

# BUILDING A SUSTAINABLE FUTURE

The economic contributions of the  
UK's Wood Panel Manufacturing sector



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## Foreword

Within timber circles, the wood panel industry is generally understood. However whilst products of the sector are ubiquitous within the UK's furniture and built environments, explaining exactly who we are and what we contribute to a political audience can be a challenge.

Operating on a B2B basis, wood panel manufacturers in the UK collectively supply 63% of the UK's annual combined consumption of Chipboard, Oriented Strand Board (OSB) and Medium Density Fibreboard (MDF) products. In service, these core products are invariably hidden either within the structure of a building or beneath overlays or other coatings within furniture. Once processed and incorporated into other products by the customers, these wood panels can be found far and wide and at each stage of the journey value is added. Eventually, when these products come out of service and enter the waste stream, the wood panel industry can recycle them.

This is a high volume, high efficiency manufacturing sector which uses wood from the UK forestry and sawmilling sectors as well as reclaimed waste wood. What is not always recognised is the number of downstream distributors, processing and manufacturing businesses that rely on the 3 million m<sup>3</sup> annual output of the UK's panel producers.

Wood panels are an intrinsic part of the complex material mix that goes into modern buildings, interiors and furniture. Whilst the UK is the second largest importer of solid timber products worldwide the UK panel producers stand out as a domestic success story and one which will be essential if the Governments house building targets are to be met.

This report, prepared by CBI Economics, puts hard numbers behind the story which we hope will bring into the light an improved understanding of this sector and its wider linkages.

### **Alastair Kerr**

Director General, Wood Panel Industries Federation



## Executive Summary

Wood-based panels are ubiquitous in our homes, shops and workplaces, serving as vital components of both the building structure and the furniture within them. Wide swathes of UK industry, including nationally significant firms such as Howdens Joinery and Centre Parcs, could not function without the UK's wood panel manufacturers.

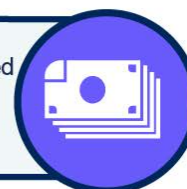
Demand for wood panels is set to significantly increase as the UK Government sets ambitious targets, far higher than current delivery rates, for housebuilding alongside new towns and all the associated infrastructure. This is compounded by a target to reduce the levels of embodied carbon in construction, which will necessarily involve increasing the amount of wood used.

**10%** of the UK economy is made up of wood panel reliant industries, such as construction and leisure.



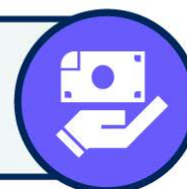
The supply chain of the industry accommodates **10,600 FTE jobs**, inclusive of almost **2,100 FTE jobs** at the wood panel manufacturers themselves.

The Wood Panel industry & its supply chain generates **£1.1 billion**, in gross value added (GVA) to the UK economy, including **£418 million** just at the point of manufacture.



Productivity in the wood panel industry, at **£200,118 GVA per FTE job**, is **2.3 times higher** than the manufacturing sector average (£86, 375).

Almost **£290 million in tax revenues** is generated for the exchequer per annum because of wood panel activity.



The wood panel industry consumes approximately 3.5 million tonnes (wet) of domestically sourced wood annually, making it a significant customer of the UK forestry sector alongside sawmills and wood fuel. However, this is still not sufficient to satisfy domestic demand and the UK imported approximately £1.4 billion worth of wood panels in 2023.

Wood-panels are the product of fast-growing conifer plantations which achieve some of the highest greenhouse gas emission mitigation rates compared to other woodland options.

Manufacturers have made substantial efforts to decarbonise their processes, increase the use of recycled materials in production and instil environmental standards in their supply chains. The industry has a path to decarbonise further, but this will require clear government commitments to **prioritise the use of wood and wood-based products as a raw material in construction** to provide long-term revenue certainty, improve market confidence and drive investment in core operations.

There are five wood panel manufacturing sites across the UK: three in Scotland, one in Wales and one in England, but their economic impact is felt right across the country. The industry's supply chain draws from vital sectors such as chemical manufacturing and energy.



# 1 The UK's wood panel manufacturing sector

*CBI Economics were commissioned by the Wood Panel Industry Federation to assess the contributions the wood panel manufacturing sector makes to the UK economy. This report presents new evidence that underlines the sector's significance to the UK's wider prosperity and in delivering the UK Government's programme for housebuilding and economic growth over the coming years.*




## The UK's wood panel manufacturing sector

### 1.1 Sector overview

The UK's Wood Panel industry comprises three firms involved in the manufacture of wood chipboard (PB), oriented strand board (OSB) and medium density fibreboard (MDF). These wood-based sheet materials have many uses, but primarily in furniture and construction. Although often hidden beneath floor coverings, paint or laminates, these products are ubiquitous in our daily lives, and are used throughout the fabric of buildings and the interiors of our homes, offices and shops.

A wide swathe of UK-based processing industries that incorporate panels into their products could not function without the UK's wood panel industry. In 2023, it was estimated that 3.0 million cubic metres of wood-based panels were produced in the UK. A further 1.8 million cubic metres were imported.<sup>1</sup>

**The three firms comprising the wood panel industry are:**

		
<b>Egger UK</b> Based in Hexham, Northumberland and Auchinleck, Cumnock	<b>Kronospan Ltd</b> Based in Wrexham, Wales	<b>West Fraser Europe Ltd</b> Based in Cowie, Stirling and Inverness, Inverness-shire

<sup>1</sup> Wood Panel Industries Federation (2023) Industry statistics derived from manufacturer returns and customs trade data

**Collectively, these three businesses:**

- Have a combined turnover of **£1.4 billion**.
- Employ **2,086** full-time equivalent jobs.
- Pay out over **£104 million** per annum on wages and salaries.
- Spend over **£981 million** annually in the supply chain, with two thirds of this spent in the UK.

This activity is spread throughout the UK, with three sites in Scotland and one each in England and Wales. However, through its linkages with the wider economy, its contribution stretches far and wide all across the UK.



**Figure 1: Distribution of the Wood Panel industry across the UK**



- 1 EGGER Barony – Barony Rd, Auchinleck, Cumnock KA18 2LL
- 2 EGGER Hexham – Anick Grange Road, Anick, Hexham NE46 4JS
- 3 Kronospa Chirk – Maesgwyn Farm, Wrexham LL14 5NT
- 4 West Fraser Inverness – Morayhill, Inverness IV2 7JQ
- 5 West Fraser Cowie – Station Rd, Cowie, Stirling FK7 7BQ



## 1.2 The operating environment for the sector

The UK's wood panel industry operates within a complex environment, with several developing elements. The range of issues presented here demonstrates how many of the issues most prominent in the UK are acutely impacting the wood panel industry's operating environment.

### Domestically sourced wood is the lifeblood of the wood panel industry

The sector consumes approximately 3.5 million tonnes (wet) per annum from three sources: Coniferous roundwood (virgin wood) from productive forestry, chips and sawdust from the sawmilling sector and reclaimed waste wood. Of the virgin wood, the sector consumes 25% of the total annual deliveries from UK forestry and sawmilling.

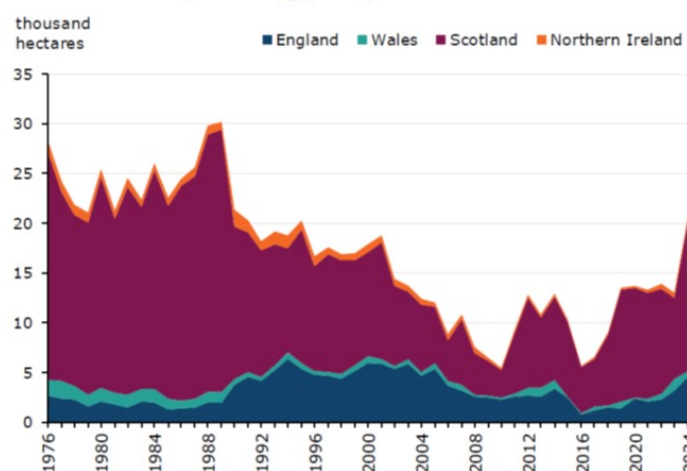
### Conifers are the main type of tree species used in the production of panel products.

Fast-growing conifer plantations achieve some of the **highest greenhouse gas emission mitigation rates** compared to other woodland options. Forestry Research found that 1 hectare of un-thinned fast-growing conifer created in 2022 would mitigate 14 tonnes CO<sub>2</sub> equivalent by 2100; whereas a broadleaf woodland, for example, would only absorb 8 tonnes CO<sub>2</sub> equivalent in this time period.<sup>2</sup> This covers a range of mitigation actions including carbon pooling and wood product substitution.

### Raw material

Domestic forestry planting has been in decline since the 1970s, meaning **the industry can only meet 65% of its customer demand** for wood panel products. The remainder is imported, with Forestry Research valuing wood-based panel imports at almost £1.4 billion in 2023. The Government has set a **target of 30,000ha of new tree planting by 2030**. This is double 2022/23 levels. At present, the **UK has less than half the forestry cover of most comparable developed countries**. A lack of planting means the UK is estimated to reach 'peak wood' in the 2030s and from this point onwards, the domestic roundwood supply is expected to decline rapidly. This will seriously limit the supply available for wood-using industries and increase the level of imports.

Area of new planting, UK, 1976 to 2024



Source: Forestry Commission, Forestry England, Scottish Forestry, Forestry and Land Scotland, Welsh Government, Forest Service, grant schemes.

<sup>2</sup> Forest Research (2022) Quantifying the sustainable forestry carbon cycle

At COP26, the UK committed to halt and reverse forest loss and land degradation by 2030. However, the UK is amongst the largest net importers of timber and wood products in the world with at least 4% coming from tropical countries, such as Indonesia and Brazil.

### **Waste wood is vital for sustainable development**

At present, 30% of the wood panel industry's total wood consumption annually comes from waste wood streams. Reclaimed waste wood is used to manufacture chipboard and accounts for 67% of the feedstock. However, the UK waste wood market is relatively static with levels of between 4.5 - 5 million tonnes per annum. The three principal uses for waste wood are wood panel manufacture, horticultural products and energy. The hierarchy of uses for waste wood should give clear priority to uses that will recycle waste wood, thus prioritising the wood panel manufacturing industry



## Increasing housebuilding targets will raise demand for wood-based materials

Wood panels make up approximately 1.5% of all inputs to domestic housebuilding, worth around £513 million per annum. The UK Government is aiming to build **1.5 million new homes between 2024 and 2029**, which is far greater than historical delivery rates.

In addition, this target will also require the construction of additional infrastructure such as hospitals and schools.

*“New homes, new towns, new hospitals, roads and schools.*

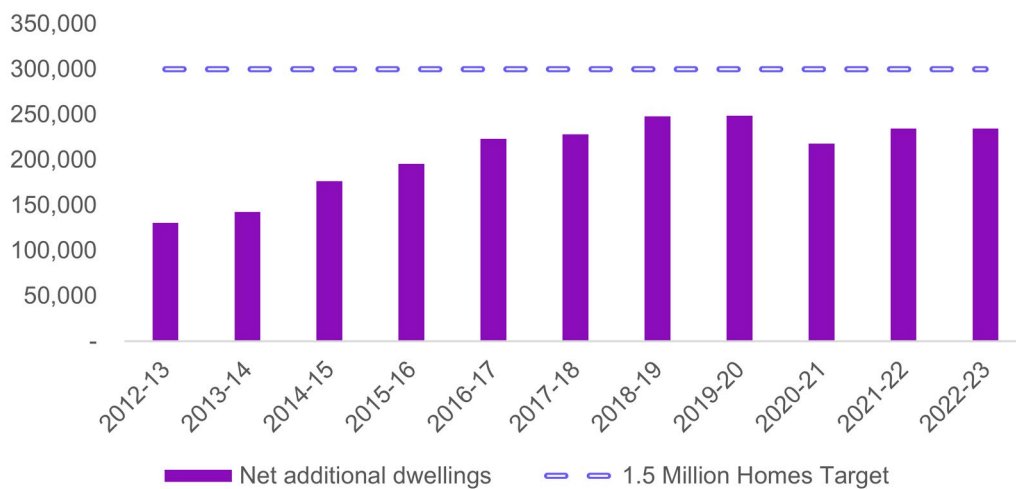
*A new future for our children.*

*That is what people will get and mark my words – we will deliver it.”*

Sir Keir Starmer, Prime Minister of the United Kingdom, Labour Party Conference 2024

The figure below demonstrates the step change required to reach the 300,000 homes per annum rate of delivery.

**Figure 1: Housing delivery rate, 2012/13 – 2022/23 against Government target**



Source: Department for Levelling Up, Housing and Communities

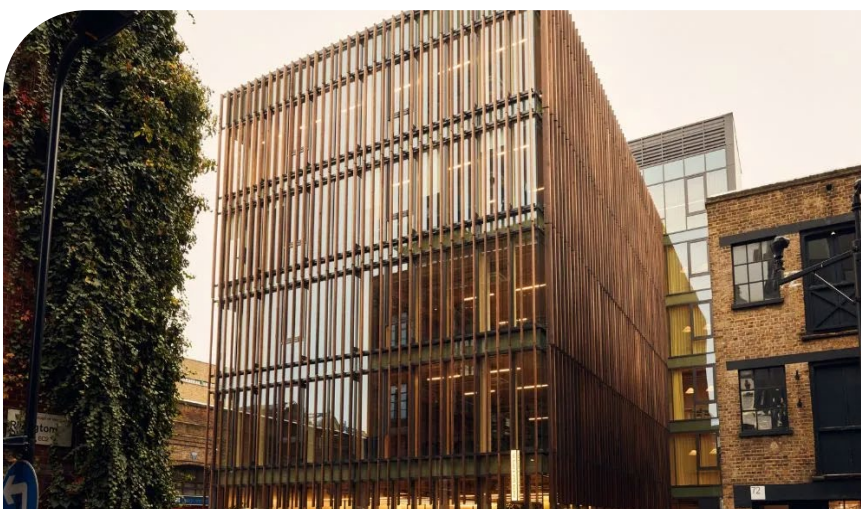
This will considerably **increase the demand for timber and specifically, wood based panel products**, through both the construction of homes and the increased demand for panel-based furniture.

## Timber in construction targets will boost sustainability but add further demand for wood panel products

The UK Government has outlined plans to **expand the safe use of timber in construction** and increase the domestic supply of wood. This is part of its broader target to reach 'Net Zero' by 2050.

The **use of wood can dramatically reduce the embodied emissions in construction projects**. Research for the Climate Change Committee indicated that if the UK was to see high growth in timber construction up to 2050, total embodied emissions are up to 1 million tonnes per annum lower while sequestered carbon is up to 1.3 million tonnes per annum higher compared to traditional construction methods.<sup>3</sup> To meet the UK's Carbon Budget for 2023-2027, an average annual emission reduction of 21 million tonnes is required.<sup>4</sup>

It is notable that there is a stark contrast in timber frame construction in the UK. In Scotland, 92% of new build homes were timber framed in 2019, whereas in England only 9% were timber framed construction. The *Timber in Construction Roadmap* suggested that this demonstrates there is an **opportunity to unlock this industry at scale and speed**. Implicitly, this will further increase demand for wood-based panel products.



The timber industry has estimated that UK timber demand will increase by almost half a million tonnes if the proportion of UK low-rise residential buildings built with a timber frame increased from around 20% today to 80% by 2050.

[Above] London's Black & White Building is the tallest timber office tower in the city. Working with mass timber allows the building to generate 37% less carbon than a concrete structure of the same size.

<sup>3</sup> Climate Change Committee (2019) Wood in Construction in the UK: An Analysis of Carbon Abatement Potential (BioComposites Centre)

<sup>4</sup> Climate Change Committee (2020) The Sixth Carbon Budget

# The importance of wood panel manufacturing to the UK

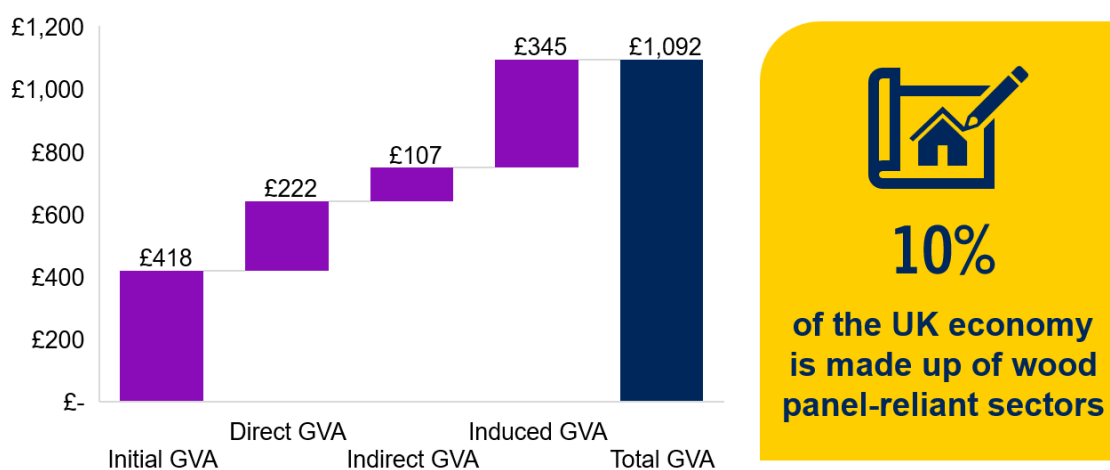
*This chapter discusses the contributions the sector makes to the economy through the value it generates, the employment it supports, and its linkages to key sectors of the economy.*

## The Wood Panel industry has an outsized impact on the UK economy

From the construction industry to the furniture and leisure sectors, the Wood Panel Industry Federation estimate that **10% of the UK economy is made up of wood panel-reliant sectors**.

Initial activity by the three businesses within the Wood Panel industry contributed **£418 million** in Gross Value Added (GVA) to the UK economy in 2022/23.<sup>5</sup>

**Figure 3: Total GVA contributions of the Wood Panel industry (£m, 2022 prices)**



Source: CBI Economics Analysis (2024)

The supply chain used by these businesses supported a further contribution of **£329 million** in GVA (through direct and indirect contributions). The employee spending from these businesses resulted in an additional economic contribution of **£345 million** in GVA (induced), which brings the total contribution to almost **£1.1 billion**. This is greater than the advanced manufacturing sector in Greater Manchester and Liverpool City Region combined and comparable in size to the UK forestry sector as a whole.

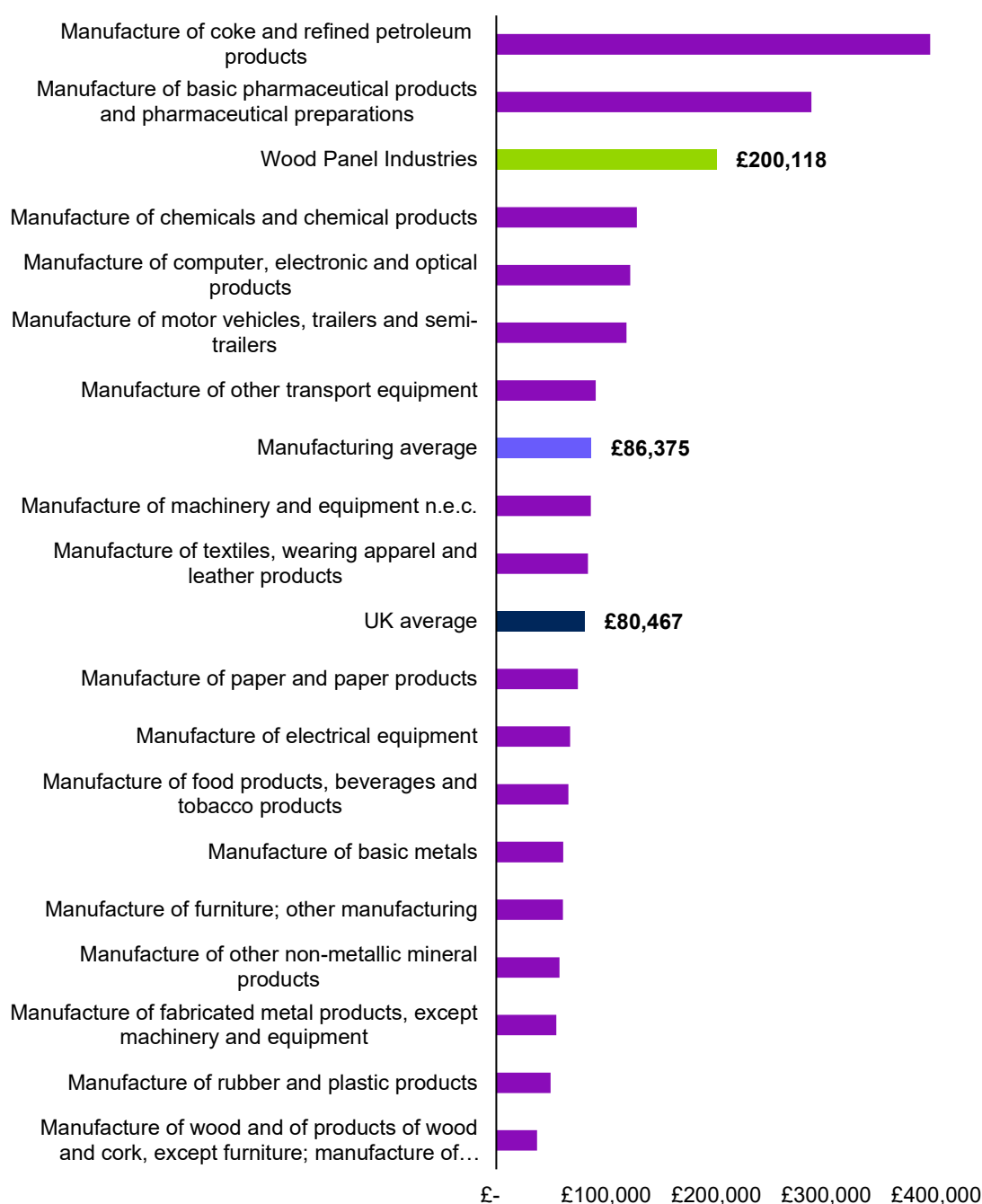
This means that **for every £1 million in contribution, a further £2.6 million is added via supply chain and employee spending**.

<sup>5</sup> The Organisation for Economic Cooperation and Development define Gross Value Added as 'the value of output less the value of intermediate consumption; it is a measure of the contribution to GDP made by an individual producer, industry or sector'

## Wood Panel supply chain employment is sizeable and highly productive

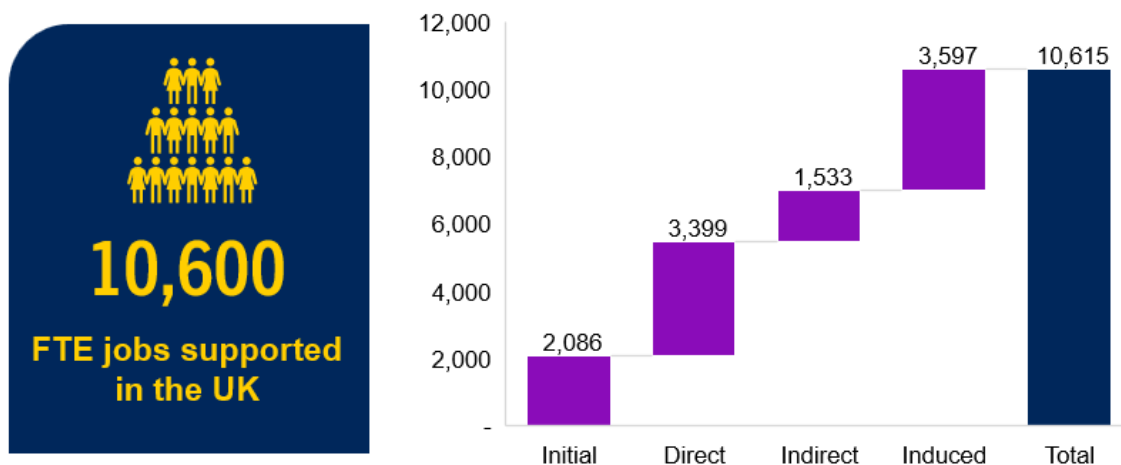
Business activities within the Wood Panel industry employed almost **2,100 jobs**. These businesses contributed, on average, **£200,118 in GVA per FTE job**. This is **2.5 times** the UK industry average labour productivity (**£80,467**). Wood panel manufacturing businesses also had a higher estimated average wage than the manufacturing sector as a whole (**£47,756** versus **£36,274**). The labour productivity compared with other industries is presented in the figure below.

**Figure 4: GVA per FTE comparison of manufacturing sub-sectors**



Source: CBI Economics analysis (2024)

**Figure 5: Total employment contributions of the Wood Panel industry (FTE Jobs)**



Source: CBI Economics Analysis (2024)

The supply-chain used by these businesses supported over **4,930** full-time jobs (direct + indirect). The employee spending from these businesses results in an additional economic contribution of approximately **3,600** full-time jobs (induced), which brings the total contribution to almost **10,620** full-time jobs.

This means that **for every FTE job supported by these businesses, a further 5.1 FTE jobs are supported in the wider economy.** This demonstrates that, while wood panel manufacturing is a capital-intensive, and high-productivity activity, it supports significant employment opportunities throughout the UK economy in more labour-intensive industries.

### The Wood Panel industry is a key source of demand for the UK forestry sector

The demand from the wood panel industry is vitally important for the wider UK forestry sector. CBI Economics estimate that the **wood panel industry accounts for 17.6% of demand for forestry sector output**, which is the equivalent of **sustaining almost 2,650 FTE jobs.**

In 2023, the Wood Panel Industries Federation found that **wood-based panel mills used a total of 3.5 million tonnes of material in 2023.**

This is comprised of approximately 1.4 million tonnes of UK roundwood softwood, 1.1 million tonnes of sawmill products, 0.95 million tonnes of recycled wood fibre and 0.07 million tonnes of imported softwood.



The delivery of 1.4 million tonnes for wood-based panels in 2023 made it the **third largest use of roundwood**, accounting for 14% of all uses. The first and second most significant uses of the product were sawmills, 4.9 million tonnes or 50% of all uses, and wood fuel, 2.4 million tonnes or 24%.

Elsewhere, purchases from wood panel manufacturers are vital for other UK sectors and help to sustain significant amounts of employment within them. For example, purchases from the **chemicals sector total almost £150 million per annum which supports over 850 FTE jobs**. This is approximately 1% of the chemical industry output. Likewise, purchases from the **transport & logistics sector are almost £70 million per annum, equating to over 1,250 FTE jobs supported**, approximately 0.25% of the sector's output.

### **Wood Panel products are an essential input into vital UK supply chains**

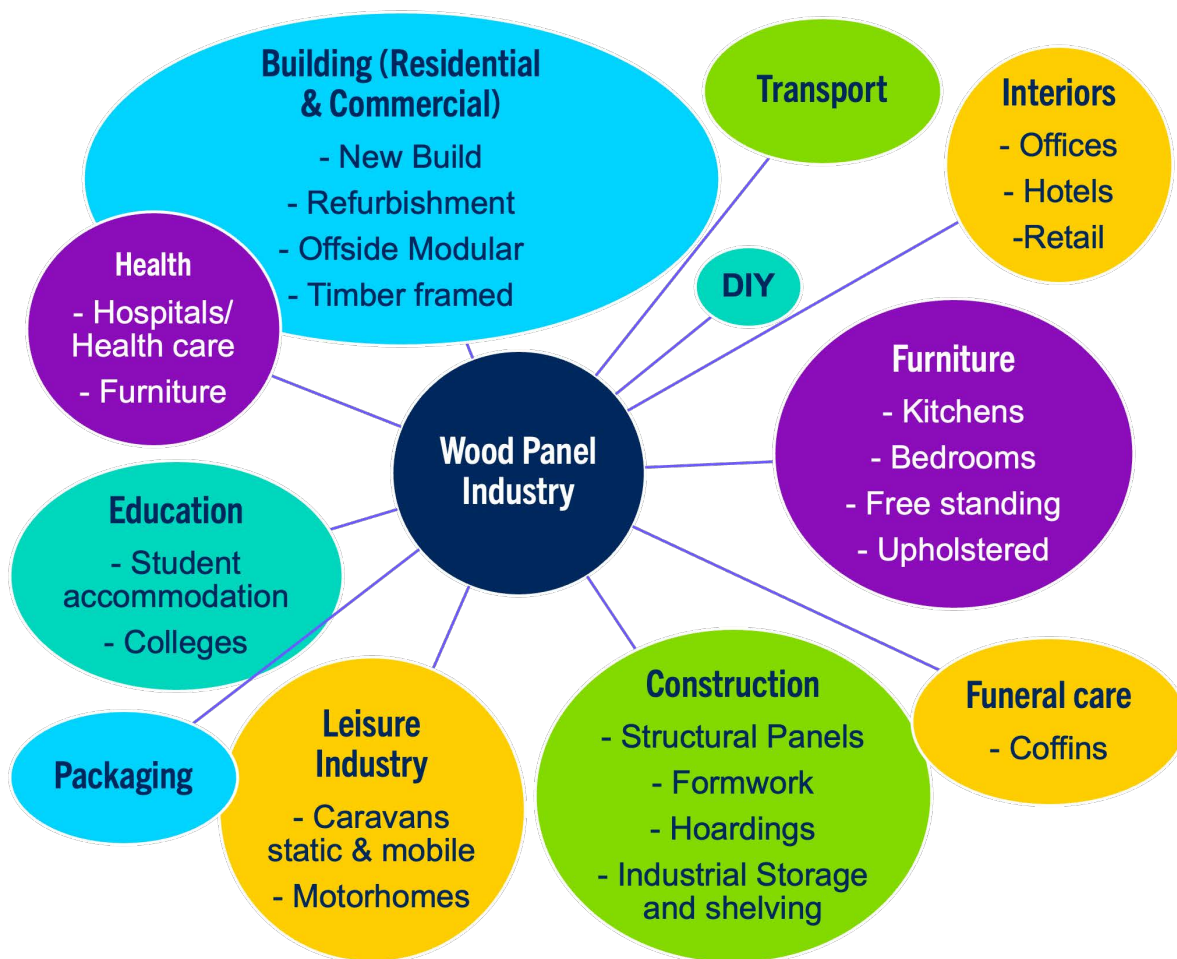
The Wood Panel Industry's products serve a wide variety of sectors and has a diverse range of downstream customers. This includes the construction industry, where it can form part of both load bearing and non-load bearing structures in the home and furniture industry, to which wood panels are a vital input.

CBI Economics modelling estimates that:

- The **construction sector** uses just over half a billions (**£513 million**) worth of wood panels annually
- The **manufacture of furniture** consumes as much as **£886 million** worth of wood panels use annually.



**Figure 6: End use markets where wood panels are required**



The wide variety of end-uses for wood panels gives the industry a diverse customer base. However, as well as providing an extensive range of applications, companies tend to use wood panels to help them achieve their wider objectives, particularly around sustainability. Two case studies are provided below that exemplify this:



### Case Study: Howdens Joinery Group PLC

Howdens is the UK's leading specialist kitchen supplier. As a vertically integrated business, Howdens designs and manufactures all its own kitchen and bedroom cabinets - nearly 5 million per year - as well as some cabinet frontals, worktops and skirting boards. It does this from two UK factories: Howden (Yorkshire) and Runcorn (Cheshire).

Wood-based panel products are the foundation of Howdens' manufactured products. In 2023, Howdens used 270,000 cubic meters of chipboard and 60,000 cubic metres of MDF – enough to fill the Albert Hall more three times over. All of Howdens' wood comes from FSC® or PEFC certified sources.

90% of Howdens' products, by revenue, go into people's home, with the remaining 10% being used for non-residential purposes. Within the residential segment, only 5% of products go into new build houses and 95% into existing homes (the Repair, Maintenance & Improvement (RMI) market). An ageing UK housing stock (the ONS indicates that the average age of UK housing stock is 70 years) means that the RMI market will continue to need sufficient wood-based panel products in the future. Howdens' own data estimates that the UK market for kitchens and joinery products is currently worth c.£12bn.

Howdens' Group revenue in 2023 was £2.3bn and it reported an operating profit of £340m. Howden Joinery Group Plc is listed on the London Stock Exchange and is a constituent of the FTSE 100.



### Case Study: Center Parcs

Center Parcs operate holiday villages at five locations across the UK. They see their forests as a critical asset and value their health and biodiversity as being of paramount importance. They have held the Wildlife Trusts Biodiversity Benchmark accreditation for 17 years and recently recognised nature as a formal stakeholder in the business. Like the wider hospitality sector, they are actively working to reduce their carbon footprint and environmental impact. This includes in the supply chain and it is a priority when procuring timber and forest products.

As a result, Center Parcs value certifications such as those from the Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC) as vital in procurement decisions. They also consider recycled content, product carbon intensity, origin and other credentials on deforestation and biodiversity.

Center Parcs enjoy a strong working relationship with a UK wood panel producer. They identified that the board proposed for use had 40% recycled content, including some of their own wood waste, and was carbon negative overall. Timber waste had been collected by their waste contractor and returned via a wood recycling plant.

## The Wood Panel Industry is especially strong in Scotland and Wales

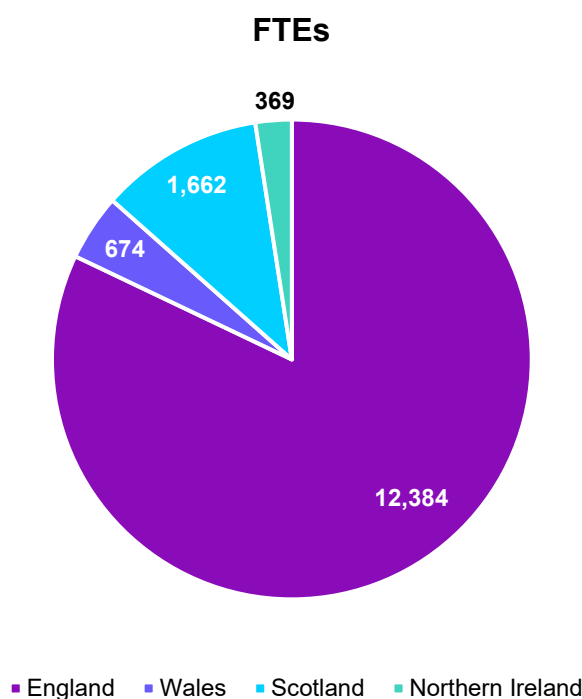
Three of the five Wood Panel mills are based in Scotland, while one mill is based in Wales. As a result, the Wood Panel industry is an important employer within their national economies and makes considerable economic contribution in terms of GVA.

It is estimated that at the point of manufacture, almost **1,000 jobs are based in Scotland** while approximately **635 are based in Wales** with the remainder **in England**.

While this is where companies within the wood panel industry are making their largest contribution, their suppliers are spread right across the UK. This is presented in the chart below. This shows that while most of the supply chain is located within England, there is still a considerable number of supply chain jobs across Scotland and Wales. These are in addition to those at the point of manufacture.

**Figure 7: Distribution of Wood Panel Industry supply chain [Total FTE distribution across devolved nations and GVA (£m, 2022 prices), 2022]**





**Source: CBI Economics analysis (2024)**

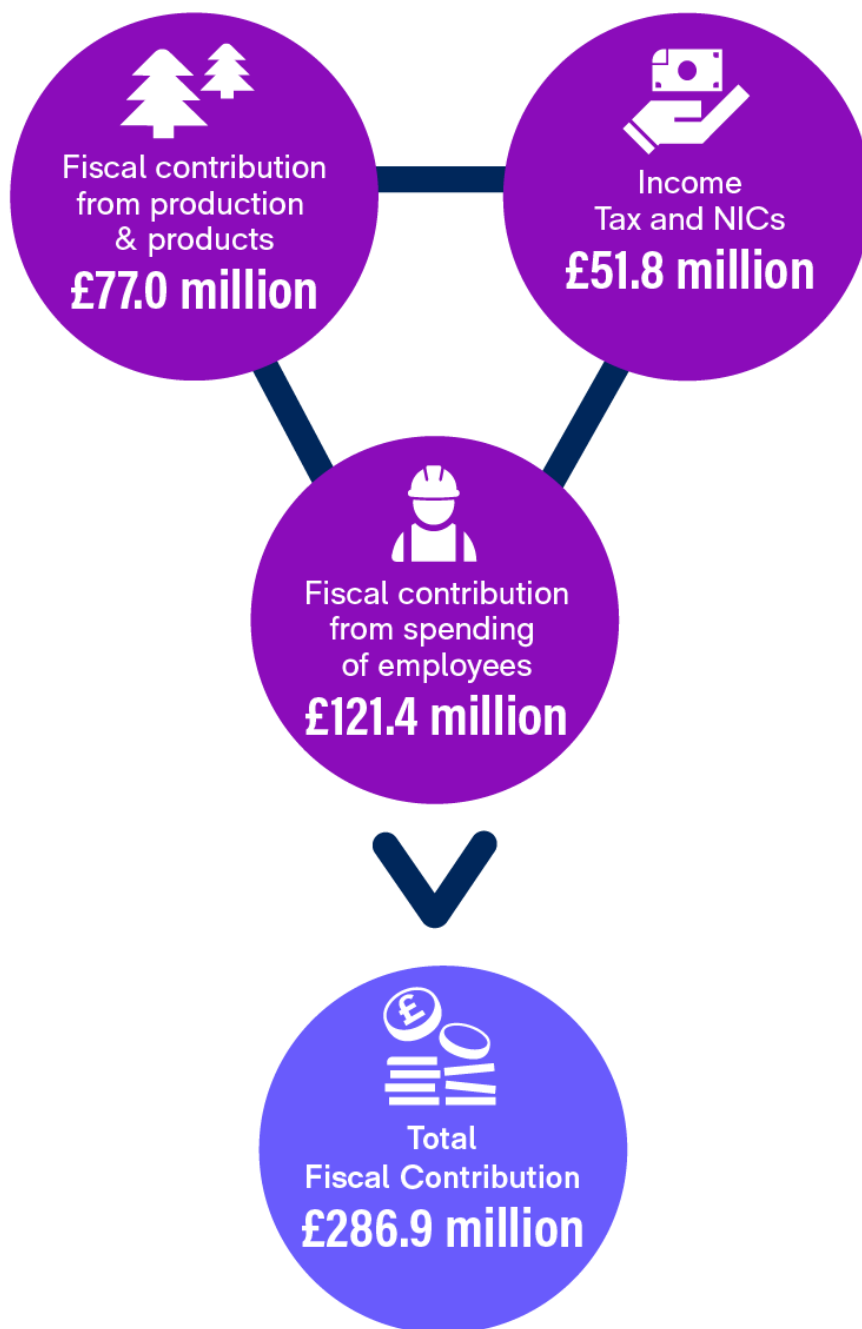
### **Returns to the exchequer from the wood panel industry are considerable**

The Wood Panel industry generated £286.9 million for the exchequer (2023) through production taxes across the wood panel industry and its supply chain, taxes from employee spending, and income tax and national insurance contributions. This is the equivalent of 43% of capital gains tax receipts in the year ending July 2024, larger than the tax receipts from the digital services tax and double the soft drinks industry levy.<sup>6</sup>

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<sup>6</sup> ONS (2024) Public Sector Finances: Appendix D, Public sector current receipts, July 2024

**Figure 8: Breakdown of fiscal contributions (£m, 2022 prices)**



Source: CBI Economics Analysis (2024)

# Using Wood Panels to achieve Net Zero

*This chapter discusses the sustainability credentials of the wood panel industry and its importance to the UK's environmental policy*

## Wood panels capture more carbon than created during production, making them carbon negative

Wood panels can lock in the carbon that they have captured and stored through the tree's lifetime even after the tree is felled and used in construction or furniture manufacturing. In addition, compared to other materials, timber significantly diminishes the carbon footprint of buildings compared to alternative materials. The reduction in embodied emissions with a timber frame instead of an equivalent masonry frame is approximately 20%.<sup>7</sup>

At finished product stage, the carbon sequestered largely offsets the carbon emissions during processing. Per tonne of timber consumed, it is estimated that there is a **net carbon sequestration of 1,369kg CO<sub>2</sub>**.

However, isolating just the environmental impacts of the production in order to compare against other industries, the Wood Panel industry generates 1.23 million tonnes of carbon annually, of which 0.42 million tonnes (34%) come from its wider economy linkages. This equates to approximately 450 tonnes CO<sub>2</sub> per £million output. This is compared to some other industries in the table below.

**Table 3: CO<sub>2</sub> per £million output during processing, by sector**

Sector	CO <sub>2</sub> per £million output ↓
<b>Wood Panel Industry</b>	<b>0.45</b>
<b>Electricity, gas, steam and air conditioning supply</b>	1.2
<b>Manufacture of basic metals</b>	1.4
<b>Manufacture of coke and refined petroleum products</b>	4.2
<b>Air transport</b>	11.9

<sup>7</sup> Committee on Climate Change (2019) Wood in Construction in the UK: An Analysis of Carbon Abatement Potential

## The non-domestic renewable heat led to misguided incentives

There are concerns that previous Government policy **incentivised the burning of virgin wood** for renewable energy when it could be **better used for other purposes**. The incentive created an artificial stimulation of demand which distorted the market and exacerbated shortages in UK supply.

Burning wood for electricity generation typically releases 1,905kg of CO<sub>2</sub> per tonne of wood. Processing wood produces only 378kg of CO<sub>2</sub> per tonne of wood and acts as a **storage unit for sequestered carbon through its lifetime** meaning the overall impact is carbon negative.

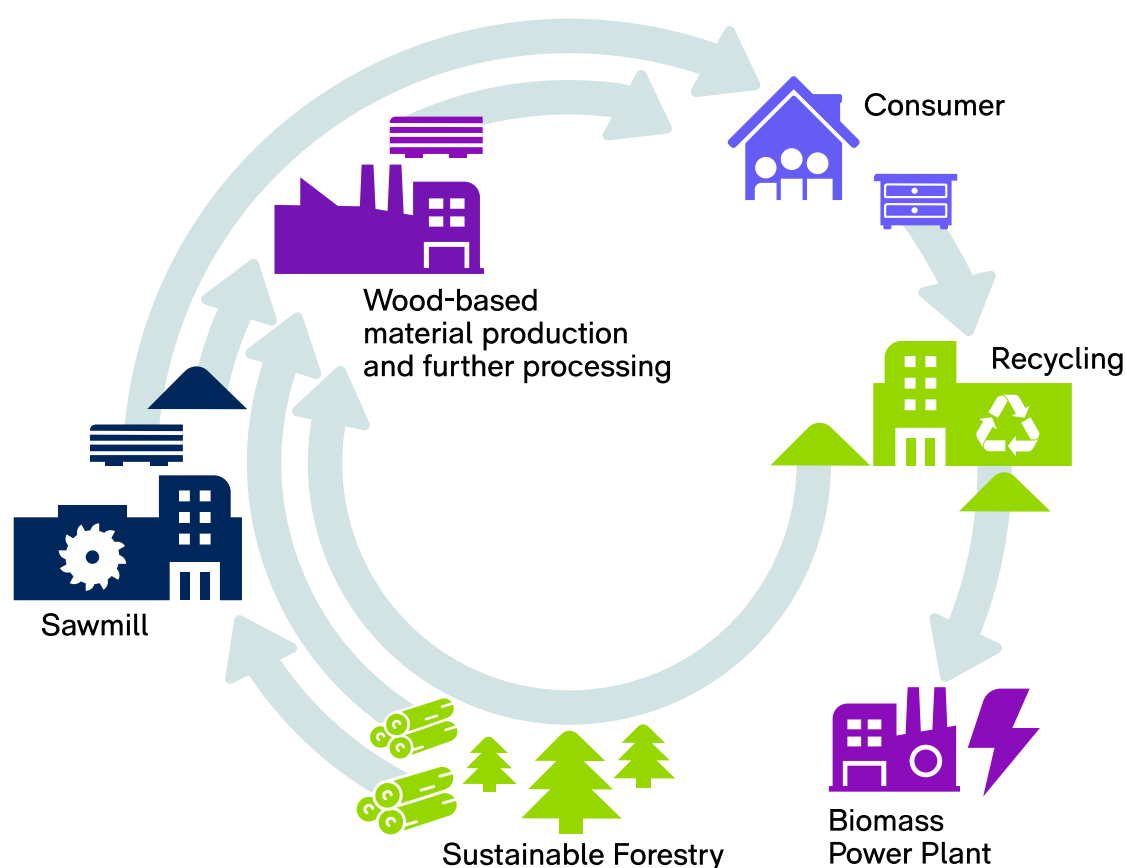
## Industry is going all out to ensure sustainability

Wood panel manufacturers are implementing a series of changes to their production processes and other activities to bolster their sustainability efforts. These undertakings include:

- **Post-Consumer Recycled Timber:** Industry-wide efforts are being made to increase the amount of recycled material in chipboard production. This would otherwise be sent to landfill or burned and ultimately means that less virgin wood is used. Further, processed waste wood is drier than virgin wood and so it requires less energy to process.
- **Sustainable procurement:** Ensuring timber comes from verified suppliers is of upmost importance for the industry. To ensure this, third-party certification programs, such as PEFC and FSC, are used to ensure adherence to environmental and social standards. Minimising the distance from which roundwood timber is sourced is also increasingly important to manufacturers.
- **Equipment electrification:** On-site, manufacturers use a range of mobile equipment. Primarily, forklift trucks but also grabs and shovels. Manufacturers are looking to shift their forklift trucks to all-electric models and explore electric alternatives to other plant equipment, wherever feasible.
- **Site decarbonisation:** Manufacturers are enacting plans to reduce process gas usage, and utilise renewable power sources and implement Energy & Production Optimisation & Control systems that will lower their carbon emissions.



**Figure 9: The circular lifecycle of timber and wood panel products**



### **A supportive policy environment can reinforce industry sustainability**

The main cause of carbon emissions in the industry are energy consumption from the grid, natural gas and other fuels. If grid decarbonisation and other incremental improvements are implemented, there would be a **67% reduction in emissions by 2050** (using 2016 as a baseline year). However, the biggest uncertainty in this is the rate of gas grid decarbonisation. If the sector was to achieve a maximum technical potential decarbonisation, which includes an increased use of renewables, decarbonised gas (including hydrogen) and the electrification of heat, there would be an **88% reduction in carbon emissions by 2050**. Environmental consultants SLR laid out a number of actions that would be required from stakeholders, including the Government, to maximise carbon reductions including:

- Commitment from Governments to **prioritise the use of wood and wood-based products as raw material for use by the construction sector**. This would provide long-term revenue certainty and improve market confidence that is needed to drive investment in core operations

- **Maximise the availability of low carbon raw materials**, with the Government supporting wood products being diverted to recycling as priority.
- **Maximise the potential at manufacturing sites**. The sector considers that some projects may be hampered by local planning issues, more expensive environmental controls and restricted access to new energy supplies due to sites' more remote locations.<sup>8</sup>



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<sup>8</sup> SLR (2022) Decarbonisation of the UK And Ireland Wood Panel Manufacturing Sector

## Conclusion

*“The Wood Panel Industry is a British success story although the name perhaps understates the importance to the economy and society since every home and workplace depends on the industry’s products, both for construction and furnishing.”*

Rt Hon Brian Wilson CBE, Chairman: Expert Working Group for the Wood Panel Industry

This analysis evidences the pivotal role the Wood Panel Industry plays in the UK. It **accommodates a significant number of jobs and generates substantial Gross Value Added**, both at the point of manufacture and throughout the supply chain. Industry activity tends to be more productive than the wider manufacturing sector and based in more rural locations, with a particular concentration in Scotland.

**10% of the UK economy is made up of wood panel reliant industries.** Wood panels are ubiquitous within the built environment and in furniture. Modern methods of construction and requirements for efficient material utilisation have been key drivers for versatile panel products.

**Wood panels are carbon negative, locking-in more carbon than created during production.** Manufacturers have sought to instil circular economy principles by recycling reclaimed waste wood and using internally derived process residues for energy generation. However, as biomass energy generation has grown, wood panel manufacturers have seen a decline in good quality reclaimed wood for recycling. This has increased the demand for wood and threatened the domestic supply for panel manufacturing. Globally, demand is set to increase further with the rise of sustainable aviation fuels and bio-derived chemicals.

Burning wood for energy generation is at odds with the waste hierarchy. The Wood Panel Industry is clear that sustainability would mean maximising the availability of low carbon raw materials, with **the Government supporting wood products being diverted to recycling as priority.**

Domestic forestry planting has been in decline since the 1970s, leading to a situation where **the industry can only meet 65% of its customer demand** for Wood Panel products. The remainder, which was around £1.4 billion in 2023, is imported. The continuing decline of domestic planting would jeopardise the UK’s national planting targets and further threaten supply.

**The capacity to grow market share exists, but it is dependent on having long term confidence in the domestic wood supply market** which the Government can provide by **prioritising the use of wood and wood-based products as raw material for use by the construction sector.** Wood Panel manufacturers have demonstrated their long-term commitment to the UK, consistently investing in production capacity and raw material processing. **Without action to support the increased planting of commercial tree species, wood supply and demand will only become more imbalanced.** This will have negative repercussions for all wood-using industries.

## Appendix: Methodology

Our findings showcase the current economic contributions of the wood panel industry. The process was initiated through communication with WPIF's three constituent members, who shared information around their sales and purchases, while publicly available information was obtained from annual accounts on Companies House. Other information was sourced from sources such as company annual reports. This information was used to calculate the initial contributions (the GVA, employment and tax contributions of the three WPIF members) and the direct contributions of the immediate suppliers to these companies.

To model the wider economic contributions of these businesses (the rest of the UK supply chain – namely, the indirect contributions - and the induced contributions), we then used the reputable CBI Economics proprietary in-house model of the UK and regional economies. The model draws on the UK National Accounts to describe relationships within the economy, tracing sales and purchases between industries and purchases by households, government and other final consumers. From this, the model derives GVA and FTE (Full Time Equivalent) jobs multipliers. The figure below provides a breakdown of the different contribution channels captured in our modelling.

### Overview of Input-Output model

To estimate the impact of the Wood Panel sector, we use our in-house IO model, which generates extensive information, such as regional breakdowns, around the economic contribution of each sector. Our suite of UK and regional models, developed by expert economists and aligned with Green Book guidance, use the Input-Output (IO) framework to map sectoral inter-dependencies within the economy.

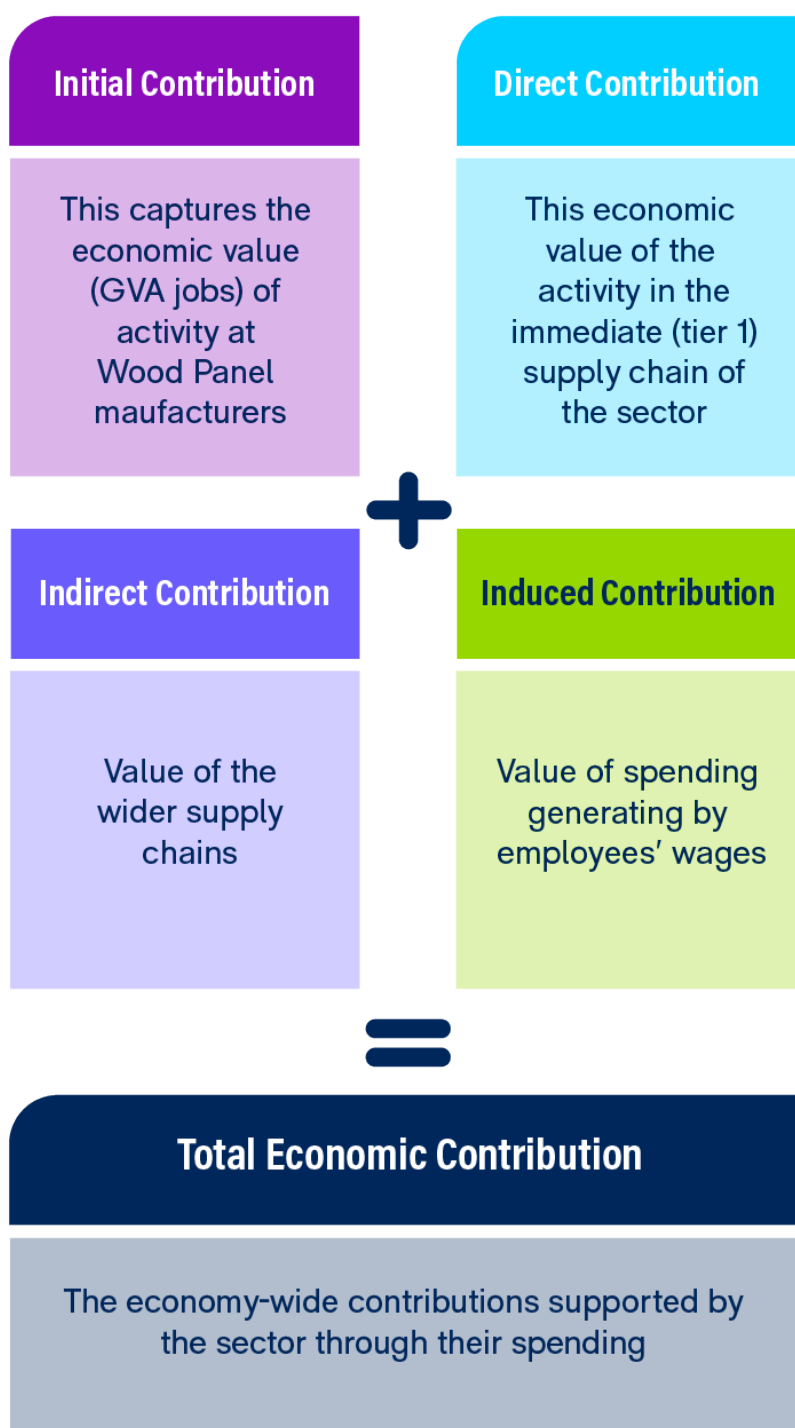
The core basis of this modelling uses the Input-Output (IO) Analytical Tables from the Office for National Statistics (ONS). An input-output table does the following:

- Traces out the relationships between different industries.
- Outlines the sets of inputs required to produce one unit of output.
- Quantify the interactions between the sector and its supply chain and households.

The IO framework allows for Type I and Type II output multipliers to be calculated. Type I multipliers include the direct and indirect effects. Type II multipliers are used in this analysis which include direct, indirect, and induced effects. This captures the wider extent of the economic contribution throughout the economy which is summarised in the figure below.

The model produces Gross Value Added (GVA) and full-time equivalent (FTE) employment contributions at the UK level, considering the initial, direct, indirect, and induced contributions. Additional analysis provides a regional perspective of these estimates.

**Figure 10: Components of Economic Contribution Modelling**



Source: CBI Economics

December 2024

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