended approach ensures that the outputs market value, timber volume, and carbon emissions are grounded in both real-world data and sector-specific assumptions relevant to Ireland's construction landscape. Insights from future timber use scenarios and their implications for carbon savings and market development are presented in the Model Insights chapter.

Market Dimensions	Product Features	Measures	Sources
Country Republic of Ireland (Poblacht na hÉireann)	**Raw Material** Sawn timber and wood-based panels (excluding veneer).	**D_V: Estimated Volume** Timber Volume in m³.	**Economic Statistics** CSO, Eurostat, Statista, OECD
Segment Residential and Non-Residential	**Origin** Homegrown (Domestic), Imported	**D_A: Estimated Area** Area in m². Intermediate measure for calculation purposes (not part of this report).	**Market Estimates** Euroconstruct, Market Reports from various sources
Typology Residential: Scheme Homes, Single Dwellings, Apartments. Non-Residential: Office, Retail, Industry, Public Bldg., Others	**Product Category** Timber Build Systems, Mass-Engineered Timber (MET), Panel Products, Hybrid Systems	**D_E: Estimated Value** Market Value in Euros.	**Project & Product Cost Data** Arup internal project data, third-party AEC cost databases, third-party project data, EPDs, etc.
Project Type New Build Renovation (RMI: Repair, Maintenance, Improvement)	**Product** Traditional Builds (Sawn wood), Timber Frame, CLT, Glulam, OSB, Plywood, Hybrids etc.	**F: Forecast & Prognosis** Years 2025 – 2030	**Subject Matter Experts' Estimates** Arup & third-party experts, survey results
	Strength Class C16 vs. C24	**S: Scenarios 1 – 3** See scenario overview (page 19) for details	**Consultants' Assumptions** Assumptions based on previous market studies and experience in the market

Methodology

Classification of Products

The model underpinning this report incorporates a comprehensive classification of timber construction systems to reflect the diversity of materials and methods currently used in the Irish construction sector. The purpose of this categorisation and its integration into the model is to enable a granular analysis of timber usage across different building typologies and construction methods.

By disaggregating timber systems into these four categories, the model can more accurately estimate material volumes, sourcing patterns, and application contexts. This split also supports the identification of market opportunities and constraints allowing for a clearer understanding of how each system contributes to Ireland's housing and sustainability goals. The model is built on a robust evidence base, drawing from stakeholder-shared data, purchased datasets such as Euroconstruct, and open sources including national statistics and industry reports.

Product Category	Timber Build System	Mass Engineered Timber	Panel Products	Hybrid Systems
Definition	Timber elements for structural and architectural purposes, based on solid timber.	Advanced timber systems made by bonding layers of wood to create strong, stable components for structural use.	Flat timber-based systems used for walls, floors, and roofs, often manufactured off-site for efficient installation.	Construction systems that combine timber with other materials like concrete or steel to enhance performance and span capabilities.
Products & Examples of Use	**Traditional Build (Sawn wood):** Walls, roofs, and floors **Sawn wood used for Timber Frame:** Off-site-produced structural framework forming the load-bearing skeleton for walls, floors, and roofs **Logs** - Cabins, traditional homes	**Cross-Laminated Timber (CLT):** Wall, floor and roof panels **Glue-Laminated Timber (Glulam, PSL (Parallel Strand Lumber) and LVL (Laminated Veneer Lumber):** Beams, columns, bracing, floor/roof panels	**Panel Products used for Timber Frame:** Panel components of the timber frame **Oriented Strand Board (OSB)** - Subflooring, structural sheathing (wall, roof and floor), offsite manufactured closed panel systems **Plywood** - Sheathing (wall and roof), flooring, subflooring	**Timber x Concrete:** Floors (long spanning) **Timber x Steel:** Taller buildings, longer spans

3. Desktop Research

This chapter summarises the current state of timber construction in Ireland and highlights the evolving regulatory landscape. While structural and legislative barriers persist, the focus is on unlocking future market opportunities that can support scalable, low-carbon construction and drive sector-wide transformation.

CHAPTER AIMS

- Examine the current regulatory framework affecting timber construction.
- Identify key legislative instruments and technical standards relevant to timber use.
- Understand how national and EU-level policies impact timber adoption.
- Highlight the strategic market growth potential for timber construction products

CONCLUSIONS

- Strategic investment, regulatory reform, and targeted education initiatives are essential to unlock timber's full market potential.
- Ireland's regulatory environment still presents significant challenges for timber construction, particularly in areas such as fire safety and certification restrictions.
- Policy gaps and fragmented enforcement undermine confidence and investment in timber solutions.
- Skills shortages and limited timber education in engineering and architecture programmes hinder industry growth and confidence.
- Despite these challenges, market interest is strong, with growing confidence in timber's potential, especially in offsite, modular, and MMC applications.

Desktop Research

Market Overview

The global market for timber is experiencing significant growth, reflecting its rising popularity due to sustainability, speed of assembly, and reduced labour requirements. Timber is increasingly recognised for its potential to reduce emissions in the built environment, particularly through the use of MET products, which offer strong structural performance and are well-suited to offsite construction. In Ireland, research shows that a medium to strong increase in timber construction, particularly in medium and high-rise apartment buildings, can deliver significantly greater greenhouse gas savings than scenarios with limited timber use (COFORD, 2022). Even detached houses like 4-bedroom homes and bungalows benefit from timber construction, though savings are smaller in absolute terms.

At the same time, the construction sector continues to face cost pressures, driven by interest rate hikes, supply chain disruptions, and elevated material prices. Timber, however, has remained relatively stable in price, offering a resilient and scalable alternative. Its ability to support faster, lower-emission construction makes it a key material in Ireland's evolving construction landscape.

Yet, several structural challenges remain. Regulatory constraints limit the use of timber in mid-rise buildings (See Appendix A.2 for this report's classification of mid-rise). The lack of domestic manufacturing capacity for MET products means Ireland relies heavily on imports, introducing cost volatility, increased transport related carbon and supply chain risks. "Additionally, a shortage of skilled labour and limited timber-focused education in engineering and architecture programs hinder the sector's ability to scale. These barriers are further compounded by inconsistencies in regulatory enforcement across local authorities, highlighting the importance of ensuring a more uniform approach, and a general lack of awareness about timber's capabilities.

Nonetheless, the outlook remains optimistic with the market demonstrating a strong interest in expanding the use of timber, particularly through modern methods of construction (MMC), modular systems, and smart timber products. There is growing confidence in the potential for domestic investment in engineered wood production, which could reduce reliance on imports and strengthen local supply chains. With strategic investment, regulatory reform, and targeted education initiatives, Ireland's timber market is well-positioned to support both its housing and climate goals.

Ireland's use of wood in construction is extremely low compared to other European countries, and without increasing its use in the built environment, it will be difficult for Ireland to meet its embodied carbon reduction targets. For example, timber frame houses account for more than 83% of newly constructed homes in Scotland. (COFORD, 2022).

Ireland is capable of growing a significant amount of timber for construction, particularly softwood like Sitka spruce, due to its favourable climate and fertile soils. Irish forests are expected to grow enough timber to build 1.13 million homes by 2040 (Based on analysis done by DAFM and the roundwood Forecast 2021-2040).

There is a total dependence on MET imports due to unavailability of certain timber products domestically. Timber frame and roof truss manufacturers import a significant amount of C16 timber rather than using the domestically grown C16. TR26 is used for roof trusses which is also imported.

There were 30,330 new dwelling completions in the whole of 2024, a decrease of 6.7% from 2023 (Central Statistics Office, 2025), ca. 30% of these were built using timber frame, while ca. 50% of all new build scheme homes are currently built with timber frame.

Timber construction serves as an effective long-term carbon storage solution. During growth, trees sequester significant amounts of atmospheric carbon dioxide, and the emissions associated with harvesting, processing, and transporting timber are typically lower than the carbon stored in the final product. presenting an opportunity for climate change mitigation.(COFORD, 2022).

Desktop Research

Regulatory Environment

Ireland's forestry and construction policies are increasingly aligned to promote timber use, but persistent challenges including declining afforestation rates, limited public procurement incentives, and industry reluctance threaten progress toward climate, housing, and economic targets.

Afforestation and Timber Supply

The Irish Government is investing €1.3 billion under the Forestry Programme 2023–2027, aiming to boost afforestation and secure a long-term, sustainable supply of Irish-grown timber. This investment supports the Forest Strategy Implementation Plan (IFSIP), which outlines steps to expand forest cover in line with national climate, biodiversity, and economic goals. The programme offers substantial incentives to farmers, who possess 70% of land in the republic, to forest their land.

Despite the IFSIP's target of 8,000 hectares of afforestation per year up to 2030, and projections that timber supply will rise to 7.9 million m³ by 2035 (COFORD, 2022), afforestation rates have steadily declined (CSO, 2024). In 2023, total afforestation was only 1,651 hectares the lowest in over a decade. Unless planting rates improve significantly, there is a risk that future timber supply may fall short limiting growth opportunities for timber use in construction and hindering Ireland's ability to meet rising demand. A recent report noted that failure to meet 2030 Land-Use, Land-Use Change and Forestry commitments could cost the State between €0.5 billion and €5.8 billion funds that could instead be invested in forestry (Irish Fiscal Advisory Council and the Climate Change Advisory Council, 2025).

National Development Plan

The National Development Plan 2021-2030 and its 2025 Review support innovation and sustainability in the construction sector, including the widespread adoption of Modern Methods of Construction (MMC), which encompasses timber-based solutions. The plans aim to reduce emissions in the built environment by 40% in residential buildings and 35% in industry by 2030. While not mandating timber use, these goals align with low-carbon construction practices. In this context, the Department of Agriculture, Food and the Marine established the Timber in Construction Steering Group to address regulatory barriers, promote homegrown timber, and support safe, sustainable building practices.

Wood First Policy

The Irish government has expressed a clear intention to promote timber use in new buildings; a wood first procurement policy was recommended in a one-year progress report from the Timber in Construction Steering Group, requiring timber and bio-based materials in publicly funded buildings. The report recommended the need to adopt international best practices, such as "Wood First" strategies, which have been successfully implemented in regions like British Columbia, Hackney (London), and Japan.

Ireland's only local example of such a policy is South Dublin County Council's 2017 wood first policy, which requires timber to be considered for all public buildings where "possible, practical and suitable."

Desktop Research

Regulatory Environment

Embodied Carbon

Coillte's Forest Estate Strategic Land Use Plan (FESLUP) outlines a major contribution to Ireland's climate goals capturing 28 million tonnes of CO_2 by 2050 and supplying 25 million m³ of certified Irish wood certified under FSC and PEFC standards for sustainable forest management by 2030 to help reduce embodied carbon in construction by 30%. It also aims to increase timber use in housing from 20% to 80% by 2050, supporting a shift toward low-carbon building materials.

As the largest landowner and forestry manager in Ireland, Coillte's ability to deliver on these targets is closely tied to national afforestation trends. While the Government has committed €1.3 billion through the Forestry Programme 2023–2027, recent declines in afforestation rates raise concerns about the future availability of carbon-sequestering forests and commercial-grade timber. This could limit progress toward embodied carbon reduction and the broader climate objectives outlined in the Climate Action Plan.

Carbon Regulation and EU Alignment

Ireland currently lacks mandatory requirements for embodied carbon limits in construction, but this is expected to change in line with evolving EU policy. In April 2024, the revised Energy Performance of Buildings Directive (EPBD) was formally adopted by both the European Parliament and the Council of the European Union. The directive requires Member States to calculate whole life-cycle carbon emissions, including both embodied and operational emissions for new buildings over 1000 m² from 2028, and for all new buildings from 2030. This is expected to drive significant regulatory change in Ireland, promoting the use of low-carbon materials such as timber.

At present, Whole Life Carbon Assessment (WLCA) remains an emerging practice in Ireland, with no national requirement at either the planning or building control stages. Where assessments are carried out, they often rely on international datasets, which can obscure the carbon benefits of locally sourced materials like timber. However, this is set to shift. In addition to the EPBD requirements, new national procurement guidance will require public bodies, starting September 2025, to conduct WLCA for major publicly funded projects (over €10 million for non-residential and €60 million for residential buildings), with lower thresholds, coming into effect in 2026. Countries, particularly in the Nordic region, are already integrating life-cycle assessment (LCA)-based regulations and climate declarations into their construction policies. These are often supported by carbon pricing, CO_2 compensation schemes, and timber-first policies at both municipal and national levels in countries such as Canada, Germany, France, Finland, New Zealand, the USA, Australia, and Japan.

Building Regulations and Technical Guidance

The Building Regulations 1997–2024 form the legal foundation for construction in Ireland. These regulations set functional requirements that designers must satisfy under separate Parts A to M, including aspects such as Structure, Fire Safety and Materials & Workmanship. The government provides Technical Guidance Documents (TGDs) offering prima facie pathways to compliance with the regulations for common non-complex buildings, whilst also permitting designers to adopt 'alternative approaches' supported by first principles engineering.

Timber construction presents particular fire safety considerations for designers, approving authorities and other stakeholders. Current TGD B (Fire Safety) permits the use of timber for the floors in buildings up to 11 m in height in principle, but detailed guidance on timber fire safety design (either timber frame or mass engineered timber, MET) for all but low-rise domestic contexts is limited, thus bespoke approaches are needed on each project, for example with reference to international guidance and approaches. There is a recognised need for new guidance to support consistent and confident design, construction and approval of timber buildings.

Desktop Research

Regulatory Environment

Compliance and Certification

The revision of the Construction Products Regulation (CPR) introduces mandatory environmental reporting, requiring manufacturers to disclose data on CO_2 emissions, energy use, and the recyclability and reusability of products (European Commission, 2024). This shift supports the EU's climate goals and favours materials like timber, which has a low carbon footprint, can store carbon, and can be easier to reuse or recycle.

European Technical Assessments (ETAs), which are regulated under the CPR, are recognised and accepted in Ireland but seldom provide enough information to demonstrate compliance with Irish building regulations. Industry stakeholders express concerns that the requirement for Ireland-specific NSAI Agrément certificates, in addition to an ETA, can be costly and time-consuming. These certifications are required to ensure compliance with Irish Building Regulations and safeguarding public safety and environmental standards. Strengthening communication around the certification pathway including clearer guidance, timelines, and technical expectations could help streamline the process and reduce perceived burdens.

Local Authority Interpretation Inconsistencies

The interpretation and enforcement of regulations and guidance can vary significantly between local authorities, with Fire Officers playing a critical role in the approval process. This inconsistency in the application of fire safety requirements across different local authorities introduces additional challenges and uncertainties for developers and builders, requiring stakeholders to navigate a complex and sometimes contradictory approval process.

With a lack of robust guidance for timber fire safety design beyond small timber frame buildings (e.g. for domestic dwellings) and deep knowledge of timber fire safety design amongst Building Control Officers and Fire Officers, there is also a reluctance to consider alternative design approaches. Wider misconceptions surrounding timber's durability, fire resistance, and structural integrity exacerbate this issue. The perception that building control issues may arise with Modern Methods of Construction (MMC) frameworks, including timber frame solutions, can delay or negate compliance with the Building Control Amendment Regulations (BCAR). This inconsistency can deter the use of timber-based modular construction and create uncertainty in the approval process.

4. Market and Stakeholder Insights

This chapter presents a comprehensive view of the current landscape of timber use in Ireland's construction sector, drawing on insights from stakeholder engagements and outputs from the model. It identifies the most significant barriers to wider timber adoption and explores how timber products are used, sourced, and segmented across the market.

CHAPTER AIMS

- Synthesise stakeholder perspectives on timber use, demand, and supply chain dynamics.
- Analyse the types and volumes of timber products used across different construction typologies.
- Assess the role of imports versus domestic production in meeting market needs.
- Segment the market by building type and application to identify growth opportunities and constraints.

CONCLUSIONS

- Barriers are interrelated and require a coordinated response across policy, education, and industry.
- There is strong stakeholder appetite for change, but confidence depends on regulatory clarity and investment in domestic capacity.
- The industry is constrained by a lack of training and guidance.
- Timber use in Ireland is growing, particularly in residential construction, but remains constrained by regulatory, supply chain, and perception challenges.
- The market is heavily reliant on imported engineered timber products, despite a strong domestic sawmilling base.

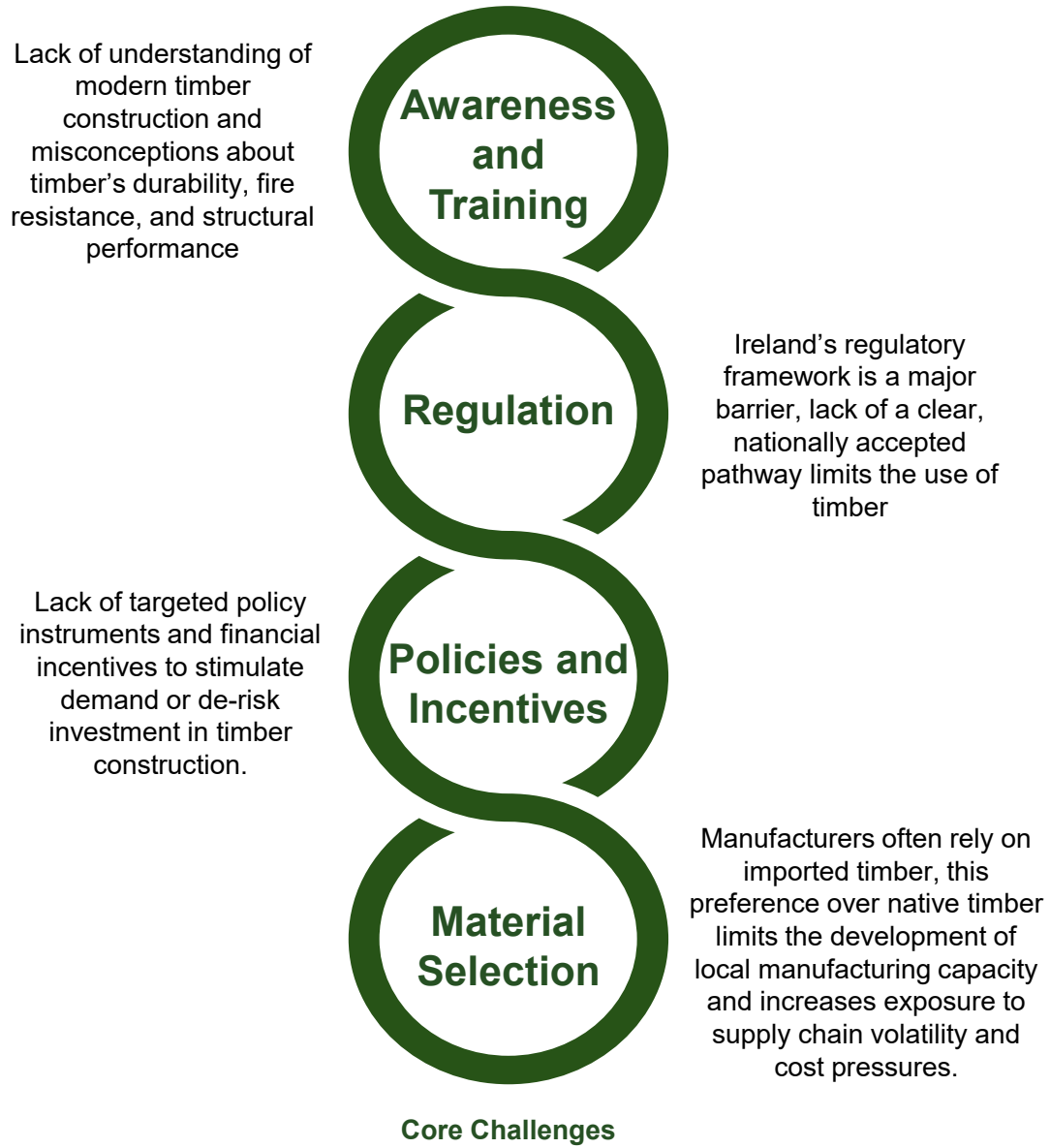
Market Insights

Overview

The Market Insights chapter offers a detailed picture of timber use in Ireland's construction sector, combining stakeholder perspectives with data-driven outputs from the Irish Timber Construction Market Model. Through surveys and interviews, the project captured insights from across the timber value chain providing a nuanced understanding of how timber is currently sourced, used and perceived. These engagements revealed both enthusiasm for timber's potential and persistent concerns around cost, regulation, and supply chain reliability.

Quantitative data gathered through surveys was used to map timber product usage across different building typologies, highlighting the dominance of timber frame in residential construction and the limited, but growing, interest in MET products like CLT and Glulam. The analysis also revealed a strong reliance on imported timber, particularly for engineered products, despite Ireland's robust domestic sawmilling capacity. Market segmentation by typology, such as scheme housing, apartments, and public buildings, enabled the identification of where timber is most commonly applied and where future growth may be possible.

The model developed as part of the study complements these insights by projecting timber demand, carbon emissions, and market value under different policy and investment scenarios presented in Scenario Insights. This modelling helps quantify the impact of regulatory reform, domestic manufacturing investment, and increased adoption of timber-based construction methods. Together, the qualitative and quantitative findings provide a comprehensive foundation for this report's recommendations, supporting a strategic roadmap for expanding timber's role in Ireland's built environment.



Market Insights

Insights from Stakeholder Engagements

The insights gathered through stakeholder engagements offered a comprehensive view of the current state and future potential of timber in Ireland's construction sector. Through a combination of surveys and follow-up interviews, a wide range of perspectives from across the timber value chain were captured these are presented in this section. These engagements revealed both the enthusiasm for timber as a sustainable construction material and the systemic barriers that continue to limit its widespread adoption. For further detail on each insight see Appendix B.

Awareness and Training	**Timber Familiarity** Many architects, developers, and contractors, are unfamiliar how to design and build with timber properly and safely as well as understanding the benefits and applications of timber systems, particularly MET. This leads to a preference for conventional materials like concrete and steel, even when timber may offer environmental and efficiency advantages.	**Perceptions of Irish Timber** Despite progress in Ireland's forest products sector, many timber frame manufacturers still rely on imported C16 and C24 timber due to outdated concerns about drying defects and variability. However, Irish sawmills have invested in advanced processing technologies that meet European standards. This progress is often overlooked, resulting in missed opportunities to support sustainable, local supply chains.	**Shortage of Skilled Labour** There is a shortage of skilled professionals across the timber value chain. This is exacerbated by the decline of wood technology and forestry courses, and the absence of structured training pathways. Without a skilled workforce, the industry struggles to scale up timber construction to meet growing demand.	**Timber-Focused Education** Third level courses generally lack comprehensive modules on timber construction, unlike other countries. As a result, graduates enter the workforce with limited exposure to timber systems, this educational gap contributes to a broader industry reluctance to adopt timber-based solutions.
Regulation	**Fire Safety and Building Regulations** Fire safety guidance in Ireland (namely TGD B, Technical Guidance Document to Part B) imposes general limitations on the use of combustible materials (like timber) in buildings over 11 m in height, discouraging the use of timber in mid-rise construction.	**Inconsistent Enforcement** Inconsistency in how fire safety regulations are interpreted and enforced across local authorities in Ireland. Building Control and Fire Officers often lack training in timber design, leading to reluctance in approving timber-based solutions. This variability creates uncertainty for developers and architects, increasing project risk and deterring timber adoption	**Agrément requirements, in addition to European Technical Assessments** Ireland's building regulations, requiring Agrément certification where European Technical Assessments for timber products like CLT provide insufficient detail, creates an additional perceived regulatory hurdle. Products widely accepted across Europe must undergo additional national certification or testing in Ireland, adding cost, time, and complexity.	**Specific Irish Agrément Certifications** Even when timber products are certified under international standards, they often require additional Irish Agrément certification to be compliant with Irish building regulations. The requirement for Ireland-specific Agrément certificates is considered by the sector to be expensive and time-consuming.

Market Insights

Insights from Stakeholder Engagements

For further detail on each insight see Appendix B.1

Policies and Incentives

Mandating Timber Use

Ireland currently lacks a national 'wood first' policy that would prioritise timber in public procurement, planning where it makes sense from a safety and carbon perspective, or construction frameworks.

This absence means timber is not systematically considered in public building projects, despite its environmental and efficiency benefits.

Incentives for Timber Use

Unlike countries such as France or Scotland, Ireland does not offer financial or regulatory incentives to encourage the use of timber in construction.

This lack of support makes timber less competitive compared to conventional materials like concrete and steel. Stakeholders have highlighted that targeted incentives could help stimulate demand and de-risk early adoption of timber technologies.

Procurement Barriers

Public sector projects struggle to specify timber due to procurement rules requiring multiple competitive suppliers, which is challenging given Ireland's limited MET production. Timber is often excluded from tenders, and the design-bid-build model restricts early involvement of MET specialists.

High tendering costs, low margins, and the absence of a multi-year pipeline—combined with emergency-based builds and limited engagement from contracting authorities—make investment in timber capacity financially risky and demand unpredictable.

Whole Life Carbon Assessment

Whole Life Carbon Assessment (WLCA) remains an emerging practice in Ireland, with no national requirement at planning or building control stages. Current assessments often rely on international datasets, limiting the visibility of the carbon benefits of local materials like timber.

This is expected to change under the recast Energy Performance of Buildings Directive (EPBD), which will require disclosure of whole life carbon for all new buildings by 2030.

As previously noted on page 26 WLCA is required for major publicly funded projects.

Sourcing and Supply Chain

Legacy Mindset

The limited uptake of timber-based Modern Methods of Construction is not due to active resistance, but rather the enduring influence of traditional construction culture.

Overcoming this requires a focused effort to educate designers and builders on the capabilities and benefits of contemporary timber systems.

Limited Product Manufacturing

The construction sector relies heavily on imported timber and products, particularly for EWPs. This dependence introduces added logistics costs, longer lead times, and exposure to international market volatility.

Without local production, timber construction becomes less cost-competitive compared to conventional materials.

Reliance on Imported Timber

Many manufacturers rely on imports to meet volume and quality requirements. Many timber frame manufacturers in Ireland rely on imported C16 and C24 timber rather than sourcing homegrown alternatives. Concerns about drying defects, faster growth and variability in Irish-grown timber contribute to this reliance.

This dependency exposes manufacturers to price volatility, currency fluctuations, and extended logistics.

Timber Supply Constraints

Stakeholders highlighted concern over domestic timber supply. Sawmills report difficulties sourcing adequate volumes due to restrictions on planting and felling, storm damage, and delays in reforestation. Licensing was highlighted as a barrier, with references to slow approvals and seasonal felling restrictions under EU legislation. Despite national targets to increase forest cover, reduced planting rates are also contributing to long-term uncertainty.

Market Insights

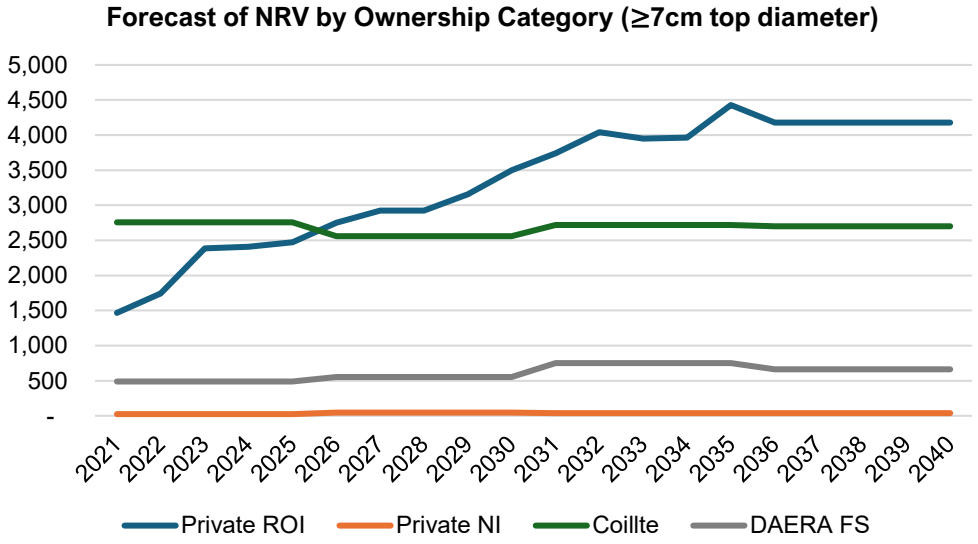
Timber Supply

Ireland has one of the lowest levels of forest cover in the EU, with just 11.6% in the Republic of Ireland (ROI) and 8% in Northern Ireland (NI), compared to an EU average of around 38% (COFORD, 2016). Despite this, the country has developed a strong and efficient wood processing sector, supported by relatively fast tree growth rates and sustained investment in processing technologies. This has enabled Ireland to become a net exporter of timber and timber-related products, even with limited forested land.

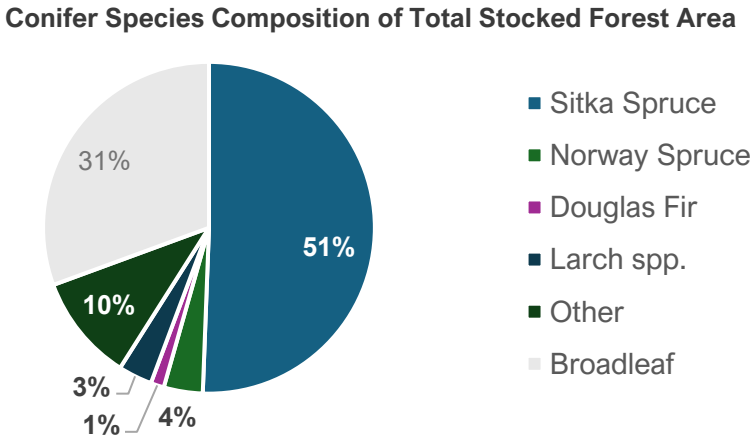
The age profile of Irish forests is relatively young, with most planting occurring in the last 50 years. In the ROI, the private sector has seen significant afforestation over the past 25 years, largely driven by grant-aided schemes. While conifers, particularly Sitka spruce, have historically dominated planting, recent years have seen a shift in species composition. Broadleaf species accounted for 54% of afforestation in 2023 (CSO, 2023), the first year they surpassed conifers in annual planting. This reflects both policy incentives and a response to disease-related declines in ash planting (Department of Agriculture, Food and the Marine, 2025).

As of 2025, forest ownership in Ireland is divided between public (49.1%), private grant-aided (35.7%), and private non-grant-aided (15.2%) holdings (Department of Agriculture, Food and the Marine, 2025). This ownership structure plays a significant role in shaping how forest resources are managed, how incentives are targeted, and the extent to which construction-grade timber can be made available in the future.

Looking ahead, Ireland's roundwood supply is projected to grow substantially. According to COFORD (2021), annual roundwood availability is expected to increase from 4.7 million cubic metres in 2021 to 7.9 million cubic metres by 2035 a 68% rise. This presents a major opportunity to expand the use of timber in construction, particularly in timber frame systems and engineered wood products.



Source: COFORD - All Ireland Roundwood Production Forecast 2021-2040



Source: Ireland's National Forest Inventory, 2022

Market Insights

Timber Supply

Data from the CSO outlined the split of removals across publicly and privately owned forests, publicly-owned forests accounted for 55% of the total wood removed, with privately-owned forests accounting for the remaining (45%). The ownership structure of Irish forests has a direct influence on supply dynamics and the responsiveness of the sector to market signals and policy incentives.

According to 2023 CSO data, 67% of harvested timber in the ROI and NI was directed to sawmills with the remaining going to pulpwood and biomass. Of this, approximately 47% was processed into construction timber, supporting housing and infrastructure development. Another 33% was used for pallets, wood packaging, and garden furniture, while the remaining 20% was allocated to lower-value applications such as fencing posts, stakes, and other products.

Despite Ireland's relatively low forest cover, the country remains a net exporter of timber, with around 66% of processed timber products exported. This reflects both the efficiency of the domestic processing sector and the strong international demand for Irish timber. However, it also highlights the opportunity to retain more value domestically by expanding the use of Irish-grown timber in higher-value construction applications, particularly through investment in engineered wood products and modern timber building systems.

The model takes the data and insights from stakeholders and the CSO building in information from Data from the United Nations Economic Commission for Europe (UNECE). It indicates that there is sufficient homegrown timber available to meet projected demand for both 2025 and 2030. However, achieving this would require a significant reduction in current export volumes to prioritise supply for the domestic construction market.

		Demand	Production	Imported	Exported	Balance
Sawnwood	2025	847,443 m^3	1,049,694 m^3	393,286 m^3	(595,537) m^3	**1,696,911 m^3**
	2030	1,233,652 m^3	1,097,581 m^3	638,419 m^3	(502,348) m^3	**2,469,334 m^3**
Panels	2025	419,811 m^3	828,008 m^3	403,802 m^3	(811,999) m^3	**841,647 m^3**
	2030	722,261 m^3	848,767 m^3	768,327 m^3	(894,833) m^3	**1,446,552 m^3**

Model Insights Demand, Production, Import and Export Volumes across Construction, Pallets, Packaging and Fencing (Source UNECE and CSO data)

While Ireland's roundwood supply is projected to increase significantly by 2035, this growth may not translate into long-term security for the construction industry if a substantial portion continues to be exported rather than retained for domestic use.

Looking beyond 2035, to ensure a sustainable and resilient supply, it will be essential to consider and implement robust planting strategies, aligning forestry policy with the anticipated needs of the construction sector and supporting Ireland's ambitions for a low-carbon, timber-driven built environment. This is something that was outside the scope of this study.

Market Insights

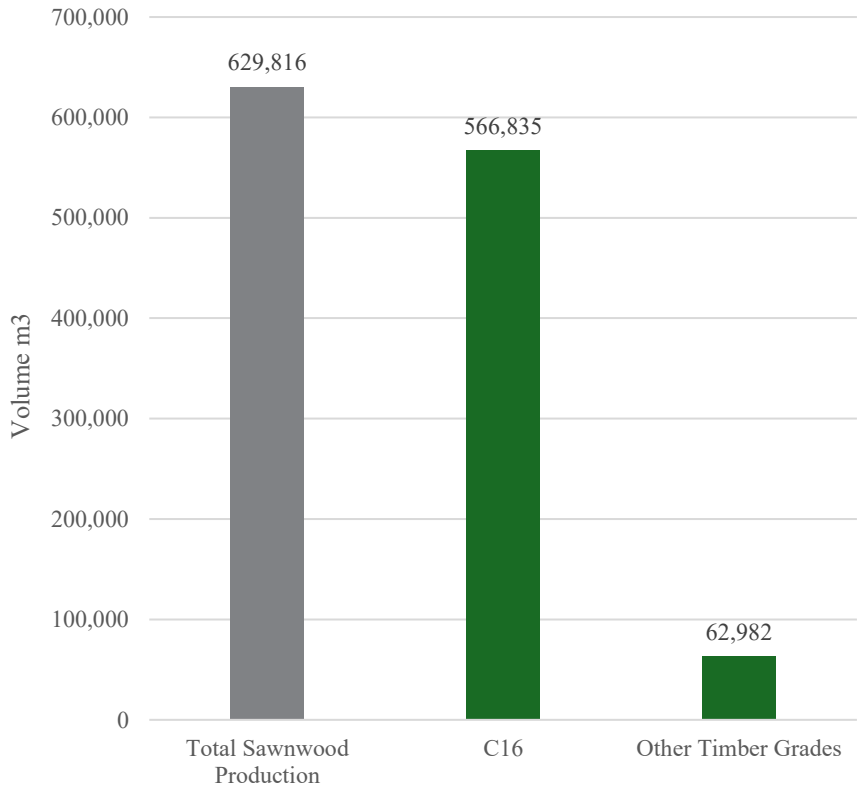
Timber Supply

Ireland's structural timber market is dominated by domestically produced C16-grade timber, yet its use in high-spec construction remains limited due to legacy perceptions around quality and consistency. Despite modern kiln-drying capabilities and structural adequacy, Irish C16 is often overlooked in favour of imported alternatives. This preference persists even though Irish-grown timber meets the same performance standards and could be used more widely in new builds with appropriate design considerations.

The market's reliance on imported timber particularly C24-grade and even imported C16 is driven more by habit and over-specification than necessity. Survey data shows that manufacturers use an average of 75% imported timber in timber frame systems, with modular off-site systems reaching 80%. This dependency reflects a missed opportunity to leverage Ireland's robust domestic forestry sector, which is capable of supplying much of the structural demand.

While detailed data on the split between C16 and C24 timber is limited, a 2019 study by University College Dublin (Ní Dhubháin et al., 2019) estimated that approximately 90% of Irish timber is C16-grade. Applying this ratio to the 2025 production estimate of 629,816 m³ suggests that around 566,835 m³ of Irish timber could be C16. While overall the characteristic values for Irish Sitka spruce align with the C16 strength class, this does not preclude the possibility of achieving acceptable yields in higher strength classes.

To unlock future market value, Ireland must shift toward greater utilisation of homegrown C16 timber. This requires targeted education and marketing to challenge outdated assumptions and promote the material's viability for mainstream construction. The regulatory framework already supports its use; what's needed is a change in mindset across the design and procurement ecosystem. Promoting Irish-grown timber is not only a technical opportunity it's a strategic imperative.



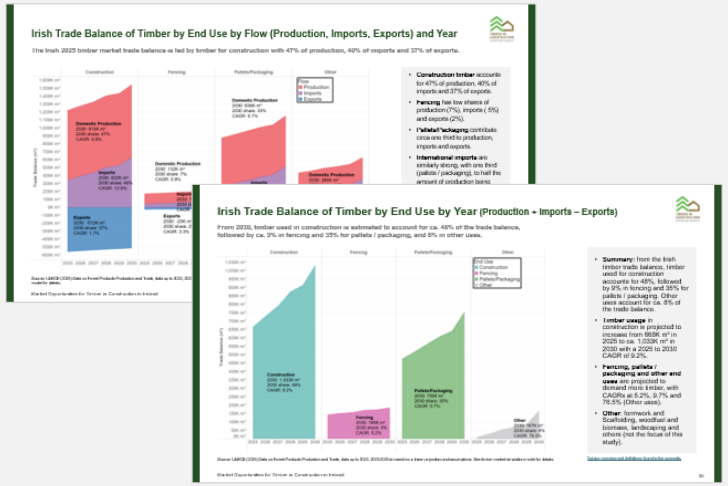
Total sawnwood produced for construction in ROI 2025

(Source UNECE, CSO data and stakeholder data)

It should be noted that most sawmills in Ireland are looking for C16 and not a higher grade

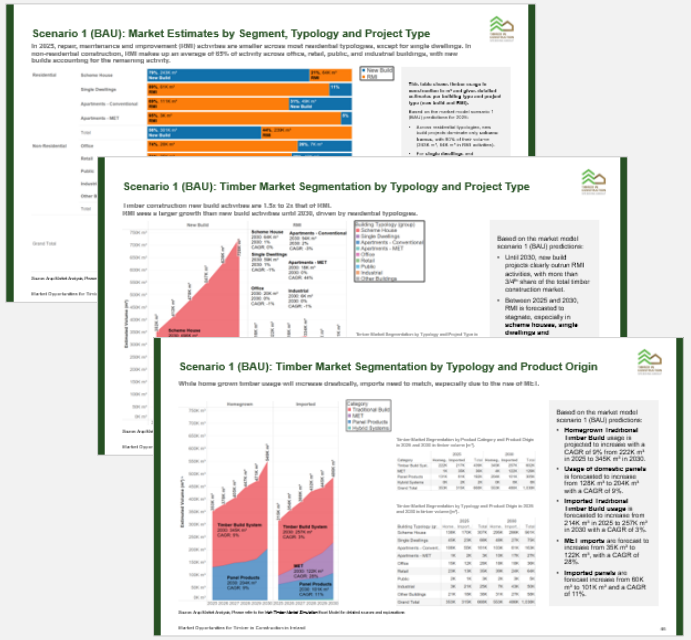
Market Insights – Scenario 1 (Baseline) – Business as Usual

This chapter provides a snapshot of Ireland's timber market, including trade balance trends, system and product typologies, and the origin of timber used in both renovation and new construction. These insights help identify where timber is currently being applied and highlight areas with untapped potential for growth and innovation. The analysis sets the foundation for understanding how timber is positioned within the broader construction landscape. Insights from future timber use scenarios and their implications for carbon savings and market development are presented in the following chapter.



Trade Balance

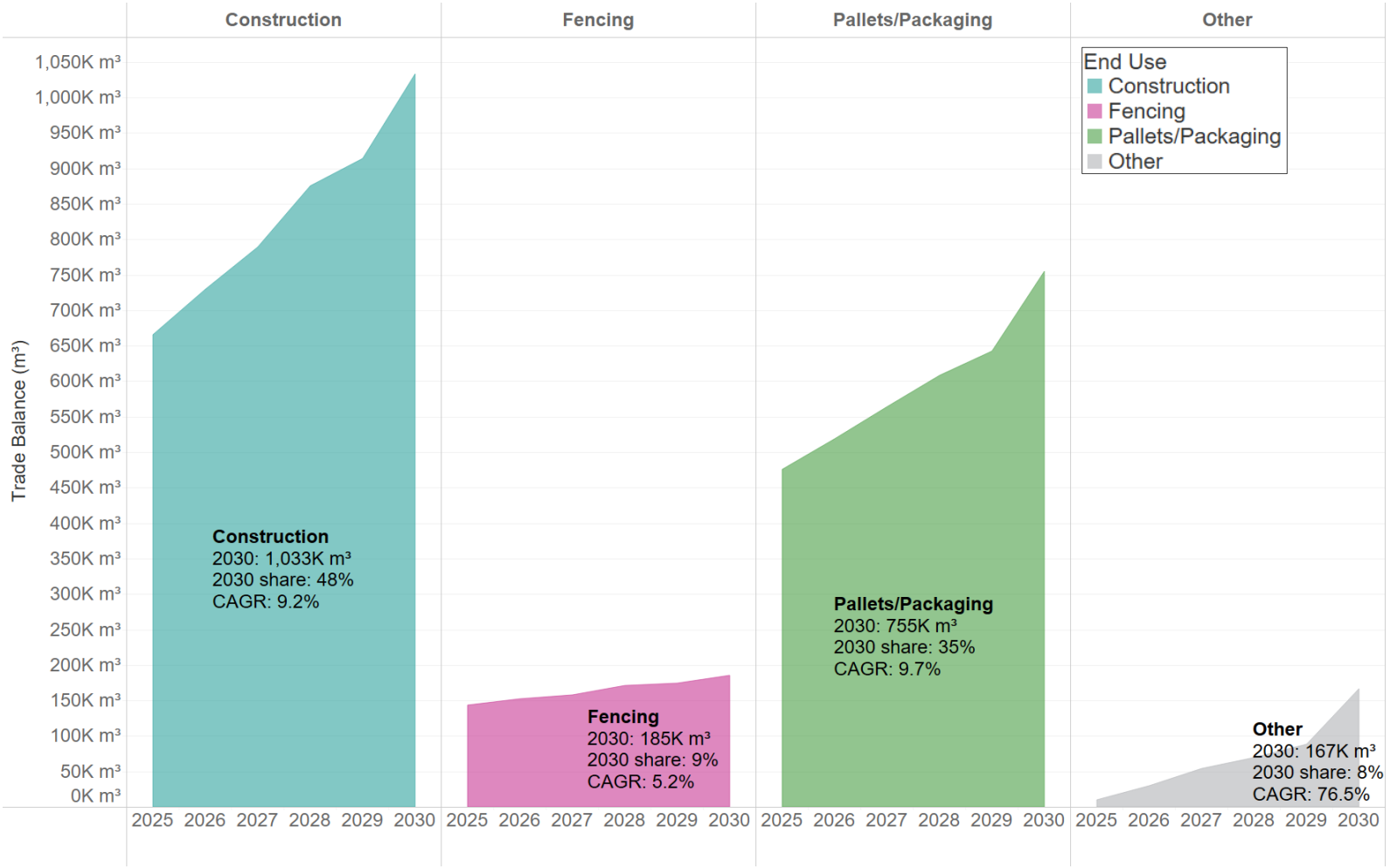
Product Category, Product and Typology Analysis



RMI and Product Origin Analysis

Irish Trade Balance of Timber by End Use by Year (Production + Imports – Exports)

From 2030, timber used in construction is estimated to account for ca. 48% of the trade balance, followed by ca. 9% in fencing and 35% for pallets / packaging, and 8% in other uses.



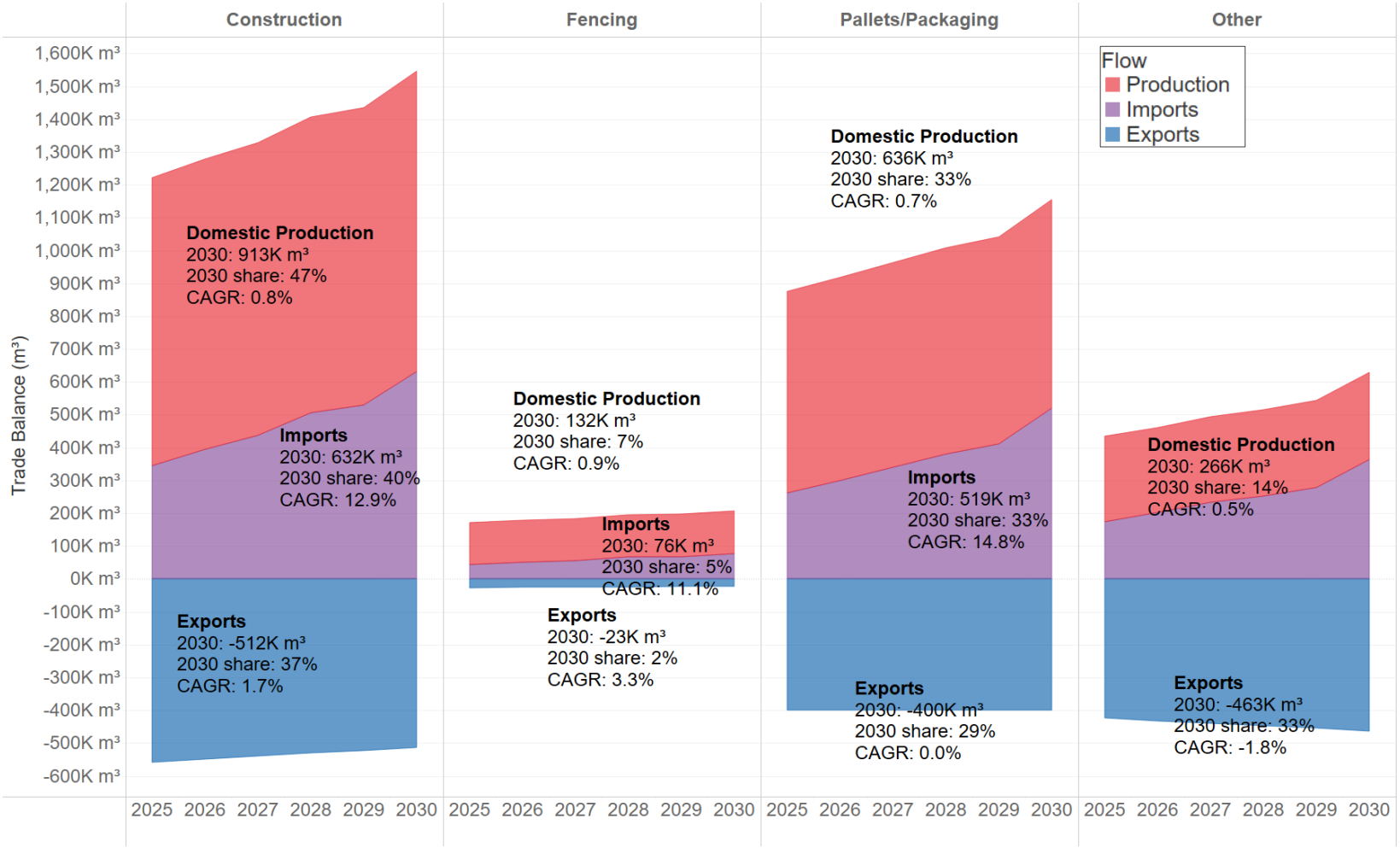
- **Summary:** from the Irish timber trade balance, timber used for construction accounts for 48%, followed by 9% in fencing and 35% for pallets / packaging. Other uses account for ca. 8% of the trade balance.
- **Timber usage** in construction is projected to increase from 668K m³ in 2025 to ca. 1,033K m³ in 2030 with a 2025 to 2030 CAGR of 9.2%.
- **Fencing, pallets / packaging and other end uses** are projected to demand more timber, with CAGRs at 5.2%, 9.7% and 76.5% (Other uses).
- **Other**: formwork and Scaffolding, woodfuel and biomass, landscaping and others (not the focus of this study).

Source: UNECE (2025) Data on Forest Products Production and Trade, data up to 2022, 2023-2025 is based on a linear projection and assumptions. See timber market simulation model for details.

Tabular overview and definitions found in the appendix.

Irish Trade Balance of Timber by End Use by Flow (Production, Imports, Exports) and Year

The Irish 2025 timber market trade balance is led by timber for construction with 47% of production, 40% of imports and 37% of exports.



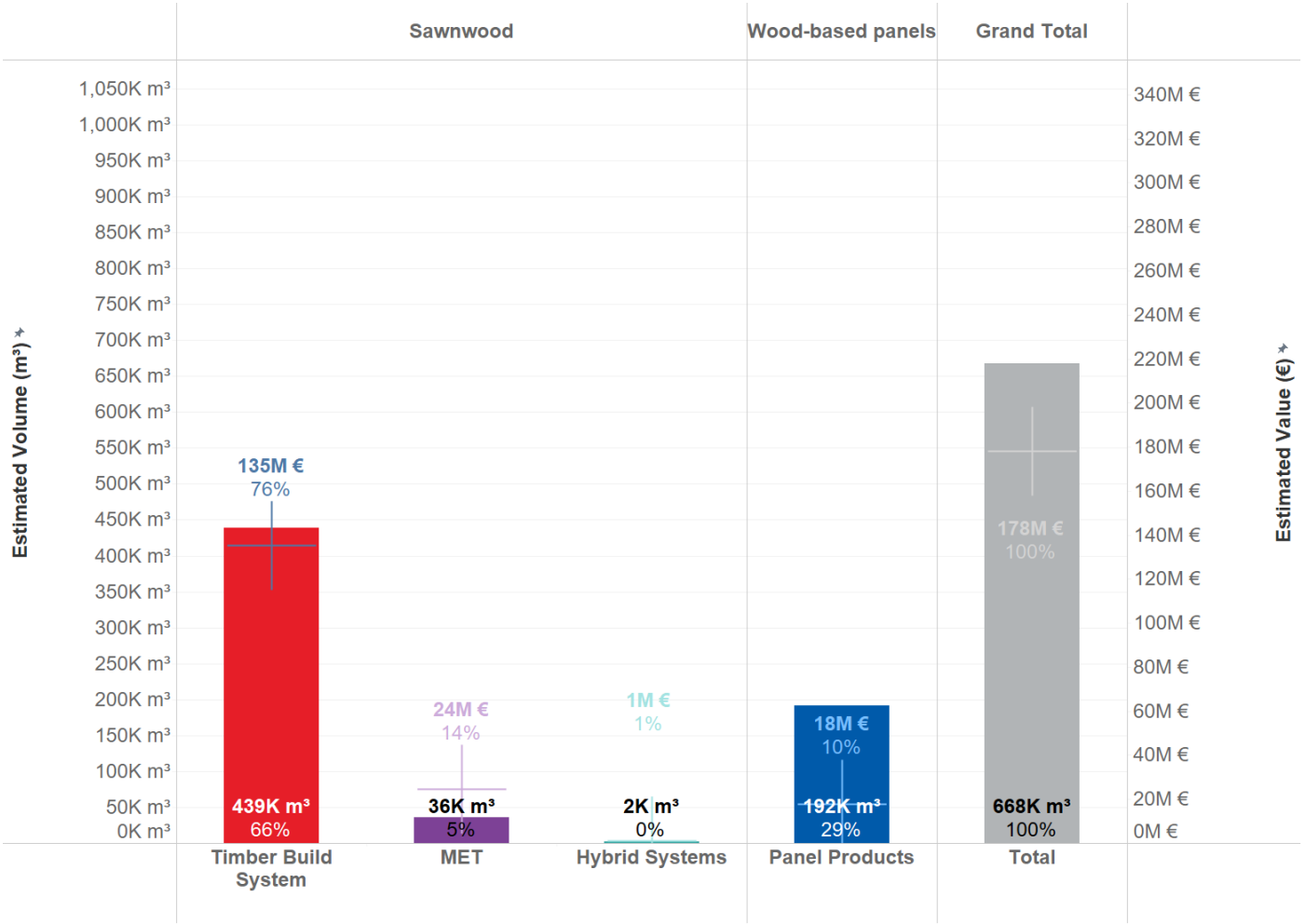
- **Construction timber** accounts for 47% of production, 40% of imports and 37% of exports.
- **Fencing** has low shares of production (7%), imports (5%) and exports (2%).
- **Pallets/Packaging** contribute circa one third to production, imports and exports.
- **International imports** are similarly strong, with one third (pallets / packaging), to half the amount of production being imported.
- **Production of timber for construction** is forecasted to remain stable between 2025 and 2030 (Compound Annual Growth Rate, CAGR 0.8%), while imports are estimated to increase (12.9%), and exports to slow down due to increased domestic demand (1.7%).

Source: UNECE (2025) Data on Forest Products Production and Trade, data up to 2022, 2023-2025 is based on a linear projection and assumptions. See timber market simulation model for details.

Tabular overview of data found in the appendix.

Scenario 1 (BAU): 2025 Timber Demand by Raw Material and Product Category

The Irish timber construction market in 2025 is estimated at 668,000 m³ timber volume and 178M Euro value.



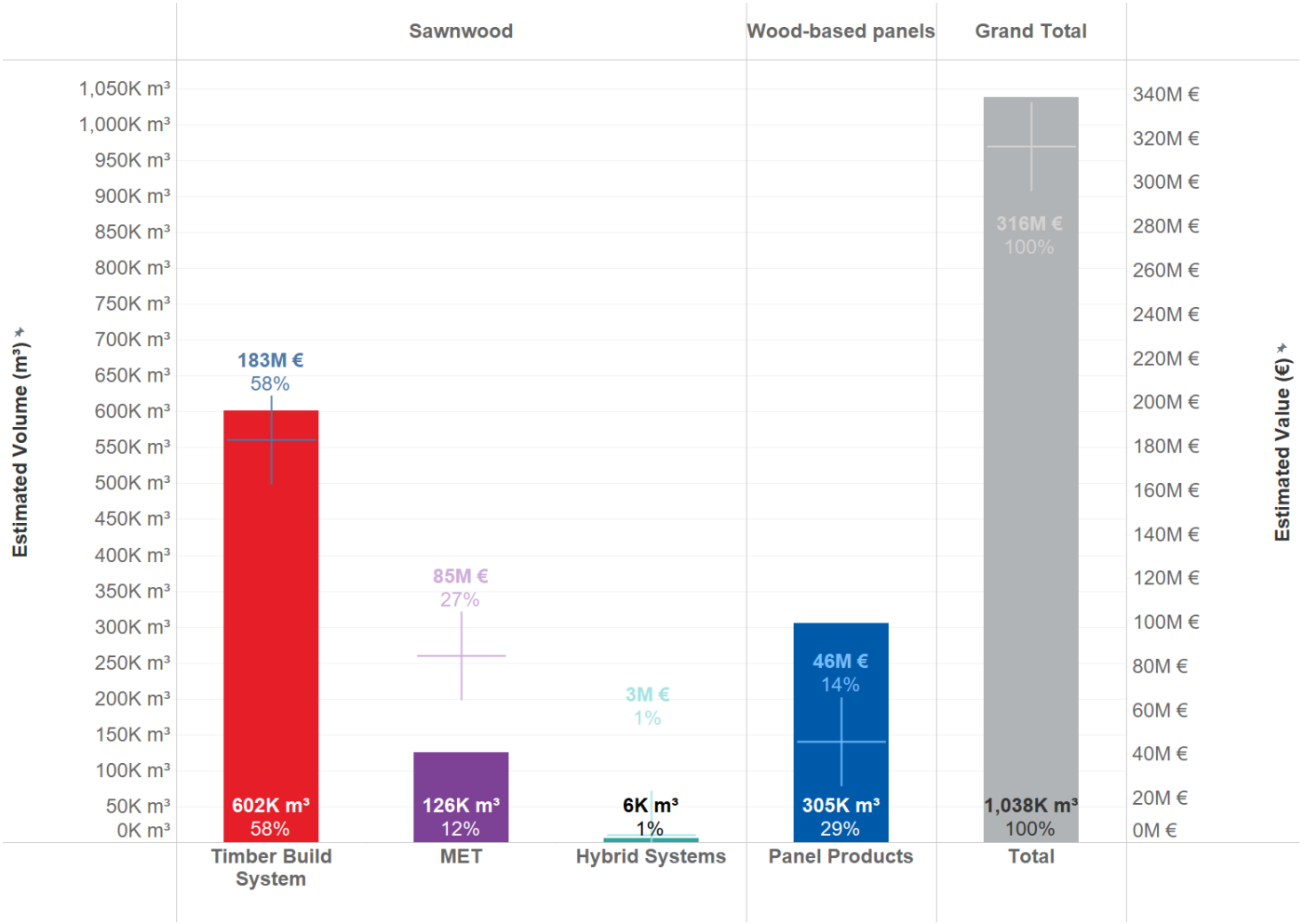
Based on the market model scenario 1 (BAU) predictions for 2025:

- **Market Estimate:** The Irish timber construction market in 2025 is estimated at 668K m³ and 178M €.
- **Timber Build Systems** (Traditional, Timber Frame Studs and Logs) account for 66% of volume and 76% of market value.
- **Mass Engineered Timber** (CLT, Glulam, etc.) have a share of 5% of volume and 14% of value.
- **Hybrid Systems** (Timber and Concrete / Steel) are negligible as of 2025.
- **Panel Products** (OSB, Plywood and Panels used for Timber Frame) are estimated at 29% of the market volume and 10% of value.

Source: Arup Market Analysis, UNECE (2025) and others, see timber market simulation model for details.

Scenario 1 (BAU): 2030 Timber Demand by Raw Material and Product Category

The Irish timber construction market in 2030 is estimated at 1,038,000 m³ timber volume and 316M Euro value.



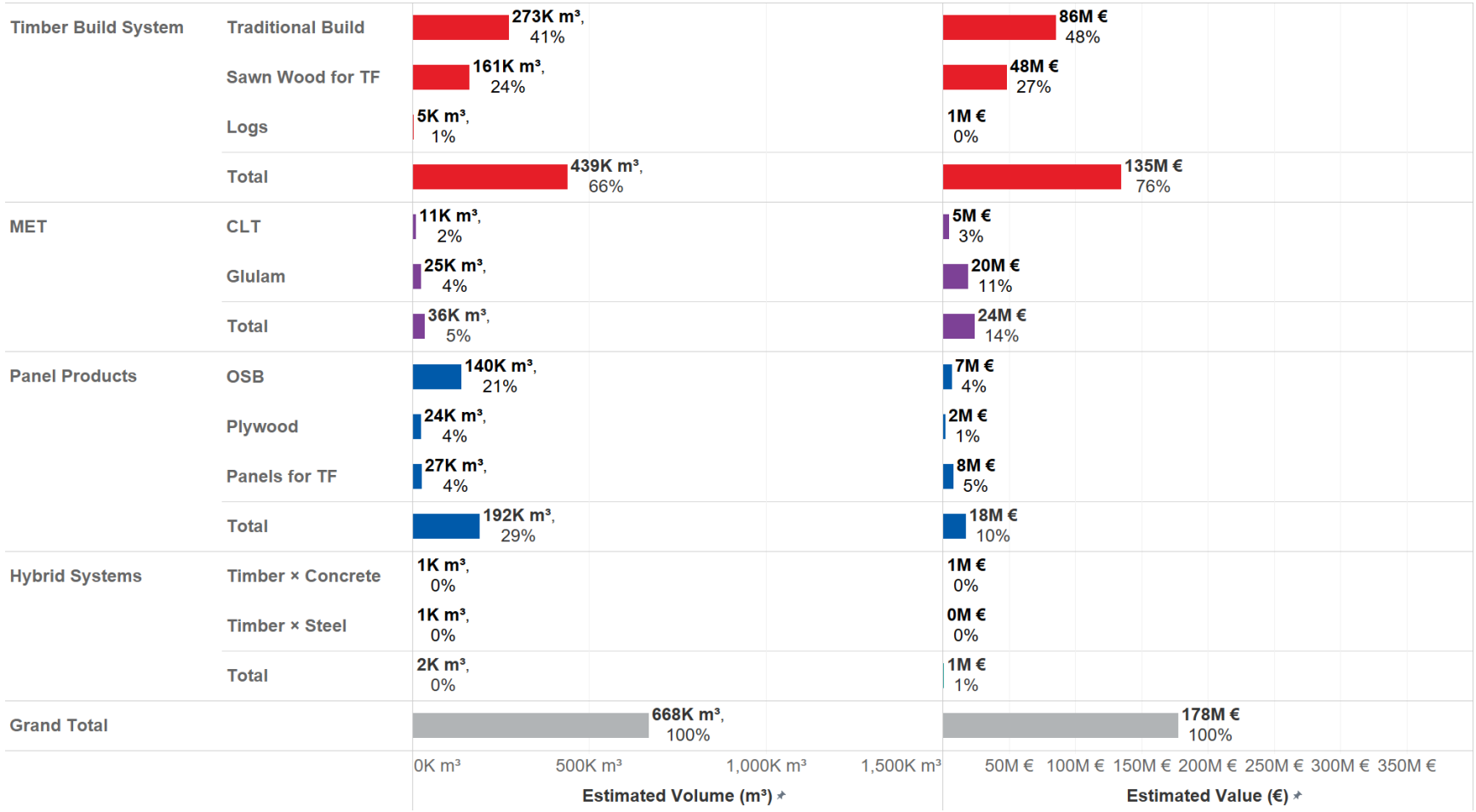
Source: Arup Market Analysis, UNECE (2025) and others, see timber market simulation model for details.

Based on the market model scenario 1 (BAU) predictions for 2030:

- **Market Estimate:** The Irish timber construction market in 2025 is estimated at 1,038,000K m³ and 316M €.
- **Timber Build Systems** (Traditional, Timber Frame Studs and Logs) account for 58% of volume and 58% of market value.
- **Mass Engineered Timber** (CLT, Glulam, etc.) have a share of 12% of volume and 27% of value.
- **Hybrid Systems** (Timber and Concrete / Steel) are still negligible in 2030.
- **Panel Products** (OSB, Plywood and Panels used for Timber Frame) are estimated at 29% of the market volume and 14% of value.

Scenario 1 (BAU): Timber Product Segmentation by Category and Product, 2025

The timber construction market in 2025 is mainly Traditional Build (41% of volume), Timber Frame (Studs and Panels combined 28%) and OSB (21%).



Based on the market model scenario 1 (BAU) predictions for 2025:

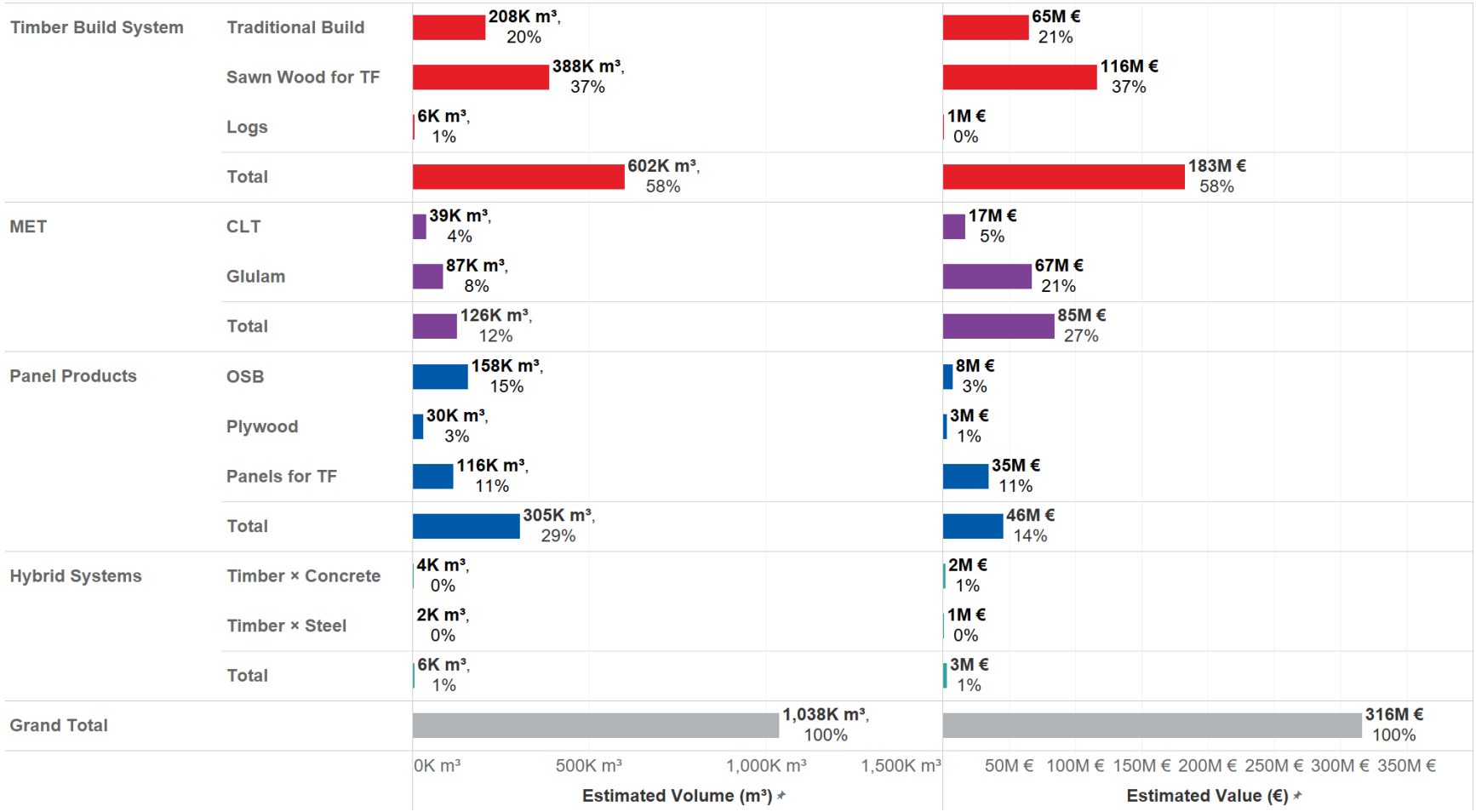
- In Traditional Timber Build,
  - **Timber Frame** accounts for 41% of volume (273K m³) and 48% of value (86M €).
  - **Sawn Wood for Timber Frame** accounts for 24% of volume (161K m³) and 27% of value (48M €).
- **Mass-engineered timber** (CLT, Glulam) are still low in uptake, with ca. 5% market share (36K m³), however 14% of value (24M €), due to higher unit prices.
- **OSB** takes 21% of volume (140K m³) and 4% of value (7M €), while **Plywood** and **Panels for Timber Frame** account for 4% of volume (24K and 27K m³) and 1% and 5% of value each (2M and 8M €).
- As of 2025, **hybrid systems** are not widely used in the Irish timber construction market.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

TF: Timber Frame

Scenario 1 (BAU): Timber Product Segmentation by Category and Product, 2030

Based on Scenario 1 market model predictions for 2030: timber frame is projected to account for 48% of total timber construction volume and value, while MET is expected to reach 12% of volume and 27% of market value.



Based on the market model scenario 1 (BAU) predictions for 2030:

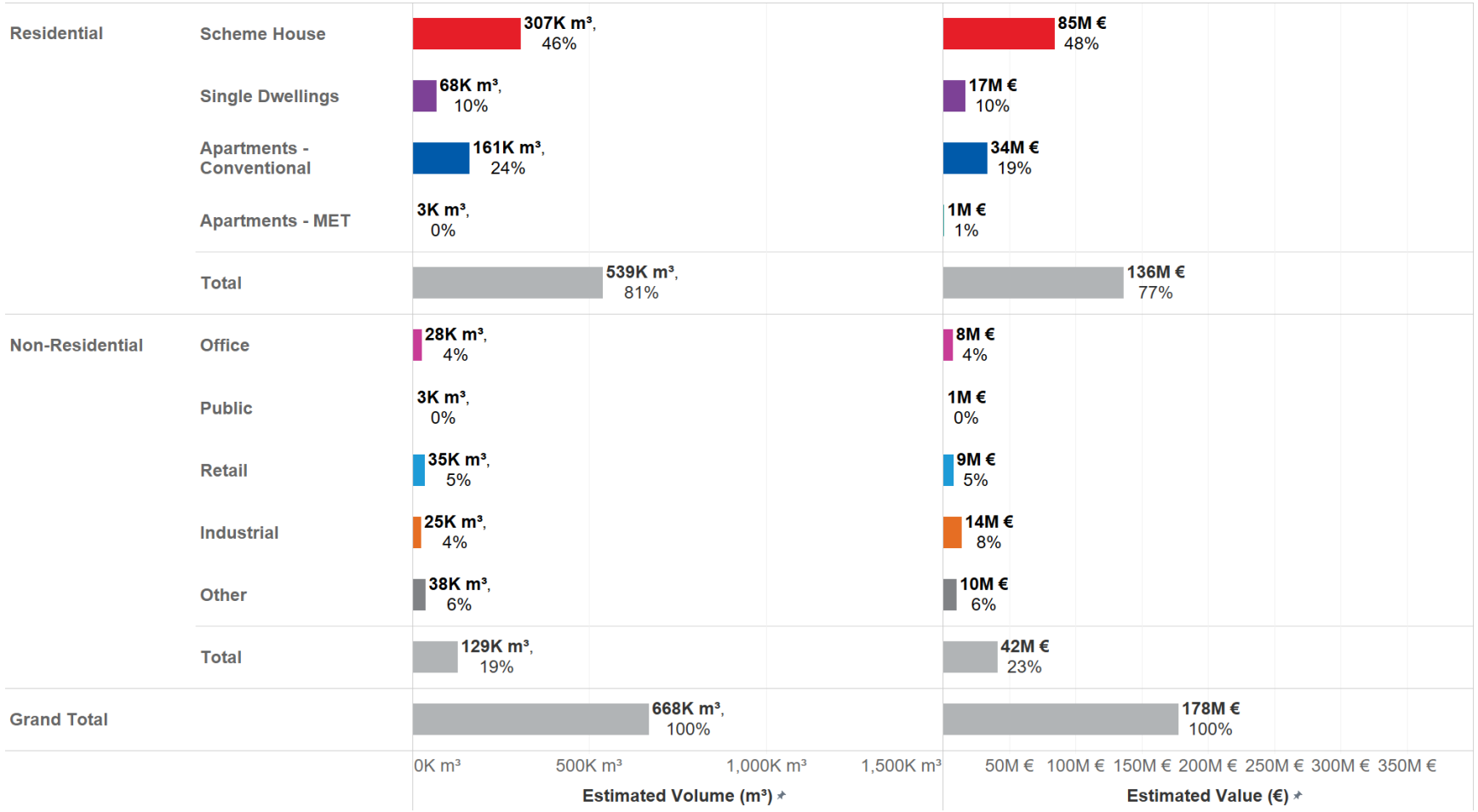
- Between 2025 and 2030, the market share of **Traditional Timber Build** is forecasted to reduce from 41% to 20% of volume and from 48% to 21% of value (absolute decrease from 237K m³ to 208K m³ and from 86M € to 65M €).
- **MET** volume is forecasted to increase from 5% to 12% (36K to 126K m³), and from 14% to 27% of the value share (24M € to 85M €).
- **Panels** are forecasted to remain similar in relative market share (29% of volume and 14% of value with an absolute increase of volume from 192K to 305K m³ and from 18M € to 46M €). A shift from OSB to Panels used in Timber Frame is forecasted (from 21% and 4% in 2025 to 15% and 11% in 2030).
- The use of **Hybrid Systems** is estimated to remain low in 2030, estimated at ca. 6K m³, and ca. 3M € in total.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

TF: Timber Frame

Scenario 1 (BAU): Timber Construction Market Segmentation by Typology, 2025

Scheme home construction contributes to 46% of the market in 2025, followed by conventional apartments (mostly timber panels, 24%) and single dwellings (10%). The non-residential segment contributes 19% in total.



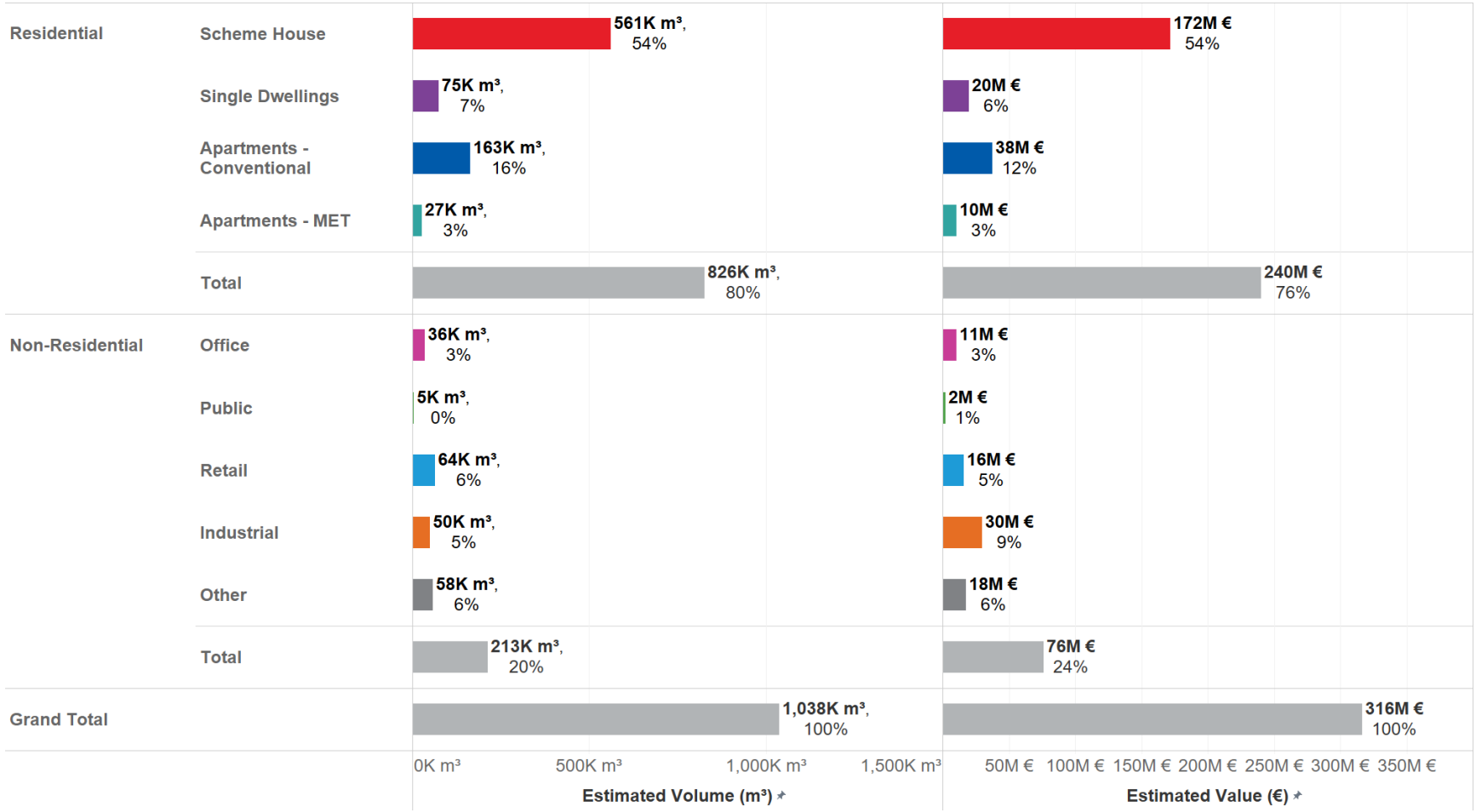
Based on the market model scenario 1 (BAU) predictions for 2025:

- Across the 2025 market segmentation, **scheme houses** are estimated to account for 46% of timber volume (307K m³) and 48% of timber value (85M €).
- **Single dwellings** take 10% of volume and value (68K m³ and 17M €), while **conventional apartments** account for 24% of volume and 19% of value (161K m³ and 34M €).
- **Mass-engineered timber (MET) based apartments** using products such as CLT and Glulam, are on a pilot level only, with below 1% market share (3K m³ and below 1M €).
- **Non-residential typologies** share between less than 1% and 6% of the volume, and less than 1% and 8% of the value market (between 3K and 38K m³ and below 1M and 14M €).
- In 2025 in total, residential accounts for 81% of volume and 77% of value, while non-residential accounts for 19% of volume and 23% of timber market value.
- In 2025 in total, residential is estimated at 539K m³ and 136M €, while non-residential is estimated at 126K m³ volume and 42M € value.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Scenario 1 (BAU): Timber Construction Market Segmentation by Typology, 2030

In 2030, MET apartments increase to 3% (of value) and have taken market share from conventional apartments. Overall market has increased to 1,038K m³ and 316M Euros.



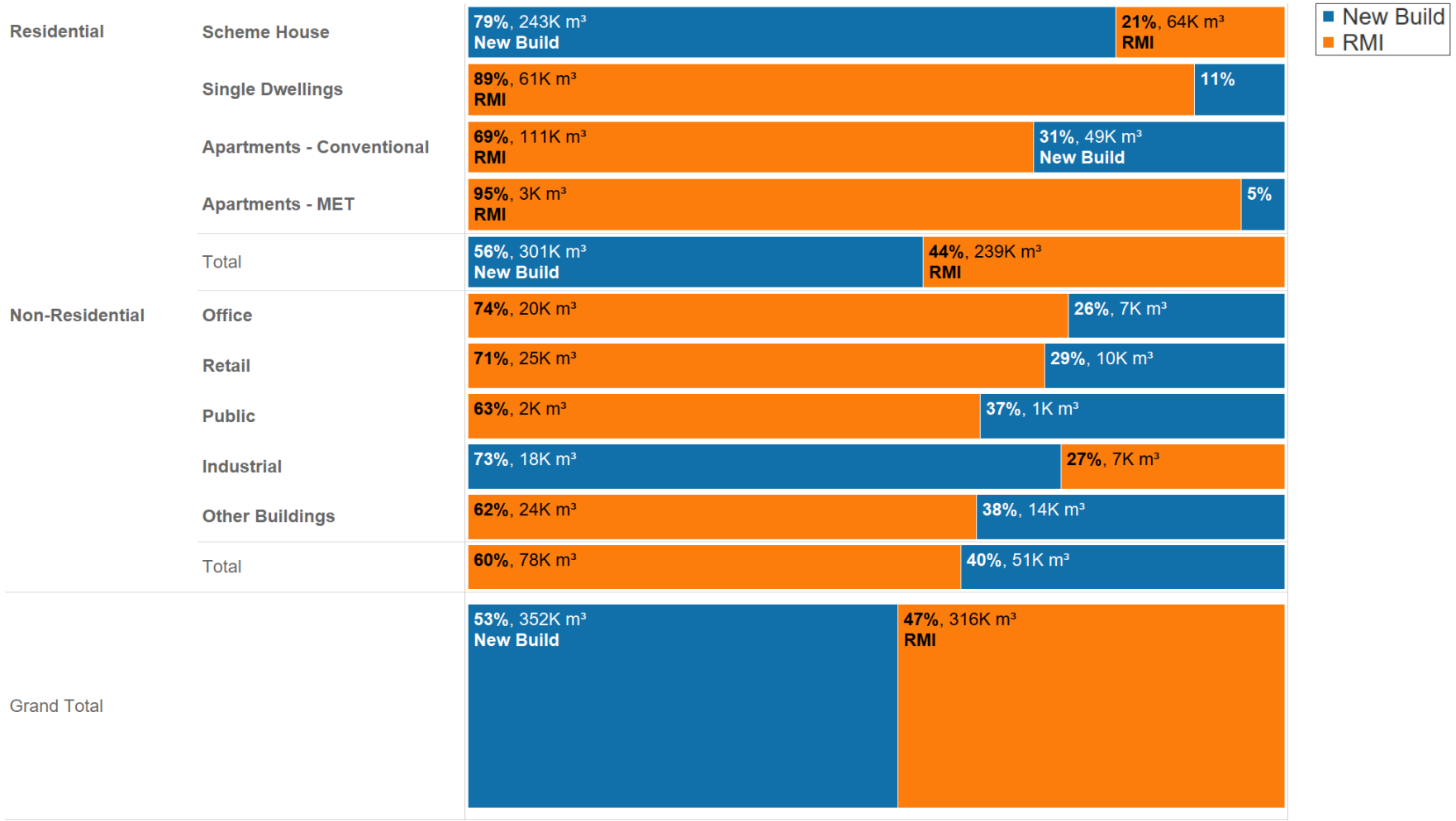
Based on the market model scenario 1 (BAU) predictions for 2030:

- In 2030, the market is still led by **scheme houses** (54% of volume and value).
- **Single dwellings** similarly take 7% of volume and 6% of value, while **conventional apartments** have decreased to 16% of volume and 12% of value.
- **Apartments built with modern methods of construction (MET)** are nascent, with 3% market share.
- **Non-residential typologies** share between less than 1% and 6% of the annual timber construction volume, and 1% and 9% of the annual timber construction value.
- In 2030 in total, residential accounts for 80% of volume and 76% of value, while non-residential accounts for 20% of volume and 24% of timber market value.
- In 2030 in total, residential is estimated at 826K m³ and 240M €, while non-residential is estimated at 213K m³ volume and 76M € value.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Scenario 1 (BAU): Market Estimates by Segment, Typology and Project Type

In 2025, repair, maintenance and improvement (RMI) activities are smaller across most residential typologies, except for single dwellings. In non-residential construction, RMI makes up an average of 65% of activity across office, retail, public, and industrial buildings, with new builds accounting for the remaining activity.



Residential	Scheme House	**79%**, 243K m³ **New Build** / **21%**, 64K m³ **RMI**
	Single Dwellings	**89%**, 61K m³ **RMI** / **11%**
	Apartments - Conventional	**69%**, 111K m³ **RMI** / **31%**, 49K m³ **New Build**
	Apartments - MET	**95%**, 3K m³ **RMI** / **5%**
	Total	**56%**, 301K m³ **New Build** / **44%**, 239K m³ **RMI**
Non-Residential	Office	**74%**, 20K m³ / **26%**, 7K m³
	Retail	**71%**, 25K m³ / **29%**, 10K m³
	Public	**63%**, 2K m³ / **37%**, 1K m³
	Industrial	**73%**, 18K m³ / **27%**, 7K m³
	Other Buildings	**62%**, 24K m³ / **38%**, 14K m³
	Total	**60%**, 78K m³ / **40%**, 51K m³
Grand Total		**53%**, 352K m³ **New Build** / **47%**, 316K m³ **RMI**

This table shows timber usage in construction in m³ and gives detailed estimates per building type and project type (new build and RMI).

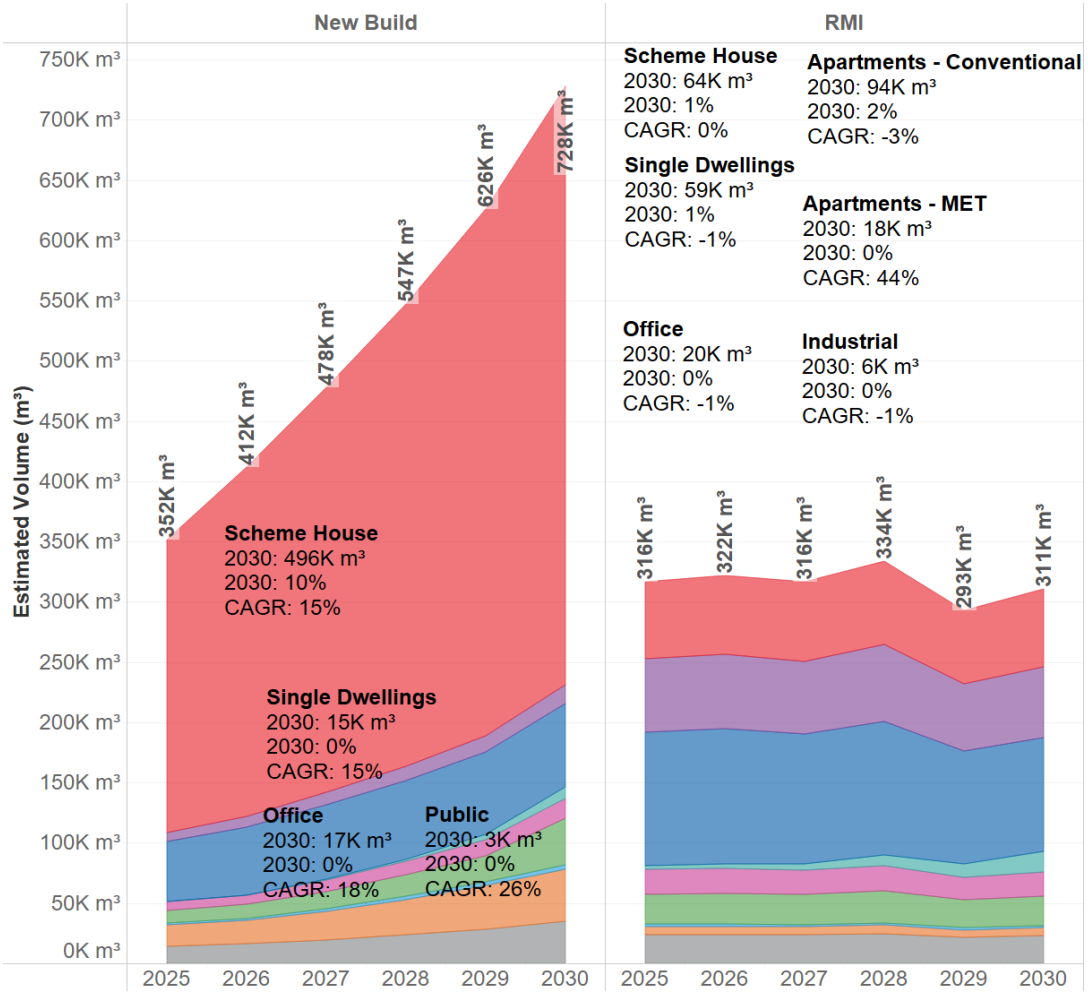
Based on the market model scenario 1 (BAU) predictions for 2025:

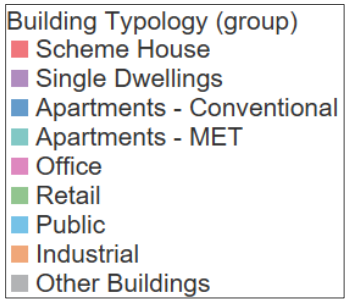
- Across residential typologies, new build projects dominate only **scheme homes**, with 80% of their volume (243K m³, 64K m³ in RMI activities).
- For **single dwellings** and **apartments**, most timber volume is used for RMI activities (69% and 89%), due to the large building stock for single dwellings and conventional apartments on the one hand, and the low new built activity of MET apartments, on the other.
- For **non-residential**, timber is currently mainly used for RMI, with shares between 60% (other buildings) and 74% (offices), except for industrial buildings, with a low share of timber in RMI of 27%.
- In total, the timber construction market in Ireland in 2025 is split nearly 50:50 between new build and RMI.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Scenario 1 (BAU): Timber Market Segmentation by Typology and Project Type

Timber construction new build activities are 1.5x to 2x that of RMI.
RMI sees a larger growth than new build activities until 2030, driven by residential typologies.





Timber Market Segmentation by Typology and Project Type in 2025 and 2030 in timber volume [m³].

	2025			2030		
Building Typology (gr..	New ..	RMI	Total	New ..	RMI	Total
Scheme House	243K	64K	307K	496K	64K	561K
Single Dwellings	8K	61K	68K	15K	59K	75K
Apartments - Convent..	49K	111K	161K	70K	94K	163K
Apartments - MET	0K	3K	3K	9K	18K	27K
Office	7K	20K	28K	17K	20K	36K
Retail	10K	25K	35K	39K	25K	64K
Public	1K	2K	3K	3K	2K	5K
Industrial	18K	7K	25K	44K	6K	50K
Other Buildings	14K	24K	38K	35K	23K	58K
Grand Total	352K	316K	668K	728K	311K	1,038K

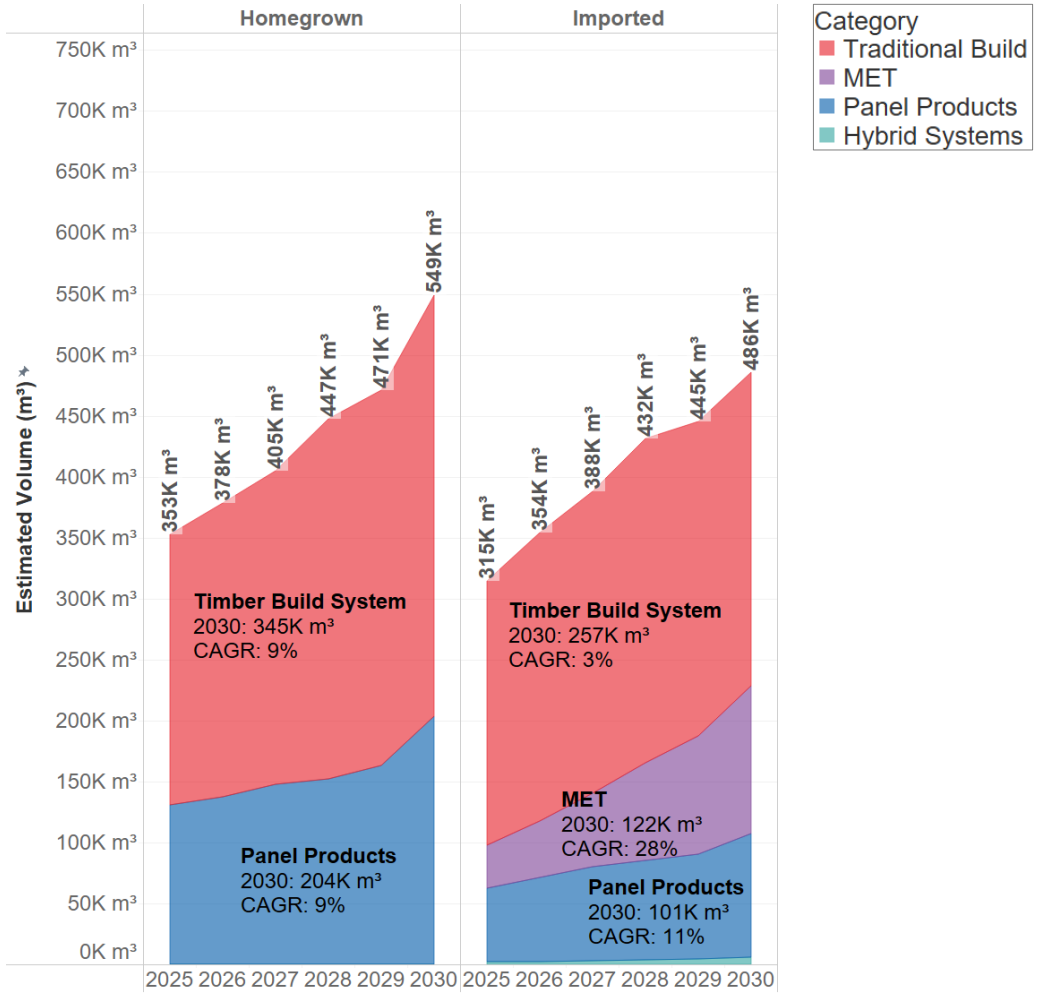
Based on the market model scenario 1 (BAU) predictions:

- Until 2030, new build projects clearly outrun RMI activities, with more than 3/4th share of the total timber construction market.
- Between 2025 and 2030, RMI is forecasted to stagnate, especially in **scheme houses, single dwellings and conventional apartments** (CAGRs between -1% and -0%).
- Only **apartments built with MET** see a 44% CAGR in RMI, due to them being recently constructed (very small share in absolute numbers).

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Scenario 1 (BAU): Timber Market Segmentation by Typology and Product Origin

While home grown timber usage will increase drastically, imports need to match, especially due to the rise of MET.



Timber Market Segmentation by Product Category and Product Origin in 2025 and 2030 in timber volume [m³].

	2025			2030		
Category	Homeg..	Imported	Total	Homeg..	Imported	Total
Timber Build Syst..	222K	217K	439K	345K	257K	602K
MET	1K	35K	36K	4K	122K	126K
Panel Products	131K	61K	192K	204K	101K	305K
Hybrid Systems	0K	2K	2K	0K	6K	6K
Grand Total	353K	315K	668K	553K	486K	1,038K

Timber Market Segmentation by Typology and Product Origin in 2025 and 2030 in timber volume [m³].

	2025			2030		
Building Typology (gr..	Home..	Import..	Total	Home..	Import..	Total
Scheme House	138K	170K	307K	295K	266K	561K
Single Dwellings	45K	23K	68K	48K	27K	75K
Apartments - Convent..	106K	55K	161K	103K	61K	163K
Apartments - MET	1K	2K	3K	10K	17K	27K
Office	15K	12K	28K	18K	18K	36K
Retail	23K	13K	35K	39K	24K	64K
Public	2K	1K	3K	2K	3K	5K
Industrial	3K	21K	25K	7K	43K	50K
Other Buildings	21K	18K	38K	31K	27K	58K
Grand Total	353K	315K	668K	553K	486K	1,038K

Based on the market model scenario 1 (BAU) predictions:

- **Homegrown Traditional Timber Build** usage is projected to increase with a CAGR of 9% from 222K m³ in 2025 to 345K m³ in 2030.
- **Usage of domestic panels** is forecasted to increase from 128K m³ to 204K m³ with a CAGR of 9%.
- **Imported Traditional Timber Build usage** is forecasted to increase from 214K m³ in 2025 to 257K m³ in 2030 with a CAGR of 3%.
- **MET imports** are forecast to increase from 35K m³ to 122K m³, with a CAGR of 28%.
- **Imported panels** are forecast increase from 60K m³ to 101K m³ and a CAGR of 11%.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Market Insights & Recommendations (1/2)

Several key growth areas have been identified and highlight the potential for significant expansion and innovation within the Irish timber industry and construction sector.

Topic	Market Insights based on Scenario 1 (BAU)	Recommendations based on Market Insights
 **Products & Categories**	• **Market Segmentation:** The Irish construction timber market in 2025 is estimated at 668K m³ timber volume and €178M value. Timber Build Systems account for 76% of value. • **Forecast**: Timber usage is projected to increase significantly from 668K m³ in 2025 to approximately 1,038K m³ and €316M in 2030, with a CAGR of 8%. • **Timber Frames**: The market is expected to shift significantly towards Timber Frame, which will account for 48% of both volume and value in 2030. • **Mass-Engineered Timber (MET)**: The adoption of MET is projected to increase substantially due to changes in policies, standards and procurement. Based on scenario 1 (BAU), MET will represent 12% of the volume and 27% of the market value in 2030.	• **Cluster Development**: Foster regional timber construction clusters to enhance collaboration between manufacturers, builders, and suppliers, particularly in areas with access to homegrown timber. • **Expand MET Product Range**: Encourage the development of new MET products tailored to Irish building typologies, such as modular apartment systems or hybrid timber-concrete solutions. • **Support Off-site Manufacturing:** Provide temporary incentives to support new or expanded off-site facilities with a focus on those who integrate Irish-grown timber.
 **Building & Project Typologies**	• **Residential Construction**: Residential construction will continue to dominate, accounting for 80% of the timber volume and 76% of the market value. Scheme houses will lead this segment, contributing 54% of the volume and value in 2030. • **Non-Residential Construction**: Non-residential construction will also see growth, accounting for 20% of the timber volume and 24% of the market value in 2030. • **Modern Methods of Construction (MMC)**: Apartments built with MMC, including MET, will see a nascent but growing market share, projected to reach 2% to 3% in 2030.	• **Customised Solutions for Non-Residential**: Create timber-based solutions for schools, healthcare facilities, and commercial buildings, where demand is growing. • **Pilot Projects for Mid-Rise and MMC:** Launch demonstration projects using MET and modular timber systems in mid-rise and public housing developments to build confidence and showcase performance.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Market Insights & Recommendations (2/2)

Several key growth areas have been identified and highlight the potential for significant expansion and innovation within the Irish timber industry and construction sector.

Topic	Market Insights based on Scenario 1 (BAU)	Recommendations based on Market Insights
Timber Origin	• **Irish Homegrown Timber**: The usage of homegrown Traditional Timber Build Systems is expected to increase with a CAGR of 9%, from 218K m³ in 2025 to 345K m³ in 2030. • **Imported Timber**: The usage of imported MET is forecasted to rise significantly, with a CAGR of 28%, from 35K m³ in 2025 to 122K m³ in 2030.	• **Value-Added Homegrown Timber**: Develop processing capabilities to convert homegrown timber into higher-value products like Glulam or CLT, reducing reliance on imports.

Market Sector Development	• **Typology Segmentation**:
	  • In 2025, residential construction accounts for 80% of volume and 76% of value, while non-residential accounts for 20% of volume and 24% of value. This amounts to 539K m³ and 136M € in residential, while non-residential is estimated at 129K m³ volume and 42M € value.
	  • By 2030, residential construction accounts for 80% of volume and 76% of value, while non-residential accounts for 20% of timber market value. This amounts to 828K m³ and €240M in residential, while non-residential is estimated at 213K m³ and €76M.
	These developments show significant growth opportunities for timber in construction in Ireland.
		• **National Timber Construction Platform**: Establish a centralised platform for sharing best practices, technical guidance, case studies, and market data across the timber construction value chain.
		• **Showcase Projects:** Launch pilot projects showcasing off-site timber systems in mid-rise and public housing developments.
		• **Training and Skills Development**: Partner with educational institutions to deliver targeted training in timber engineering, offsite construction, and sustainable design.
		• **Awareness Campaigns**: Run public and industry-facing campaigns to promote the benefits of timber construction, including speed, sustainability, and design flexibility.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

This chapter presents the scenario-based analysis developed to assess the future role of timber in Ireland's construction sector. It highlights the gap between current construction practices and Ireland's 2030 carbon targets, and outlines the regulatory changes urgently needed to enable timber's contribution to national climate goals.

CHAPTER AIMS

- Provide an overview of the scenario modelling approach and the assumptions underpinning each scenario.
- Quantify the carbon savings potential of increased timber adoption across different construction scenarios.
- Identify the training, guidance, regulatory and market shifts required to close the gap between current practices and 2030 carbon targets.
- Assess the implications of delayed regulatory reform on Ireland's ability to scale low-carbon construction.

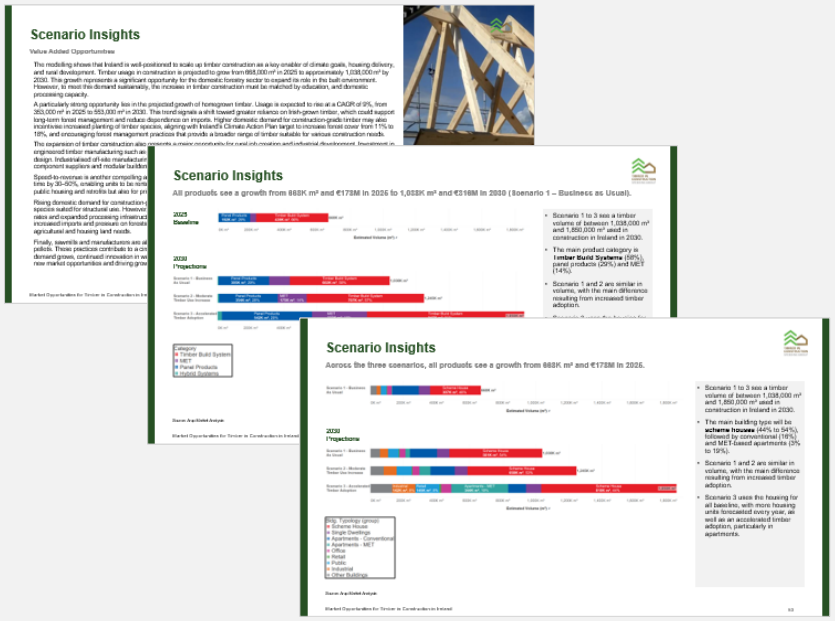
CONCLUSIONS

- The modelling reveals a significant gap between current construction practices and the emissions reductions required to meet Ireland's 2030 targets.
- Without urgent regulatory reform, timber will remain underutilised (outside scheme homes) despite its carbon-saving potential.
- There is a major opportunity to grow Ireland's domestic forestry and timber manufacturing sectors.
- Value-add opportunities exist in engineered timber, modular systems, and off-site manufacturing.

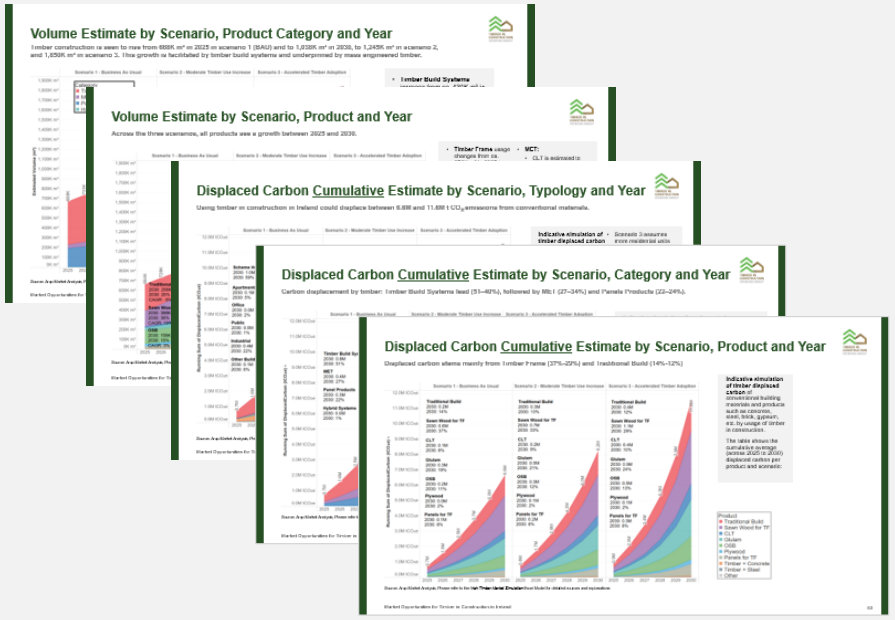
Scenario Insights – Market Perspective

Overview

This section presents a scenario-based analysis of timber's future role in Ireland's construction sector, structured around three key components: the development of model scenarios and parameters, the quantification of timber's market and carbon displacement potential, and the identification of regulatory and market shifts required to meet national climate and housing targets. Drawing on stakeholder engagement and real-world data, the scenarios simulate timber adoption across various building typologies and construction contexts, offering a strategic lens to evaluate the implications of policy action or inaction on Ireland's ability to scale low-carbon construction. Together, these insights provide a robust foundation for decision-makers to align timber adoption with the country's 2030 goals.



Scenario Insights & Recommendations



Analysis

Scenario Insights

Value Added Opportunities

The modelling shows that Ireland is well-positioned to scale up timber construction as a key enabler of climate goals, housing delivery, and rural development. Timber usage in construction is projected to grow from 668,000 m³ in 2025 to approximately 1,038,000 m³ by 2030. This growth represents a significant opportunity for the domestic forestry sector to expand its role in the built environment. However, to meet this demand sustainably, the increase in timber construction must be matched by education, and domestic processing capacity.

A particularly strong opportunity lies in the projected growth of homegrown timber. Usage is expected to rise at a CAGR of 9%, from 353,000 m³ in 2025 to 553,000 m³ in 2030. This trend signals a shift toward greater reliance on Irish-grown timber, which could support long-term forest management and reduce dependence on imports. Higher domestic demand for construction-grade timber may also incentivise increased planting of timber species, aligning with Ireland's Climate Action Plan target to increase forest cover from 11% to 18%, and encouraging forest management practices that provide a broader range of timber suitable for various construction needs.

The expansion of timber construction also presents a major opportunity for rural job creation and industrial development. Investment in engineered timber manufacturing such as glulam and CLT could stimulate employment in sawmilling, fabrication, logistics, and digital design. Industrialised off-site manufacturing, could reduce material waste by up to 25% while opening new revenue streams for component suppliers and modular builders.

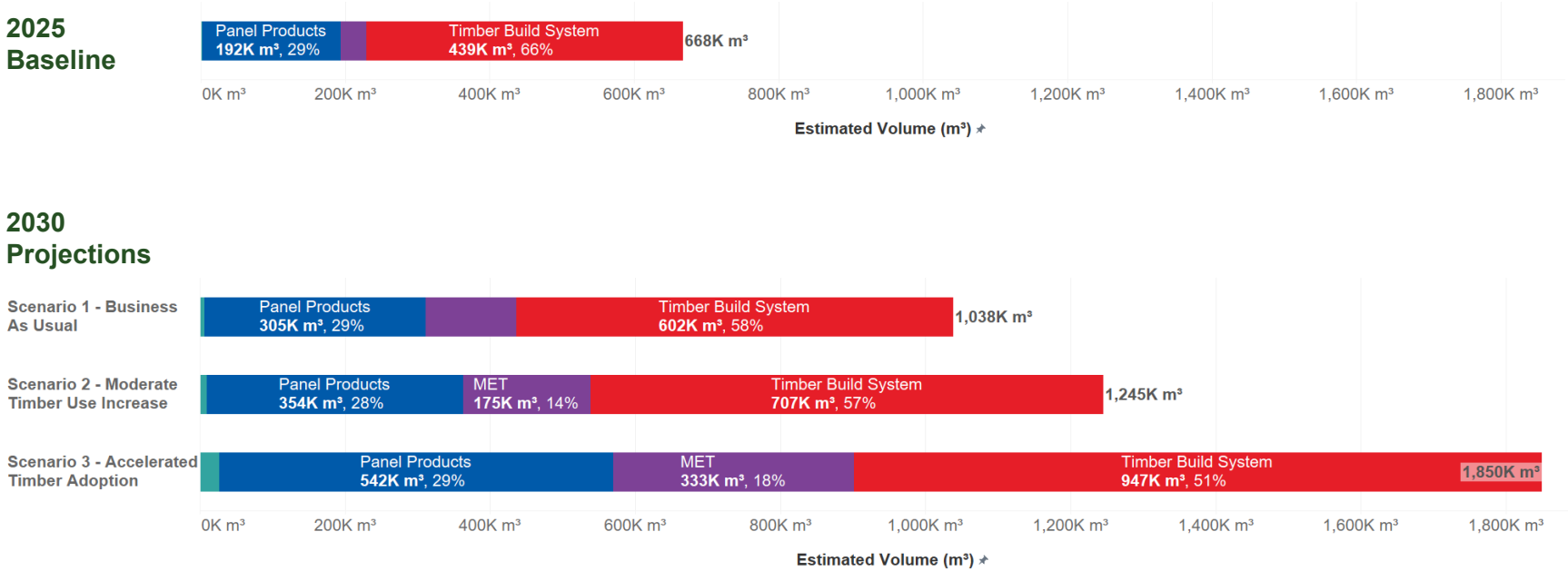
Speed-to-revenue is another compelling advantage. Developers report that factory-made timber panels can reduce on-site construction time by 30–50%, enabling units to be rented or sold more quickly. These financial benefits make timber systems attractive not only for public housing and retrofits but also for private sector developers seeking faster project delivery and lower risk.

Rising domestic demand for construction-grade timber may incentivise increased afforestation, particularly of fast-growing, long-rotation species suited for structural use. However, the modelling also highlights afforestation as a potential constraint. Without better planting rates and expanded processing infrastructure, a surge in timber construction could exceed the sustainable domestic supply, leading to increased imports and pressure on forests abroad. Land use competition is another concern, as afforestation targets may conflict with agricultural and housing land needs.

Finally, sawmills and manufacturers are already innovating to maximise resource efficiency, including the use of by-products like wood pellets. These practices contribute to a circular bioeconomy and strengthen the commercial potential of the forestry sector. As timber demand grows, continued innovation in waste utilisation, product development, and supply chain integration will be key to unlocking new market opportunities and driving growth across Ireland's forest-based industries.

Scenario Insights

All products see a growth from 668K m³ and €178M in 2025 to 1,038K m³ and €316M in 2030 (Scenario 1 – Business as Usual).

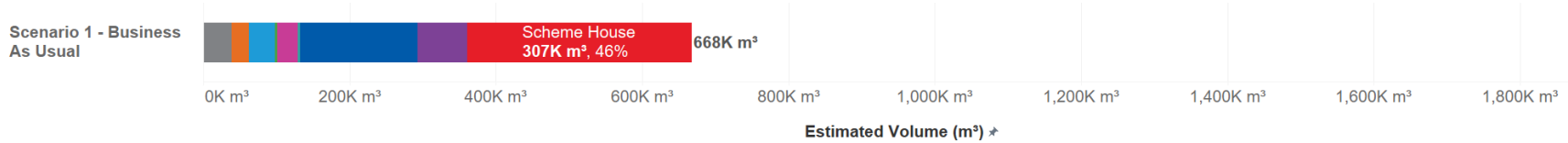


- Scenario 1 to 3 see a timber volume of between 1,038,000 m³ and 1,850,000 m³ used in construction in Ireland in 2030.
- The main product category is **Timber Build Systems** (58%), panel products (29%) and MET (14%).
- Scenario 1 and 2 are similar in volume, with the main difference resulting from increased timber adoption.
- Scenario 3 uses the housing for all baseline, with more housing units forecasted every year, as well as an accelerated timber adoption.

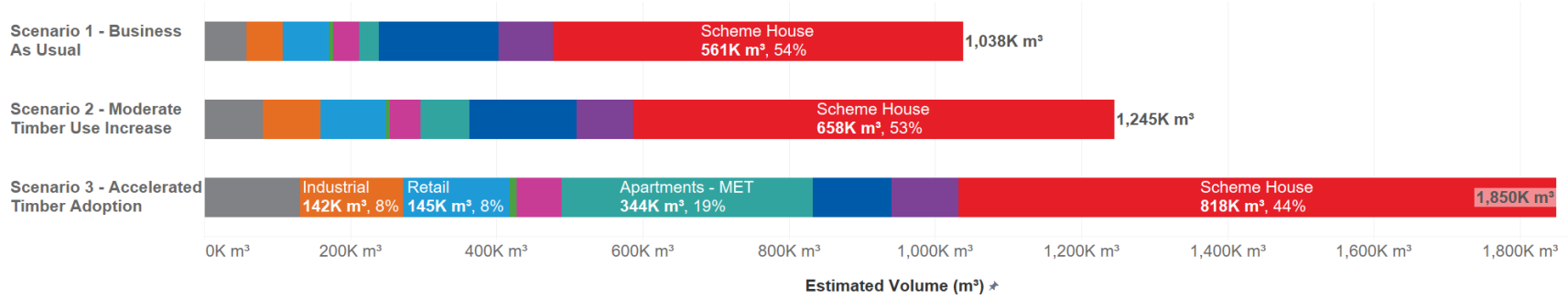
Source: Arup Market Analysis

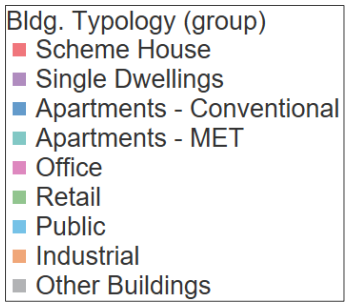
Scenario Insights

Across the three scenarios, all products see a growth from 668K m³ and €178M in 2025.



2030 Projections



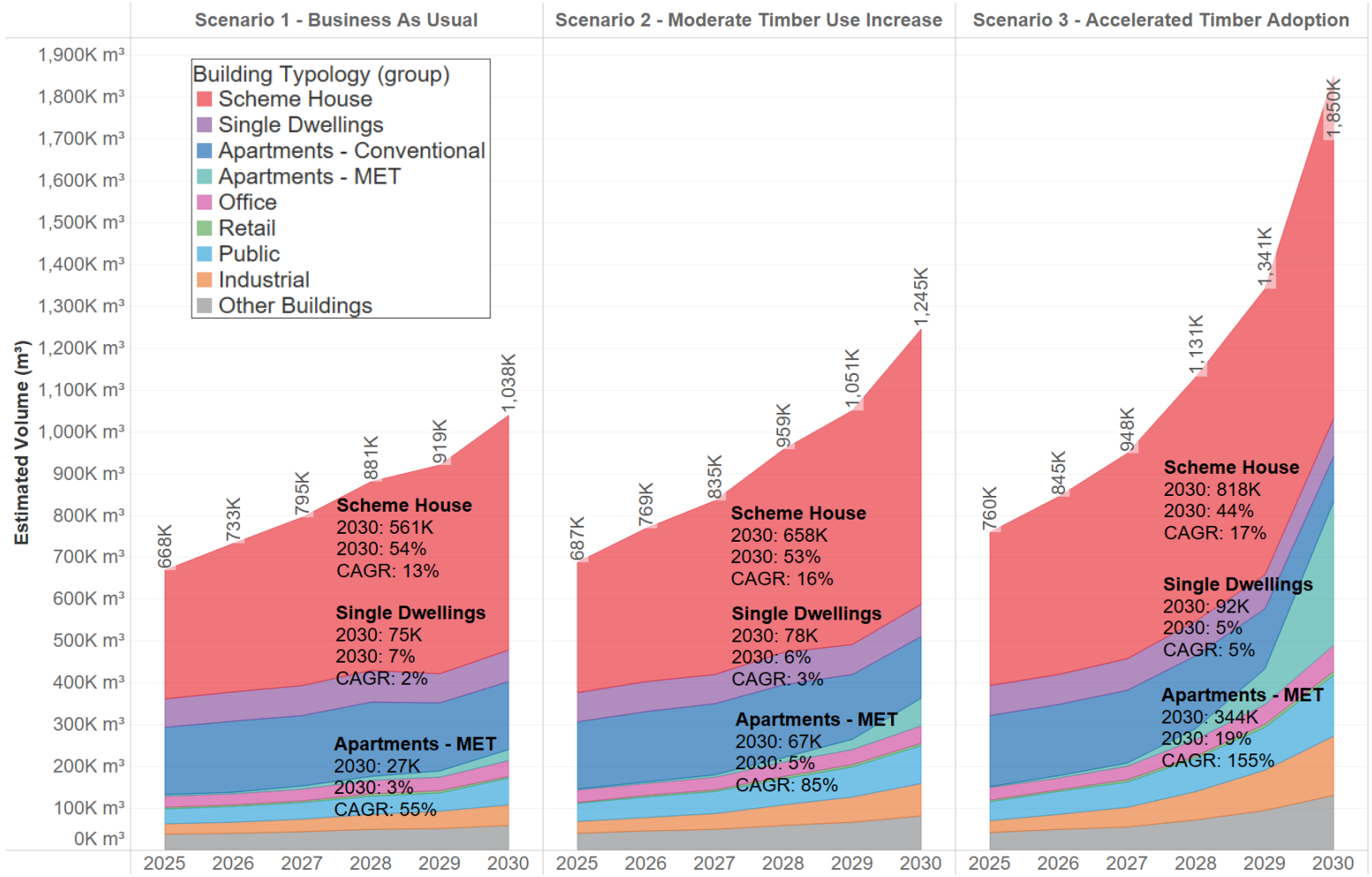


- Scenario 1 to 3 see a timber volume of between 1,038,000 m³ and 1,850,000 m³ used in construction in Ireland in 2030.
- The main building type will be **scheme houses** (44% to 54%), followed by conventional (16%) and MET-based apartments (3% to 19%).
- Scenario 1 and 2 are similar in volume, with the main difference resulting from increased timber adoption.
- Scenario 3 uses the housing for all baseline, with more housing units forecasted every year, as well as an accelerated timber adoption, particularly in apartments.

Source: Arup Market Analysis

Volume Estimate by Scenario, Typology and Year

Growth segments for timber are scheme homes (13% CAGR) and apartments built with modern methods of construction (MET). Scenario 3 shows a rapid adoption of timber in construction, while scenarios 1 and 2 remain similar due to the same baseline.

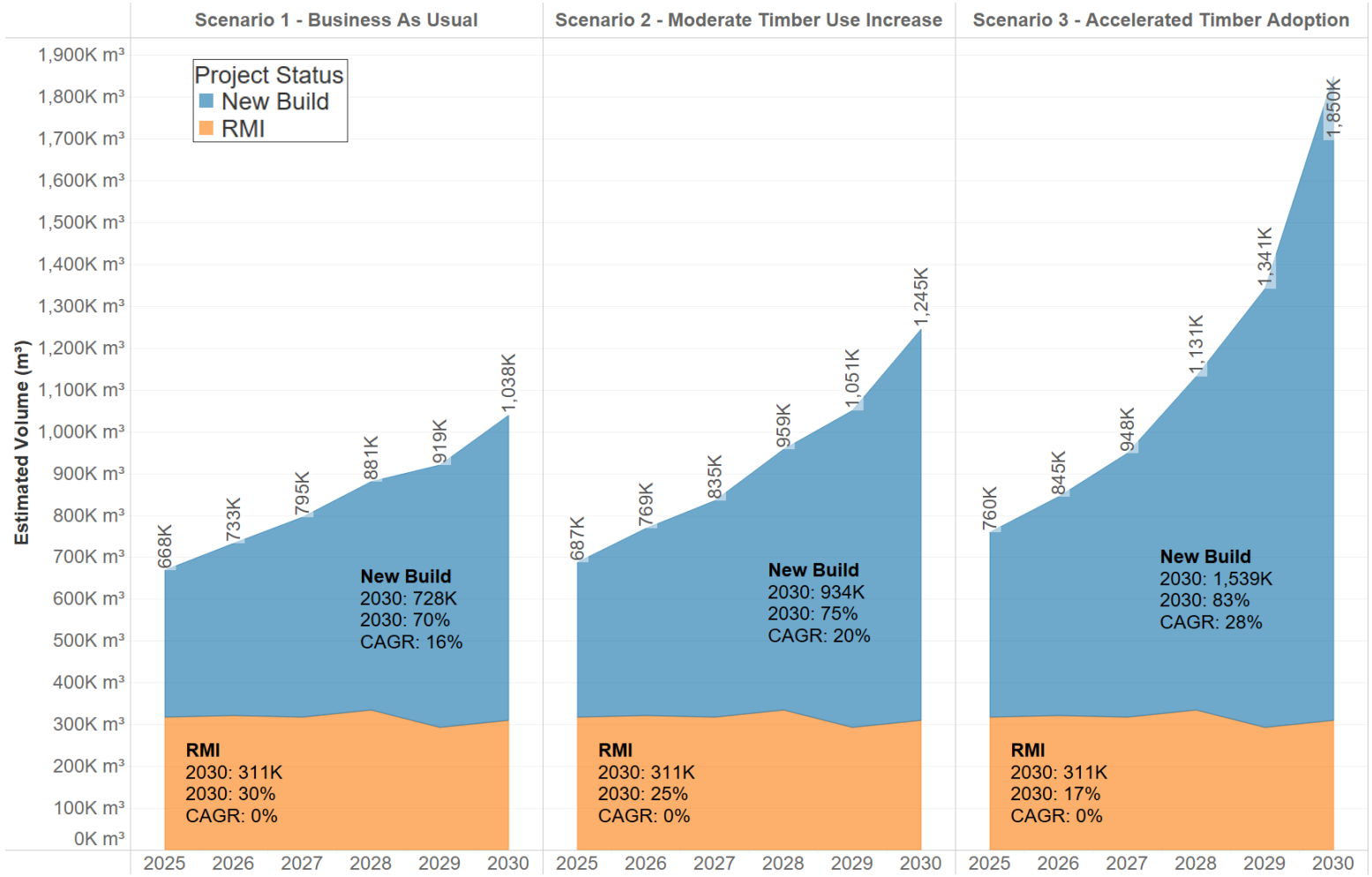


- Use of timber for **Scheme Homes** is forecasted to increase from ca. 250K m³ in 2025 to 561K / 658K / 818K m³ in scenarios 1 through 3 in 2030, with CAGRs between 13%, 16% and 17%.
- Use of timber in **Conventional Apartments** is estimated to decrease to 163K m³ / 147 K m³ / 108 K m³, with CAGRs of 0%, -6% and -9% (Conventional apartment text not shown in diagram).
- **MET Apartments** in 2030 are forecasted to grow moderately to 27K m³ in scenario 1 (BAU) and extensively to 344K m³ in scenario 3, with CAGRs between 55% and 155%.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Volume Estimate by Scenario, Project Type and Year

Timber usage in construction is mainly in new build projects, with between 70% and 83% in 2030.

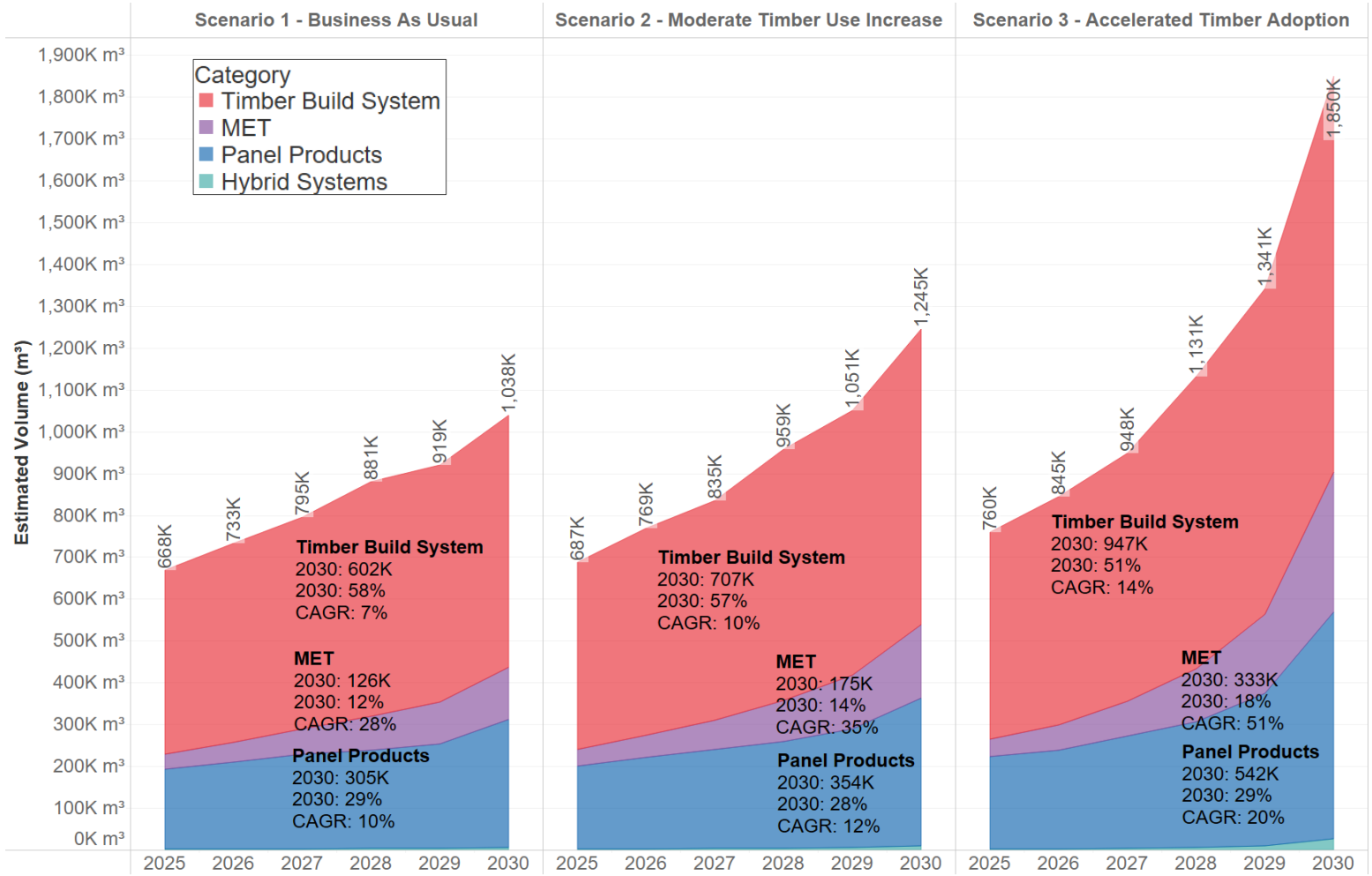


- **In 2025, new build and RMI projects** contribute equally to the timber construction market.
- By 2030, new build projects clearly outrun RMI activities with a share of between 70% (scenario 1), 75% (scenario 2) and 83% (scenario 3).
- Between 2025 and 2030, **RMI** is forecasted to stagnate with a CAGR of 0%.
- Between 2025 and 2030, **New Build** is forecasted to increase significantly, with CAGRs between 16%, 20% and 28%.

Source: RMI based on EUROCONSTRUCT forecast. For New Build, please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Volume Estimate by Scenario, Product Category and Year

Timber construction is seen to rise from 668K m³ in 2025 in scenario 1 (BAU) and to 1,038K m³ in 2030, to 1,245K m³ in scenario 2, and 1,850K m³ in scenario 3. This growth is facilitated by timber build systems and underpinned by mass engineered timber.

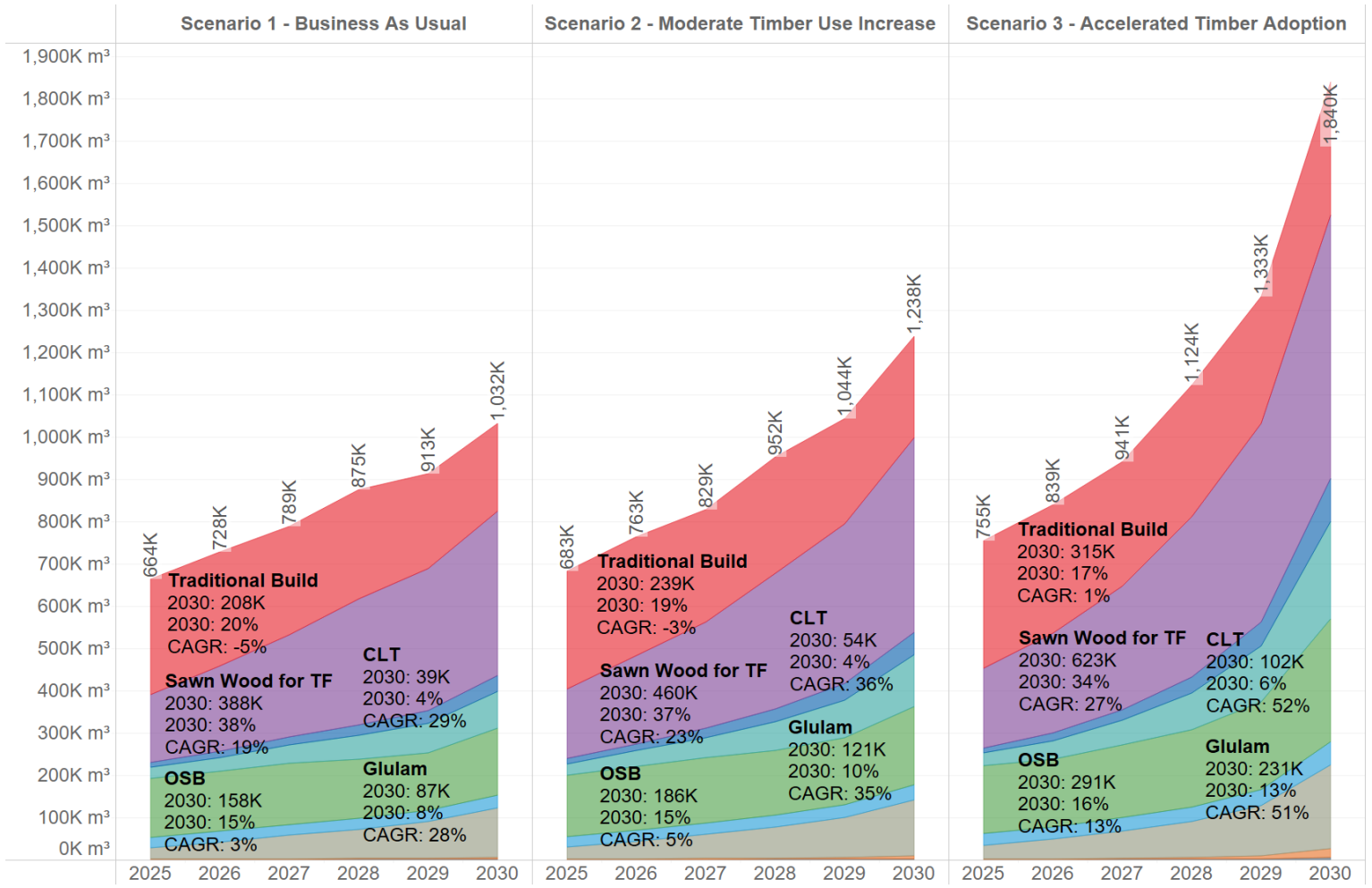


- **Timber Build Systems** increase from ca. 439K m³ in 2025 to 602K / 707K / 947 K m³ in scenarios 1 through 3 with CAGRs between 7%, 10% and 14%.
- **MET** is forecasted to rise from 36K to 126K m³ in scenario 1 (BAU), to 175K m³ in scenario 2 and to 333K m³ in scenario 3, with CAGRs between 28%, 35% and 51%.
- **Panel Products** are estimated to see solid growth to between 305K m³, 354K m³ and 542K m³ timber volume (from 192K m³ in 2025), and CAGRs of 10%, 12% and 20%.
- **Hybrid Systems** only really enter the market in Ireland in scenario 3 from 2029 onwards.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

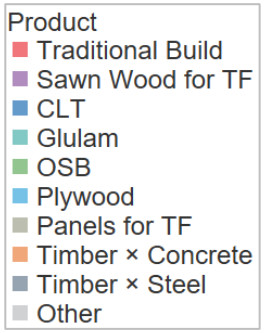
Volume Estimate by Scenario, Product and Year

Across the three scenarios, all products see a growth between 2025 and 2030.



Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

- **Timber Frame** usage changes from ca. 273K m³ in 2025 to 208K / 239K / 315K m³ in scenarios 1 through 3 with CAGRs between -5%, -3% and 1%.
- **Timber Frame**
  - Sawn Wood used in TF is estimated at ca. 161K m³ in 2025 to 388K / 460K / 623K m³ in scenarios 1 through 3 with CAGRs between 19%, 23% and 27%.
  - Panels used in TF are estimated at ca. 27K m³ in 2025 to 116K / 132K / 197K m³ in scenarios 1 through 3 with CAGRs between 34%, 36% and 44%.
- **MET:**
  - CLT is estimated to increase from 11K in 2025 to between 54K m³ and 102K m³ in 2030, between scenarios 1 to 3 and CAGRs of 29 to 52%.
  - Glulam is estimated to increase from between 25K in 2025 to 231K m³ in 2030 between scenarios 1 to 3 and CAGRs of around 28 to 51%.
- **OSB** in 2030 is estimated to moderately increase from 140K to between 158K to 291K m³ between scenario 1 (BAU) and 3 with CAGRs between less than 3% and 13%.

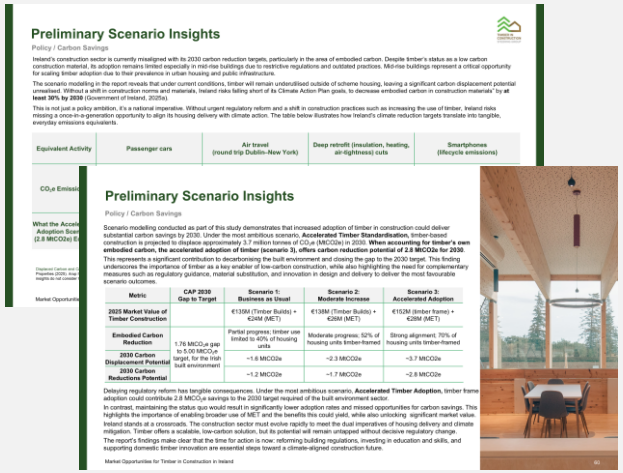


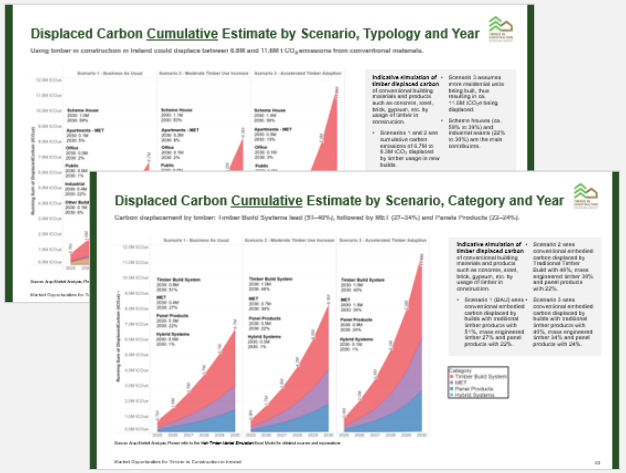
Displaced Carbon Preliminary Insights

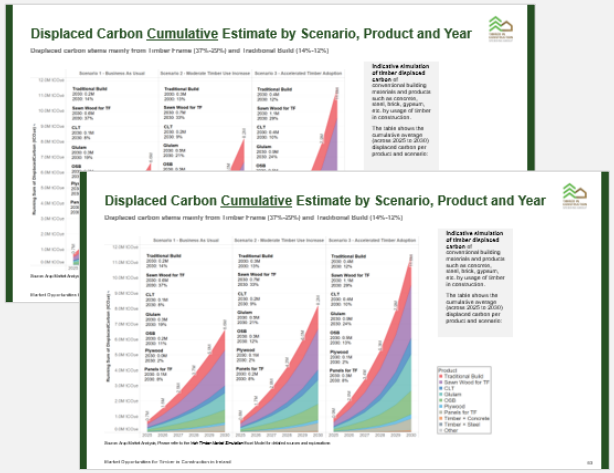
Overview

This section presents preliminary, scenario-based insights of timber's potential to displace carbon and contribute to Ireland's 2030 goals.

The insights presented in the following, regarding the carbon displacement potential are based on data sourced from the Irish Green Building Council in the Irish National Policy Brief (INDICATE), and Benchmarks on Embodied Carbon (A1-C4 exec B6 & B7) and Mass-Timber Construction (CLT and Glulam), based on Project Data by D/RES Properties (2025). Arup has not independently verified or validated the underlying data from these sources. Arup has used the available data to inform comparative assessments against other sources and to support the development of preliminary insights. These preliminary insights do not consider RMI (Repair, Maintenance, and Improvement) activities (i.e. consider only new build activities). The recommendations in this report emphasise the need for a dedicated and detailed carbon displacement study.







Displaced Carbon Preliminary Insights

Preliminary Scenario Insights

Policy / Carbon Savings

Ireland's construction sector is currently misaligned with its 2030 carbon reduction targets, particularly in the area of embodied carbon. Despite timber's status as a low carbon construction material, its adoption remains limited especially in mid-rise buildings due to restrictive regulations and outdated practices. Mid-rise buildings represent a critical opportunity for scaling timber adoption due to their prevalence in urban housing and public infrastructure.

The scenario modelling in the report reveals that under current conditions, timber will remain underutilised outside of scheme housing, leaving a significant carbon displacement potential unrealised. Without a shift in construction norms and materials, Ireland risks falling short of its Climate Action Plan goals, to decrease embodied carbon in construction materials" by **at least 30% by 2030** (Government of Ireland, 2025a).

This is not just a policy ambition, it's a national imperative. Without urgent regulatory reform and a shift in construction practices such as increasing the use of timber, Ireland risks missing a once-in-a-generation opportunity to align its housing delivery with climate action. The table below illustrates how Ireland's climate reduction targets translate into tangible, everyday emissions equivalents.

Equivalent Activity	Passenger cars	Air travel (round trip Dublin–New York)	Deep retrofit (insulation, heating, air-tightness) cuts	Smartphones (lifecycle emissions)
CO_2e Emissions	~1.6 tonnes CO_2e/year per car (European Environment Agency)	~1.6 tonnes CO_2e per passenger (Curb Emissions Calculator)	~2.0–2.5 tonnes CO_2e/year per home (2024 Annual Review Built Environment - Climate Change Advisory Council)	~50 kg CO_2e per phone (Renewable and Sustainable Energy Reviews Vol 183, 2023)
What the Accelerated Adoption Scenario (2.8 MtCO2e) Equals	≈ 1.75 million cars removed from the road for a year	≈ 1.75 million round-trip flights avoided	≈ 1.1 million homes deep retrofitted	≈ 56 million smartphones not produced or used

Displaced Carbon and Carbon Reduction Potential: The insights presented in this report regarding the carbon displacement potential of timber are based on data sourced from the Irish Green Building Council in the Irish National Policy Brief (INDICATE), and a report by D/RES Properties (2025). Arup has not independently verified or validated the underlying data from these sources. Arup has used the available data to inform comparative assessments against other sources and to support the development of preliminary insights. These preliminary insights do not consider RMI activities (i.e. consider only new build activities). The recommendations in this report emphasise the need for a dedicated and detailed carbon displacement and carbon reduction potential study.

Preliminary Scenario Insights

Policy / Carbon Savings

Scenario modelling conducted as part of this study demonstrates that increased adoption of timber in construction could deliver substantial carbon savings by 2030. Under the most ambitious scenario, **Accelerated Timber Standardisation,** timber-based construction is projected to displace approximately 3.7 million tonnes of CO_2e (MtCO2e) in 2030. **When accounting for timber's own embodied carbon, the accelerated adoption of timber (scenario 3), offers carbon reduction potential of 2.8 MtCO2e for 2030**.

This represents a significant contribution to decarbonising the built environment and closing the gap to the 2030 target. This finding underscores the importance of timber as a key enabler of low-carbon construction, while also highlighting the need for complementary measures such as regulatory guidance, material substitution, and innovation in design and delivery to deliver the most favourable scenario outcomes.

Metric	CAP 2030 Gap to Target	Scenario 1: Business as Usual	Scenario 2: Moderate Increase	Scenario 3: Accelerated Adoption
2025 Market Value of Timber Construction		€135M (Timber Builds) + €24M (MET)	€138M (Timber Builds) + €26M (MET)	€152M (timber frame) + €28M (MET)
Embodied Carbon Reduction	1.76 $MtCO_2e$ gap to 5.00 $MtCO_2e$ target, for the Irish built environment	Partial progress; timber use limited to 40% of housing units	Moderate progress; 52% of housing units timber-framed	Strong alignment; 70% of housing units timber-framed
2030 Carbon Displacement Potential		~1.6 MtCO2e	~2.3 MtCO2e	~3.7 MtCO2e
2030 Carbon Reductions Potential		~1.2 MtCO2e	~1.7 MtCO2e	~2.8 MtCO2e

Delaying regulatory reform has tangible consequences. Under the most ambitious scenario, **Accelerated Timber Adoption,** timber frame adoption could contribute 2.8 $MtCO_2e$ savings to the 2030 target required of the built environment sector.

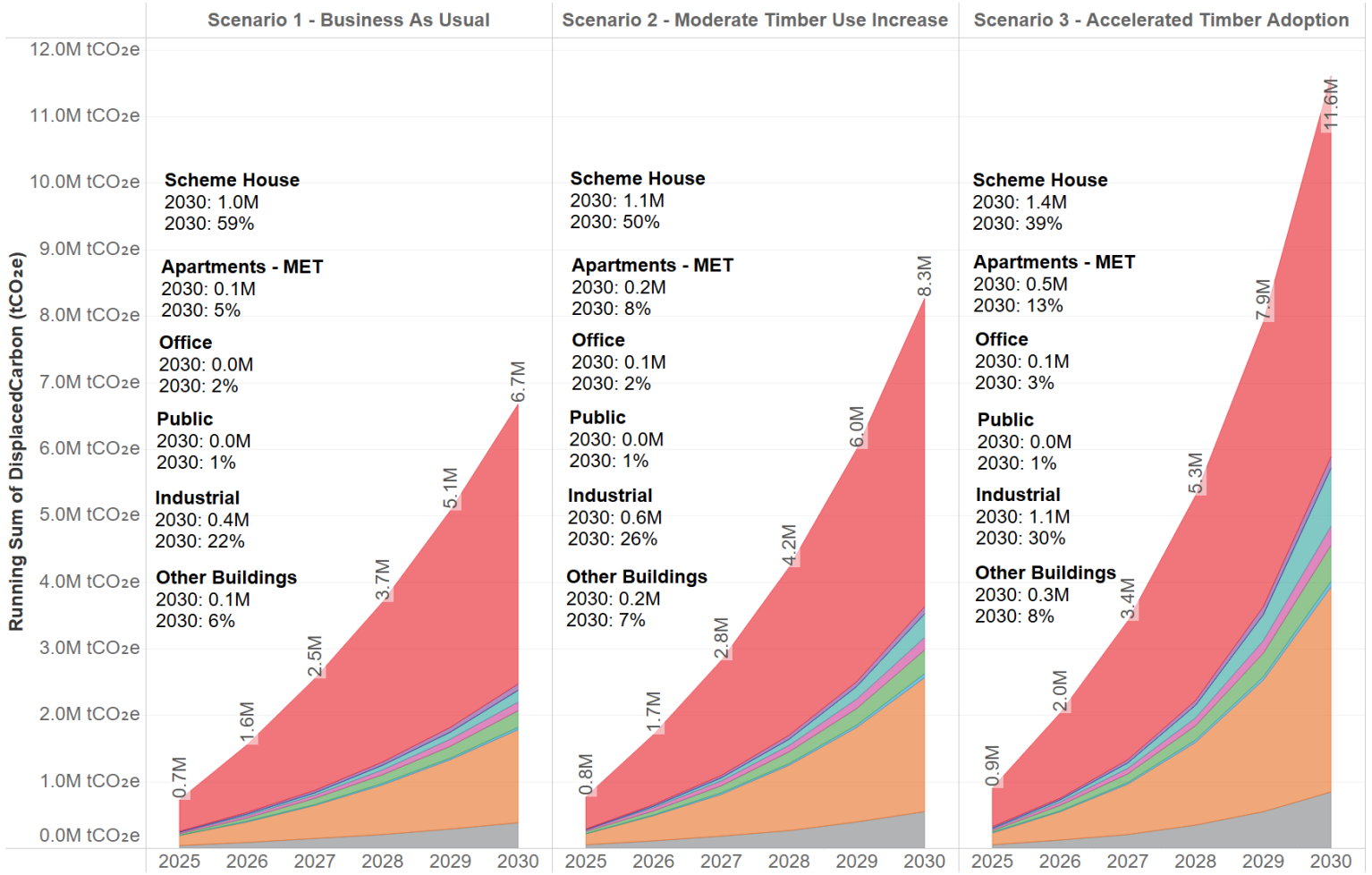
In contrast, maintaining the status quo would result in significantly lower adoption rates and missed opportunities for carbon savings. This highlights the importance of enabling broader use of MET and the benefits this could yield, while also unlocking significant market value.

Ireland stands at a crossroads. The construction sector must evolve rapidly to meet the dual imperatives of housing delivery and climate mitigation. Timber offers a scalable, low-carbon solution, but its potential will remain untapped without decisive regulatory change.

The report's findings make clear that the time for action is now: reviewing building standards, investing in education and skills, and supporting domestic timber innovation are essential steps toward a climate-aligned construction future.

Displaced Carbon Cumulative Estimate by Scenario, Typology and Year

Using timber in construction in Ireland could displace between 6.6M and 11.6M t CO_2 emissions from conventional materials.



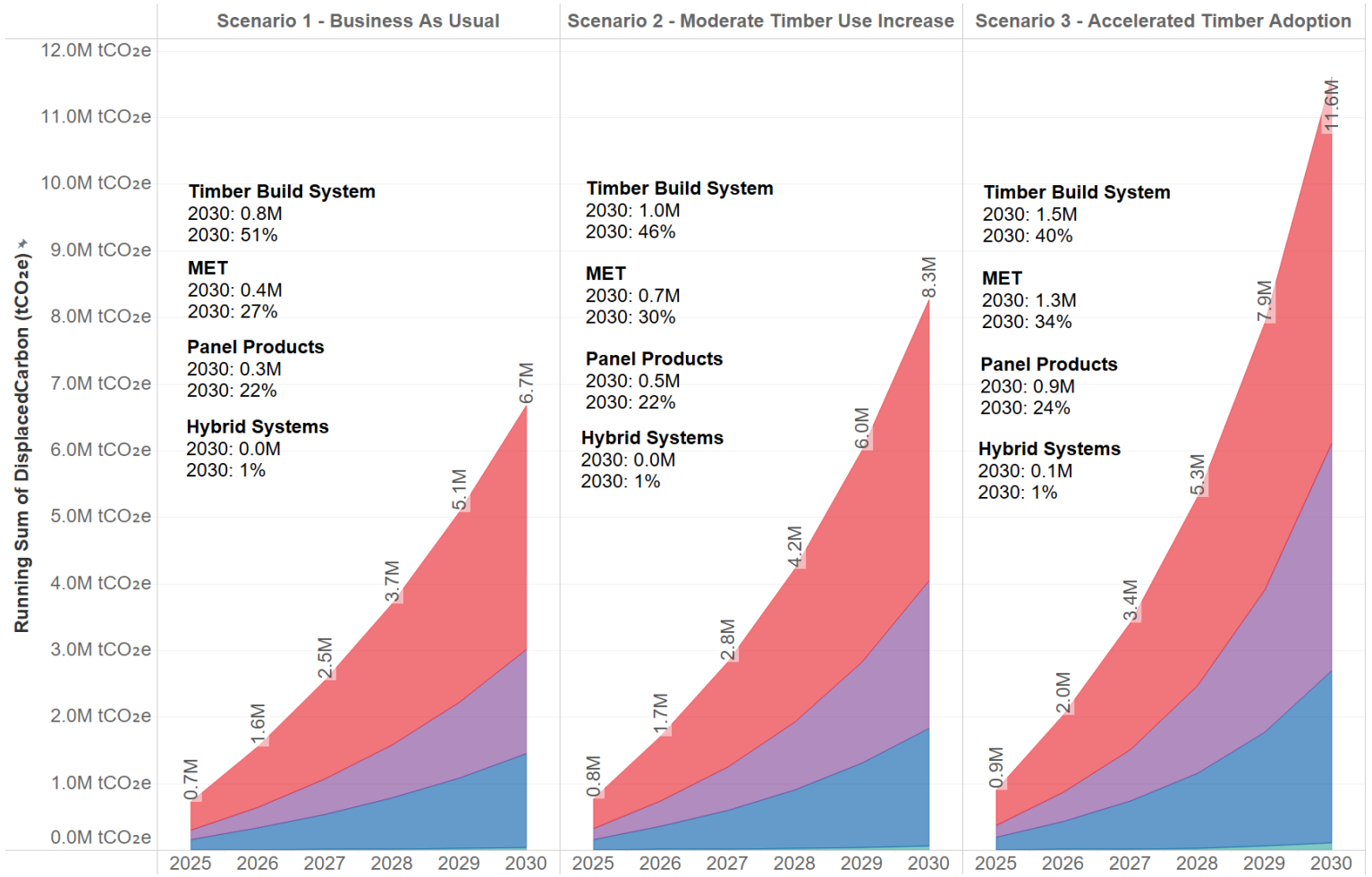
Indicative simulation of timber displaced carbon of conventional building materials and products such as concrete, steel, brick, gypsum, etc. by usage of timber in construction.

- Scenarios 1 and 2 see cumulative carbon emissions of 6.7M to 8.3M tCO_2 displaced by timber usage in new builds.
- Scenario 3 assumes more residential units being built, thus resulting in ca. 11.6M tCO_2e being displaced.
- Scheme houses (ca. 59% to 39%) and industrial assets (22% to 30%) are the main contributors.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Displaced Carbon Cumulative Estimate by Scenario, Category and Year

Carbon displacement by timber: Timber Build Systems lead (51–40%), followed by MET (27–34%) and Panels Products (22–24%).



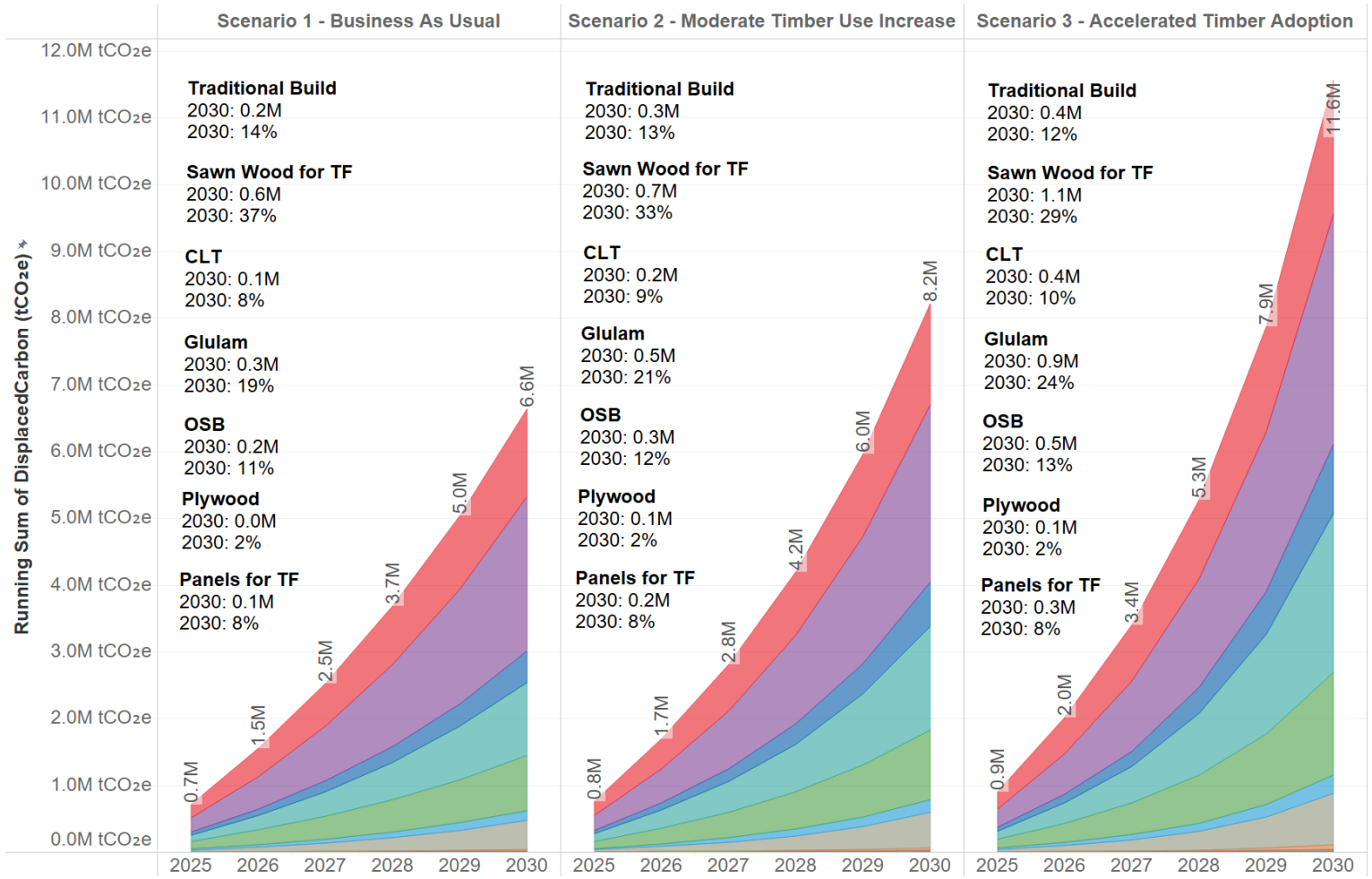
Indicative simulation of timber displaced carbon of conventional building materials and products such as concrete, steel, brick, gypsum, etc. by usage of timber in construction.

- Scenario 1 (BAU) sees conventional embodied carbon displaced by builds with traditional timber products with 51%, mass engineered timber 27% and panel products with 22%.
- Scenario 2 sees conventional embodied carbon displaced by Traditional Timber Build with 46%, mass engineered timber 30% and panel products with 22%.
- Scenario 3 sees conventional embodied carbon displaced by builds with traditional timber products with 40%, mass engineered timber 34% and panel products with 24%.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Displaced Carbon Cumulative Estimate by Scenario, Product and Year

Displaced carbon stems mainly from Timber Frame (37%-29%) and Traditional Build (14%-12%)



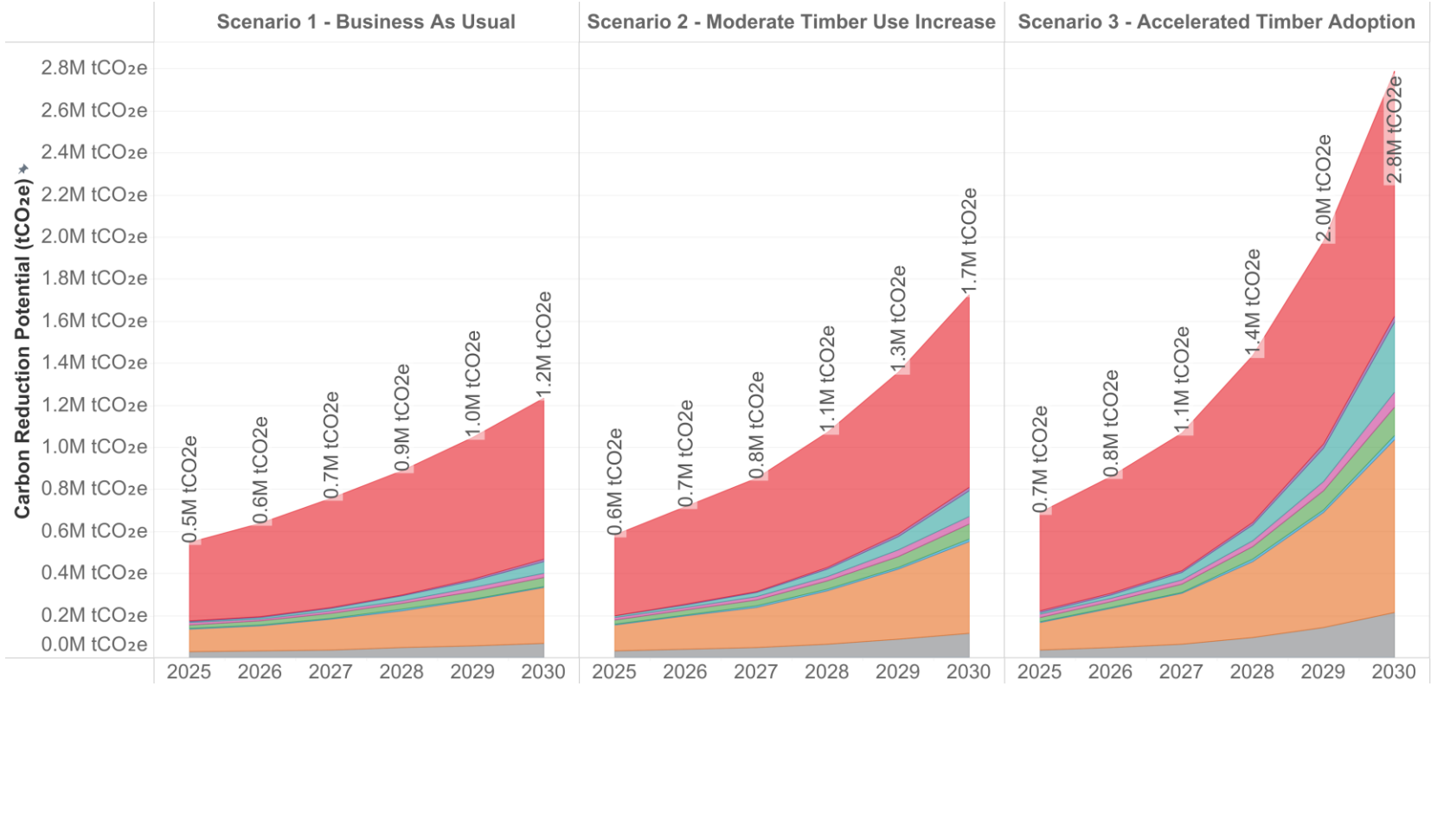
Indicative simulation of timber displaced carbon of conventional building materials and products such as concrete, steel, brick, gypsum, etc. by usage of timber in construction.

The table shows the cumulative average (across 2025 to 2030) displaced carbon per product and scenario:

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Carbon Reduction Estimate by Scenario, Typology and Year

Indicative simulation of timber carbon reduction potential



Increased usage of timber in construction can help to close the gap to the 2030 target, required of the built environment sector.

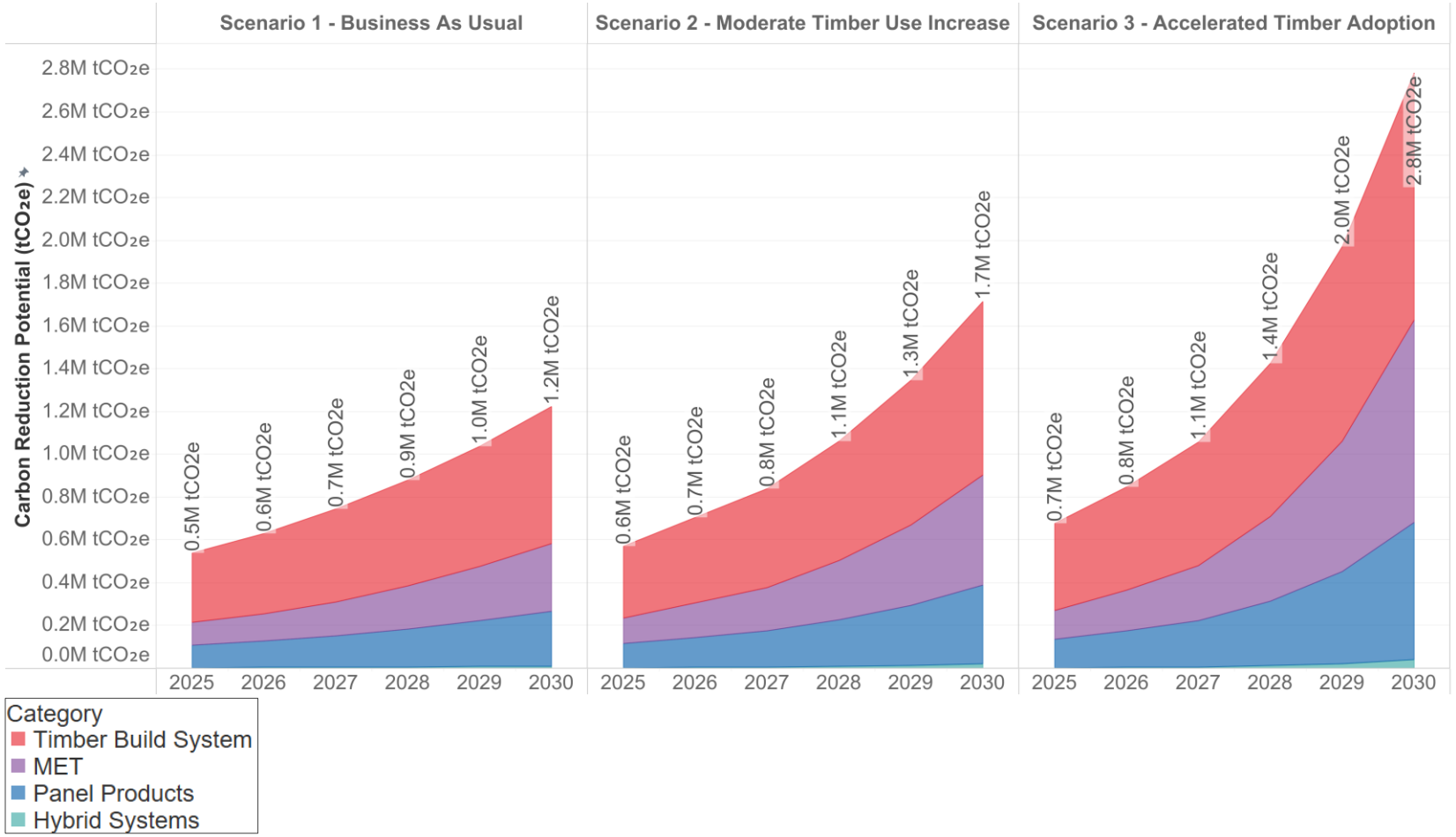
Indicative simulation of timber carbon reduction potential: displaced carbon subtracted by embodied carbon.

- Scenario 1 (BAU) timber usage in construction would cover 1.2M t.
- Scenario 2 timber usage in construction would cover 1.7M t of the 2030 reductions gap.
- Scenario 3 timber usage in construction would cover 2.8M t of the 2030 reductions gap.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations.
*Irish Government's 2022 Emissions Ceilings

Carbon Reduction Estimate by Scenario, Category and Year

Potential carbon reductions could stem from Timber Build Systems, incl. TF (52%), mass engineered timber (28%) and panel products (20%).



Increased usage of timber in construction can help to close the gap to the 2030 target, required of the built environment sector.

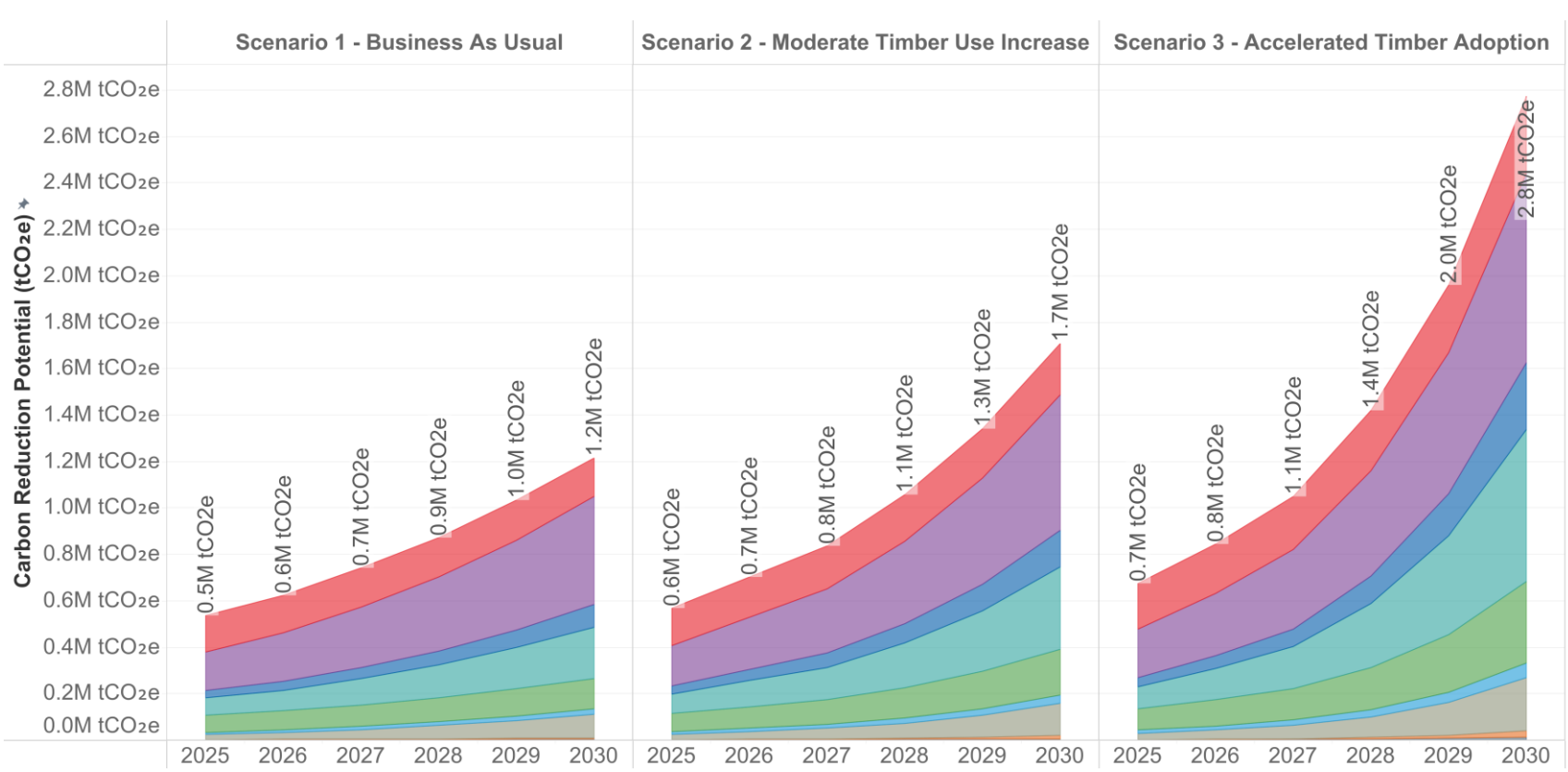
Indicative simulation of timber carbon reduction potential: displaced carbon subtracted by embodied carbon.

- Scenario 1 (BAU) forecasts carbon reductions potential mostly addressed by builds with traditional timber products with 52%, mass engineered timber 28.4% and panel products with 20.6%.
- Scenario 2 forecasts carbon reductions potential mostly addressed by Traditional Timber Build with 47.5%, mass engineered timber 29.9% and panel products with 21.5%.
- Scenario 3 forecasts carbon reductions potential mostly addressed by builds with traditional timber products with 52%, mass engineered timber 28.4% and panel products with 20.6%.

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

Carbon Reduction Estimate by Scenario, Product and Year

Potential carbon reductions could stem mainly from Sawn Wood (42%-37%) and Panels (20%-17%) used for Timber Frame.



Increased usage of timber in construction can help to close the gap to the 2030 target, required of the built environment sector.

Indicative simulation of timber carbon reduction potential: displaced carbon subtracted by embodied carbon.

The following table shows the cumulative average (across 2025 to 2030) carbon reduction potential per product and scenario:

Product	S1	S2	S3
Traditional Build	20%	18%	17%
Sawn Wood for TF	35%	32%	30%
Logs	1%	0%	0%
CLT	7%	8%	9%
Glulam	16%	19%	20%
OSB	12%	13%	13%
Plywood	2%	2%	2%
Panels for TF	6%	6%	7%
Timber × Concrete	0%	0%	1%
Timber × Steel	0%	0%	0%

Product split across scenarios

Source: Arup Market Analysis, Please refer to the *Irish Timber Market Simulation* Excel Model for detailed sources and explanations

6. Recommendations

This chapter outlines a set of strategic recommendations to unlock the significant and scalable market opportunities that timber presents for the future of Irish construction. Grounded in stakeholder insights, data analysis, and scenario modelling, these recommendations position timber as a primary enabler of Ireland's housing delivery, climate action, and industrial innovation goals.

CHAPTER AIMS

- Catalyse market growth by identifying high-impact opportunities for timber products and systems
- Respond to regulatory, market, and supply chain challenges with targeted interventions that enable timber to scale rapidly and confidently.
- Accelerate domestic manufacturing and innovation, supporting the development of high-value timber products and reducing reliance on imports.
- Mobilise cross-sector collaboration to drive adoption, build capacity, and mainstream timber construction.
- Align policy, procurement, and industry practices with Ireland's 2030 housing and carbon reduction targets.

CONCLUSIONS

- Timber represents one of Ireland's most promising market especially in scheme housing, modular systems, and mid-rise buildings in the short-term.
- Implementing these recommendations is essential to unlocking timber's full economic and environmental value.
- Coordinated action across government, industry, and education is needed to shift perceptions, build technical competence, and establish timber as a mainstream solution in Ireland's built environment.

Recommendations

Overview

Ireland's construction sector in 2025 is undergoing a profound transformation, driven by the dual imperatives of accelerating housing delivery and meeting ambitious climate targets. With over €6.5 billion in public capital investment allocated for the year, the scale of planned development presents a generational opportunity to reshape how Ireland builds. Within this evolving landscape, timber construction products are emerging not just as alternatives, but as strategic growth engines capable of delivering scalable, low-carbon solutions across residential, public, and commercial sectors.

The market modelling and stakeholder insights presented in this report confirm that timber is poised for rapid expansion. By 2030, timber construction products are projected to double in market value, with off-site systems alone expected to account for nearly one third of all timber volume and value. MET products such as CLT and Glulam are forecast to grow significantly, supported by rising demand for modular, offsite, and mid-rise applications. These trends signal a clear shift in market dynamics; timber is no longer peripheral; it is central to Ireland's future construction economy.

Despite this momentum, adoption remains constrained by regulatory uncertainty, fragmented certification processes, and limited technical capacity. Without decisive action, Ireland risks missing a once-in-a-generation opportunity to build a globally competitive timber industry. The recommendations in this chapter are designed to unlock these opportunities by stimulating domestic manufacturing, enhancing skills and awareness, and fostering a more enabling environment for timber-based construction.

These actions are not just corrective they are catalytic. They aim to position timber as a mainstream solution, capable of delivering faster, greener, and more cost-effective buildings. With the right investment in local capacity, and coordinated effort across government, industry, and academia, Ireland can realise the full economic and environmental value of timber. The recommendations outlined here provide a strategic roadmap to scale timber adoption, strengthen domestic supply chains, and establish Ireland as a leader in sustainable construction.

TIMBER IN CONSTRUCTION STEERING GROUP

Key

Each recommendation presented in this section is accompanied by three indicators to support prioritisation and planning: impact, difficulty, and time horizon. These are categorised as high, medium, or low for both impact and difficulty, and as short-, medium-, or long-term for expected implementation timelines.

Time

Long Term | Med/ium Term | Short Term

-

Impact

Low | Medium | High

Difficulty

Low | Medium | High

Recommendations

	Title	Recommendation	Impact	
R-01	**Support the establishment of the Wood Knowledge Development and Innovation facility**	Support the establishment of a cross-sector facility to inform timber innovation, policy, and investment, aligned to the work of the Enterprise Ireland Timber Sector Leadership group as a permanent, cross-sector platform. Facilitate both public and private sector participation from across the industry.	**High** - Unify fragmented efforts and accelerate timber adoption through shared leadership and collaboration.	P 71
R-02	**Support the establishment of a Timber Industry Forum within the Wood Knowledge Development and Innovation facility**	Facilitate stronger partnerships between sawmills, timber frame and roof truss manufacturers to align supply with construction needs through the Wood Knowledge Development and Innovation facility. This should be aligned to the work of the Enterprise Ireland Timber Sector Leadership group.	**High** - Improve the efficiency and resilience of the domestic timber supply chain, enabling greater use of Irish-grown timber in construction	P 72
R-03	**Explore measures to encourage timber use in public construction**	Develop National Design or Procurement guidance for timber use and consider requiring a minimum percentage of timber in public housing and building projects.	**High** - Create a consistent pipeline of demand, supporting domestic manufacturing and skills development.	P 73
R-04	**Publication on innovative uses of timber and technical guidance on standards and delivery of training**	Create a national innovation hub to explore timber technologies and applications and publish and disseminate technical guidance, robust standard details and deliver training. This could be done through the KDI facility.	**Medium** - Support industry and society in implementing the transition to timber construction.	P 74
R-05	**Enhance Data Foundations**	Improve data quality on timber volumes, sourcing, and end-use to support accurate modelling. The model developed for this study may serve as a useful basis for initial modelling work that might be done through the KDI facility.	**Medium** - Strengthen evidence-based decision-making and policy development.	P 75
R-06	**Explore the commercial viability of establishing Domestic Manufacturing Facilities for Engineered Wood Products (EWP) including MET**	Assess business case for the suitability of a joint-venture model for domestic production of EWP and MET products such as CLT, Glulam and/or wood fibre insulation. This work would be led by Government with support from relevant organisations such as EI, Coillte and industry such as Forest Industries Ireland.	**High** - Reduce reliance on imports, strengthen supply chain resilience, and enable the use of Irish-grown timber	P 76

Recommendations

Overview

	Title	Recommendation	Impact	
R-07	**Introduce temporary incentives or grants for structural timber use in public or community projects**	Expand current funding mechanisms to provide incentives covering a percentage of additional costs of timber construction, for public facing projects, community centres, childcare or other public buildings, mandated through planning permission conditions, making timber a more attractive and viable option. This will encourage investment, innovation, and the further uptake of timber in construction.	**High** - De-risk early adoption and encourage broader uptake across public and private sectors.	P 77
R-08	**Support Off-Site Timber Construction through Built to Innovate and Training Initiatives**	Promote and support new or expanded off-site manufacturing or MMC facilities. Supporting facilities that demonstrate a capacity to deliver at scale is a key pathway to increasing timber use. Faster delivery and reduced on-site labour requirements enable accelerated housing delivery.	**High -** Help meet housing targets faster while supporting sustainability and modern construction practices	P 78
R-09	**Carbon Displacement Study**	A dedicated study on the carbon displacement potential of timber providing a critical evidence base for integrating timber	**Medium** - Enable data-driven policy, procurement, and design decisions that support climate targets while aligning with national and EU sustainability frameworks	P 79
R-10	**Strategic Assessment of Timber Supply Alignment with Construction Demand**	Assess whether Ireland's timber supply, both domestic and imported, is equipped to meet future construction needs. Strategic assessment of timber supply alignment integrating forestry outputs, construction forecasts and market modelling.	**Medium** – Help identify supply-demand gaps, inform planting strategies and guide investment in domestic processing infrastructure.	P 80

The recommendations outlined above are central to advancing timber use in Ireland’s construction sector and highlight the key market opportunities where strategic focus and investment can deliver the greatest impact. These actions provide a clear framework for aligning timber adoption with national housing, climate, and procurement goals.

Recommendations

R-01: Support the establishment of the Wood Knowledge Development and Innovation facility

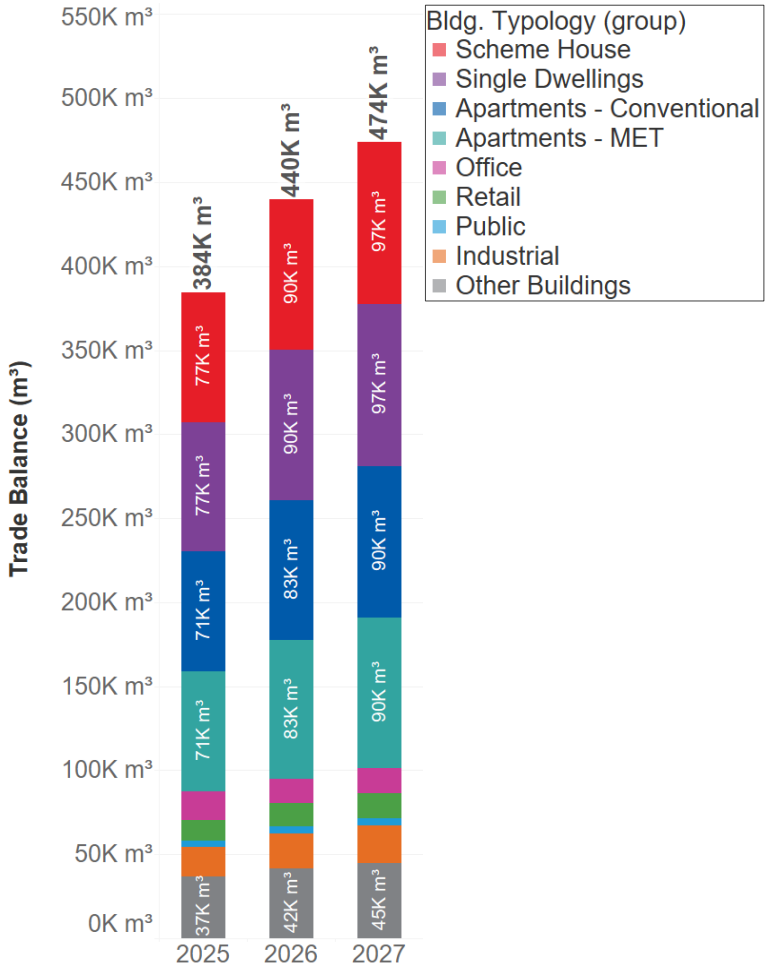
Description	To ensure coordinated delivery of the strategic recommendations outlined in this report and those emerging from other Timber in Construction Steering Group (TICSG) initiatives Ireland should formally establish the Wood Knowledge Development and Innovation (KDI) facility as the national timber consortium. This industry-led facility would serve as a permanent platform for strategic coordination, bringing together industry stakeholders, developers, researchers, and government bodies to drive timber innovation, investment, and adoption. It should support pilot projects, secure funding, and promote timber's role in national housing and climate strategies, acting as a central hub for knowledge exchange, sectoral development.	To be effective, the facility must include broad representation across the timber value chain and work closely with the Enterprise Ireland Timber Sector Leadership Group (TSLG). The TSLG's sector action plan includes the establishment of this facility as a cornerstone for sector-wide learning and innovation. Enterprise Ireland commissioned a detailed description of needs report by Grant Thornton, which recommended progressing the establishment of a new KDI facility to consolidate expertise and foster innovation across Ireland's forestry and forest products sector. The KDI's mission is to position Ireland as a global leader in sustainable growth, bioeconomy, and circular economy solutions. DETE and DAFM have committed to part-funding this initiative, signalling strong institutional support for its development and long-term impact.	Following this, the group will work with the sector to increase leadership capability and develop an end-to-end, export-led market strategy out to 2050. The KDI facility should support and amplify these efforts, acting as a delivery partner and strategic enabler for Ireland's timber industry transformation. By aligning with the TSLG and embedding timber into Ireland's construction and climate agenda, the KDI facility can accelerate the transition to low-carbon construction and position Ireland as a leader in sustainable timber manufacturing and design.
Actions for Consideration	• Formally establish the Wood Knowledge Development and Innovation facility as a industry-led platform. • Ensure close coordination with the Enterprise Ireland Timber Sector Leadership Group (TSLG). • Integrate the consortium's work with the TSLG's sector action plan • Serve as a central hub for knowledge exchange, technical guidance, and sectoral development. • Publish market insights, case studies, and progress reports to inform stakeholders and build confidence.		

Recommendations

R-02: Support the establishment of a Timber Industry Forum within the Wood Knowledge Development and Innovation facility

Description	Ireland exports a large share of its construction-grade timber, despite rising domestic demand for low-carbon materials is missing a key opportunity to retain value and reduce reliance on imports. Increasing the use of Irish-grown timber in structural applications like timber frame and off-site systems can strengthen supply chains, cut embodied carbon, and support rural economies.	To unlock this potential, sawmills, timber frame, and roof truss manufacturers must collaborate to address technical and commercial barriers such as timber grading, processing requirements, and material specifications (e.g. size requirements) that currently limit the use of Irish timber in higher-value construction products.	A national industry forum should be established as part of, or aligned with, the Wood Knowledge Development and Innovation facility (**R-02**), which will serve as a central platform for collaboration across the timber sector. This forum should include developers, engineers, and specifiers to ensure alignment with market needs and performance expectations. Coordinated action and targeted investment will be essential to build a circular, climate-aligned timber economy.
Model Insights	The model highlights a significant disconnect between domestic timber production and its use in higher-value construction applications. Despite Ireland's strong forestry base, a large volume of timber used in timber frame housing last year was imported, circa 97K m³ (indicative high-level estimate).	A substantial portion of construction-grade sawn timber produced by Irish sawmills is exported, estimated at around 65%, or 682K m³ in 2025 (indicative high-level estimate).	Much of this exported material could be retained and repurposed for domestic housing and strengthen Ireland's timber sector resilience.
Actions for Consideration	• Establish a forum within or aligned with the Wood Knowledge Development and Innovation facility with representation from sawmills, timber frame manufacturers, roof truss producers, developers, and specifiers. • Facilitate regular structured dialogue to address technical barriers such as grading standards, moisture content, and material specifications. • Promote joint problem-solving initiatives to align supply capabilities with construction sector requirements. • Explore supports and incentives for domestic use of high-grade Irish timber and funding required for upgrading kilning and grading capacity (if required).		

Imports of Timber Frame for construction by building typology (new build and RMI, indicative).

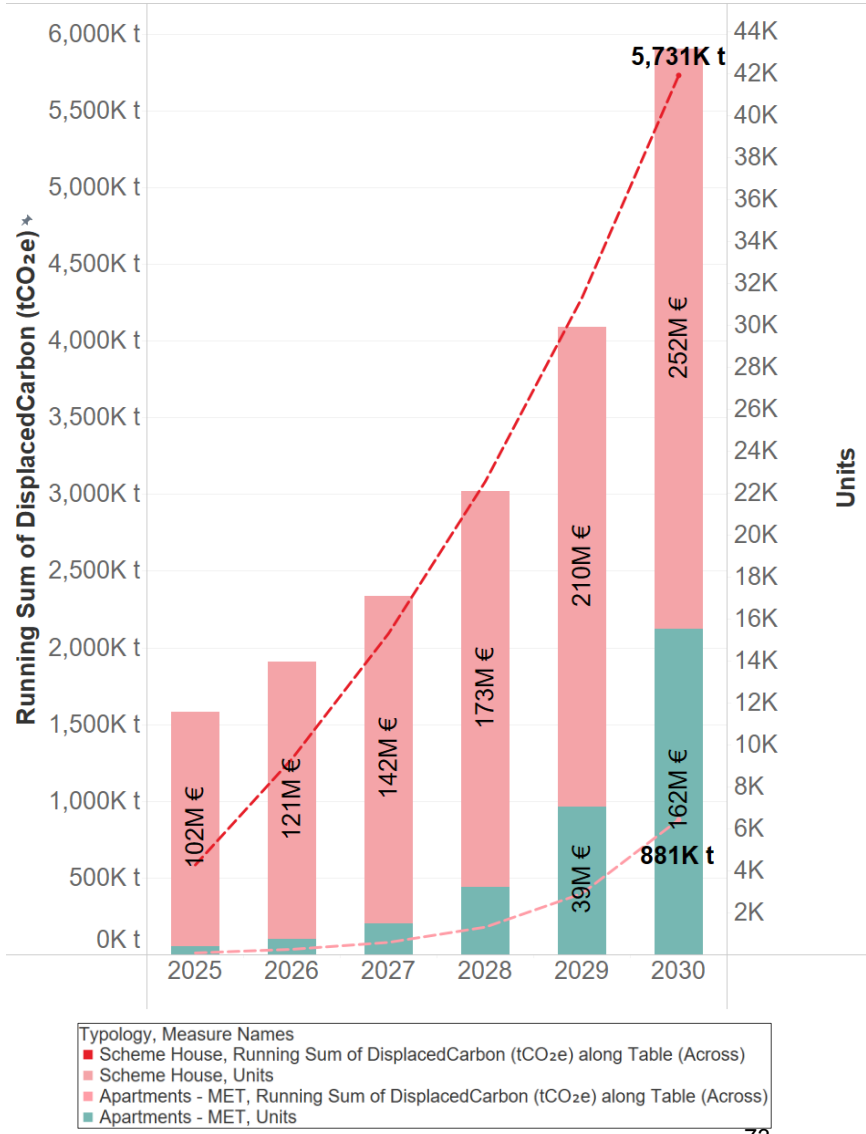


Recommendations

R-03: Explore measures to encourage timber use in public construction

Description	Introducing targeted government measures to promote timber use in construction where appropriate could be transformative in normalising timber across Ireland's built environment. Public procurement should be leveraged as a key policy instrument to drive demand, de-risk investment, and accelerate adoption of timber-based solutions. Promotion efforts must be strategically focused on applications where timber delivers the greatest value, such as low- to mid-rise residential buildings, modular housing, and retrofit projects.	These segments align closely with Ireland's housing and climate goals and offer clear advantages in terms of performance, cost-effectiveness, and sustainability. Requiring a minimum timber content or a benchmarked embodied carbon limit in publicly funded housing and infrastructure projects would send a strong market signal, helping to shift entrenched norms among engineers and specifiers who often default to steel, concrete, and masonry. This would support the development of local manufacturing, stimulate innovation in timber design, and encourage the use of modern construction methods like timber frame and modular systems.	To be effective, this recommendation requires policy-level decisions and coordination with other thematic groups, particularly those focused on regulation, public procurement, and education. Enforcing timber-friendly procurement criteria through local authorities and public agencies would help rebalance material choices in favour of sustainable, homegrown solutions building confidence in timber as a mainstream construction material and supporting Ireland's transition to a low-carbon built environment.
Model Insights	The model shows that government-led public housing initiatives (particularly scheme homes) represent a major opportunity for timber adoption. Based on planned delivery volumes under national housing targets, measures to encourage timber use in these projects could result in substantial environmental benefits.	Year-on-year projections indicate that if timber systems were prioritised in public construction, cumulative displaced carbon savings could reach approximately 6,612,000 tCO_2e by 2030, with the bulk of this impact concentrated in large-scale, new build housing developments. The model estimates a potential market value of €252 million by 2030 for timber products used in public scheme housing and €162 million for MET apartments.	The year-on-year growth in timber uptake across public projects would also help normalise timber use, reduce reliance on imports, and stimulate skills development laying the foundation for broader adoption across the private sector.
Actions for Consideration	• Develop National Procurement Guidance for Timber Use • Coordinate Policy Alignment Across Thematic Groups • Fund and deliver demonstrator projects using timber systems in social and affordable housing, schools, and healthcare facilities helping to build confidence among local authorities and industry stakeholders. • Provide financial incentives or scoring advantages in public tenders for projects that incorporate Irish-grown timber.		

Cumulative displaced carbon (new build) and annual units (new build) and market volume (new build and RMI) of timber used for scheme house and apartment (MET) construction.



Recommendations

R-04: Publication on innovative uses of timber and technical guidance on standards and delivery of training

Description	The establishment of a dedicated cross-sector innovation hub for timber should be delivered through the KDI facility. This facility will serve as Ireland's central platform for driving research, development, and deployment of next-generation timber technologies. It will unite researchers, designers, manufacturers, policymakers, and investors to collaboratively explore and scale solutions such as bio-based composites, hybrid timber-concrete systems, modular timber components, and wood fibre insulation.	A key output of the KDI should be the publication of a national position paper outlining strategic priorities for timber innovation, target applications, and funding pathways. This will provide clarity to industry and government on where the Irish market is expected to focus and help build confidence through pilot projects and case studies.	The KDI should also maintain a public, web-based repository of educational and technical resources for timber design and construction. It will anchor international partnerships, enabling joint R&D programmes, shared performance data, and co-developed design standards. By embedding this work within Ireland's broader timber strategy and bioeconomy agenda, the KDI will unlock cross-sector synergies, support rural employment, and position Ireland as a global leader in sustainable, high-value timber construction.
Examples of topics that could be covered	• Timber's suitability for vertical extensions to existing buildings particularly in urban areas, using lightweight, off-site systems to add floors with minimal disruption ("top hat" timber extensions). See **Appendix C.1** for more detail • Where timber can be prioritised in schools, healthcare centres, and public housing, aligning with government procurement and climate goals. See **Appendix C.2**	• Options for combining timber with concrete or steel to meet structural, fire, and acoustic performance requirements in more complex or taller buildings. See **Appendix C.3** • Showcase how timber-based MMC can be used to deliver high-quality, rapid-build housing at scale, especially for scheme homes. See **Appendix C.4**	• Detail timber-derived insulation materials and interior finishes that contribute to healthier indoor environments and lower embodied carbon. See **Appendix C.5** • Timber is a highly versatile and sustainable material for retrofitting, offering low-disruption solutions for extensions, structural upgrades, roof improvements, façade enhancements, thermal envelope upgrades, and adaptive reuse. See **Appendix C.6**
Actions for Consideration	• Secure core funding through government innovation programmes, with co-investment from industry and EU research funds. • Develop and publish a national position paper outlining - Strategic priorities for timber innovation, Target applications and building types as well as Funding pathways and regulatory support • Promote knowledge exchange through joint publications, conferences, and technical workshops. • Maintain a public web-based coherent assembly of existing online educational and reference resources for design and construction in timber. • Support skills development and training in timber innovation, digital design, and sustainable construction.		

Recommendations

R-05: Enhance Data Foundations

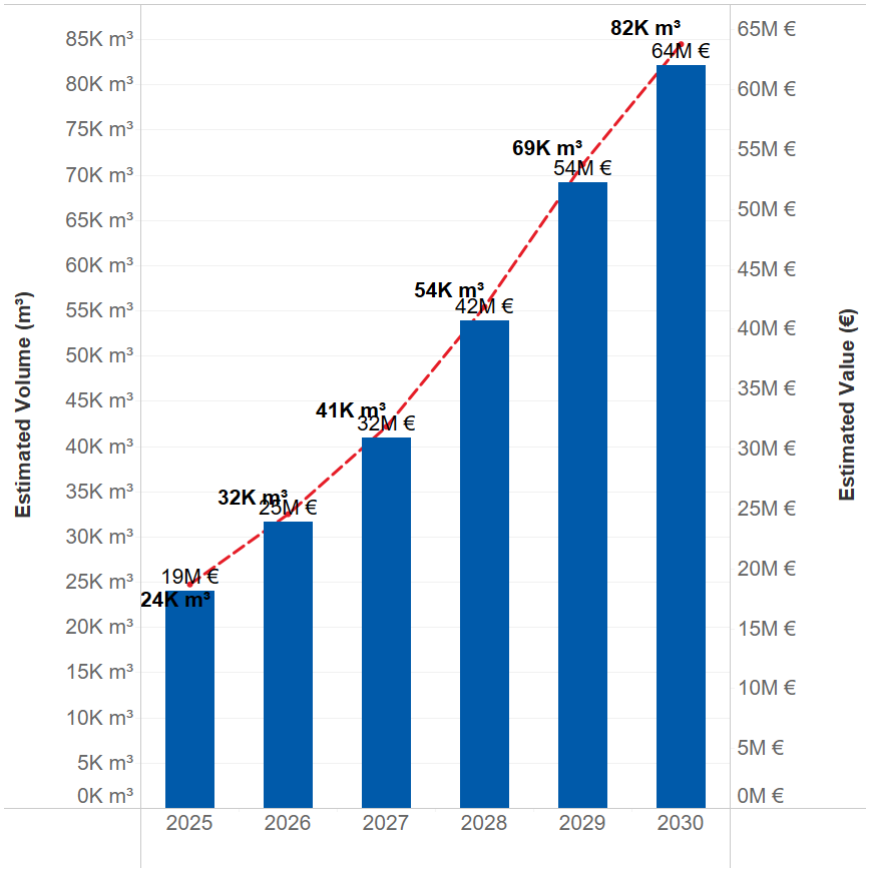
Description	To ensure the credibility and long-term utility of the Timber Construction Scenario Model, the Wood Knowledge Development and Innovation facility should lead a coordinated effort to improve the quality, granularity, and completeness of timber market data particularly in underrepresented areas such as the RMI sector. Working in partnership with the Central Statistics Office (CSO), the KDI should establish a formal process for annual data updates, ensuring the model reflects evolving market conditions and continues to support evidence-based policymaking, investment planning, and supply chain strategy.	The KDI should actively identify data gaps across timber volumes, sourcing (domestic vs. imported), and end-use applications, and engage with industry stakeholders to improve data coverage and accuracy. In addition to data collection, the KDI should regularly publish insights and analysis derived from the model to inform decision-makers across government, industry, and academia. These publications should highlight trends, forecast demand, and assess the impact of policy shifts, helping to guide strategic planning and investment.	The simulation horizon should also be extended to 2050 to align with Ireland's long-term climate and forestry targets. This will enable deeper exploration of afforestation outcomes, industrial development pathways, and timber's role in decarbonising the built environment and supporting rural economies.
Actions for Consideration	• Set up a structured collaboration between the KDI facility and the CSO to support annual updates of the Timber Construction Scenario Model. • Conduct a comprehensive data audit to identify data gaps —particularly in underrepresented areas such as the RMI sector. • Produce and disseminate annual reports summarising key trends, forecasts, and policy implications based on updated scenario modelling.		

Recommendations

R-06: Explore the commercial viability of establishing Domestic Manufacturing Facilities for Engineered Wood Products (EWP) including MET

Description	Ireland should develop a business case for establishing domestic MET, such as Glulam, CLT and/or wood fibre insulation, targeting reduced reliance on imports and unlocking higher-value applications for Irish-grown timber. This activity would be led by DETE and DAFM with support from relevant organisations such as Enterprise Ireland, Coillte and the KDI to assess market demand, raw material availability, and location feasibility. Local production would enhance supply chain resilience, stabilise costs, and support low-carbon construction across housing and public infrastructure.	The feasibility study should evaluate how Irish C16 timber can be integrated into engineered wood products, including Glulam, and identify the technical adaptations needed to meet performance standards. This would de-risk investment, support industrial development, and demonstrate the viability of 100% home-grown timber solutions. Wood fibre insulation presents a complementary opportunity. It is a renewable, low-carbon alternative to conventional insulation using timber by-products adding value to the sector.	Critically, the market opportunity in Glulam and wood fibre insulation exceeds that of CLT, which faces higher costs and regulatory complexity. Glulam is more compatible with Ireland's dominant timber frame typology and can be manufactured using Irish C16 with early-stage design adjustments. Arup recommends prioritising Glulam and wood fibre insulation as scalable, cost-effective pathways to expand Ireland's engineered timber capacity.
Model Insights	Using domestically grown timber would create monetary and carbon savings, compared to imports. Furthermore, it can support to open new markets for timber usage and thus support for job creation.	Possible outcomes would need to be simulated and compared against the necessary investments and efforts in a business case analysis.	
Actions for Consideration	• Assess market demand for Glulam and wood fibre insulation manufacturing and potential export markets. • Identify potential locations for the facility based on logistics, proximity to sawmills, and workforce availability. • Explore the viability of manufacturing Glulam using Irish-grown C16 timber • Engage stakeholders including sawmills, engineered wood manufacturers, public agencies, and housing authorities.		

Estimated volume (new build and RMI) and annual market value estimate (new build and RMI) of timber used for construction with Glulam.



Recommendations

R-07: Introduce temporary incentives or grants for structural timber use in public or community projects

Description	Introducing targeted incentives or grants for structural timber use in public or community projects would significantly accelerate the adoption of sustainable construction practices in Ireland. One of the primary barriers to widen uptake of timber is the current initial cost uplift compared to conventional materials. Government support in covering a percentage of these additional costs, for public facing projects, community centres, childcare or other public buildings mandated through planning permission conditions, would reduce the financial risk for developers and contractors, making timber a more attractive and viable option and establishing a competitive sector. Existing schemes such as the Built to Innovate funding programme could be expanded or adapted to specifically support timber construction.	These incentives would focus on public and community projects. Projects that demonstrate innovation in design, through MET use of domestic timber, aligning with national climate goals would be provided grants to bridge the financial gap from traditional construction materials. Grants or support would specifically be tied to the adoption of MET for structural timber use in public or community projects for example in the construction of community centres, schools or creches. By rewarding early adopters and supporting the development of a robust timber supply chain, these temporary financial incentives could boost uptake and increase value add opportunities with domestic timber.	By supporting both the supply, and processing infrastructure, these measures would help ensure that increased timber availability is directed toward high-value, construction-grade products. This would strengthen Ireland's low-carbon construction sector, encourage new market opportunities for domestic timber, and reduce dependence on imports. Ireland can draw inspiration from Canada's recent announcement of a multi-pronged strategy to transform its softwood lumber industry. This includes loan guarantees to support restructuring, funding for product and market diversification, and a Build Canadian procurement policy prioritising domestic materials in major infrastructure and housing projects. Canada is also investing heavily upskilling and reskilling.
Examples of potential incentives include:	• Establish an RDI grant scheme to support innovation in timber product development and expansion into new domestic and export markets. • Provide dedicated funding for training and reskilling across the timber value chain	• Offer low-cost loan guarantees and transitional funding to help timber processors and manufacturers restructure operations, upgrade equipment.	• Funding for research and demonstration projects that showcase the performance and longevity of timber in Irish conditions. • Procurement criteria that favour low-carbon materials and reward domestic supply chain participation.
Actions for Consideration	• Expand programmes like Built to Innovate to support projects using Irish-grown structural timber. • Provide support to MET and timber frame manufacturers that integrate Irish timber into their systems. • Offer developer incentives for building with domestically produced structural MET in public projects. • Prioritise support for long-lived, structural timber products that store carbon and displace high-emission materials like concrete and steel.		

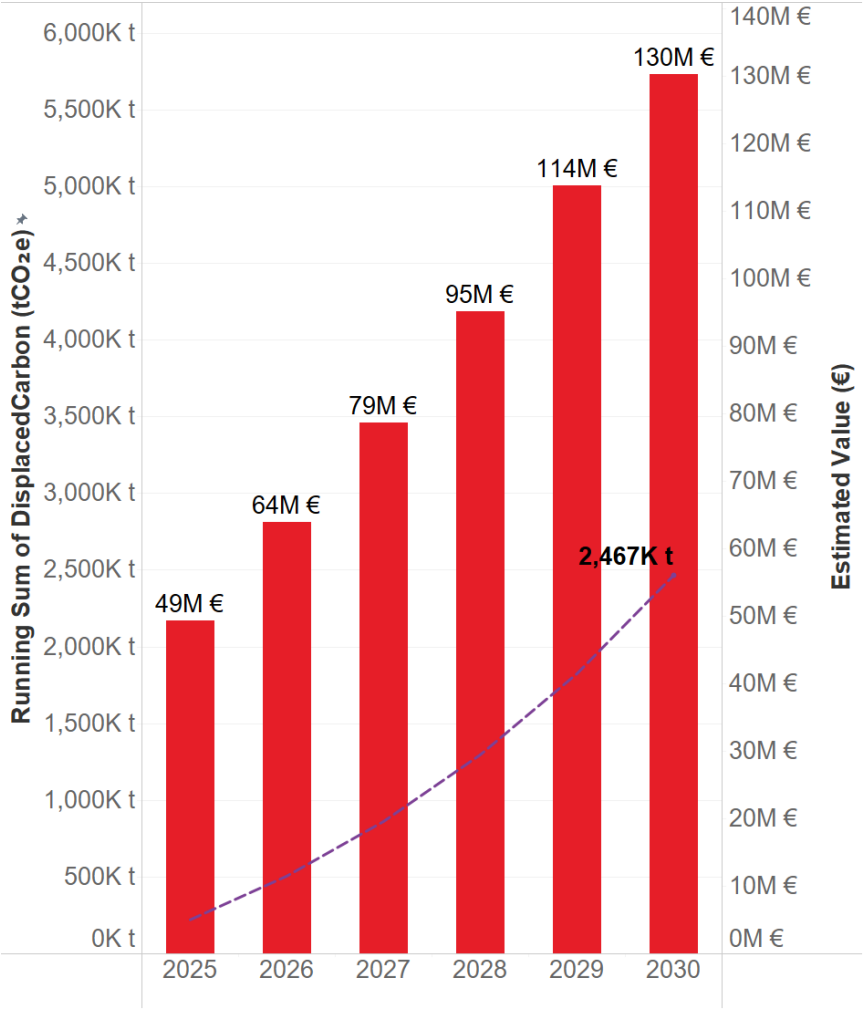
Note: Built to Innovate is an initiative by Enterprise Ireland under the Housing for All programme aimed at increasing productivity and innovation with a view to reducing the cost of construction.

Recommendations

R-08: Support Off-Site Timber Construction through Built to Innovate and Training Initiatives

Description	Encouraging the use of off-site timber construction presents a major opportunity to accelerate housing delivery and stimulate domestic timber demand. Off-site systems reduce on-site labour, shorten build times, and improve quality through factory-controlled environments making them well-suited to Ireland's growing pipeline of scheme homes and public housing projects.	To unlock this potential, Ireland should support the scaling of off-site manufacturing facilities, help develop their market presence, particularly those using Irish-grown timber. This can be achieved through targeted supports, innovation and encouraging investment in automation and digital design. Support should prioritise facilities with capacity to deliver at scale and align with national housing and climate goals.	The Built to Innovate programme led by Enterprise Ireland and supported by Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) provides a strong foundation for this shift by promoting MMC, Lean training, and digital tools to improve productivity and reduce fragmentation in the residential construction sector. To maximise impact, training initiatives should be expanded to build industry capacity and confidence in off-site timber systems.
Model Insights	The model highlights that timber frame systems represent the single most impactful opportunity to accelerate housing delivery in Ireland. • **High-impact opportunity**: Scheme housing presents the largest opportunity for timber frame, aligning with housing targets (300,000+ homes by 2030).	• **Carbon savings**: Widespread adoption of timber frame systems in new build scheme homes could displace approx. 2,467,000 tCO_2e by 2030, cumulatively. • **Market value**: The estimated market value of timber frame systems in this segment is projected to reach €130 million annually by 2030.	Moreover, timber frame systems offer significant advantages in terms of build speed, labour efficiency, and quality control factors that are increasingly critical given Ireland's construction labour shortages and ambitious housing targets.
Actions for Consideration	• Provide temporary incentives to support new or expanded off-site / MMC facilities. • Support facilities that integrate Irish-grown timber and demonstrate capacity to deliver at scale. • Launch pilot projects showcasing off-site timber systems in mid-rise and public housing developments. • Fund training relating to off-site and MMC.		

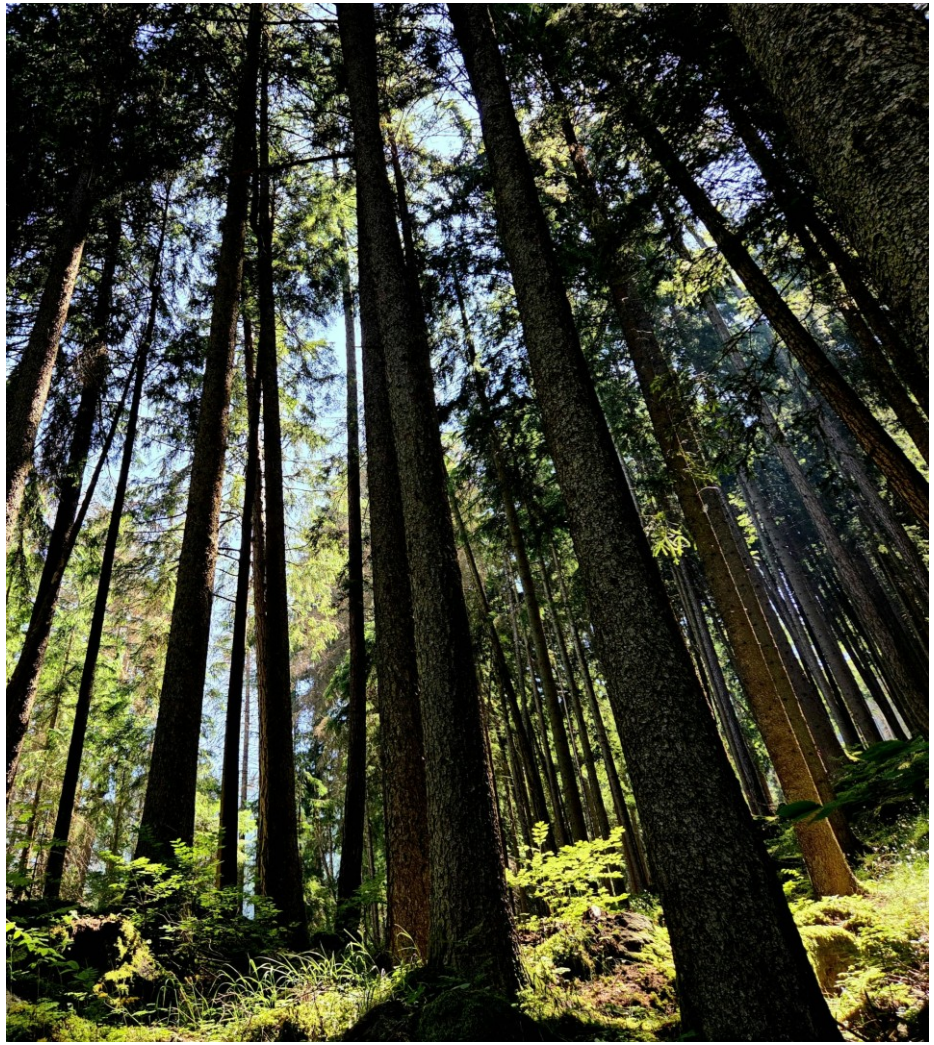
Cumulative displaced carbon (new build) and annual market value estimate (new build and RMI) of timber used for construction with off-site timber frame.



Recommendations

R-09: Carbon Displacement Study

Description	To support Ireland's transition to low-carbon construction, there is a clear need for a dedicated study to accurately model the carbon displacement potential of timber when used in place of conventional materials such as concrete and steel. Timber's ability to sequester carbon and its lower embodied carbon footprint make it a critical material in achieving national climate targets. However, quantifying the full environmental benefit requires a robust modelling framework that accounts for lifecycle emissions, substitution effects, and cascading use strategies. This study should evaluate the carbon savings across various building typologies and construction methods, including modular and off-site systems, and provide evidence-based metrics to guide policy, procurement, and design decisions.	The Irish Green Building Council (IGBC) is actively working to decarbonise Ireland's built environment through a range of initiatives. It is recommended that IGBC be formally engaged as part of the proposed carbon displacement study. Their involvement will ensure alignment with national and EU-level sustainability frameworks, facilitate access to relevant data and networks, and enhance the credibility and impact of the study's findings.
Actions for Consideration	• Commission a dedicated study to model timber's carbon displacement potential across building types and construction methods. • Develop a robust lifecycle modelling framework that includes substitution effects and cascading use strategies. • Engage the Irish Green Building Council (IGBC) to align with national and EU sustainability frameworks and enhance credibility	

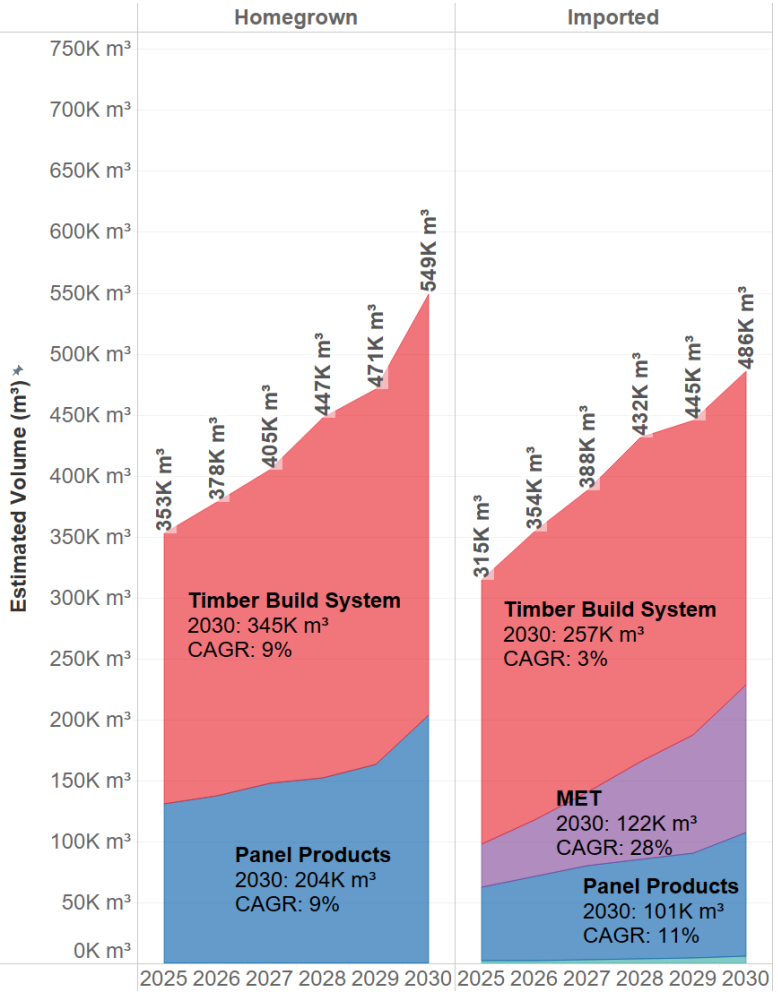


Recommendations

R-10: Strategic Assessment of Timber Supply Alignment with Construction Demand

Description	Ireland's construction sector is experiencing a surge in demand for timber-based solutions, driven by national housing targets and climate commitments. Timber frame systems and MET products are increasingly seen as scalable, low-carbon alternatives to conventional materials. As adoption grows, it is essential to assess whether Ireland's timber supply both domestic and imported is equipped to meet future construction needs.	The KDI facility should lead a strategic assessment of timber supply alignment, integrating forestry outputs, construction forecasts, and market modelling. This will help identify supply-demand gaps, inform planting strategies, and guide investment in domestic processing infrastructure. A coordinated approach is needed to ensure that timber supply evolves in step with construction ambitions.	By facilitating structured dialogue across forestry, manufacturing, and construction stakeholders, the KDI can help build a resilient timber economy. This includes evaluating the sustainability of imported supply chains, promoting the use of Irish-grown timber, and aligning forestry policy with the needs of a modern, low-carbon built environment.
Model Insights	The model shows that timber demand in Ireland's construction sector is set to rise significantly, with projected usage increasing from 668,000 m³ in 2025 to 1,038,000 m³ by 2030. This growth reflects the expanding role of timber-based construction, particularly in housing and modular systems, as Ireland pursues low-carbon building solutions.	There is a clear opportunity to scale the use of Irish-grown timber, which is expected to grow at a compound annual rate of 9%, reaching 549,000 m³ by 2030. This trend supports the case for investing in domestic forestry and processing infrastructure to meet rising demand while reducing reliance on imports.	However, the model also highlights Ireland's continued dependence on imported timber especially MET with volumes forecasted to increase from 33,000 m³ in 2025 to 114,000 m³ by 2030. This underscores the need to assess the resilience of the imported supply chain and explore opportunities to strengthen domestic capacity.
Actions for Consideration	• Establish a Timber Supply Alignment Taskforce under the KDI facility. • Integrate construction forecasts with forestry outputs to identify future gaps. • Use scenario modelling to simulate supply resilience under different growth pathways. • Advocate for increased planting rates aligned with construction demand.		

Estimated volume (new build and RMI) of timber used for construction by origin (homegrown and imported), based on scenario 1.



7. Conclusion

This conclusion brings together the key findings and strategic insights from the report, reinforcing the critical role timber can play in transforming Ireland's construction sector. It reflects on the opportunities identified, the barriers that must be addressed, and the actions required to unlock timber's full potential in meeting national housing and climate targets. The section also outlines the next steps to guide stakeholders in advancing timber adoption across the built environment.

Above all, this section emphasises that timber construction products represent one of Ireland's most significant future market opportunities. With projected growth in off-site timber systems and MET, the sector is poised to deliver scalable, low-carbon solutions across housing, public infrastructure, and commercial development. Realising this potential will require bold leadership and strategic alignment across government, industry, and academia. The recommendations that follow provide a roadmap to position timber at the centre of Ireland's construction future unlocking economic value, accelerating climate action, and enabling a modern, resilient built environment..

© Photo by Riccardo Mazza

Conclusion

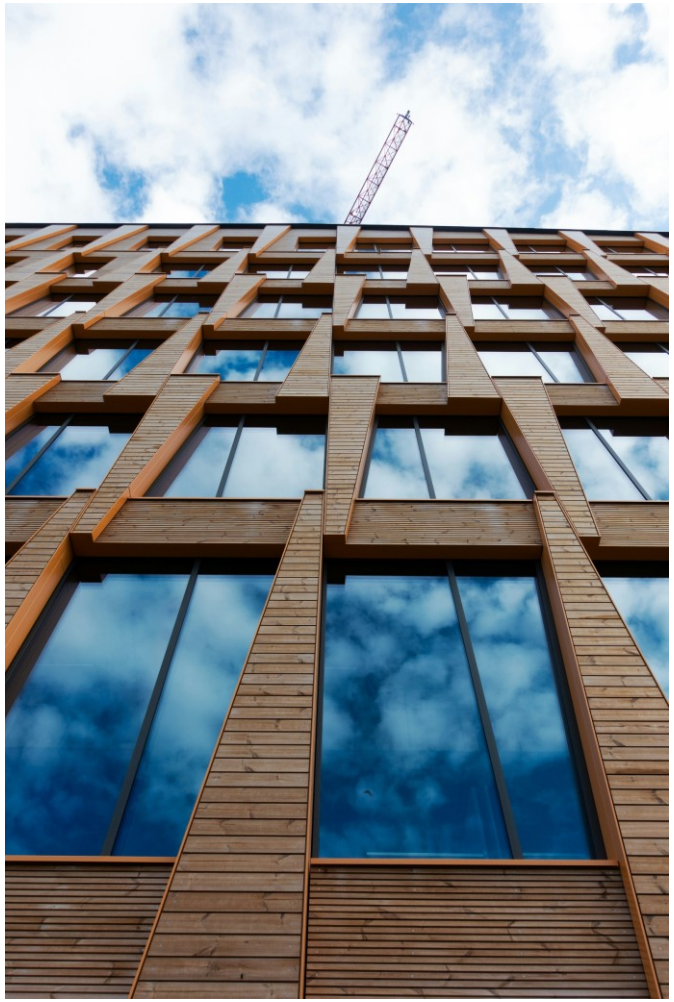
Summary of Findings

Ireland's construction sector is under increasing pressure to deliver a significant number of homes while simultaneously reducing embodied carbon emissions to meet the 5 million tonnes of CO_2e ceiling set for 2030 under the Climate Action Plan 2025. Timber, as a low embodied carbon construction material, offers a scalable and sustainable solution to address both housing and climate goals. The evidence confirms that timber particularly timber frame systems and MET products can accelerate housing delivery, reduce emissions, and support the adoption of MMC.

Extensive stakeholder engagement including sawmills, manufacturers, architects, developers, and builder merchants/import agents revealed a strong appetite for timber adoption across the construction value chain. However, this enthusiasm is tempered by persistent barriers such as regulatory uncertainty, limited awareness, inconsistent certification processes, shortage of skilled labour, and a lack of training and guidance for designers. These challenges are compounded by a reliance on imported timber products, despite Ireland's capacity to produce high-quality, homegrown alternatives.

A critical opportunity exists to increase the use of Irish-grown timber in construction, while reducing both the export of construction-grade timber and the import of products that could be replaced by domestic supply. Currently, a significant proportion of structurally suitable Irish timber is exported, while manufacturers and builders rely heavily on imports. By investing in domestic processing and manufacturing capacity, Ireland can strengthen its supply chain resilience, reduce transport-related emissions, and capture greater economic value within its borders transforming timber from a commodity into a strategic national asset.

This concluding section brings together the key findings and strategic insights from the report, reinforcing timber's central role in transforming Ireland's construction sector. It introduces a set of actionable recommendations designed to scale timber adoption, stimulate domestic innovation, and align policy, procurement, and education with Ireland's housing and climate goals. Scenario modelling shows that under the most ambitious pathway, timber frame adoption could reach 70% of new homes by 2030, displacing over 2.8 million tonnes of CO_2e in 2030, and generating a combined market value of more than €501 million annually, for timber frame and MET systems. These projections underscore the urgency and the opportunity to act now and position timber as a primary driver of Ireland's construction future.



Conclusion

Next Steps

The scenario modelling in the report reveals that under current conditions, timber will remain underutilised outside of scheme housing, leaving a significant carbon displacement potential unrealised. Without a shift in construction norms and materials, Ireland risks falling short of its Climate Action Plan goals. With the right regulatory reforms and targeted education initiatives, timber can become a cornerstone of Ireland's low-carbon, high-performance built environment.

The market opportunity for timber construction products is substantial. Demand is growing, particularly for timber frame systems and mass engineered timber (MET) products. To capture this value, investment in domestic processing and manufacturing capacity is essential. Establishing facilities for MET products, such as Glulam, will reduce reliance on imports, enhance supply chain resilience, and support rural economic development. Collaboration across the supply chain, from sawmills to manufacturers and developers, will be key to aligning supply with evolving construction needs.

Unlocking timber's full potential will also require coordinated action across policy, procurement, education, and industry. Regulatory reform is paramount: clear, nationally accepted guidance for timber design is essential to provide confidence for developers, designers, and approving authorities. The finalisation and Government approval of the Final Report of the Timber in Construction Steering Group, along with its implementation plan, will be a critical milestone in this process.

Education and skills development are equally critical. The shortage of skilled professionals and the lack of timber-focused content in third-level engineering and architecture programmes must be addressed. Expanding apprenticeships, integrating timber modules into curricula, and providing targeted training for building control and fire safety officers will help build the competence and confidence needed to mainstream timber construction.

Promotion efforts must be strategically targeted. Rather than advocating for timber use across all building types, the focus should be on applications where it offers the greatest value: low- to mid-rise residential buildings, modular housing, public infrastructure, and retrofit projects. These segments present clear opportunities for timber to deliver on performance, cost-effectiveness, and sustainability, aligning with national climate goals and housing needs.

To support implementation and sector alignment, the establishment of the Wood Knowledge Development and Innovation facility will be essential. This body should coordinate technical guidance, knowledge sharing, and innovation across the timber value chain. As Ireland explores the potential of timber to support a more sustainable and resilient built environment, it is essential to translate insights into action.