woodknowledge WALES

Local Timber Supply Chain Review

Ariennir gan
Lywodraeth Cymru
Funded by
Welsh Government

ABOUT THE AUTHOR

Tom Henderson
Woodknowledge Wales

Tom leads work on forestry and timber supply chains at Woodknowledge Wales, with a focus on how Welsh wood can support resilient local economies, better land use, and lower-carbon construction.

Tom has a background in forestry and environmental science, with research experience in life cycle assessment, ecosystem services, and spatial modelling of afforestation impacts. His recent work has explored how timber production, land-use change, environmental impacts, and ecosystem service benefits can be assessed together to support more informed decisions about where and how new productive woodland is established.

At Woodknowledge Wales, Tom works across research, stakeholder engagement, and sector development, supporting projects on timber availability, small sawmill capacity, productive forestry, local supply chains, and the role of Welsh timber in construction. He is particularly interested in how the forestry and timber sectors can be organised to deliver more value from Welsh wood while strengthening rural livelihoods and ecological resilience.

CONTRIBUTORS

Thanks to co-authors:
Anna Dauksta
John Sweeney

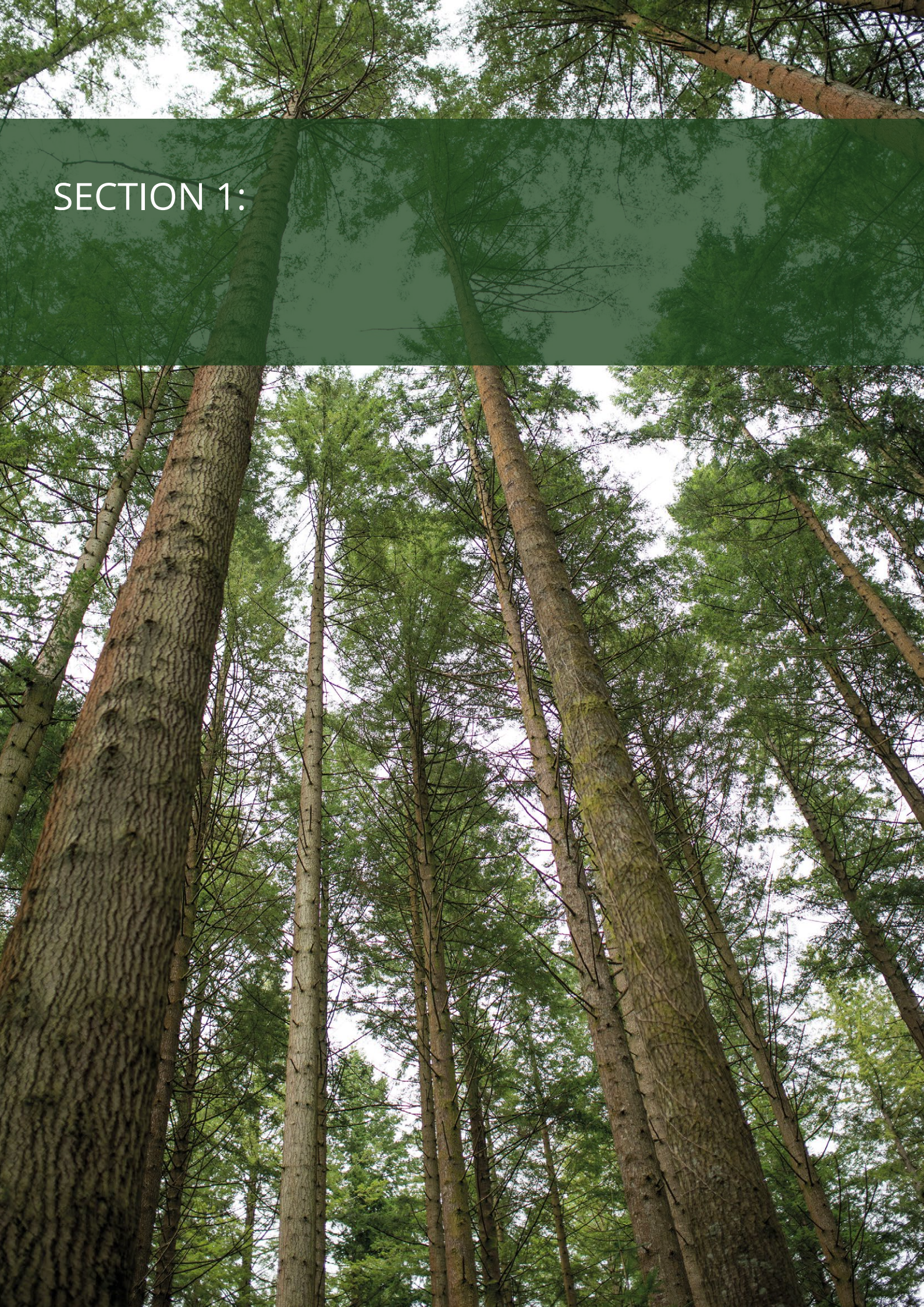
Foundational Economy Research Limited
(https://foundationaleconomyresearch.com/)

CONTENTS

SECTION 1

SECTION 2

SECTION 3



SECTION 1:

LTSCR – EXECUTIVE SUMMARY

This report presents the findings of a detailed survey and interview programme with small sawmillers across Wales. It examines who is operating in the sector, at what scale, under what conditions, and with what prospects, covering sawmill capability, constraints, financial performance, expansion and reinvestment.

The work was commissioned to provide Welsh Government with a clearer evidence base on local timber supply chains, focusing on small-scale processing capacity, timber availability, sales and movement, and the practical conditions needed to strengthen the sector.

Individually, many of these businesses are modest in scale. Collectively, however, they perform an enabling role within the Welsh timber economy. They provide routes for timber from farms, estates, small woodlands, arboriculture, and local forestry work to be processed and used, often in ways that larger systems are not configured to support. Their value is therefore not only in the direct employment they provide, but in the wider activity they make possible: woodland management, local building and repair work, rural enterprise, and the everyday circulation of materials, skills, and income within local economies.

The sector is highly varied; there is no typical Welsh small sawmill. Businesses range from occasional, micro-scale operations processing a few tonnes a year, to more structured mid-scale processors running near-continuously with invested infrastructure. Most are not standalone sawmilling businesses, and sawmilling is integrated into wider livelihoods that may include fencing, farming, forestry contracting, arboriculture, joinery, firewood, social enterprise and training. This diversity is not incidental. It is a defining feature of the sector, and it matters for how support and policy are designed.

To help navigate this heterogeneity, the report identifies five broad, indicative business types:

- **Micro operators**
  Small-scale, often owner operated, flexible, often opportunistic; processing modest volumes as one of several activities, and providing practical routes for small parcels, local timber, and varied species that do not always fit readily within larger-volume processing systems.
- **Integrated land-based businesses**
  Sawmilling embedded within wider farm, estate, or forestry operations or social enterprise; material cascaded across uses, with resilience built through diversification.
- **Mid-scale processors**
  More structured operations with continuous or semi-continuous production, often proactive investment in equipment and site, and emerging relationships with construction and trade markets
- **Specialist and niche producers**
  Focused on particular materials, products, or markets; typically, higher margin, lower volume, and highly specialised procurement.
- **Emerging and transitional businesses**
  Recently established or actively evolving; still defining their model, experimenting with markets, and representing the sector's future capacity

These are not rigid categories. Many businesses sit across more than one type, and circumstances change. But the typology helps explain why constraints, opportunities, and support needs vary so significantly across the sector.

LTSCR – EXECUTIVE SUMMARY

KEY FINDINGS

Existing datasets provide only a partial picture of timber movement and use

Current data provides useful insight into forecast availability and some elements of timber sales, particularly from the Public Forest Estate (PFE). However, there is much less visibility of how timber is subsequently aggregated, processed, and used within Wales, especially as a growing proportion of supply comes from the private sector where no centralised sales dataset exists. Publicly available statistics can indicate broad harvest volumes, but there remains limited understanding of how material moves through local processing networks and end markets

The sector contributes value in ways not fully captured by volume metrics

Many mills operate through frequent, small-scale transactions that support local trades, farms, woodland owners, builders, and communities. While individual throughput may be modest compared to large industrial processors, these businesses often provide flexible processing, short supply relationships, bespoke products, and routes for material that larger systems are not always set up to handle efficiently.

Business capacity is shaped by a combination of interacting factors

Across the sector, capacity is rarely determined by a single constraint alone. Instead, businesses operate within a balance of timber supply, labour availability, space, infrastructure, workflow, and market demand. This creates a pattern of continual adaptation, where businesses evolve incrementally in response to changing conditions, opportunities, and local circumstances.

Business models are diverse and often closely tied to wider rural livelihoods

Financial performance varies considerably across the sector, reflecting differences in scale, diversification, product focus, and business structure. Many businesses operate as part of wider rural enterprises or household economies, where flexibility and independence are valued. Gradual development and incremental reinvestment in equipment, buildings, and processing capability were common across respondents.

Species transitions are already influencing sourcing and processing decisions

The decline of larch was widely recognised across respondents, with Douglas fir most identified as the likely near-term alternative. Businesses are already adapting sourcing strategies, product lines, and processing approaches in response to changing species availability and local market conditions. While national-level work on future species is ongoing, day-to-day decision-making remains strongly shaped by current material availability, existing markets, and practical operational considerations.

Market visibility is an underdeveloped opportunity

Most businesses rely on word of mouth, repeat customers, and informal networks, with limited use of websites, storefronts, shared promotion, or product directories. Better marketing and clearer market visibility could help connect small processors with customers, specifiers, farmers, and woodland owners without requiring major changes to their business models.

Skills, continuity, and long-term succession remain important considerations

Several businesses highlighted the importance of retaining practical skills, experience, and continuity within the sector over the long term. In some cases, future succession remains uncertain, particularly for highly specialised owner-operated businesses. Respondents also noted that workforce challenges are closely connected to wider rural affordability and viability.

Existing collaboration provides a foundation for future coordination

Informal collaboration is already common across the sector, including the sharing of knowledge, contacts, machinery, drying space, storage, and work. Much of this activity is relationship-based and locally embedded rather than formally structured. The Woodknowledge Wales Sawmillers Community of Practice provides an important starting point, while organisations such as the Association of Scottish Hardwood Sawmillers (ASHS) offer useful examples of how coordination, trust, and shared value can develop over time.

LTSCR – EXECUTIVE SUMMARY

RECOMMENDATIONS

1.Recognise the sector's enabling role

Small sawmills should be valued not only by volume, but by their role in enabling woodland management, local processing, rural employment, skills, and use of timber that larger systems often cannot handle.

2. Improve timber access for small processors

Public timber sales should be reviewed to create more practical routes for smaller mills, including appropriately scaled roadside lots and selective access to species or parcels suited to local processing.

3. Explore policy and incentive mechanisms to support demand for Welsh-processed timber

Welsh Government should explore demand-side incentives for developers, manufacturers, and contractors using Welsh-processed timber, helping create more stable markets for domestic processors.

4. Build on existing collaboration

Support should strengthen the informal collaboration already happening across the sector shared knowledge, equipment, drying, stock, contacts, and work. Targeted, regular grants soft loans and leasing will help businesses to continue to develop capacity gradually.

5. Treat labour and succession as rural viability issues

Skills, labour, and succession challenges cannot be solved by training alone. They are tied to housing, infrastructure, services, and the wider viability of rural livelihoods.

6. Support timber mobilisation from farms, small woodlands and community sources

Create simple support mechanisms that help farmers, estates and small woodland owners identify usable timber, present it well, and connect with suitable local processors, contractors or hauliers.

INTRODUCTION

This report presents the findings of a desk-based review of existing data on timber resource, availability, and sales in Wales. The review was conducted to consolidate available evidence into a consistent baseline as possible, enabling identification of critical data gaps that must be addressed to support informed decision-making in Wales' forestry sector, with regard to local timber supply chains relying on small scale processing.

The review focuses on two primary tasks:

Softwood and Hardwood Availability:

Establishing a Wales-specific baseline for commercially relevant softwood and hardwood availability.

Sales Volumes:

Collating and reviewing existing data on annual timber sales volumes and post-harvest timber movement in Wales.

This report consolidates data extracted from Forest Research's published data, including Forestry Statistics, Softwood Availability Forecast (2022 and 2026) and Hardwood Availability Forecast (2014), providing Wales-specific analysis of current forest resources, projected availability over the next 25–50 years.

BACKGROUND AND CONTEXT

Small-scale sawmills play a distinct and often overlooked role within Wales' forestry sector. While modest in volume, they are embedded in local economies, supporting rural employment, enabling woodland management, and creating value from timber that might otherwise be underutilised. Despite this, the data available to describe timber availability, sales, and distribution is largely structured around national flows and aggregate volumes, offering limited insight into the pathways material takes to reach smaller processors. Understanding timber availability, sales patterns, and timber movement in this context is therefore essential for:

- **Establishing a realistic picture of supply into local processing**, including what volumes are available to small and medium sawmills
- **Understanding how timber is sold and accessed**, particularly the balance between standing and roadside sales and what this means for different types of processors
- **Identifying constraints within the supply chain**, including where material is not reaching market or is inaccessible to smaller operators
- **Linking forest resource to processing capacity**, helping to understand whether current and future volumes align with the structure of the sawmilling sector
- **Providing an evidence base for targeted intervention**, particularly where improved coordination, access, or data could strengthen local supply chains

Wales' forest estate comprises approximately 139,000 ha coniferous and 174,000 hectares of broadleaf woodland. Natural Resources Wales (NRW) manages the Welsh Government Woodland Estate, which accounts for approximately 64% of conifer stocked area and 15% of the broadleaf stocked area. The private sector, comprising a diverse range of ownership types from large estates to small family woodlands, holds the majority of hardwood resources and a substantial proportion of softwood[1].

The current review seeks to establish what Wales-specific data exists, where it can be accessed, and what critical gaps remain that must be filled through new data collection or enhanced cooperation with data holders.

[1] *Forest Research Annual Statistics 2025*

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

This section presents the consolidated evidence base for Wales timber availability, drawing on Forest Research forecasts and National Forest Inventory (NFI) data. All volume figures are expressed in thousands of cubic metres overbark standing (000 m³ obs) per year, representing average annual availability within each forecast period.

WALES FOREST RESOURCE BASELINE – SOFTWOOD AVAILABILITY FORECAST 2026

The Forest Research 50-Year Softwood Availability Forecast represents the most recent and comprehensive projection of Wales's softwood resource, extending the planning horizon to 2076. Published in 2026 and based on updated PFE inventory data from the NRW sub-compartment database (SCDB) and Private Sector (PS) data from the NFI. This forecast supersedes the 2022 forecast for strategic planning purposes and provides critical long-term context for Wales' timber sector[2].

Period	NRW (Public)	Private Sector	Total	NRW % of Total
2027–31	1,206	768	1,974	61.10%
2032–36	931	708	1,639	56.80%
2037–41	890	1,036	1,926	46.20%
2042–46	746	627	1,373	54.30%
2047–51	679	686	1,365	49.70%
2052–56	431	600	1,031	41.80%
2057–61	548	972	1,521	36.00%
2062–66	508	481	989	51.40%
2067–71	534	633	1,167	45.80%
2072–76	568	378	947	60.00%
50-yr avg	704	689	1,393	50.50%

Table 1: Wales Softwood Availability Forecast 2026 - 50 Year

	NRW (Public)	Private Sector	Total
Stocked area (000 ha)	75.4	46.9	122.2
Standing volume (000 m³ obs)	23,625	20,062	43,687
Mean yield class (m³/ha/yr)	17.4	17	

Table 2: Baseline Forest Resource: Softwood (FR 2026 Forecast)

[2] *Forest Research 50-year Softwood Forecast 2026*

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

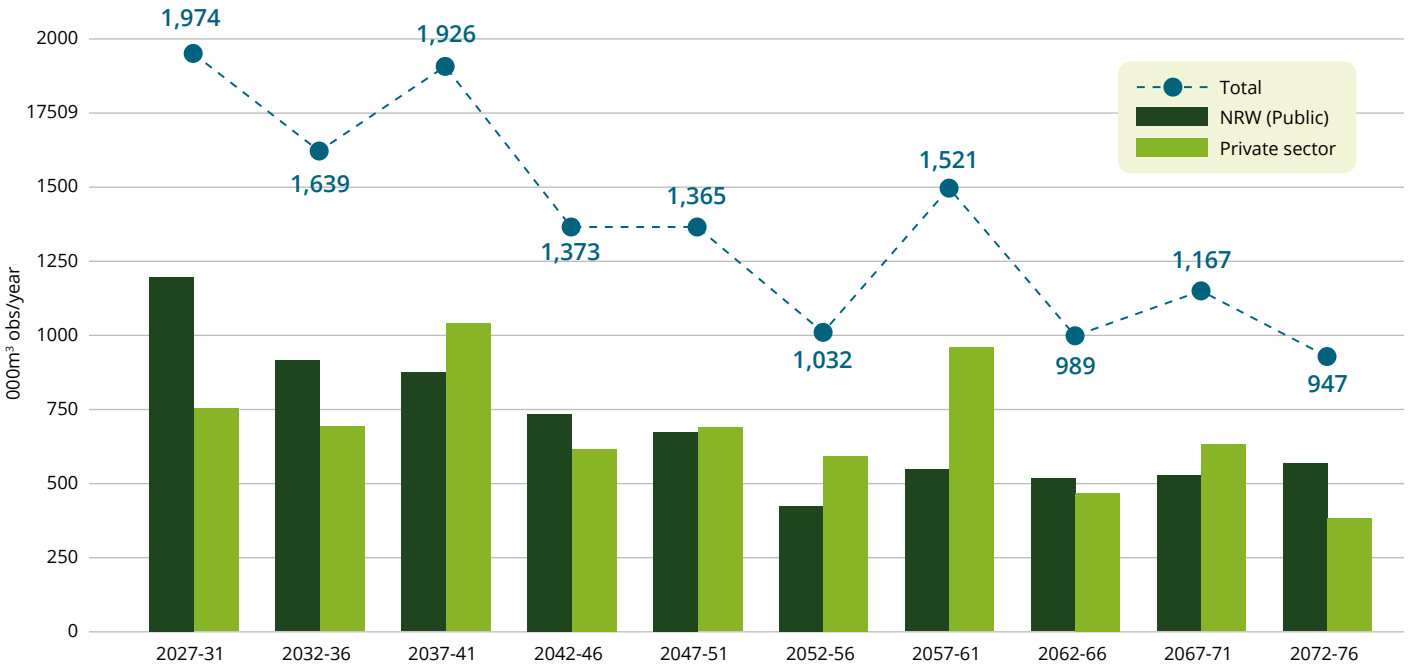


Figure 1: Wales softwood availability forecast (FR 2026 edition) showing 10 forecast periods to 2076

SOFTWOOD AVAILABILITY AND SUPPLY STRUCTURE

- **Near-Term Availability**
  The forecast indicates a strong near-term supply position, with availability peaking at approximately 1.97 million m³/yr in 2027–31. This reflects the maturation of existing conifer stands and represents the highest level of potential output from the public estate across the 50-year period.

- **Mid-Century Decline in Availability**
  A significant reduction in forecast availability is projected by 2052–56, with total volume falling to around 1.03 million m³/yr, approximately 48% below the near-term peak. This should be understood as a decline in forecast availability, not necessarily a direct prediction of output. However, it indicates a likely long-term shift toward a lower and more variable supply environment.

- **Recovery and Variability**
  Availability partially recovers in the following period (2057–61), driven primarily by increased private sector volumes, before declining again toward the end of the forecast. This indicates a more variable and less predictable supply profile over time.

- **Shift in Supply Base**
  Over the 50-year period, there is a clear shift from public to private sector dominance. While NRW accounts for the majority of supply in the near term, private sector availability becomes increasingly significant, with a broadly even split over the long term.

- **Forecast Availability is Not the Same as Usable Supply**
  Forest Research provides the best available strategic forecast, but margins of uncertainty, limited species detail, private-sector visibility, and assumptions around overdue timber mean forecast availability should not be read as guaranteed output.

The 50-year average of approximately 1.39 million m³/yr is below current levels, indicating a long-term transition to a lower-volume supply environment. This reinforces the need to understand not just total availability, but how effectively that resource can be brought into use within Welsh supply chains. These trends are important in the context of local processing chains.

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

The forecast describes potential availability, but not how timber is mobilised, sold, or accessed. As a result, it is unclear how much of this material reaches local markets in practice. For smaller processors, this is less a question of ownership and more one of visibility and consistency: private sector supply can offer accessible, local opportunities, but is often fragmented, irregular, and difficult to track.

Forest Research remains the most robust source for strategic timber availability in Wales, but the forecast needs careful interpretation. Public estate estimates are based on NRW sub-compartment data and therefore have no reported sampling standard error, although Forest Research notes that unquantified estimation error remains within individual stand data. Private-sector estimates are less certain because they rely on NFI sample-based modelling. In the 2022 forecast, the standard error on Welsh private-sector softwood availability is around 15–16% across the forecast periods, compared with 5–6% for Great Britain as a whole[3]. This matters because uncertainty is proportionally higher in Wales, especially when the figures are used to inform regional supply-chain planning rather than broad national analysis.

There is also a major gap around species-level availability. The 2026 forecast provides a long-term view of total softwood availability, but does not provide a forward species breakdown. This limits its usefulness for smaller processors, whose viability often depends less on total volume and more on access to particular species, especially larch, Douglas fir, cedar and other non-Sitka material.
A further caution is that forecast availability includes assumptions about overdue timber. Forest Research identifies around 1.96 million m³ of overdue conifer timber on the Welsh public forest estate and 9.35 million m³ in the Welsh private sector, as at 31 March 2021. This is not annual availability, but standing volume already beyond the modelled felling point. The larger private-sector figure reflects a different market context, where timber may remain standing because of weak prices, owner objectives, access constraints or limited routes to market. On the public estate, recent harvesting effort has also been shaped by urgent windthrow clearance and other operational priorities, making it unlikely that overdue volume will simply be "caught up" in practice[4]. This reinforces the distinction between forecast availability and realised output: some timber counted as potentially available may remain standing for structural, operational or market reasons.

The projected mid-century decline reflects the age-class structure of the Welsh conifer estate, but also the changing context in which forests are now restocked and managed. Much of the productive conifer estate reaching maturity in the near term was established under earlier conditions, when large areas could be restocked with simple, single-species crops. Current UKFS and restocking requirements place greater emphasis on species diversity, resilience, native broadleaves and open ground[5]. Future rotations, where no more than 65% of the management unit is allocated to a single species, are therefore unlikely to reproduce the same volume profile as plantations established under comparatively lower constraints in the 1970s and 1980s. The mid-century reduction should therefore be read not only as a temporary trough, but as part of a transition toward a different long-term supply baseline.

[3] Forest Research (2022), 25-year forecast of softwood timber availability, Table 3. The report states that private-sector sampling standard errors are shown as relative SE% beside the estimates, and Table 3 gives Welsh private-sector softwood availability SEs of 15%, 16%, 15%, 15%, 15% for 2022–26 to 2042–46, compared with 6%, 6%, 5%, 5%, 5% for Great Britain. It also explains that public estate figures are based on the SCDB and have no sampling standard error, although unquantified estimation error remains.

[4] Natural Resources Wales (2026), "Recovery programme for forests damaged by Storm Darragh moves to next phase", 25 February 2026. NRW states that Storm Darragh damaged 2,500 ha across Wales, with more than 650 ha affected in south-west Wales, and that recovery is expected to take three to five years. It also says around 200 ha had already been brought into the timber harvesting and sales programme, with the remaining 450 ha to be phased so local timber businesses are not overwhelmed. The NRW officer quote is especially useful: windblow in the south-west was "around four times our annual harvesting programme" and "it is going to take years to clear it all."

[5] UK Forestry Standard: https://www.gov.uk/government/publications/the-uk-forestry-standard

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

SOFTWOOD SPECIES COMPOSITION

Understanding the species composition of Wales' softwood resource is essential for market planning, as different species have different technical properties, end-uses, and market values. Species-level data is drawn from the 2022 25-year forecast, which provides a species breakdown for the current period (2022–26). The 2026 50-year forecast does not include species-level detail, so the 2022 species data is used here as the best available baseline for composition analysis. Species Composition and Availability.

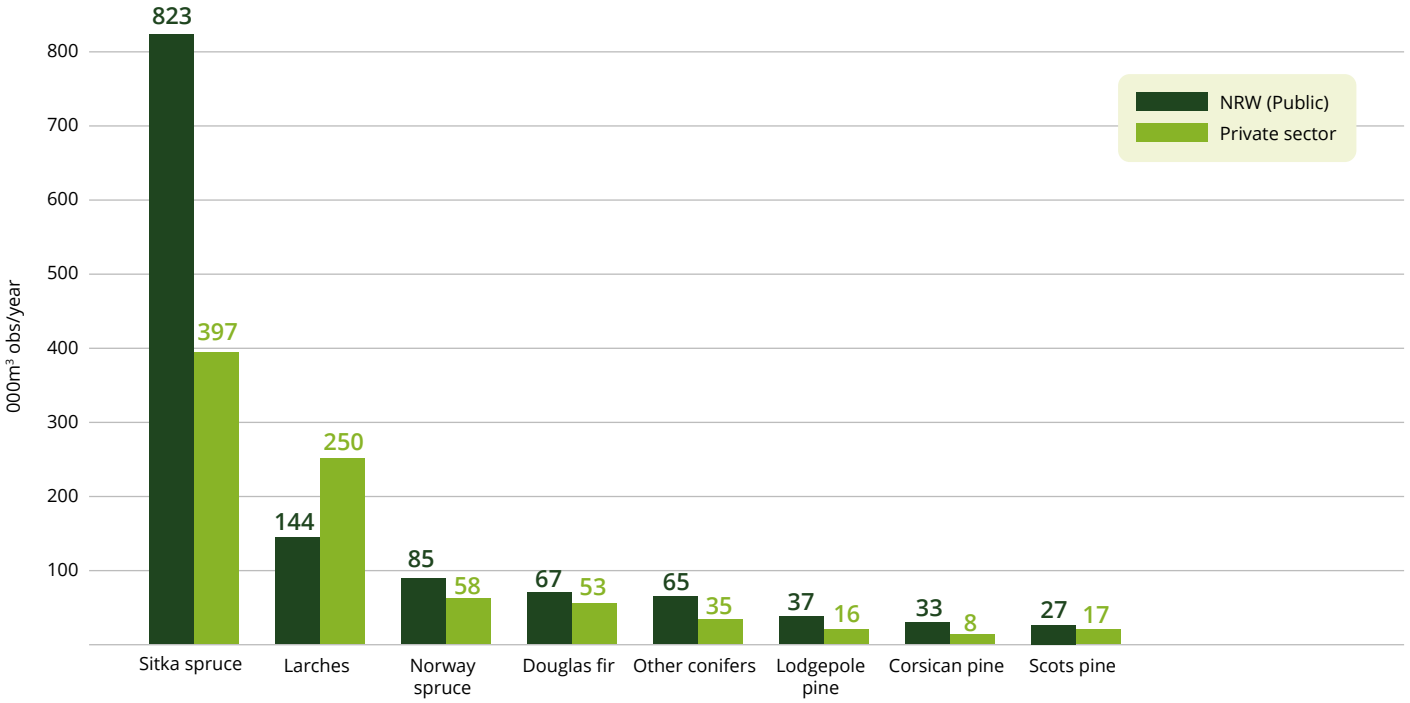


Figure 2: Wales softwood species composition for the 2022–26 period, showing Sitka spruce dominance and significant differences in species mix between NRW and private sectors

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

SPECIES COMPOSITION AND AVAILABILITY

- **Sitka Dominance**
  Sitka spruce accounts for the majority of Wales' softwood resource (57%) and is particularly concentrated in the public estate. This reinforces the extent to which overall availability is driven by a relatively narrow species base.

- **Alternative Conifers**
  Around 40–45% of the resource comprises other conifers, primarily larch (~19%) and smaller volumes of Norway spruce, Douglas fir and pine species. These species are relatively well represented across the public and private sectors. Larch, which accounts for a significant share of private woodland availability, however, is shifting. Larch availability is expected to decline significantly due to disease pressures and associated felling, including clearance under Statutory Plant Health Notices. As a result, this data is limited in representing that this key species currently relied upon by smaller processors is likely to become less available over time.

- **Fragmentation and Access**
  While a substantial proportion of the resource sits outside Sitka, it is fragmented across species, ownerships, and locations. The forecast does not indicate how much of this material is accessible to market, or in forms usable by different processors.

This is particularly relevant for smaller sawmills, which often specialize in processing species such as larch and Douglas fir, rather than Sitka. The data indicates that these species are present in meaningful volumes, but does not provide visibility on their availability in practice. This limits understanding of whether current supply aligns with processor demand and highlights a gap between resource composition and accessible material. Species-level data is only available for the current period (2022–26), with no forward view of how species composition may change over time. In this context (particularly given impacts of phytophthoras and other emerging pests and diseases), species composition represents a static snapshot of a changing resource, further constraining the ability to assess future availability of commercially relevant species.

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

WALES FOREST RESOURCE BASELINE - HARDWOOD AVAILABILITY FORECAST 2014

The Forest Research Hardwood Availability Forecast (Forestry Commission 2014) provides projections of harvestable hardwood volumes over a 50-year period from 2013 to 2061[6]. This forecast is now over a decade old and should be interpreted with caution, as it may not reflect major changes in woodland condition, management practice, market incentives, or policy support mechanisms since publication. This includes the effects of ash dieback, deer and squirrel pressure, changing firewood markets and biomass incentives[7], and the influence of woodland carbon schemes[8] on decisions about whether broadleaved woodland is harvested, retained, or brought into management. These uncertainties are particularly important for broadleaved woodland, where slower growth rates mean that changes in planting, management or market signals take longer to translate into harvestable timber supply.

Ownership	Stocked Area (ha)	Standing Volume (000 m³ obs)
NRW (Public)	16,187	1,892
Private sector	120,927	25,402
Total	137,113	27,294

Table 3: Wales Hardwood Availability by Period and Ownership (000 m³ obs/yr)

Period	NRW (Public)	Private Sector	Total	NRW % of Total
2013–16	12.4	20.1	32.4	**62.00%**
2017–21	11.4	46.5	57.8	**80.40%**
2022–26	16.9	77.4	94.3	**82.10%**
2027–31	11.8	99.7	111.5	**89.40%**
2032–36	14.3	115.4	129.7	**89.00%**
2037–41	18.9	152.6	171.5	**89.00%**
2042–46	56.1	242.9	299	**81.20%**
2047–51	18.8	226.9	245.6	**92.30%**
2052–56	28.2	198.4	226.6	**87.50%**
2057–61	27.7	139.2	166.9	**83.40%**

Table 4: Wales hardwood availability forecast showing strong private sector growth trajectory, peaking in 2042–46, with minimal public sector contribution

[6] *50-year Forecast of Hardwood Timber Availability: https://cdn.forestresearch.gov.uk/2022/02/50_year_forecast_of_hardwood_availability.pdf*

[7] *Ofgem, Non-Domestic Renewable Heat Incentive; UK Government, Boiler Upgrade Scheme. The Non-Domestic RHI closed to new applicants in 2021 but continues to shape biomass heat demand through existing accredited installations. Current support is narrower, with the Boiler Upgrade Scheme offering upfront grants for low-carbon heat, including biomass boilers in limited rural, off-gas-grid circumstances.*

[8] *Woodland Carbon Code, Woodland Carbon Code. The Woodland Carbon Code is the UK's government-backed standard for creating new woodlands that generate high-integrity carbon credits; the scheme includes routes for landowners and project developers to create projects and for buyers to purchase carbon units from Woodland Carbon Code projects.*

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

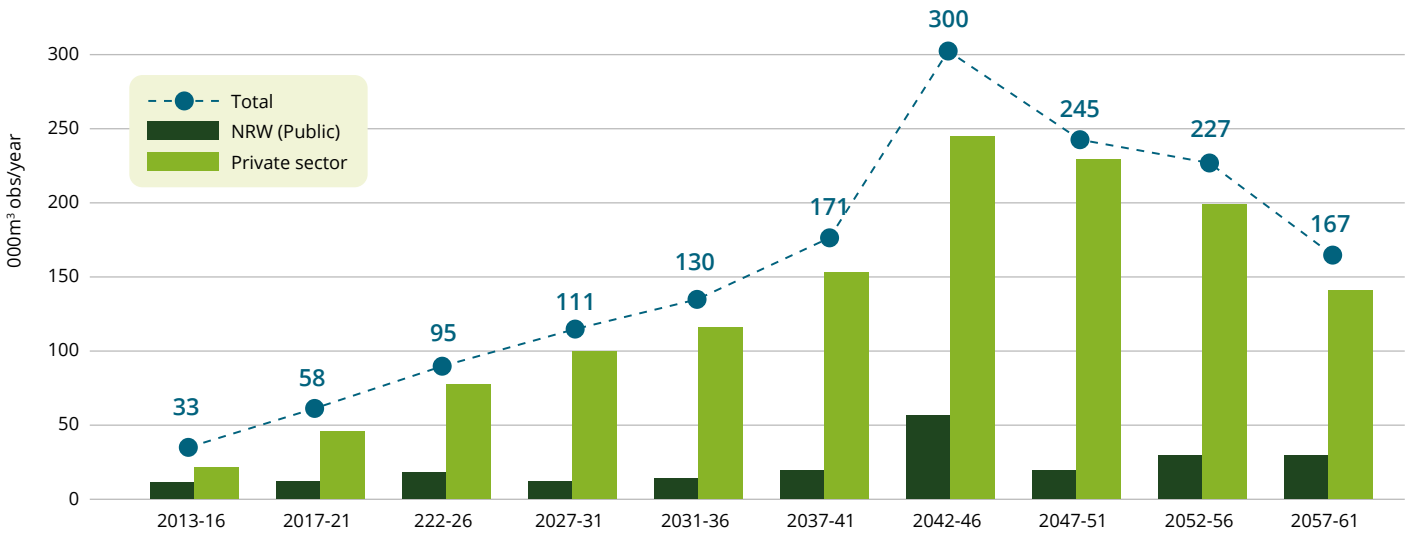


Figure 3: Wales hardwood availability forecast (2013–2061), showing average annual volumes by period and ownership. Private sector supply dominates throughout and is projected to increase substantially, peaking in the 2040s before declining

HARDWOOD AVAILABILITY AND SUPPLY

- **Private Sector Dominance**
  Hardwood availability in Wales is overwhelmingly concentrated in the private sector, with public sector volumes remaining consistently low. This reflects the historical focus of public forestry on commercial softwood production, with hardwoods largely retained and managed within private woodlands.

- **Projected Growth (with Caution)**
  The 2014 Forest Research forecast suggests a long-term increase in hardwood availability, driven by the maturation of existing stands. However, this projection should be treated with caution. The data is now over a decade old and does not account for major changes affecting hardwood resources, including ash dieback, increasing deer and squirrel pressure, and evolving woodland management practices.

- **Unknown Timber Characteristics and Use**
  The available data provides no insight into timber form, or suitability for end uses. While standing volumes may appear to increase, there is no indication of how much material is suitable for higher-value processing, how much is thinning material and how much is saw-log. Given known pressures on broadleaf stands, a significant proportion of the resource is likely to be of variable or poor form, with much of it likely entering firewood markets. Much of Wales' private-sector hardwood resource is held in smaller farm woodland blocks, where active hardwood silviculture is often limited. As a result, forecast availability should not be read as a straightforward indication of usable sawlog supply.

- **Fragmented and Opaque Supply**
  The hardwood resource is distributed across small, fragmented private woodlands, with limited visibility on harvesting activity, sales routes, or end markets. Unlike the public estate, private sector hardwood flows are largely unrecorded, making it difficult to trace how timber moves through the supply chain.

For the purposes of this review, this creates a clear gap between theoretical availability and usable supply. While hardwood appears to represent a growing resource on paper, there is insufficient evidence to determine how much is accessible, processable, or aligned with the needs of local sawmills. In practice, the role of hardwoods within local supply chains is likely limited, particularly beyond niche or opportunistic use. It also highlights a critical evidence gap: without data on timber from, harvesting activity, and market pathways, it is difficult to assess the scope of the contribution of hardwood in supporting small-scale processing.

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

REMOVALS

Public sector figures are obtained by Forest research direct from NRW. Private sector softwood figures are obtained by FR from the Private Sector Softwood Removals Survey, while hardwood figures are estimated indirectly from deliveries data and expert estimates rather than measured harvest volumes directly.

Public sector removals data is comparatively robust, being gathered directly through administrative systems. In contrast, private sector removals are derived from surveys of a sample of harvesting companies and contractors, and reported only in aggregate form. the sampling method is not detailed, however, the survey is open, and the sample is understood to be less selective and instead based on those who volunteer to respond (elective, rather than selective) This creates important limitations in understanding how timber actually moves through the Welsh system.

	Private Sector	Public Sector (NRW)	Private Sector
Softwood	583	642	1226
Hardwood	33	3	36

Table 5: Harvest / Removals volumes in 000m^3 OB (FR statistics 2026)

Removals are consistently lower than forecast availability. This is not necessarily a data "gap", but a consequence of how forestry operates in practice. On the public estate, harvesting is constrained by sustainable cut calculations, operational access, environmental constraints, staffing, infrastructure, and market conditions. In the private sector, harvesting decisions are even more difficult to predict. Ownership objectives are highly varied, markets fluctuate rapidly, and decisions are often made site-by-site in response to local conditions, cashflow needs, contractor availability, or timber prices. For these reasons, it is expected that realised removals will remain below theoretical availability.

Across the UK, softwood accounts for approximately 92% of total timber removals. In Wales this proportion appears even higher, at around 97%, though this should be treated cautiously given the limitations surrounding hardwood data. Hardwood harvest is not directly measured in the same way as softwood removals but are inferred from deliveries to known processors and markets. As later sections suggest, a substantial proportion of Welsh hardwood is likely moving into informal or poorly monitored uses such as local firewood markets, small-scale processing, or direct local exchange.

This creates a structural visibility problem within the evidence base. While large processors, panelboard manufacturers, biomass facilities and major mills capture a significant share of reported timber flows, a considerable volume of smaller-scale hardwood utilisation is effectively absent from national datasets. Small mills, firewood processors, tree surgeons, farmers and local contractors frequently operate below reporting thresholds or outside formal monitoring systems entirely. Forest Research currently identifies only a small number of active hardwood processors in Wales, yet survey evidence gathered through this review suggests a much broader and more dispersed landscape of activity.

The removals data therefore tells us relatively little about where timber ultimately goes, how it is processed, or how value is created. We know relatively little about which businesses are buying timber, how supply is aggregated, or which products particular volumes end up becoming. Even where delivery data exists, it is generally aggregated at UK level or linked only to larger processors. This makes it difficult to understand the role of smaller and more distributed processing businesses within the Welsh timber economy, despite evidence from this review suggesting they play an important enabling role in absorbing diverse material streams, servicing local demand, and processing timber that larger systems often overlook.

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

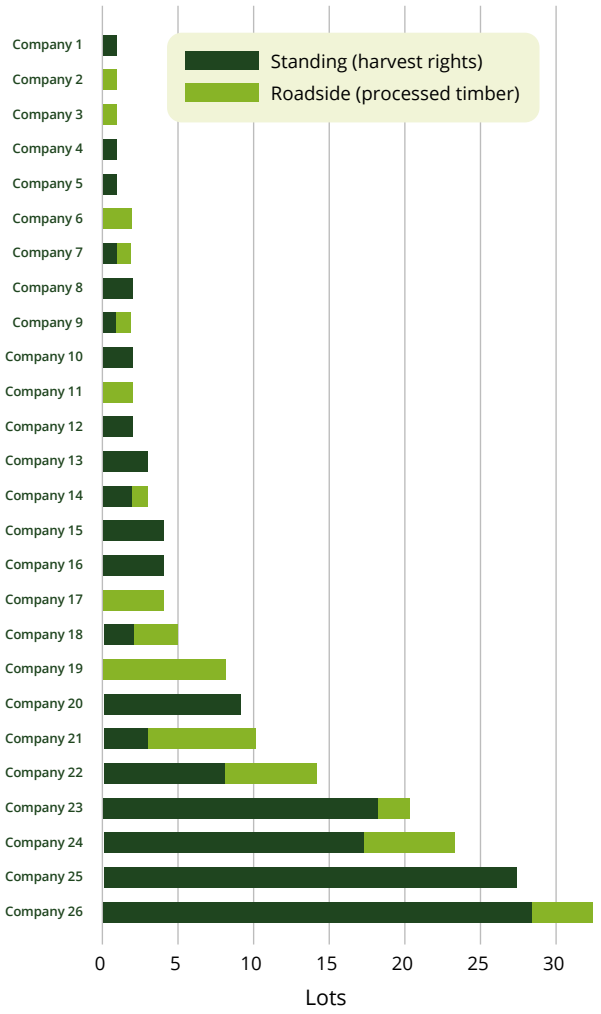


Figure 4: NRW timber sales (July 2025 – April 2026) by purchaser and sale type, showing the distribution of standing and roadside lots across buyers

Company names have been redacted, but the graph shows that a small number of firms are bidding for a larger number of lots, usually standing. Many firms are purchasing much fewer lots - some of which purchasing exclusively at roadside. The breakdown categories of buyer and their purchasing trends are described in figure 5.

PUBLIC SECTOR TIMBER SALES

It is important to note that this analysis is limited to NRW timber sales data publicly available on the NRW e-sales platform[9], and therefore reflects only the public estate. The private sector, which accounts for a substantial and growing share of softwood availability, and the overwhelming majority of hardwood, operates without equivalent sales monitoring. How private timber is sold, to whom, and at what volumes is largely unknown. The NRW data therefore provides a window into one part of the market only, and should not be taken as representative of Wales' timber supply system as a whole.

Analysis of NRW timber sales data reveals a highly concentrated and structurally segmented market. A small number of repeat buyers, primarily larger, integrated operators such as Pontrilas Harvesting, Silva (Kronospan), and Tilhill, account for a significant share of standing sales. These buyers demonstrate consistent purchasing behaviour across multiple sales, suggesting established harvesting capacity and secure routes to both purchasing and market.

In contrast, roadside sales exhibit a more fragmented buyer profile, with a wider range of smaller processors, biomass operators, and local firms participating on a more opportunistic basis. These buyers typically purchase fewer lots and do not consistently appear across sales, indicating less stable access to timber supply.

[9] *NRW E-Sales: https://esales.naturalresources.wales*

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

A small number of buyers dominate access to standing timber, while a broader group of smaller and downstream operators participate mainly in the roadside market. The large presence of unsold lots across NRW sales is a notable feature of the data and warrants further investigation. Unsold material may reflect a range of factors: timber that is inaccessible or uneconomic to extract given site conditions or haulage costs; lots that do not meet buyer specifications in terms of species, size, or form; or a lack of processing capacity in the local market. Without further data on the characteristics of unsold lots (timber conditions, species, volume) it is not possible to determine which of these explanations applies, or whether unsold material represents a structural feature of the market or a temporary imbalance.

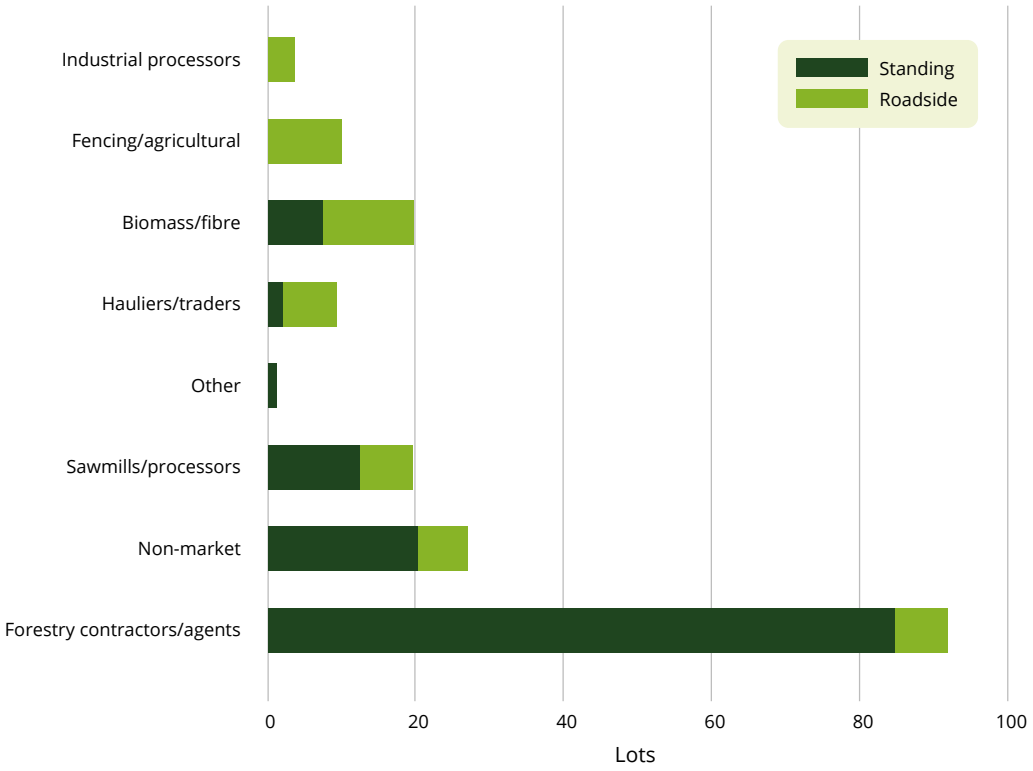


Figure 5: NRW timber sales instances by buyer type (July 2025 – April 2026), showing distribution of standing and roadside lots across market segments. Note sales interactions are for lot, and not equivalent in volume – this is not indicative of volume of purchases

A clear distinction emerges between standing and roadside markets. Standing timber is almost exclusively purchased by larger, capitalised operators, while roadside material provides the primary access point for smaller processors and fibre markets. This division highlights a structural asymmetry in the system: access to standing timber, and therefore to the primary resource, is limited to a relatively small group of buyers, while the majority of smaller actors operate downstream in a more constrained and reactive market.

The NRW e-sales data provides a useful baseline for understanding buyer structure and market segmentation, but it has significant limitations as an evidence source. It records what is offered for sale and to whom it is sold, but not what happens to timber after it leaves the estate - where it is processed, in what form, or what end product it becomes. It also does not capture volumes that are harvested but not sold through formal NRW sales processes, including timber extracted under long-term/ progressive contracts or harvested as part of management operations. These gaps mean that, even for the public estate, the sales data provides only a partial account of how timber moves through the supply chain.

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

TIMBER MOVEMENT AND PROCESSING

Forest Research also publishes UK-level estimates of timber deliveries into broad processing and end-use categories, including sawmills, pulp mills, wood-based panels, fencing, woodfuel, other uses and exports. These figures are useful for understanding the broad structure of UK timber use, but they are not a direct map of Welsh timber movement. Equivalent Wales-specific breakdowns are not generally available, and the figures do not show where Welsh timber is processed, which businesses handle it, or what products it ultimately becomes.

For that reason, this review does not attempt to recreate Welsh timber flows by scaling UK delivery categories to Welsh harvest volumes. That approach would produce an indicative estimate, but not an observed account of timber movement. The tables below are therefore included as context only: they show the national pattern of timber use, while also highlighting the absence of equivalent Wales-specific data.

Sawmills	Pulpmills	Wood-based panels	Fencing	Woodfuel	Other	Exports	Total
5461	350	350	224	1700	209	324	9550

Table 6: Annual UK Softwood timber deliveries (Forest Research Statistics, 2025)

Sawmills	Pulpmills	Wood-based panels	Woodfuel	Other	Total
59	0	0	700	55	813

Table 7: Annual UK Hardwood timber deliveries (Forest Research Statistics, 2025)

At UK level, the data shows a clear distinction between hardwood and softwood use. Recorded hardwood deliveries are dominated by woodfuel, with much smaller volumes entering sawmilling. Softwood deliveries are concentrated in sawmills, wood-based panels, woodfuel and fencing. However, these categories remain highly aggregated. They do not show how timber moves between harvest sites, hauliers, processors and end users, nor do they capture the smaller, mixed and relationship-based flows that are central to local processing networks in Wales.

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

The following table gives an indicative market breakout for larger-scale processed output. It shows that a substantial share of material enters high-volume markets such as pallets, packaging and fencing, with a smaller share entering construction.

This should not be read as a simple judgement of financial value. Pallets, packaging and fencing are commercially important markets and can provide reliable volume outlets that allow larger mills to operate efficiently and compete in national and international markets. The point is rather that these are different value pathways from those often associated with local timber development, such as construction-grade structural timber, joinery, bespoke products, or place-based processing. They may generate strong commercial returns at scale, but they do not necessarily answer the same questions about local processing capacity, provenance, carbon storage in longer-lived products, or the role of smaller processors in distributed rural economies.

End Use Category	Share of Output
Construction	5%
Fencing	28%
Pallets / Packaging	51%
Other	17%

Table 8: Product breakout from large mills in Wales included in Forest Research Statistics 2025

Taken together, the tables illustrate the central evidence gap. Existing statistics provide a broad UK picture of timber deliveries and some insight into larger market outlets, but they do not connect harvest, sale, processing location, processor type and final product within Wales.

EMPLOYMENT IN SAWMILLS

Employment in small-scale sawmilling is difficult to quantify from official statistics alone. Existing datasets provide useful UK-level context, but several features of the sector mean that some employment linked to sawmilling and local timber processing may not be clearly visible. Forest Research's employment and business statistics are UK totals and are not presented as Wales-specific employment estimates.

The business may mainly be something else. A farm, estate, woodland contractor, joinery firm, fencing business, firewood business, builder, furniture maker, or social enterprise may operate a sawmill, but be classified under agriculture, forestry, construction, retail, joinery, education/training, charity/social work, or another manufacturing category. Sawmilling may be a secondary or occasional activity. A mobile mill, farm mill, estate mill, or small hardwood operation may not show up as "sawmilling and planing of wood" if milling is only one part of a wider business model[10].

Year	Sawmills	Pulp	Panels	Fencing
2024	4205	648	2225	376

Table 9: Estimated employment in UK wood processing. From Forest Research 2025 Statistics.

[10] UK SIC 2007 class 16.10, "Sawmilling and planing of wood", is the closest standard industrial classification for sawmilling activity. However, SIC coding is based on the main activity of the business or local unit. Where milling is ancillary to farming, forestry contracting, joinery, construction, firewood, training or community enterprise activity, associated labour may be recorded under another classification rather than under sawmilling.

CONSOLIDATED DATA ANALYSIS AND EVIDENCE BASE

Also, very small businesses can fall outside some datasets. Forest Research's methodology notes that SIC-based employment statistics exclude businesses below the VAT and PAYE thresholds. It also notes that businesses whose main activity is not forestry or wood processing will be allocated to other SIC codes and excluded from the relevant forestry and wood-processing tables. FR UK-level totals do not provide Wales-specific employment figures. Instead, Forest Research's employment figures are presented at UK level. Statistics record 510 VAT and/or PAYE registered sawmilling businesses in the UK in 2024, but this does not show how many are in Wales or how much employment they support there[11].

Location can also be messy. BRES records jobs at the employee's workplace and can provide detailed geographic and five-digit SIC breakdowns. However, for multi-site businesses, regional estimates depend on how employment is allocated to local units and how those local units are classified.

[11] The chapter distinguishes between BRES/SIC employment data and Forest Research's own primary wood-processing survey data. BRES covers businesses in the relevant SIC sectors that pay VAT and/or PAYE, including some businesses that do not use UK-grown timber, while Forest Research's own surveys include some businesses below the VAT/PAYE threshold but exclude businesses that do not use UK-grown timber. The two sources therefore have different coverage. Forest Research also distinguishes between "establishments" using UK-grown roundwood and VAT/PAYE registered businesses classified by SIC code: in 2024 it recorded 137 UK sawmill establishments using UK-grown roundwood, but 510 VAT and/or PAYE registered sawmilling businesses in the UK. BRES is workplace-based and can provide employment estimates by detailed geography and five-digit SIC code, but it remains dependent on how jobs are allocated to local units and how those units are classified. More broadly, UK business population statistics show that many very small businesses sit outside VAT/PAYE registration: at the start of 2025, 2.6 million UK private-sector businesses were VAT/PAYE registered, while an estimated 3.0 million traded without VAT or PAYE registration.

KEY FINDINGS, GAPS AND LIMITATIONS

Taken together, the data assembled in this review points to a timber supply system that is structurally complex, unevenly documented, and facing a number of converging pressures that are not yet fully reflected in available evidence.

BACKGROUND AND CONTEXT

Supply is forecast to decline over the long term, but the near-term position is relatively strong

The 2026 softwood forecast projects peak availability of approximately 1.97 million m³/yr in 2027–31, before a significant trend: mid-century decline in 2052–56 (1.03 million m³/yr, −48% from peak). This structural decline is driven by age-class distribution rather than market conditions and is a known feature of the Welsh resource. The 50-year average of approximately 1.39 million m³/yr is substantially below current near-term levels, indicating a long-term transition to a lower-volume supply environment. For planning purposes, this means that current supply conditions are not necessarily a reliable guide to future availability.

The shift from public to private sector supply is the defining structural trend

NRW currently accounts for the majority of near-term softwood availability, but private sector volumes become increasingly significant over the forecast period, reaching rough parity by mid-century. This shift has important implications for supply chain accessibility. Public sector timber is sold through structured, documented processes, providing a degree of market transparency. Private sector supply is more fragmented, less consistently marketed, and more difficult to track, and there is currently no consistent reliable mechanism for monitoring how private sector volumes enter or move through the market. As the supply base shifts in this direction, the visibility of the system as a whole will diminish unless new data collection mechanisms are established.

The forecast volumes cannot be accurately disaggregated into thinning's and final harvest

The 2026 forecast presents all volumes as a combined figure, thinnings and clearfell are not reported separately. This is a significant limitation for understanding the practical implications of the supply forecast. Thinnings and final harvest timber are fundamentally different products: they differ in log size, form, and quality, and they have different implications for harvesting economics, haulage, and processing suitability. Thinnings, in particular, are often less economically viable to extract, especially from remote or steep Welsh sites, and are more likely to be left unharvested when timber prices are low. A forecast that combines these two categories therefore overstates accessible supply in ways that are impossible to quantify from the data available. Understanding the thinnings/clearfell split would be material to any assessment of what proportion of forecast volume is likely to reach local processors.

The sales data reveals a structurally unequal market

NRW's standing sales are dominated by a small number of large, integrated operators. Smaller processors and local firms participate primarily through the roadside market, where they operate in a more reactive and constrained position. This is not simply a matter of scale - it reflects a structural asymmetry in how access to the primary resource is organised. Standing timber buyers are positioned earlier in the supply chain, with greater control over harvesting, timing, and routing. Roadside buyers, by contrast, are dependent on decisions made upstream and have limited ability to influence supply. The presence of unsold lots in the NRW data suggests that not all available material is finding a viable route to market, which may indicate either a mismatch between the form or location of supply and processor requirements, or capacity constraints among potential buyers.

KEY FINDINGS, GAPS AND LIMITATIONS

The species picture adds a further layer of complexity

Sitka spruce dominates the Welsh softwood resource, but a significant proportion of the commercially relevant resource for smaller processors (particularly larch and Douglas fir) sits outside the dominant species. Larch availability, in particular, is likely to decline materially due to disease pressure and statutory felling requirements. The forecast data does not fully capture this dynamic, meaning that species-level availability is likely to diverge from current projections in ways that are difficult to quantify. This represents a gap in the evidence base that is particularly consequential for smaller, species-specialised processors.

Hardwood represents a theoretically growing but practically uncertain resource

The 2014 forecast projects substantial growth in private hardwood availability, but this data is now over a decade old does not clearly account for ash dieback, deer pressure, or changes in woodland management. The hardwood resource is overwhelmingly private, fragmented, and largely unmonitored. In practice, its contribution to local supply chains is likely limited to niche or opportunistic use, and there is no evidence base upon which to assess this systematically.

Sawmilling employment is not clearly captured for Wales

Forest Research statistics provide useful UK-level context, but they do not provide a Wales-specific employment figure for sawmilling or small-scale timber processing. SIC-based data record 510 VAT and/or PAYE registered sawmilling businesses in the UK in 2024 employing 4205, but do not show how many are in Wales or how much employment they support. This remains a significant evidence gap for understanding the local processing sector.

The central finding of this review is that forecast data, sales data, and processing data, are not currently connected

Availability forecasts describe potential supply at an aggregate level; sales data describes what NRW has sold and to whom. Neither source provides a picture of what is actually being harvested, processed, and used within Wales. The gap between these two datasets of what is available, what is sold, what is processed, and what reaches end use is where the most significant evidence deficit lies. Addressing this gap is a prerequisite and priority for assessment of the capacity and resilience of Wales local timber supply.

RECOMMENDATIONS FOR STRENGTHENING THE EVIDENCE BASE

The review shows that Wales has useful data on forecast timber availability, but much weaker evidence on what is actually harvested, sold, processed, and used. The priority is therefore not simply to produce more data, but to connect existing datasets and fill the gaps that currently prevent a clear view of timber movement through the Welsh system.

Update the hardwood evidence base

The current hardwood forecast is now significantly out of date and does not adequately reflect ash dieback, changing woodland condition, deer and squirrel pressure, or shifts in management practice. An updated Wales-specific hardwood availability assessment is needed, with clear attention to timber quality, accessibility, and likely end use rather than standing volume alone.

Develop a clearer picture of private sector timber flows

As private woodland becomes increasingly important to future supply, targeted surveys or interviews should be used to understand private woodland management intentions, actual harvesting activity, sale routes, standing versus roadside sales, barriers to market, and the role of agents, contractors, and intermediaries.

Investigate post-harvest timber movement

Further work is needed to understand where Welsh timber goes after harvest: whether it is processed locally, elsewhere in the UK, exported, or moved through intermediaries before reaching end markets. A pilot study using haulier records, mill intake data, contractor interviews, or selected timber parcels could help test how feasible timber-flow tracking would be in practice.

Create a spatial view of timber supply, species and processing

Timber availability data should be linked spatially to processing locations, haulage distances, road networks and market catchments. Some important datasets, including NRW sub-compartment data and species information, can in principle be spatialised, but this is not currently available in a form that supports supply-chain analysis. NFI-based private-sector data is less spatially specific, making it difficult to understand where timber is actually located in relation to processors.

A spatial evidence base would help identify accessible supply, regional gaps in processing capacity, likely haulage constraints, and opportunities for matching species and material types to local processing capability.

Connect availability, removals, sales, processing, and end-use data

The most significant evidence gap is the lack of integration between datasets. Availability forecasts describe potential supply; removals data describes harvested volumes; NRW sales data records public estate transactions; processing data is partial; and end-use data is highly aggregated. A common data framework, and considerable co-operation from forestry harvesting contractors and agents, is needed to link these stages while respecting confidentiality.

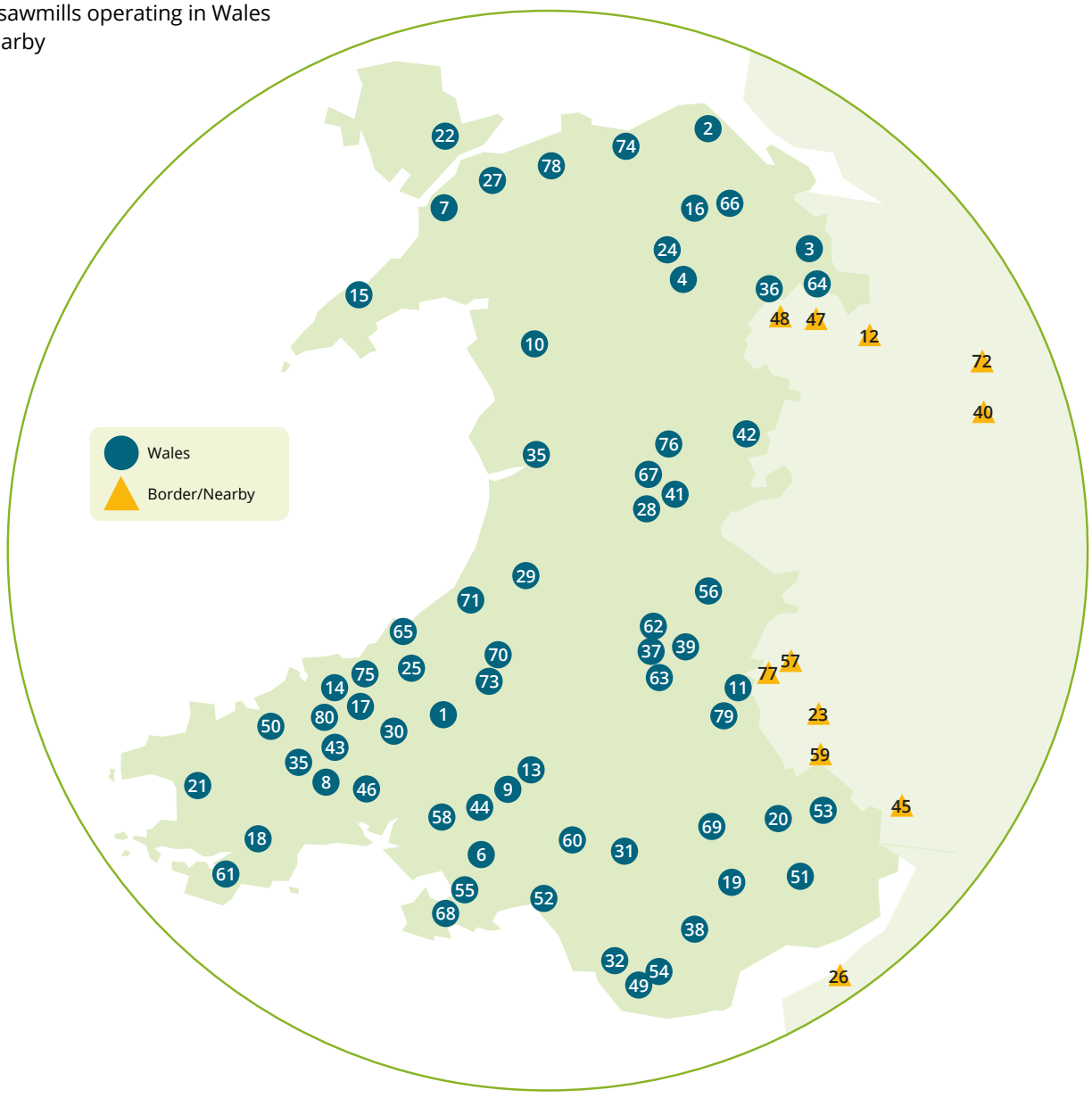
Data collection should not be treated as a one-off exercise. A light-touch, recurring monitoring process should be developed, potentially through Welsh Government, NRW, Forest Research, and sector partners, to track private sector sales, processing capacity, timber movement, and changing market conditions over time.

ACTIVE MILLS IN WALES PROCESSING ECOSYSTEM

The survey and site visits undertaken as part of this review provide a detailed but partial picture of the small-scale processing sector in Wales. Due to time and resource constraints, it was not possible to engage with all active mills. However, this is a compiled list of known active processors across Wales. This includes businesses identified through industry networks, previous work, and stakeholder engagement, and through Companies House, and is intended to provide a more complete view of the current processing landscape beyond the survey sample.

The greatest efforts to compile an exhaustive list have been made, thus giving a useful indication of the distribution and extent of active small- and medium-scale processing capacity in Wales. It highlights the dispersed nature of the sector and provides context for understanding how processing capability is distributed geographically.

Active sawmills operating in Wales and nearby



ACTIVE MILLS IN WALES PROCESSING ECOSYSTEM

Map Key No	Mill / processor	Postcode	County / local auth.
1	Teifi Timber	SA39 9DY	Carmarthenshire
2	Mostyn Estate Sawmill	CH8 9HN	Flintshire
3	James Jones	LL13 9RG	Wrexham
4	Corwen Forestry	LL21 9RZ	Denbighshire
5	A W Hardwoods	SY4 5SD	Shropshire
6	D.G Heath Timber Products	SA4 8SG	Swansea
7	Timber Co-Op	LL55 2SE	Gwynedd
8	Gregors Woodyard	SA34 0EL	Carmarthenshire
9	Coed Dinefwr	SA19 6TE	Carmarthenshire
10	Signs Workshop	LL40 2HY	Gwynedd
11	Clyro Sawmill	HR3 5TR	Powys
12	Border Hardwood	SY4 5SD	Shropshire
13	Talley Timber	SA19 6YG	Carmarthenshire
14	James Davies	SA38 9LA	Ceredigion
15	Llyn Wood Products	LL53 8UW	Gwynedd
16	Clifford Jones Timber	LL15 2TN	Denbighshire
17	Melingoed ltd	SA38 9BX	Carmarthenshire
18	Pencoed Sawmill & Timber	SA68 0PL	Pembrokeshire
19	SDL Sawmills	NP11 3AG	Caerphilly
20	Border Sawmills ltd	NP7 5PN	Monmouthshire
21	Celtic Timber Products	SA62 6HG	Pembrokeshire
22	Richards J	LL75 8LJ	Isle of Anglesey
23	Hewitt Mobile Saw	HR2 9PA	Herefordshire
24	Dyfannedd Sawmill	LL21 9RH	Denbighshire
25	Coed y Cardi	SA44 4HB	Ceredigion
26	Shoplands Sawmills	BS21 6BT	North Somerset
27	Cadwaladr Woodland Products	LL57 4YW	Gwynedd
28	S J Timber	SY17 5BQ	Powys
29	Riverside Sawmill	SY23 4BJ	Ceredigion
30	Sied Y Coed Woodmill	SA44 5HF	Carmarthenshire
31	Hirwuan Sawmill	CF44 9UP	Rhondda Cynon Taf
32	S Wood Products	CF31 3AP	Bridgend
33	The Saw Mill	SY21 0AQ	Powys
34	Jules Russell Timber	SY20 9JS	Gwynedd
35	Dickmans Sawmill	SA34 0XG	Carmarthenshire
36	Kronospan	LL14 5NT	Wrexham
37	Preserved Timber Products	LD2 3RG	Powys
38	Fencing & Decking R C T ltd	CF37 5SP	Rhondda Cynon Taf
39	Llandre Sawn Wood	LD1 5RS	Powys
40	Weston Sawmill	TF11 8JS	South Staffordshire
41	Heartwood Sawmills	SY17 5SE	Powys
42	Powys Estate Sawmill	SY21 8RP	Powys
43	Dovey Woodcutters Sawmilling	SA35 0DD	Carmarthenshire
44	Colwill & Co	SA14 7SG	Carmarthenshire
45	Gladstone Sawmills	GL17 9QS	Forest of Dean
46	Cilcoed Sawmill	SA33 5QA	Carmarthenshire
47	ETC Sawmills	SY12 9JW	Shropshire
48	ETC Sawmills (Chirk / Gledrid)	LL14 5DG	Shropshire
49	Logsmart	CF71 7LJ	Vale of Glamorgan
50	Adrian's Mobile Sawmill	SA42 0QJ	Pembrokeshire
51	Barrett C & J Cilfiegan Sawmills	NP15 1PS	Monmouthshire
52	Wern Wood Timber	SA11 2JX	Neath Port Talbot
53	Abergavenny Sawmill	NP7 8TG	Monmouthshire
54	The Milled Wood Company	CF71 7FF	Vale of Glamorgan
55	Gower Timber	SA4 3XN	Swansea
56	S & C Bufton	LD1 6SW	Powys
57	Old Station Yard Sawmill	HR3 6NS	Herefordshire
58	AOM Associates	SA15 5BN	Carmarthenshire
59	Pontrilas	HR2 0BE	Herefordshire
60	Seven Sisters Sawmills	SA10 9EL	Neath Port Talbot
61	Spahaus Timber	SA71 5RD	Pembrokeshire
62	BSW	LD2 3RU	Powys
63	Road Wood Mobile Sawmill & Timber Yard	LD2 3HH	Powys
64	A E Evans ltd	LL13 0HU	Wrexham
65	Bwlch Sawmills	SA44 6NW	Ceredigion
66	The Larch Cladding Company	CH7 5SH	Denbighshire
67	Pontdolgoch Saw Mill	SY17 5NJ	Powys
68	Cilibion Sawmill	SA3 1EB	Swansea
69	Phillip Jones Timber Products	NP23 5BL	Blaenau Gwent
70	Longwood	SA48 8NE	Ceredigion
71	M J Sawmills	SY23 5EH	Ceredigion
72	Shelmore Timber Sawmill	ST20 0RL	Stafford
73	Ty Pren	SA48 8JA	Ceredigion
74	Mountain Lodge Sawmill	LL22 8DT	Conwy
75	Robert Eynon & Son	SA38 9QN	Ceredigion
76	Brookfield Farm Timber and Firewood	SY21 0AQ	Powys
77	Whitney Sawmills	HR3 6EZ	Herefordshire
78	Ed-Wood Timber and Wood Supplies	LL32 8UW	Conwy
79	Wye Valley Firewood	HR3 5NL	Powys
80	Calon Yn Tyfu Cyf	SA37 0JY	Pembrokeshire

SECTION 2:

INTRODUCTION

This report presents the findings of a detailed survey and interview programme carried out with 17 small sawmillers across Wales.

The work was designed to go beyond what can be captured through aggregate statistics. Participating mills were asked in detail about their processing volumes, species mix, equipment, sourcing, products, customers, constraints, finances, and development ambitions. Interviews allowed respondents to expand on survey responses, explain the reasoning behind their decisions, and describe the realities of running a small sawmilling business in rural Wales. Together, the survey and interview data provide a picture of the sector that is grounded in the experience of the people who work in it.

The report is structured around five main areas. It begins with sawmill capability, the range of scales, equipment, activities, and business models represented across the sector. It then examines the constraints that shape what businesses can do and how they develop. A dedicated section on financial performance draws on the Foundational Economy Research Limited (FERL) financial analysis to set out the economic realities of operating at this scale. The report then considers expansion and reinvestment and what businesses are planning, where they are directing resource, and what is shaping those decisions. Finally, the development section looks at the conditions for sector growth, the potential for greater coordination and collective action, and what a credible pathway forward might look like for Wales, informed in part by the experience of the Association of Scottish Hardwood Sawmillers (ASHS) in Scotland.

Taken together, these sections build a detailed and grounded account of a sector that is more varied, more active, and more significant than conventional statistics suggest.

SAWMILL CAPABILITY

This section examines the range of sawmilling capability across survey respondents, including variation in scale, equipment, processing activities, and the practical factors that shape how capacity is used.

Variation in capability across the sector reflects incremental development, where equipment, workflows, and site infrastructure have evolved over time in response to available resource, market opportunities, and financial constraints.

VOLUMES PROCESSED

Processing volumes vary, a small number of businesses account for the majority of throughput, while most operate at a much smaller scale. Only one or two mills process comparatively large volumes, with a limited number operating in the mid-range, and a long tail of mills processing relatively small quantities of timber.

This skew persists even when smaller operators are considered collectively. The lower half of mills, by number, contribute only a modest share of total processed volume, indicating that much of the sector's activity occurs at scales that are not well captured by volume-based metrics alone.

This has important implications for how the sector is understood and represented. Conventional statistics tend to emphasise aggregate volume and therefore risk under-representing the majority of businesses in this sub-sector. While small in throughput, these mills play a distinct and often locally significant role that is not reflected in volume-based or aggregate assessments.

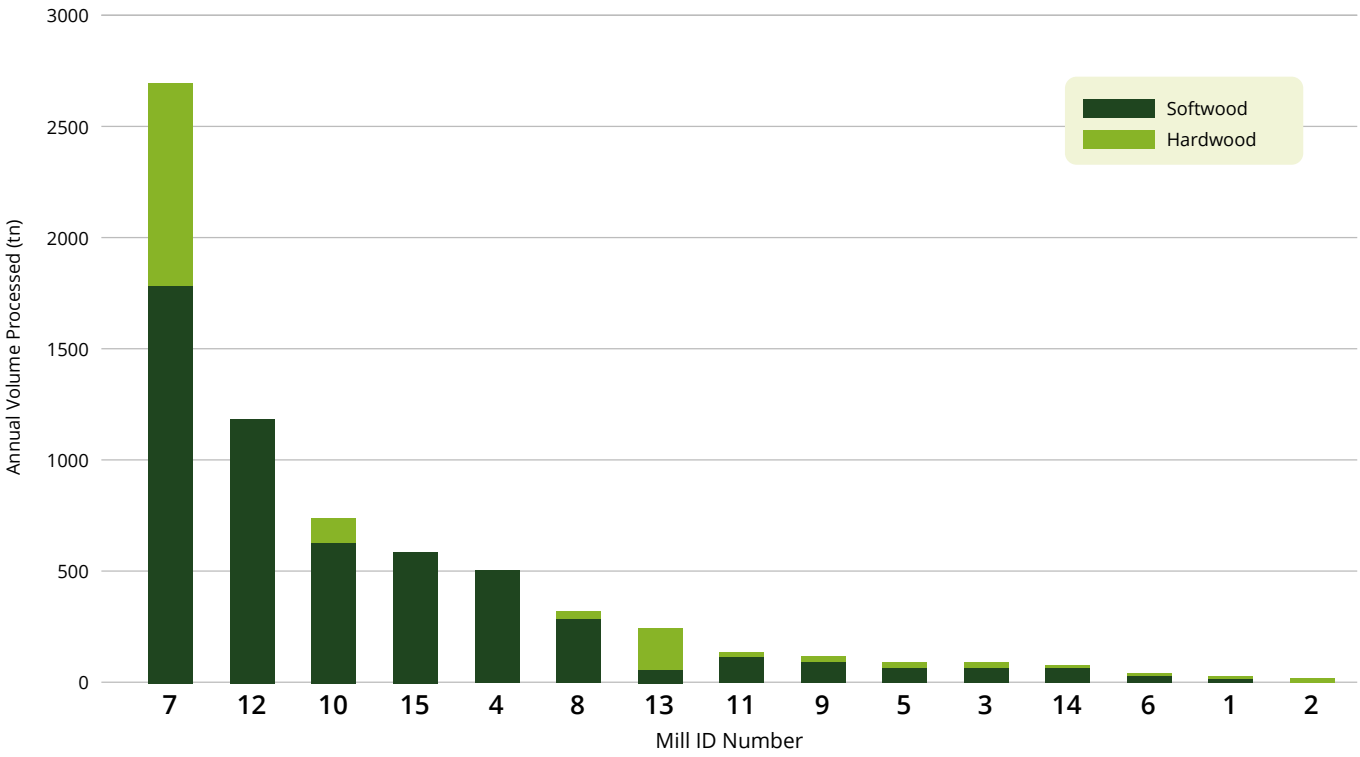


Figure 6: Volumes processed (tonnes of timber consumed annually) by each mill surveyed. Softwood clearly dominates the majority of processing

SAWMILL CAPABILITY

SPECIES PROCESSED

The species mix processed by surveyed mills shows a clear distinction between softwood and hardwood supply and use. Softwood processing is relatively concentrated, with larch and Douglas fir dominating across respondents. These species are favoured for their natural durability and suitability for outdoor applications, aligning with the product mix observed elsewhere in the survey (e.g. cladding, posts, and external joinery). In contrast, Sitka spruce, a species typically associated with large-scale commercial sawmilling, feature less prominently.

Mill ID	Total Softwood (tn)	Larch	Douglas fir	Western red cedar	Sitka spruce
1	26	26			
2	2	2			
3	75	30	15		30
4	500	166	166	166	
5	75	25	50		
6	35	30	2	2	1
7	1800	1260	270		270
8	300	50	150		100
9	100	90	5	5	
10	650		620		30
11	126		126		
12	1200	900	300		
13	50	50			
14	75	10	50		15
15	600	300		300	
Total	**5614**	**2939**	**1754**	**473**	***446***

Table 10: Total softwood volumes processed by surveyed mills (tonnes), broken down by species

SAWMILL CAPABILITY

This supports interview statements that smaller mills have no interest in directly competing with large-scale processors on commodity products. Instead, they are selectively processing species that lend themselves to local, higher-value, or more flexible applications, where their scale and business models are better suited.

Hardwood processing presents a more diverse picture, with a wider range of species represented, including oak, ash, sycamore, and alder. However, volumes are significantly lower than for softwoods, and processing tends to be either specialist or more opportunistic, and project driven. This reflects both the limited UK availability of suitable hardwood resource and the nature of demand for sawn hardwood products, which is often bespoke, local, and intermittent.

Softwood species processed

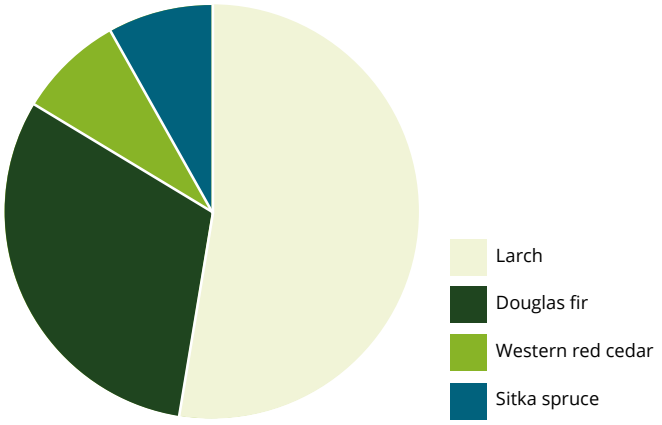


Figure 7: Proportion of softwood species processed by surveyed mills, showing the relative contribution of each specie to total volume

Hardwood species processed

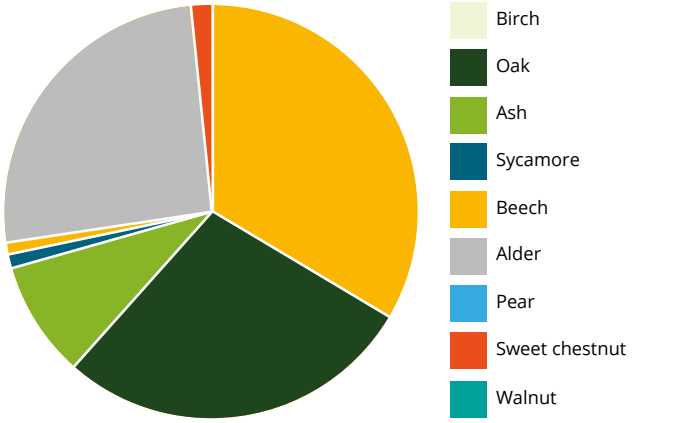


Figure 8: Proportion of hardwood species processed by surveyed mills, showing the relative contribution of each species to total volume

SAWMILL CAPABILITY

Mill ID	Hard-wood (tn)	Birch	Oak	Ash	Sycamore	Beech	Alder	Pear	Sweet Chestnut	Walnut
1	9	3		3	3					
2	25		23	2						
3	25	1	1	20	3					
4										
5	25		20	10	5	5				
6	15	7	8							
7	900	450		90			360			
8	30	3	5	3		10		0.05	19	
9	25		25							
10	100	5	95							
11	12		12							
12										
13	200		200							
14	8		3	3	1					19
15										
Total	**1374**	**469**	**392**	**131**	**12**	**15**	**360**	**0.05**	**19**	**1**

Table 11: Hardwood volumes processed by surveyed mills (tonnes), by species and mill. Processing is unevenly distributed, with a small number of mills accounting for a large share of total volume, and activity concentrated in a limited number of species

SAWMILL CAPABILITY

FUTURE SPECIES MIXTURES

We asked processors if the current species mix would serve them in the future: Across respondents, the current species mix is generally considered to be suitable for existing operations. Most mills indicated that the species they process align with their current products, capabilities, and markets. This reflects the adaptive nature of these businesses, which tend to work with available material rather than specifying tightly defined inputs.

Does your current species mix ideally suit your operation?

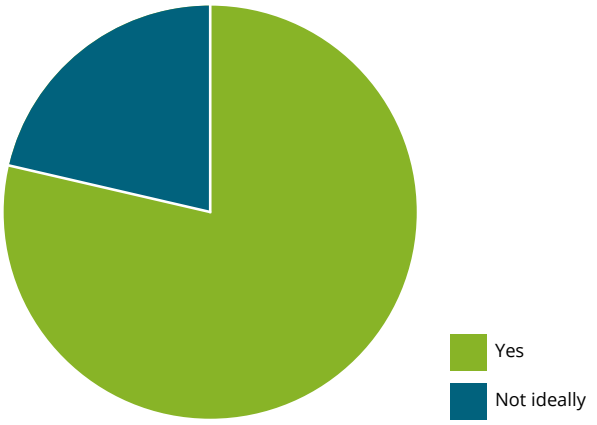


Figure 9: Responses to whether current species mix suits mill operations. While the majority of mills consider their current species mix suitable, a significant minority report a mismatch, suggesting underlying constraints in availability, specification, or market alignment

Are you anticipating changes in availability of any of the species you process?

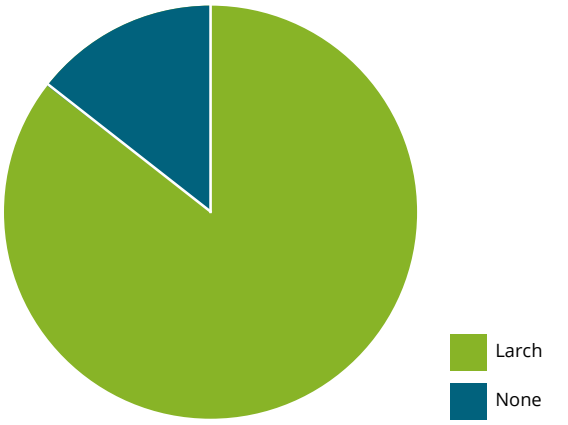


Figure 10: Anticipated changes in species availability. The majority of respondents expect changes, primarily associated with the decline of larch, while a smaller proportion anticipate no significant change

However, there is a strong and consistent expectation that this mix will change. The anticipated decline in larch availability is widely recognised and emerges as the primary driver of future uncertainty. This supports what interviewees told us directly, with many identifying larch as both central to their current operations and increasingly constrained as a resource.

Are there any species you hope or expect to use more of in the future?

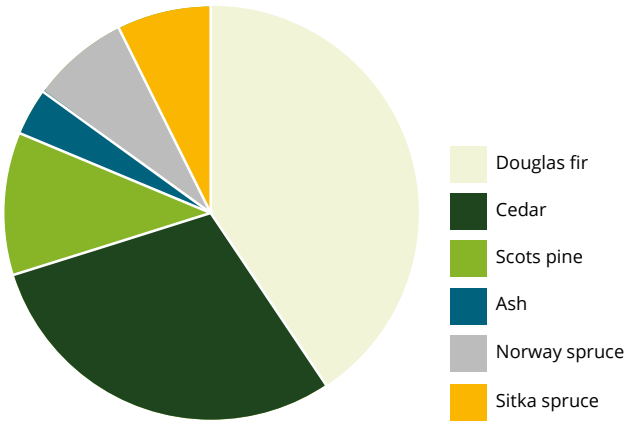


Figure 11: Species respondents expect to use more of in the future. Douglas fir and Western red cedar are most frequently identified, with smaller contributions from species such as Scots pine, Norway spruce, and Sitka spruce, indicating a shift toward a broader but still selective species mix

SAWMILL CAPABILITY

In response, mills are already forming expectations about future species use, with Douglas fir featuring prominently. Other species, including Western red cedar, and to a lesser extent, Scots pine and spruce, are also identified as potential alternatives. This does not appear to be a coordinated or formally informed transition, but rather an adaptive response to perceived changes in supply. Expectations are typically shaped through local knowledge, peer networks, and practical observation, rather than engagement with formal datasets or forecasts, which are often seen as difficult to interpret or of limited relevance to day-to-day decision making.

Respondents were clear that species are not treated as interchangeable. While Western Red Cedar, for example, is widely regarded as a high-performing material, it is not considered a viable substitute for larch due to its cost and the expectation that customers will not absorb the price difference. More broadly, species are understood in terms of their specific properties, availability, price point, and market demand, rather than as direct replacements for one another.

There is therefore no clear expectation that one species will act as a like-for-like substitute. While Douglas fir is often discussed in relation to larch, its established association with structural applications such as framing, beams, and larger section timbers, suggests a shift not only in species but potentially in product pathways and market positioning. The transition is likely to involve adaptation across both material use and end-product specification, rather than simple substitution.

The limited reference to commercially significant species such as Sitka spruce in future expectations is notable in this context. Their absence does not necessarily reflect availability, but rather their perceived suitability within existing product pathways and market norms. Associations between species and end uses, Douglas fir as structural, larch as cladding for example, appear to shape expectations as much as, if not more than, formal assessments of performance.

This raises a broader question about how such transitions may unfold at a sector level. If multiple mills converge on a similar set of preferred alternatives, most notably Douglas fir, this may introduce new constraints, particularly where supply is uneven or limited. At present, however, there is little evidence that these expectations are being formed in reference to national datasets such as the National Forest Inventory or Forest Research forecasts. Instead, several respondents indicated that they expect to “follow trends in supply”, reinforcing the view that decision-making is primarily driven by availability and experience rather than detailed engagement with either forecasts or wood science literature.

This is consistent with established wood science, which indicates that while Douglas fir and larch share some overlapping characteristics, their performance, particularly in relation to durability, differs in ways that may be significant depending on end use. In practice, however, these distinctions are not the primary driver of decision-making at this scale.

There was also notable interest among some respondents in increasing the use of ash, despite its well-documented decline due to ash dieback. This appears to reflect emerging narratives around ash utilisation such as initiatives in Scotland (ASH RISE) promoting the use of diseased or felled material rather than any expectation of long-term resource stability. This reinforces the extent to which species preferences are influenced not only by availability and material properties, but also by circulating ideas and examples within the sector.

Overall, species transitions within the sector are likely to be uneven and locally mediated, shaped by availability, established uses, and market expectations, rather than driven by a single, coordinated shift aligned with national forecasts.

SAWMILL CAPABILITY

LOG SPECIFICATION

The industry standard threshold for oversize logs is typically around 55 cm top diameter. However, for the purposes of this survey, oversize was defined more narrowly as logs above 1 m. This higher threshold was used to distinguish genuinely exceptional stems from larger conventional sawlogs, since many respondents are able to process material above 55 cm. The results should therefore be interpreted as an indicator of specialist oversize capability, rather than general large-log capacity.

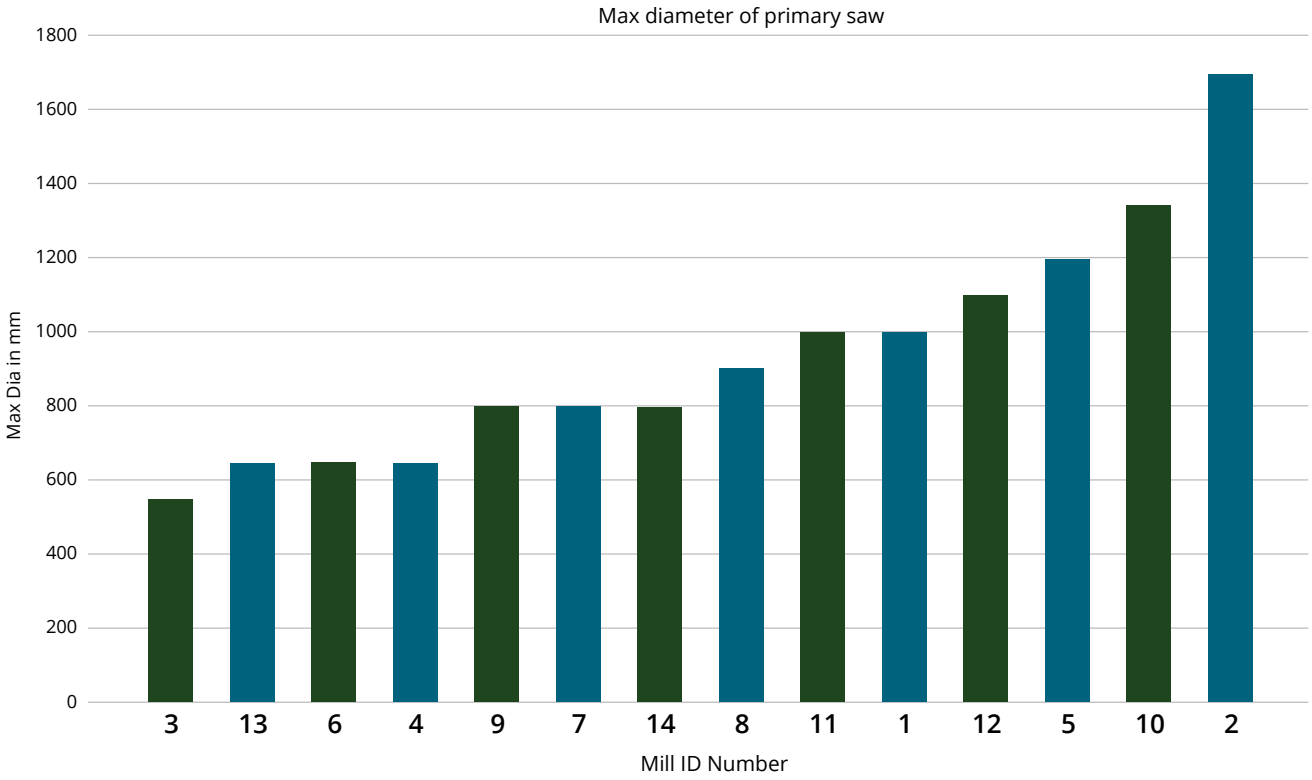


Figure 12: Maximum Sawmill Head Diameter

SAWMILL CAPABILITY

Many do not have saws with sufficient width capacity to process oversize logs regardless of interest. One respondent summarised this simply as “I wish”, whereas others stated that they have no interest due to the additional work, potential issues, and material losses involved. This reflects the heterogeneity of the sector, both in terms of capability and business model.

Among those with the necessary equipment, approaches diverge. Some have developed a niche around oversize material, typically linked to bespoke, high-value products such as slabs, furniture, or decorative timber. For these businesses, larger logs represent an opportunity to work with material that is less desirable to conventional or larger processors.

Others, particularly those producing more consistent product lines, tend to avoid oversize material. Respondents frequently cited the additional handling, time, and effort required, with many indicating that it is not worth the disruption to their workflow.

Several mills noted that they would process ‘oversize’ logs if the price justified the effort. This reinforces a broader pattern observed across the survey: decision-making is often opportunistic, shaped by a combination of available equipment, local supply, and perceived value, rather than fixed procurement strategies.

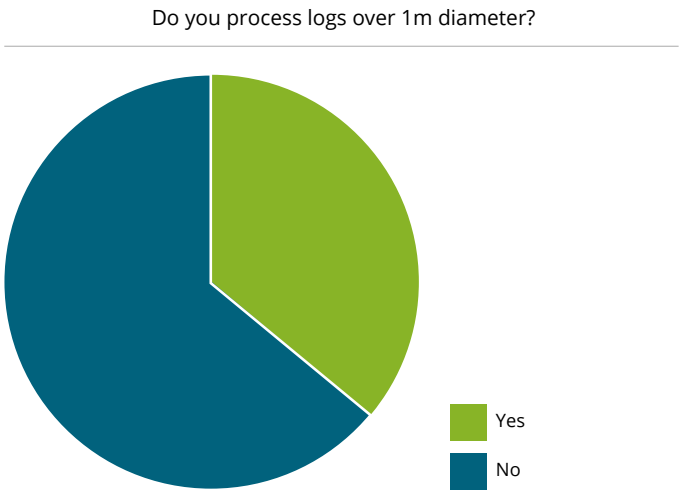


Figure 13: Responses to whether mills process oversize (>1m Dia) timber. A minority of respondents process oversize material, while the majority do not, reflecting practical constraints in equipment, handling, and workflow

SAWMILL CAPABILITY

BUSINESS ACTIVITY

The distribution of revenue across activities shows a high degree of diversity in business models. Only a small number of respondents operate as purely sawmilling businesses, with most combining milling with a range of other activities, including forestry contracting, firewood production, farming, joinery, and, in some cases, training or social enterprise.

This reflects a consistent pattern across responses: Sawmilling is rarely a standalone activity. Instead, it is integrated into broader operations, either as a way of adding value to existing material flows or as part of a more diversified income base. In some cases, mills have been established to make use of by-products or underutilised timber from other activities (arb, forestry contracting). In others, they form part of a move toward greater vertical integration with an existing forest resource.

Several respondents described actively shifting their business models over time in response to changing economic conditions. One example was a transition from farming toward sawmilling as agricultural returns declined, alongside a deliberate move away from reliance on subsidies. More broadly, there was a shared emphasis on maintaining flexibility and avoiding dependence on a single income stream.

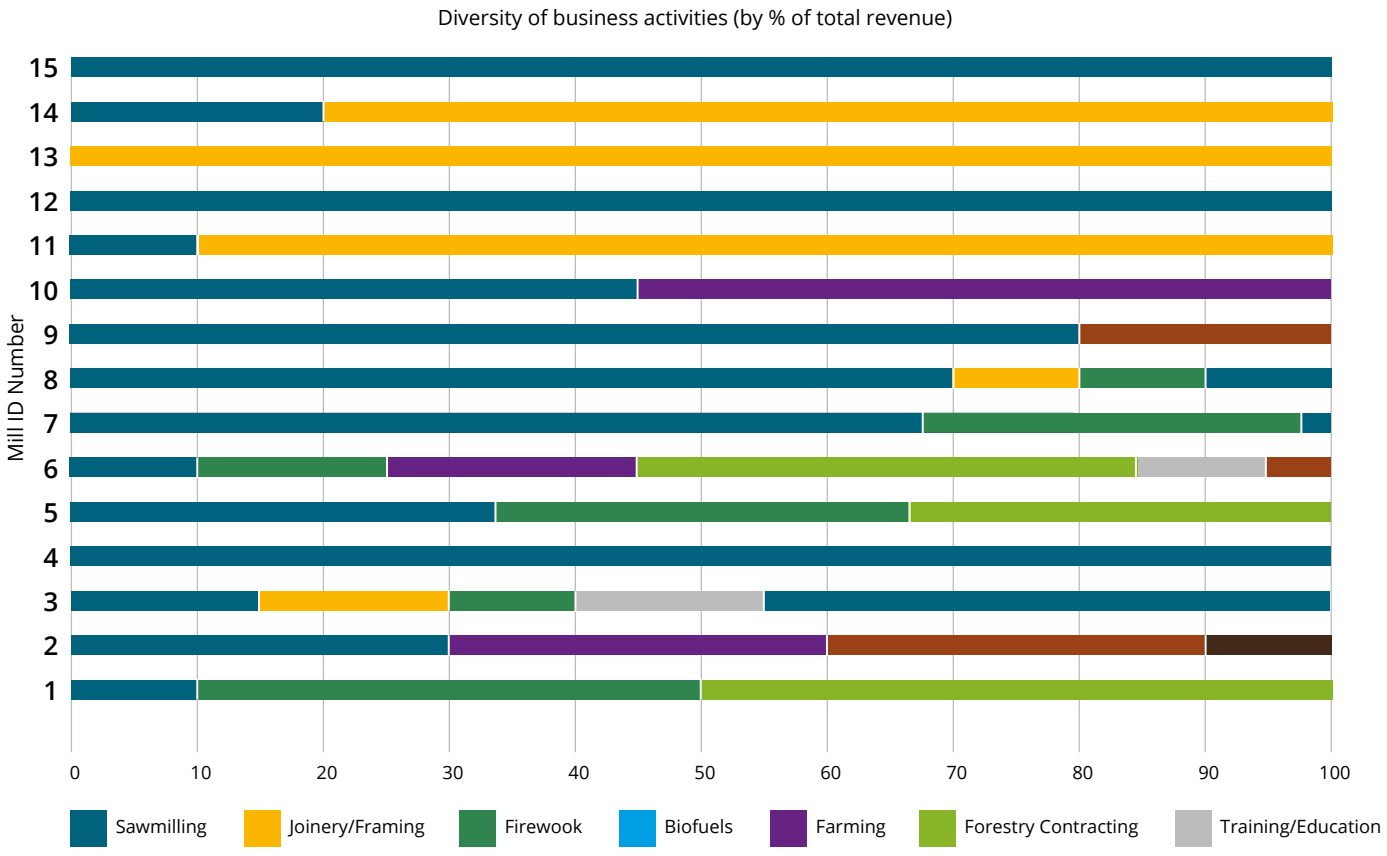


Figure 14: Distribution of business activities as a share of revenue by mill. Sawmilling is rarely a standalone activity, with most respondents combining it with other income streams such as firewood, joinery, and forestry contracting

SAWMILL CAPABILITY

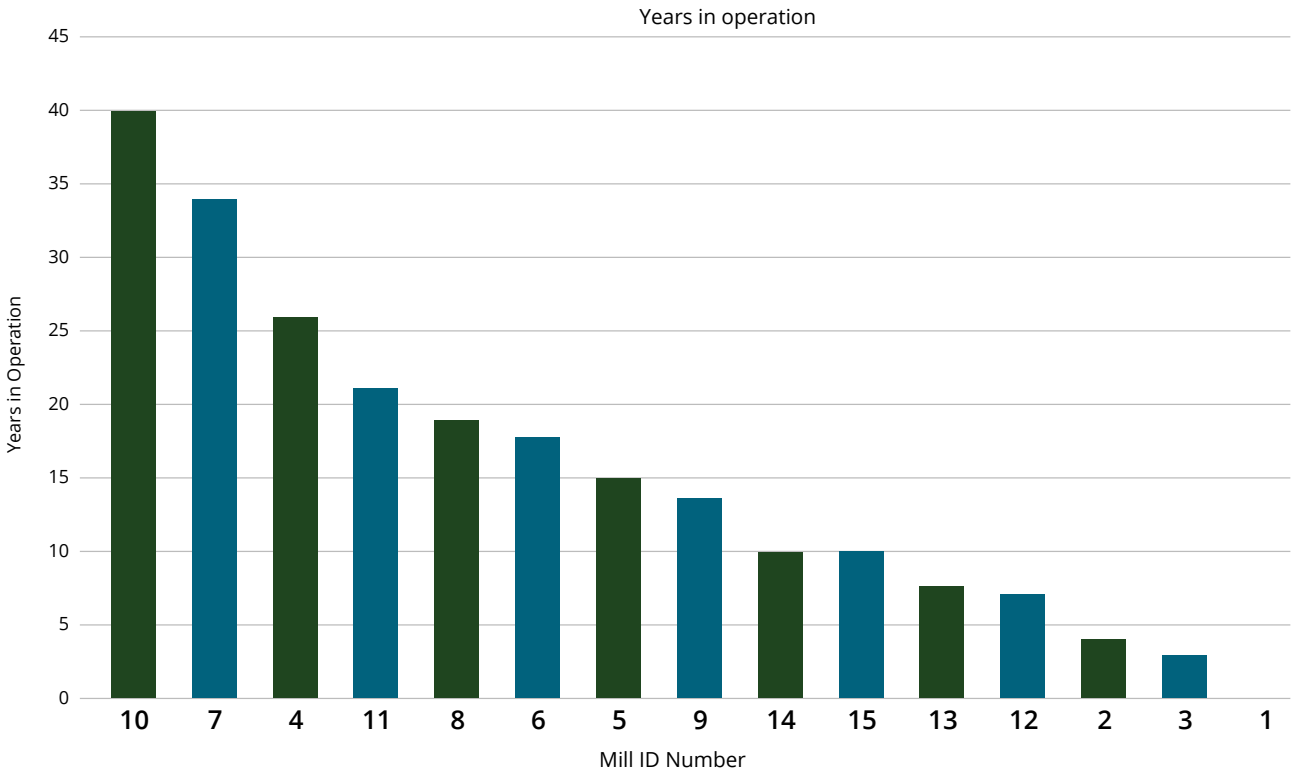


Figure 15: Years in operation of surveyed mills. Most businesses have been established within the last 20 years, with fewer long-established operations

The distribution of years in operation suggests a sector containing both established businesses and more recent entrants. Many surveyed firms have remained operational for long periods, indicating a notable degree of resilience despite often challenging economic conditions and relatively small operating scales. A substantial proportion of respondents had been operating for more than a decade, contrasting with wider patterns typically associated with small business turnover and failure rates. Roughly 75% having been in operation for more than 10 years, notably this compares to a UK average of 70% in operation for under ten years[12].

However, longevity should not necessarily be interpreted as evidence of secure continuity or long-term stability. Interview material suggests relatively few clear examples of multi-generational succession, with many businesses remaining heavily dependent on individual owner-operators.

Respondents were often explicit about this, with one noting that "if the kids don't want to take it on, it'll gradually wind down", a view echoed by several others. In many cases, the location of the business premises also makes succession difficult: mills and yards are often embedded within the operator's home, farm, or converted outbuildings, meaning the business is not easily separable from the household or wider property. This makes transfer to anyone outside the family less likely, even where the equipment and customer base remain viable.

[12] *UK Government. (2024). Companies register activities: statistical release April 2023 to March 2024. Available at: https://www.gov.uk/government/statistics/companies-register-activities-statistical-release-april-2023-to-march-2024/companies-register-activities-april-2023-to-march-2024*

SAWMILL CAPABILITY

This points to an important distinction between survival and succession. Many businesses appear highly resilient in their ability to persist over time, often through incremental adaptation, low overheads, diversified activities, modest financial expectations, and significant personal commitment from operators. In many cases, resilience appears to stem less from high profitability or growth than from the ability of businesses to remain flexible, absorb uncertainty, and continue operating within constrained conditions. At the same time, the continuation of these businesses beyond the current generation is far less certain.

In many cases, there is limited evidence of a pipeline of successors. Sawmilling at this scale is typically labour-intensive, relatively low-margin, and often geographically isolated, which can limit its attractiveness as a long-term career. Where businesses do employ staff, the picture appears somewhat different, with a greater possibility of continuity beyond the owner, although these examples remain less common across the sample.

Practical constraints also play a role. In some areas, particularly rural locations, the cost and availability of housing were identified as barriers to succession. Where businesses are not tied to land or property, the ability for a successor to remain locally and take on the operation is further reduced.

Taken together, these findings suggest that the sector may be more resilient in terms of business survival than in terms of generational continuity. Succession is therefore not simply a business issue, but one shaped by wider economic and social conditions, including labour availability, housing, and rural affordability.

TIMBER SOURCING AND PURCHASING

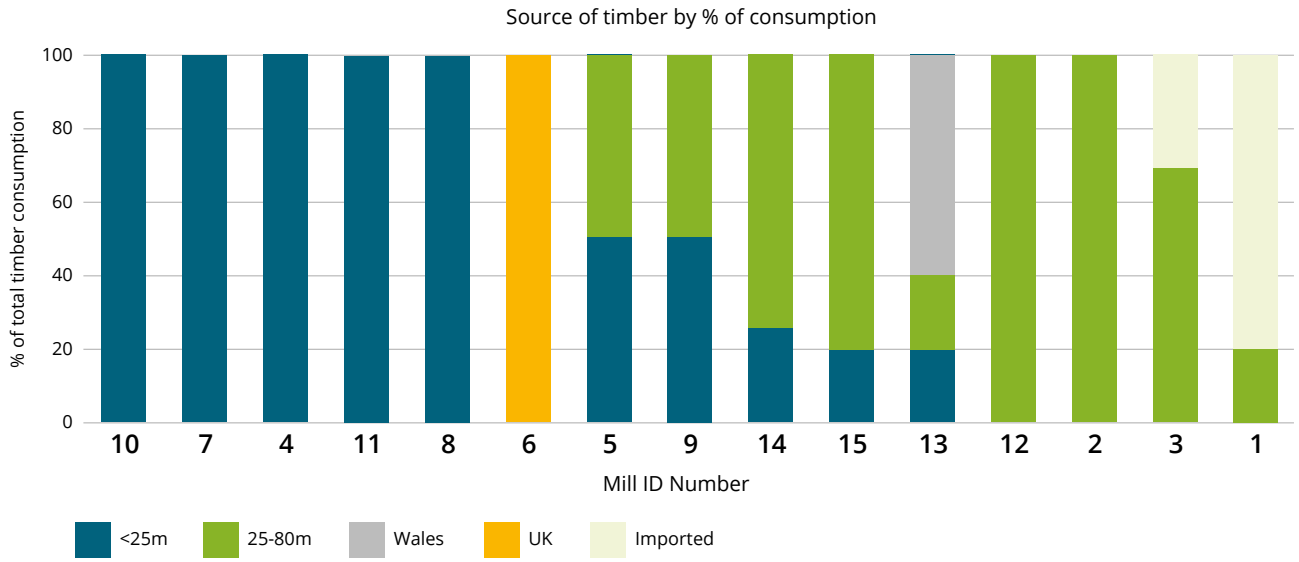


Figure 16: Distance to log source by percentage of consumption for each mill. Most mills source a high proportion of timber locally (within 25–80 miles), although some rely more heavily on wider Welsh or imported supply

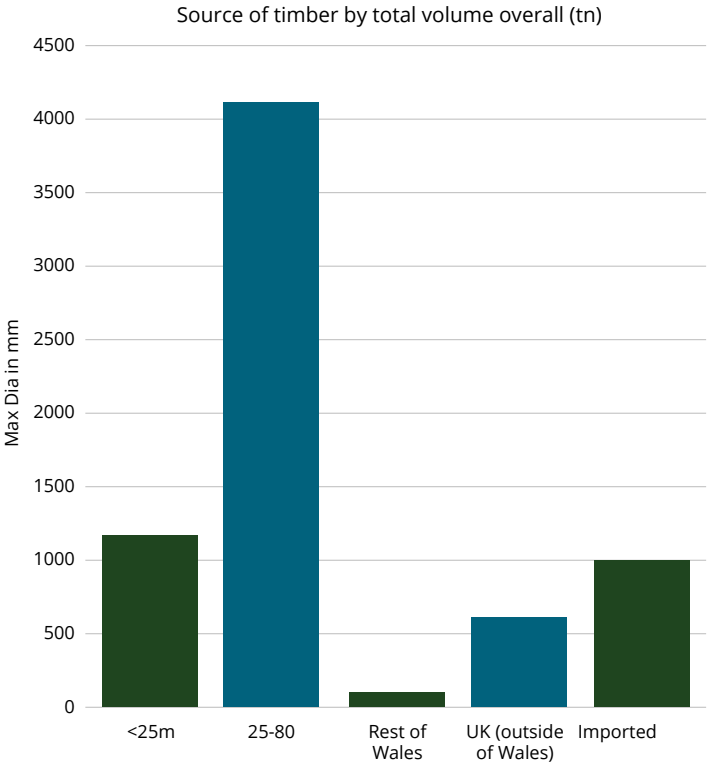


Figure 17: Distance to log source by total volume (tonnes). While many mills source locally by proportion, the majority of total volume is sourced from the 25–80 mile range, indicating that larger-volume flows tend to come from a wider regional catchment

Local sourcing is important to many mills, but it does not account for most timber by volume. Many respondents reported sourcing a significant share of their timber from within 25 miles, showing the importance of nearby farmers, estates, woodland owners, contractors, and local supply relationships. However, when all reported volumes are combined, the largest share of timber comes from a wider 25–80 mile radius. This indicates that small sawmills often depend on both very local relationships and broader regional supply networks, with larger-volume purchases typically drawn from further afield.

TIMBER SOURCING AND PURCHASING

Smaller, local transactions often involving individual woodlands, farms, or small estates make up a large share of sourcing activity by frequency, but contribute relatively modest volumes. Despite this, these flows are significant. They represent a distributed network of small-scale woodland management opportunities that would be difficult to service through larger processors alone. Without local mills, much of this material, often variable in species, size, or form, may remain unharvested or underutilised. The main issue is not that this timber would otherwise go unused, but that small parcels and one-off logs are often poorly suited to large-volume procurement systems. A large mill may be technically capable of processing the material, but is unlikely to be interested in collecting or purchasing one or two logs at a time from farms, estates, tree surgeons, or small woodland owners. Small mills therefore provide an important route for timber that is available in irregular, local, or low-volume parcels. In some cases, they can also match those logs to more specific and longer-lived uses, such as cladding, joinery, framing, furniture, repair work, or bespoke local products, rather than feeding them into standardised bulk product streams.

Although only a small number of respondents reported importing timber, the volumes involved are significant, approaching those sourced within the most local (<25 mile) category. This is particularly evident in certain product areas, such as Oak for timber framing, where imported material is preferred for reasons of price, consistency, and structural characteristics. In contrast, locally sourced hardwoods tend to be used in smaller quantities and for less structurally demanding or more character-led applications.

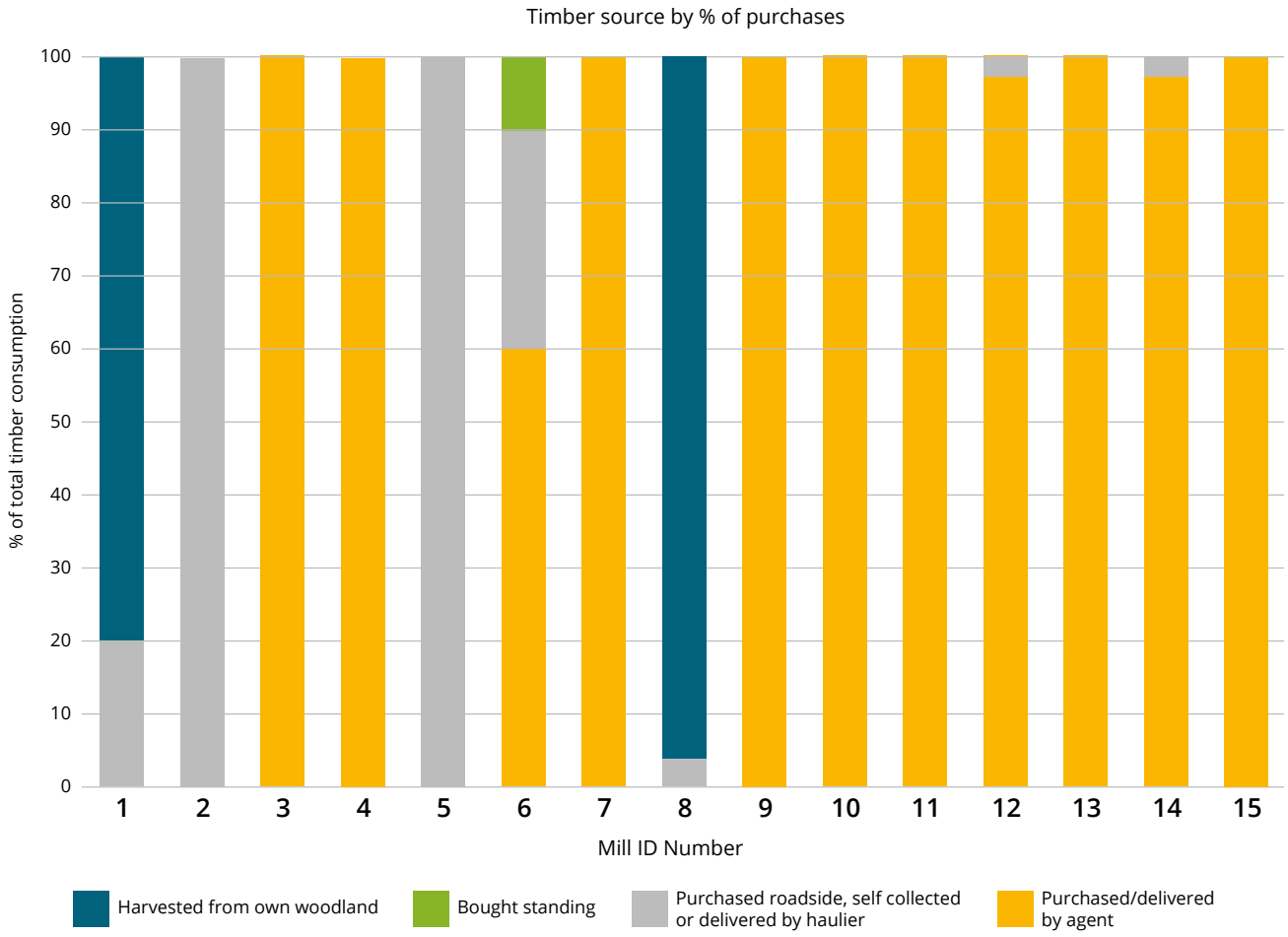


Figure 18: Procurement route by percentage of purchases for each mill. Most respondents rely heavily on roadside purchases delivered by agents, although some variation exists, with a smaller number sourcing standing timber, self-arranged haulage, or material from their own woodlands

TIMBER SOURCING AND PURCHASING

One respondent reported moving away from Welsh supply altogether, sourcing from outside Wales after repeated issues with price, specification, reliability, and the perceived responsiveness of agents and contractors. For this processor, the issue was not simply timber availability, but the ability to secure material to the required specification, at the right time, and on commercially workable terms. Timber sourced from outside Wales was described as more consistent, timely, and operationally reliable than local supply. While this cannot be treated as representative of the sector as a whole, neither should it be dismissed as unimportant simply because it relates to a single business. Given the heterogeneous nature of the sector, experiences such as this may reflect the position of a particular processor typology, especially more specification-sensitive or production-oriented businesses whose requirements differ from those of more flexible or opportunistic mills.

Overall, the findings show a high frequency of small, local transactions supporting distributed woodland use, alongside a smaller number of larger volume flows operating at a regional or national scale. Both are important, but they serve different functions within the sector.

The route by which timber reaches the yard varies across respondents, but a clear pattern emerges when comparing frequency and volume. By percentage of purchases, a mix of sourcing routes is evident, including self-collected roadside timber, standing purchases, and timber harvested from respondents' own woodland. However, when considered in terms of total volume, the majority of timber is purchased roadside and delivered by agents.

This indicates that while some businesses engage directly in harvesting or self-collection, particularly those with a background in tree services or forestry contracting, these routes account for relatively small volumes overall. In these cases, milling is often used to add value to material already within their control, rather than as a primary sourcing strategy.

Vertically integrated models, where businesses harvest from their own woodland, are present but limited in scale across the sample. While important for individual businesses, they do not represent a significant share of total timber flow within the sector. This reinforces the reliance on intermediated supply, particularly through agents and contractors, for the majority of material.

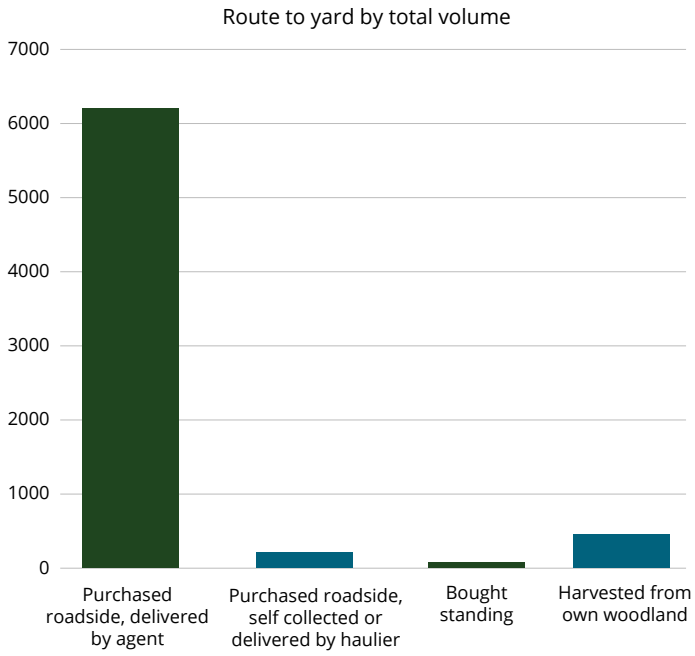


Figure 19: Procurement route by total volume (tonnes). The majority of timber by volume is purchased roadside and delivered by agents, indicating that higher-volume supply is strongly intermediated, with relatively limited volumes sourced through standing sales, collection or harvesting

The data also points to a wider structural dynamic in the sourcing of timber. Despite the presence of farm and estate woodlands, relatively little material appears to be entering small-scale processing through direct relationships with landowners. This may reflect a combination of factors, including the priorities of landowners, the costs and logistics of small-scale harvesting, and the degree of coordination required to bring such material to market. Many landowners use forestry agents to ensure health and safety regulations are met and site management is covered.

Taken together, these findings suggest that while small mills demonstrate flexibility in how they source timber, the bulk of supply is channelled through established commercial routes. Direct sourcing and vertical integration exist, but currently play a secondary role in overall volume terms.

TIMBER SOURCING AND PURCHASING

The distribution of purchase sources by number of transactions highlights the diversity of relationships through which mills access timber. Respondents reported sourcing from a wide range of actors, including local farmers, estates, small woodland owners, forestry agents, contractors, and larger woodland or portfolio managers. No single source dominates in terms of transaction count, indicating that mills typically rely on multiple, overlapping supply relationships.

Respondents also noted a change over time in sourcing relationships, particularly in relation to public forestry. Several indicated that they had previously purchased timber from Natural Resources Wales, but that this has become less accessible, with one describing the introduction of e-sales as "the end of that relationship". It is important to note, however, that this does not necessarily mean timber originating from the public estate is absent from smaller processors. Material purchased from forestry contractors, hauliers, or agents may still originate from NRW woodlands, but once aggregated through intermediaries its origin becomes difficult to trace. Contractors and agents frequently operate across both public and private forestry, often supplying timber from multiple sources simultaneously. As a result, the point of purchase does not necessarily reveal the origin of the timber itself, highlighting a significant limitation in understanding how material moves through the Welsh system.

Purchase source by number of transactions

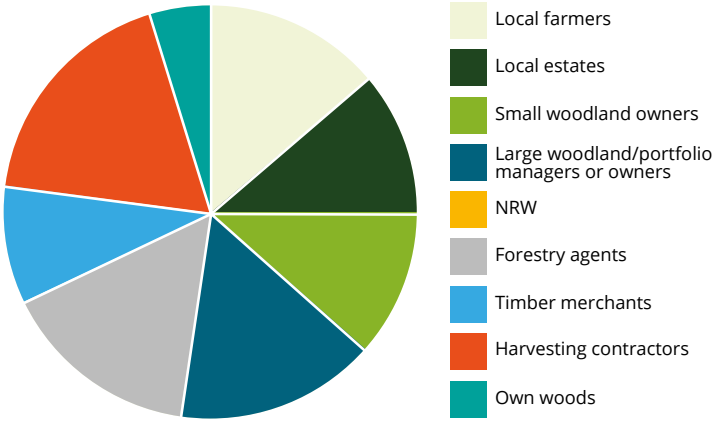


Figure 20: Purchase source by number of transactions. Timber is sourced from a wide range of suppliers, with transactions spread across farmers, estates, woodland owners, contractors, and intermediaries, reflecting a highly fragmented and relationship-based supply

Farmers, estates and small woodland owners appear to represent an important but under-connected source of timber for small mills. Several respondents already source material through these routes, but the evidence suggests this is often based on informal relationships rather than a visible or coordinated market. There may be scope to improve connections between landowners and local processors, particularly where small parcels, individual stems, windblow, or mixed-species material are not well suited to larger procurement systems. For landowners, this could provide an alternative route to chip, firewood, or on-site disposal; for mills, it could improve access to the kinds of varied local material that suit bespoke, micro, and specialist business models. The key gap is therefore not necessarily timber availability, but awareness, coordination, and practical routes to bring small parcels into appropriate local use.

MACHINERY AND EQUIPMENT

PRIMARY

Primary processing equipment provides the foundation for what mills are able to do. Across respondents, machinery reflects a consistent pattern: systems that are relatively simple, adaptable, and developed incrementally over time rather than installed as fully designed production lines.

This section focuses on primary sawmilling equipment, examining both the types of systems in use and the manufacturers represented. Together, these provide insight into the technical baseline of the sector and the practical constraints and capabilities that shape processing activity.

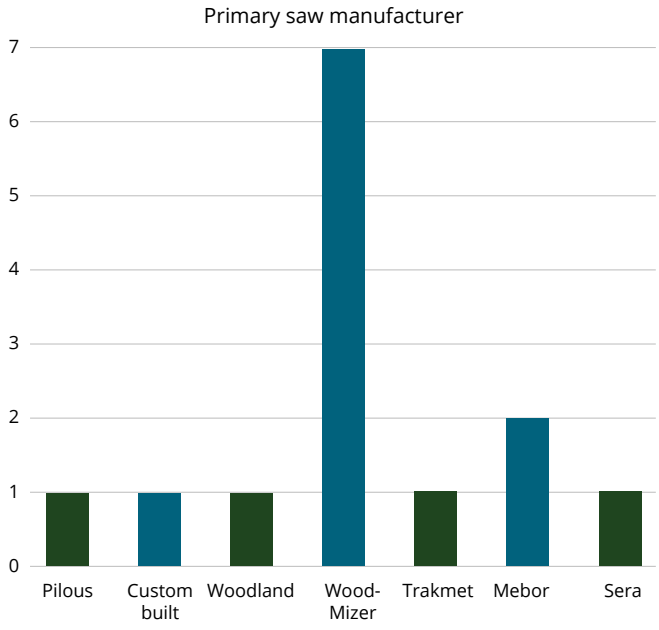


Figure 21: Primary sawmill manufacturer used by surveyed mills. Wood-Mizer systems dominate, with a smaller number of other manufacturers represented, indicating a high level of standardisation around horizontal bandsaw technology within the sector.

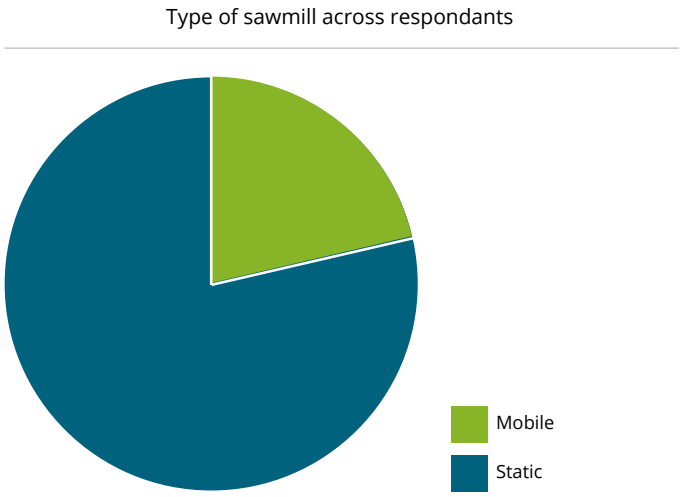


Figure 22: Type of primary sawmill used by respondents. Static mills are more common, although mobile systems are the centre from which processing capacity has evolved outward

Only one respondent used a circular saw system of the kind more commonly associated with comparable small-scale operations in parts of Europe and North America. In the Welsh context, the dominance of horizontal bandsaws likely reflects the relatively recent development of the sector itself. With limited historical forestry activity and little legacy processing infrastructure to inherit, many smaller mills appear to have emerged around the uptake of relatively modern horizontal bandsaw systems, particularly following storm events in the late twentieth century that created incentives to process timber locally. As a result, the technical baseline of the sector is in some respects comparatively modern, even where equipment is now well used or incrementally adapted over time.

MACHINERY AND EQUIPMENT

The one respondent operating a circular saw system specifically identified improved cutting precision as a key advantage and described the system as a defining part of their business offer and market differentiation.

This reflects how many businesses have developed. Mills are often established with a single machine and built out over time, rather than designed as fully specified systems from the outset. As a result, smaller-capacity machines are common, with operators tending to work within the limits of existing equipment rather than replacing it. This points to a pattern of incremental development, shaped by resource constraints and the need to remain flexible.

Integrated dust extraction systems are present in some operations, but not universal. Their use appears to be linked to the level of processing undertaken and the nature of the working environment.

Businesses operating more enclosed or workshop-based setups, particularly those carrying out secondary processing such as joinery or machining, are more likely to have integrated systems in place. In contrast, open yard or shed-based operations are less likely to invest in fixed extraction, where dust and waste are more easily managed through space and airflow.

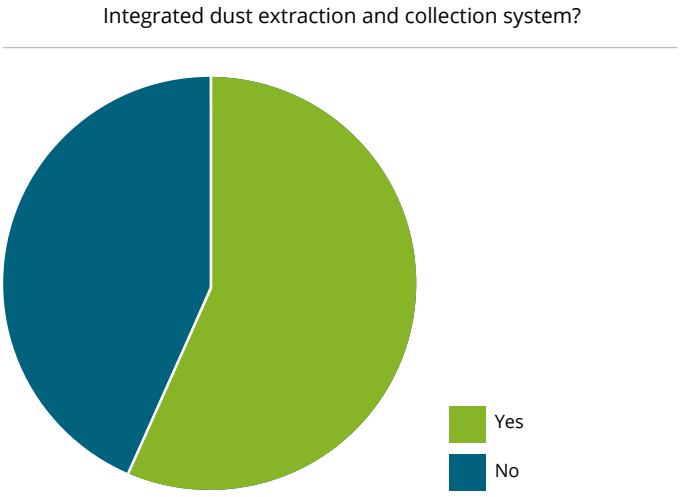


Figure 23: Presence of integrated dust extraction and collection systems. A majority of mills report having integrated systems, although a substantial minority operate without them, reflecting variation in site infrastructure, capacity to utilise co-products and levels of investment

SECONDARY AND SUPPORTING

A wide range of secondary processing equipment is present across respondents, including planer thicknessers, resaws, moulders, and, in some cases, more advanced computer aided machinery. However, the presence of equipment does not necessarily translate into consistent use.

There is significant variation in how far businesses move beyond primary breakdown. Some operate relatively minimal setups focused on sawn timber, while others undertake joinery, framing, or component manufacture.

In most cases, equipment has been assembled incrementally over time, often acquired second-hand and added as opportunities arise. As a result, setups are continually adapted and upgraded, but rarely form a fully integrated or optimised system. Instead, they reflect the practical realities of developing a business where machinery is added when opportunity (grants, deals etc) is present, or to meet immediate needs rather than as part of a single, planned configuration.

MACHINERY AND EQUIPMENT

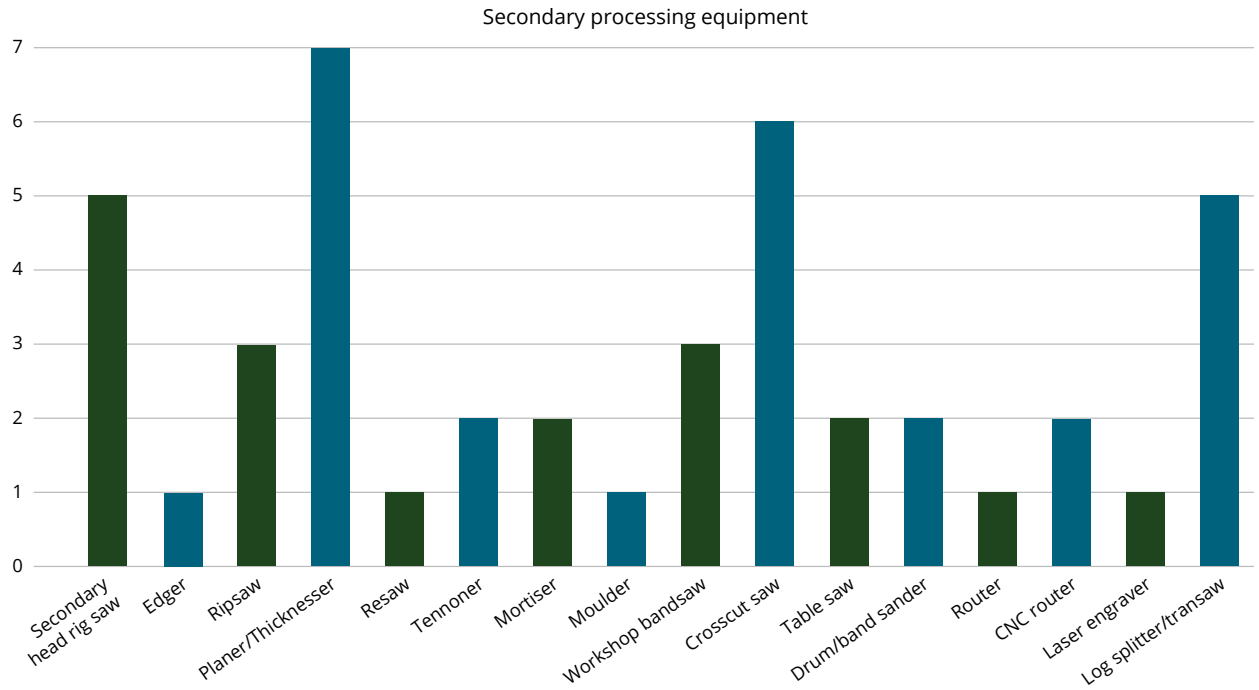


Figure 24: Secondary processing equipment across surveyed mills. A wide range of equipment is present, with planers/thicknessers and crosscut saws most common, indicating moderate but variable capacity for value-added processing beyond primary breakdown.

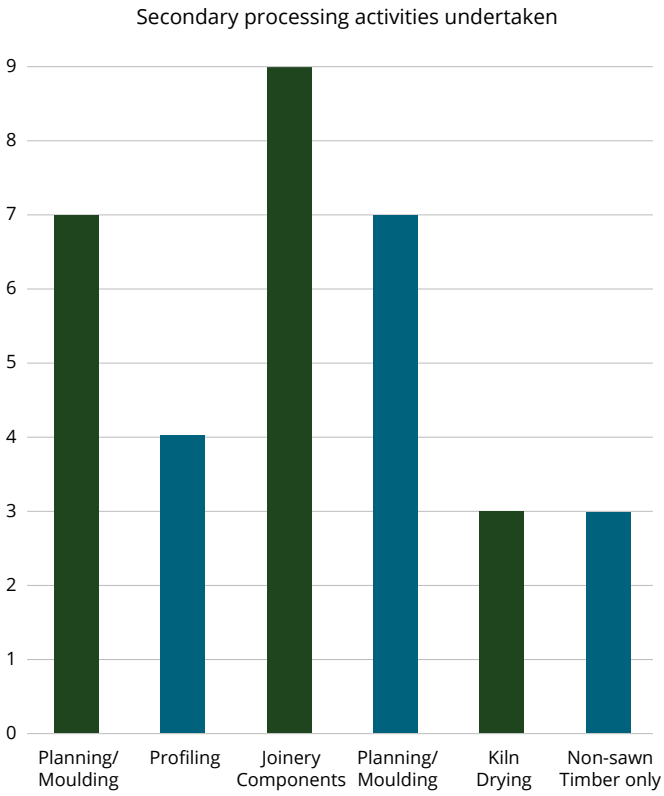


Figure 25: Secondary processing activities undertaken by surveyed mills. Joinery and planing/moulding are the most common activities, with fewer mills engaged in kiln drying, highlighting variation in the depth of secondary processing across the sector

MACHINERY AND EQUIPMENT

CONDITION, MAINTENANCE AND REPLACEMENT

Maintenance costs and machinery condition vary across respondents, with a broad split between those relying on in-house maintenance and those using external services. Lower reported costs tend to be associated with in-house approaches, although this is not universally the case and depends on the type of equipment and level of intervention required.

In-house maintenance is common and typically based on practical experience rather than formal servicing regimes. Operators often have a detailed understanding of their machinery and prioritise routine upkeep. This is reflected in downtime patterns, with most reporting generally reliable operation and only occasional interruptions, alongside some recurring issues with specific machines.

External maintenance is used where specialist inputs required, particularly for more complex repairs or where time constraints limit the ability to undertake work in-house. Blade maintenance is a consistent feature across respondents, with many using external saw doctors, while only a small number carry out sharpening themselves.

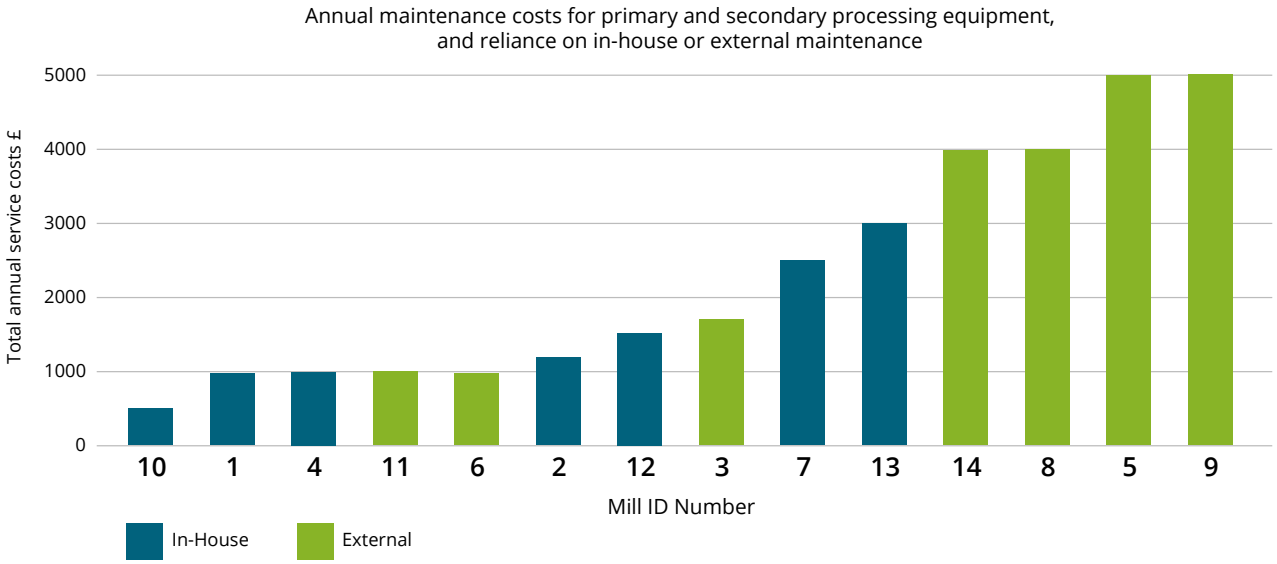


Figure 26: Annual maintenance costs for primary and secondary processing equipment, and reliance on in-house versus external maintenance

MACHINERY AND EQUIPMENT

How often is main line down for repairs and maintenance?

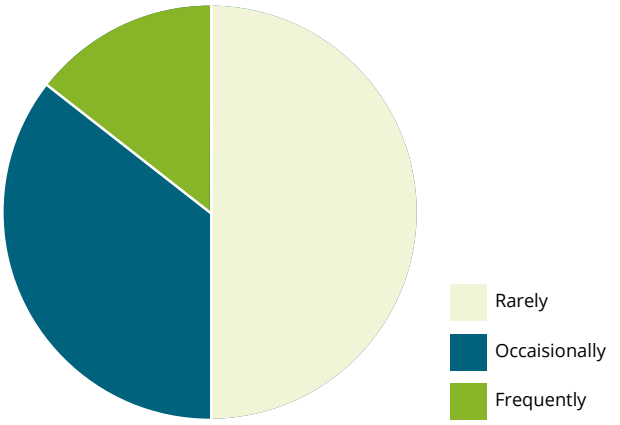


Figure 27: Frequency of main line downtime for repairs and maintenance. Most mills report that downtime is rare

Is main saw expecteed to be replaced within five years?

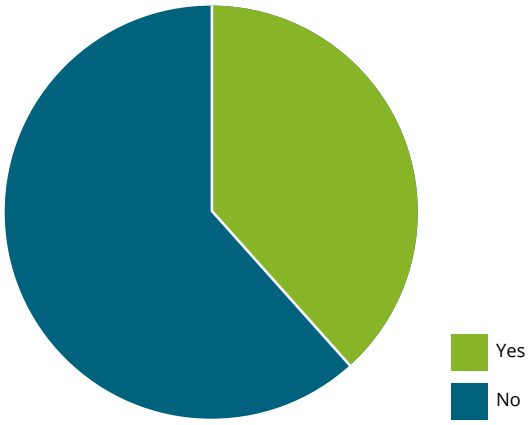


Figure 28: Expectation of primary saw replacement within five years. The majority of respondents do not expect to replace their main saw in the near term

Is significant secondary machinery expected to need replacing within five years?

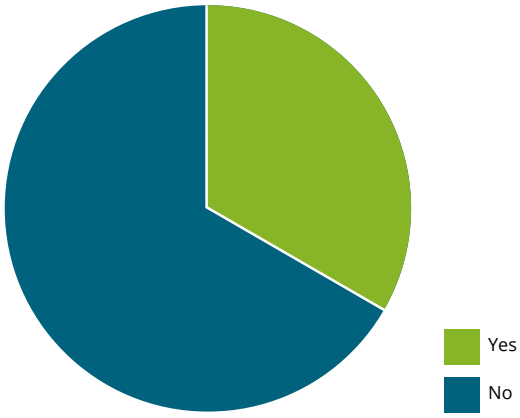


Figure 29: Expectation of significant secondary machinery replacement within five years. Most respondents do not anticipate replacing secondary equipment, reflecting a pattern of ongoing use and incremental maintenance rather than planned renewal

Replacement and upgrade strategies are incremental. Rather than full system replacement, businesses tend to repair, adapt, and replace individual components or machines over time. This aligns with the broader pattern observed across the sector, where systems evolve gradually and investment is targeted rather than comprehensive.

One operator said 'The machine is almost entirely replaced every five years, just never in one go'.

MACHINERY AND EQUIPMENT

KILNING CAPACITY

On-site kilning capacity is limited across respondents, with most mills operating without a kiln.

The relatively low uptake of kilning also reflects its role as a threshold rather than a baseline capability. While it enables access to certain markets such as internal joinery and higher-spec products, it requires additional investment, energy, and management. As a result, many businesses operate without it, either by choice or constraint, aligning their product range with what can be achieved through air drying or green timber use. kilning appears as a point of differentiation rather than a standard feature, closely tied to business model, target markets, capital and the capacity/ space/ (also if it fits with existing equipment – mechanically and logistically) to invest in additional infrastructure.

Where kilns are present, they are rarely purpose-built commercial systems. Instead, most are self-built or heavily adapted setups, often developed incrementally using available materials and knowledge. This reflects both the cost of installing conventional kilns and the practical, resourceful approach taken by operators across the sector.

Interview responses reinforce the survey data but are notable for their limited emphasis on kilning. Where discussed, comments were typically practical rather than strategic. For example, one respondent noted that their kiln was "affected by the weather", highlighting the constraints associated with lower-spec or self-built systems. Others indicated plans to upgrade kilns incrementally alongside other equipment, rather than as a standalone investment priority.

More broadly, there was little evidence that the absence of kilning is widely perceived as a constraint. Several respondents operate without kilns and do not plan to install them, suggesting that drying is not considered essential within many current business models, however, it was broadly suggested that kilning capacity may allow firms to make better use of co products such as slab and offcuts that may be kilned for firewood. Where kilns are present, they are often part of a mixed approach, supplemented by air drying or external processing.

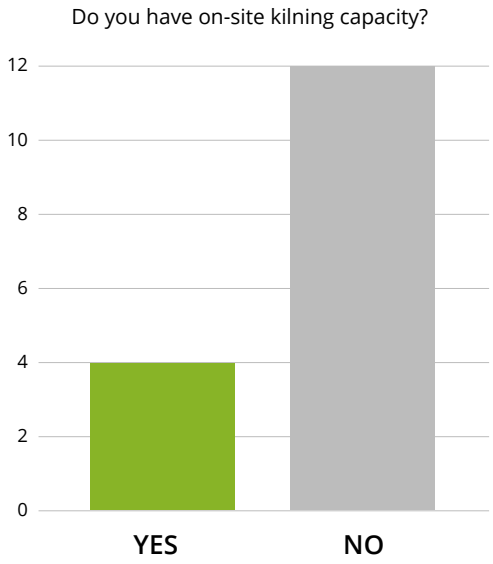


Figure 30: Presence of on-site kilning capacity among surveyed mills. Most respondents do not have on-site kilns, indicating that drying capacity remains limited across the sector

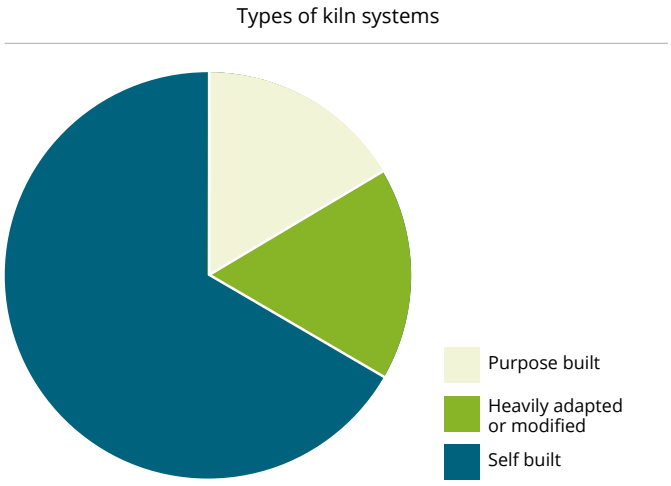


Figure 31: Types of kiln systems used by mills with on-site drying capacity. Most kilns are self-built, with fewer purpose-built or heavily adapted systems, reflecting a pattern of low-cost, incremental development

MACHINERY AND EQUIPMENT

INFRASTRUCTURE AND SITE CONDITIONS

Site conditions vary significantly across respondents. Yard size, surface condition (paved vs unpaved), and availability of covered storage all differ widely.

In many cases, infrastructure is practical and functional but not optimised. Operations have often evolved within existing farmyards, inherited sites, or otherwise constrained locations, rather than being purpose-built for sawmilling.

Most businesses have basic lifting and handling capability, with forklifts or telehandlers the most common. Tractors are also widely used, often reflecting the agricultural context many operations sit within. More specialised forestry equipment, such as forwarders, are less common.

This suggests that while most sites are functional in terms of handling material, they are not configured as integrated processing yards. Instead, equipment reflects what is already available or easily adapted, rather than purpose-built investment.

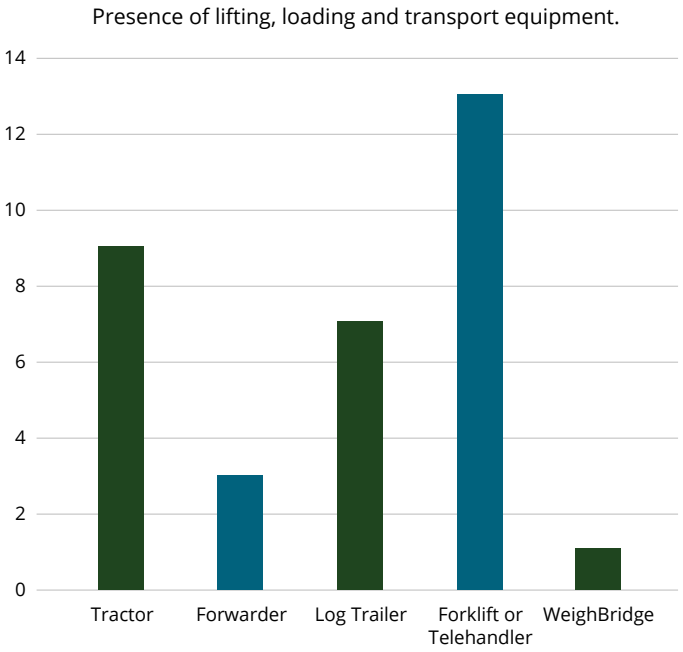


Figure 32: Presence of lifting, loading, and transport equipment across surveyed mills. Forklifts or telehandlers are the most common equipment, followed by tractors and log trailers, limited specialized equipment such as forwarders/ weigh bridges

Most respondents operate from open sheds or partially enclosed spaces rather than fully walled facilities. This reflects the practical, low-capital nature of many setups, either on existing farms, adapted from farms, or some kind of rented yard.

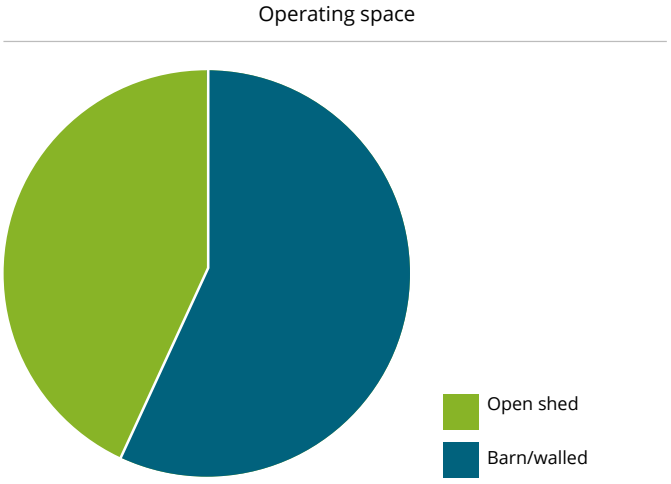


Figure 33: Type of operating space used by surveyed mills. Most mills operate from open or partially covered sheds, with a smaller proportion based in enclosed barns or walled structures, reflecting variable site conditions and infrastructure

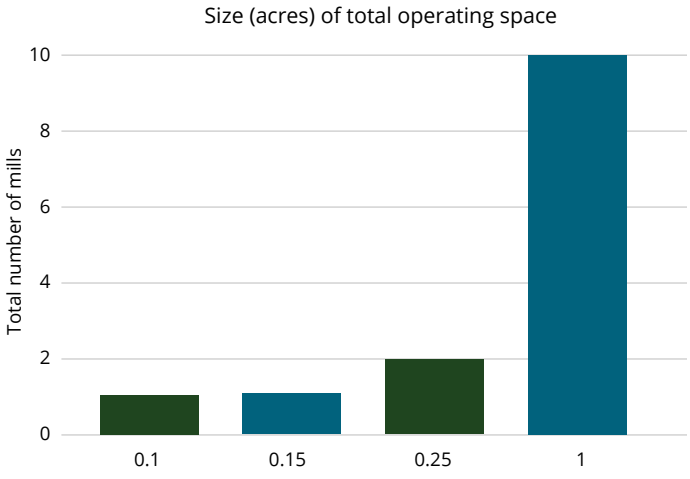


Figure 34: total yard operating space

MACHINERY AND EQUIPMENT

Site size appears to reflect the incremental way in which businesses develop. Many operate within existing farmyards or constrained sites, expanding where possible but rarely relocating or investing in purpose-built space. As a result, layout and workflow are often shaped by what space is available rather than what would be optimal.

Yard surfaces vary across respondents, with a large proportion operating on hardstanding or bare ground rather than fully paved surfaces. Fully paved yards are relatively uncommon.

This reflects the broader pattern of sites being adapted from existing farmyards or informal spaces rather than developed as purpose-built industrial facilities. In many cases, surfaces are sufficient for current operations but not optimised for efficiency, particularly in wet conditions where movement of timber and machinery can be more difficult.

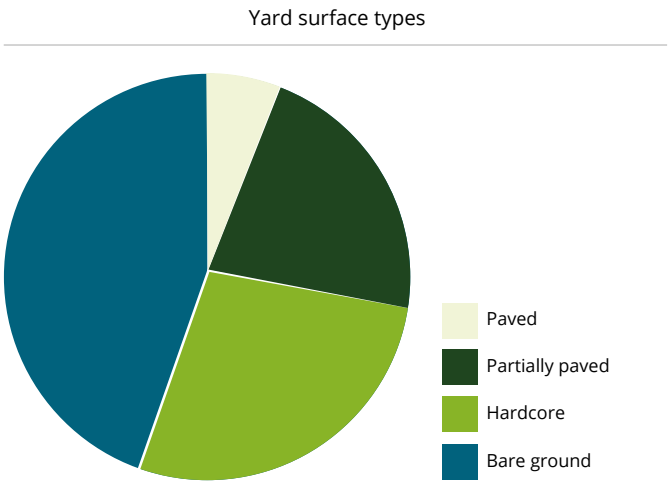


Figure 35: Yard surface types

MACHINERY AND EQUIPMENT

Surface type also links to the scale and intensity of activity. More basic surfaces are consistent with lower throughput, flexible operations, and outdoor working practices, while more developed surfaces tend to be associated with higher levels of handling or more formalised yard layouts.

Overall, yard conditions are functional but variable, reinforcing the picture of a sector operating within inherited or constrained infrastructure rather than standardised environments.

Sawlogs are predominantly stored uncovered in the yard, both because of their tolerance to exposure and the practicalities of handling and space. Logs are generally robust and can be held outside without immediate impact on quality prior to processing. All respondents reported holding logs, allowing operators to respond rapidly to demand.

In contrast, sawn timber is managed more selectively. While some material remains outdoors, there is greater use of covered or enclosed space, particularly for higher-value or more processed products, where moisture and degradation become more significant.

Several respondents, including timber framers, described deliberately leaving sawn timber outdoors in certain cases, particularly where air drying is required or where exposure does not affect end use. Kiln-dried or higher-spec material is more likely to be stored under cover.

Overall, storage practices vary according to material stage and intended use, rather than following a single standardised approach.

Where are sawn timber stored?

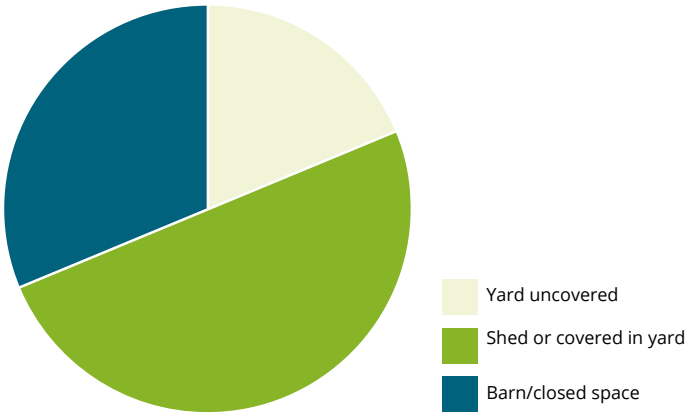


Figure 36: Sawlog storage locations

Production split (% of sawmill activity)

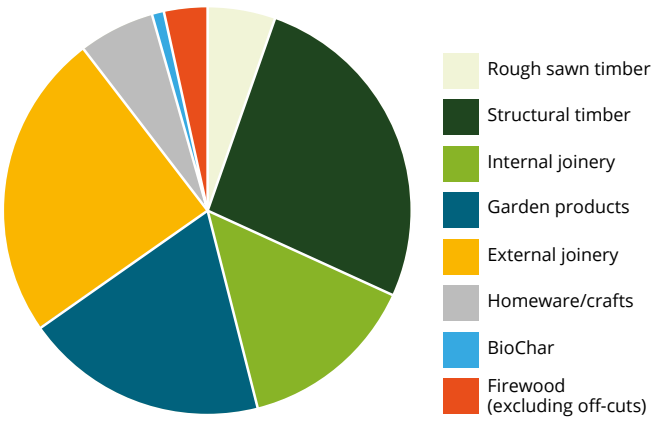


Figure 37: Sawn timber storage locations

PRODUCTS

The production split by activity shows a broad spread across product types, with no single category dominating across respondents. Activity is distributed across structural timber, joinery, garden products, and other outputs, indicating a high degree of diversification in what mills produce.

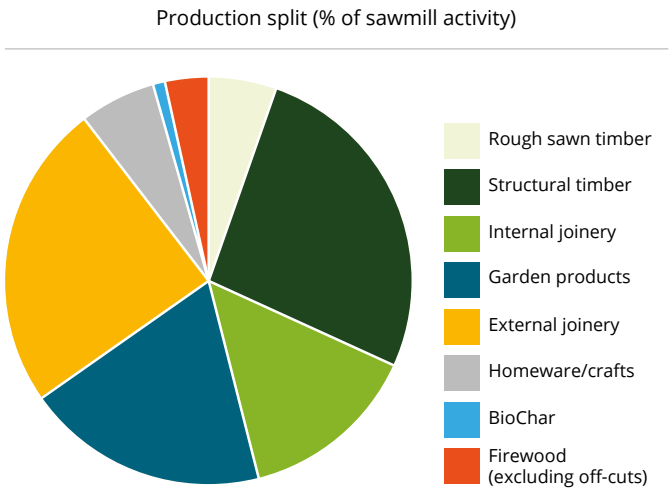


Figure 38: Sawmill processing activities distribution

However, when considered in terms of total volume, a different picture emerges. A smaller number of product categories account for the majority of output, with higher-volume products concentrated in more standardised uses such as structural timber and external joinery. In contrast, categories such as homeware, craft, and other bespoke outputs represent a meaningful share of activity, but contribute relatively little to overall volume.

This distinction between activity and volume is important. Lower-volume products often carry higher value or serve niche markets, allowing businesses to remain viable despite limited throughput. As a result, production is not driven purely by maximising volume, but by balancing a mix of outputs with different margins, demand patterns, and material requirements.

Overall, the data points to a sector that is diverse in its activities but more concentrated in its material flows, with smaller, higher-value products playing a disproportionate role in shaping how businesses operate.

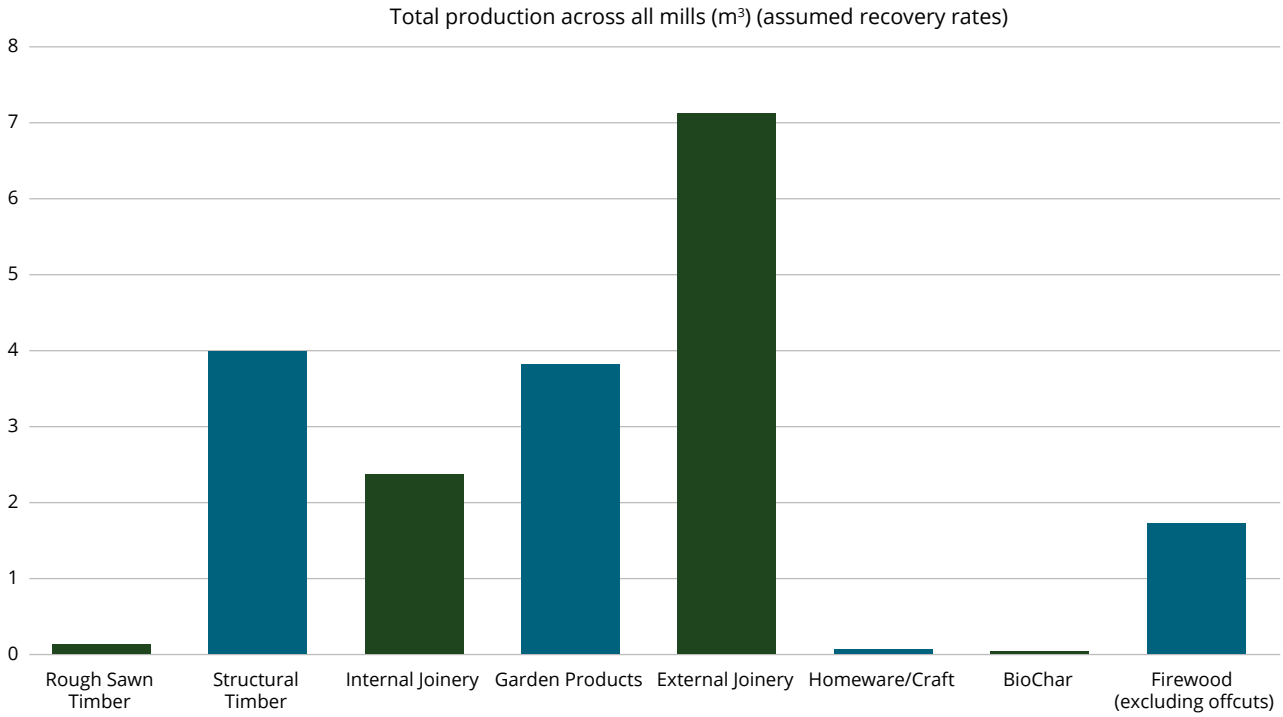


Figure 39: Total production by product category across all mills surveyed

PRODUCTS

Production models

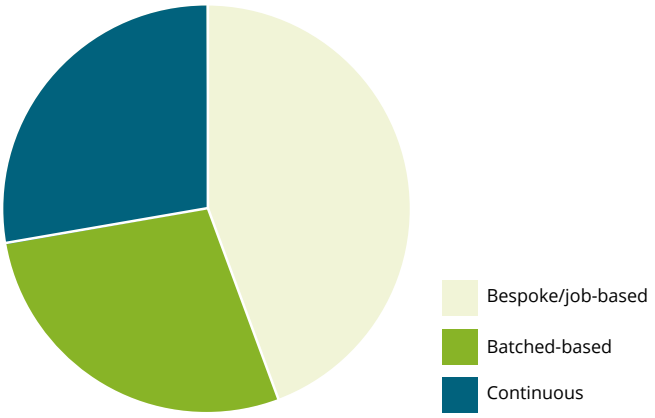


Figure 40: Production models observed

Do you hold stock?

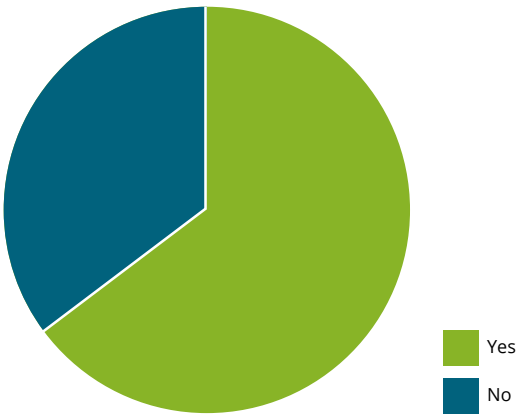


Figure 41: Stock holding across respondents

Production models are mixed, with a spread across bespoke/job-based, batch-based, and more continuous approaches. A large proportion of activity sits toward the bespoke and batch end, indicating that many businesses operate in response to specific orders or short production runs rather than continuous, standardised output.

Despite this, most respondents reported holding stock. This suggests that even where production is reactive, there is a need to maintain some level of material or product availability to support sales, manage workflow, or respond to demand.

However, stockholding does not appear to translate into formal retail or distribution models. Few businesses operate a dedicated storefront or structured sales outlet, with most relying on direct relationships, enquiries, or project-based work to move product.

Overall, the pattern points to a hybrid model: production that is often bespoke or small-batch, supported by limited stockholding, but without the infrastructure typically associated with more formalised retail or supply systems.

PRODUCTS

CO-PRODUCTS

Co-products are widely utilised across respondents, with very little material going to waste. Slab wood is most commonly sold, typically into firewood markets or other low-grade uses. Dust and chip show a more even split between being sold, given away, or reused, indicating a wider range of outlets and uses.

Re-use is consistent across all co-product types. Respondents reported using material internally for biomass fuel, animal bedding, or soil improvement. In some cases, co-products are processed into small value-added products such as briquettes.

Local, informal markets play an important role. Several respondents described supplying co-products to nearby farmers or customers, and in some cases this activity is not primarily profit-driven. One respondent, for example, takes slab wood to a local Sunday market, noting that it barely breaks even but provides an opportunity to support local people and offers a welcome break from what can otherwise be an isolated working environment.

Some material is sold into larger outlets, such as Kronospan, but access to these markets depends on certification and chain of custody requirements. For those not operating within these systems, local outlets appear to provide sufficient routes for utilisation.

Overall, co-product use is characterised by a high degree of resourcefulness, with material routed through a mix of internal use, local exchange, and external markets, and disposal kept to a minimum.

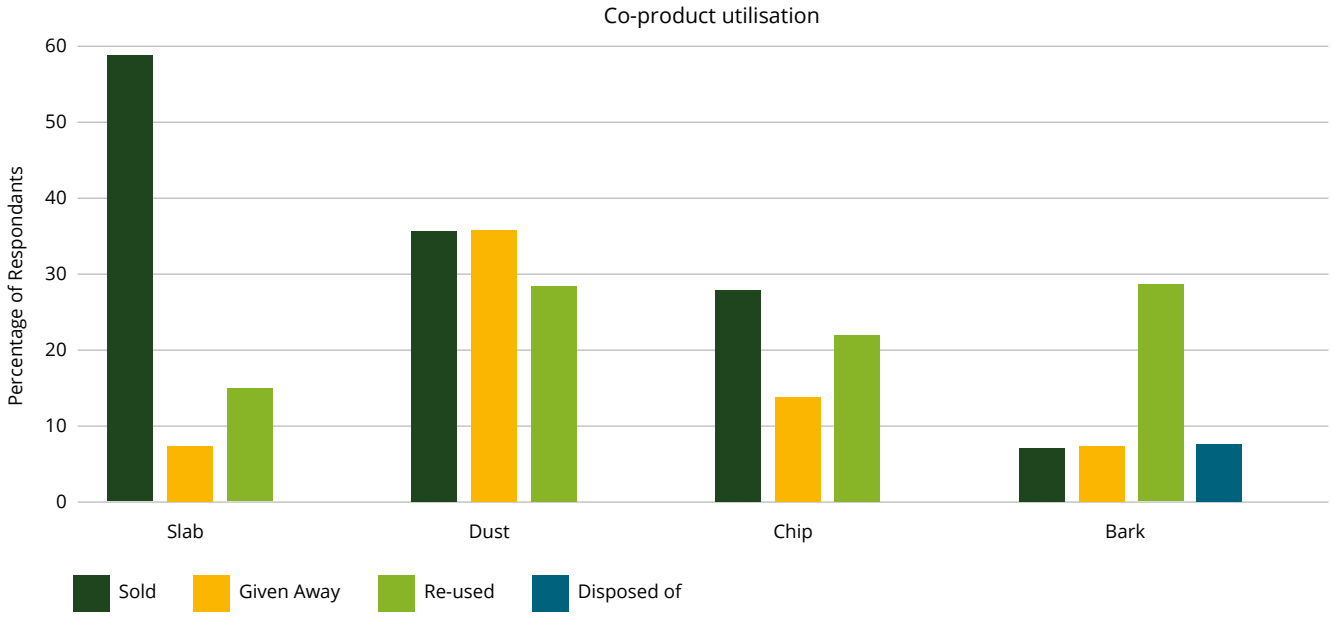


Figure 42: Co-product utilisation across mills

CUSTOMERS AND MARKETS

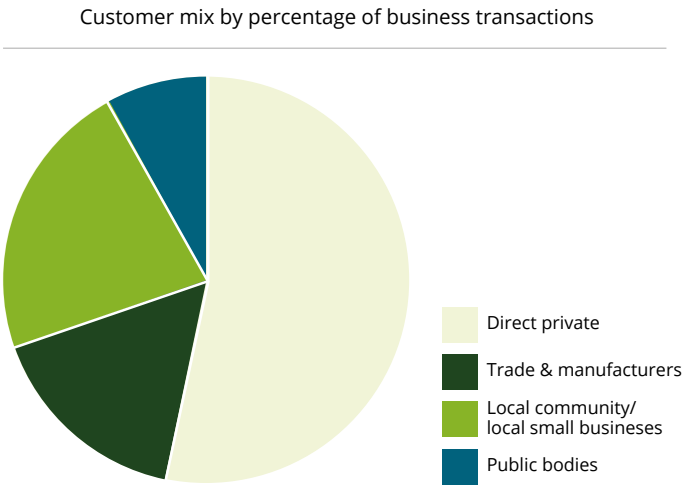


Figure 43: Customer categories by total transactions

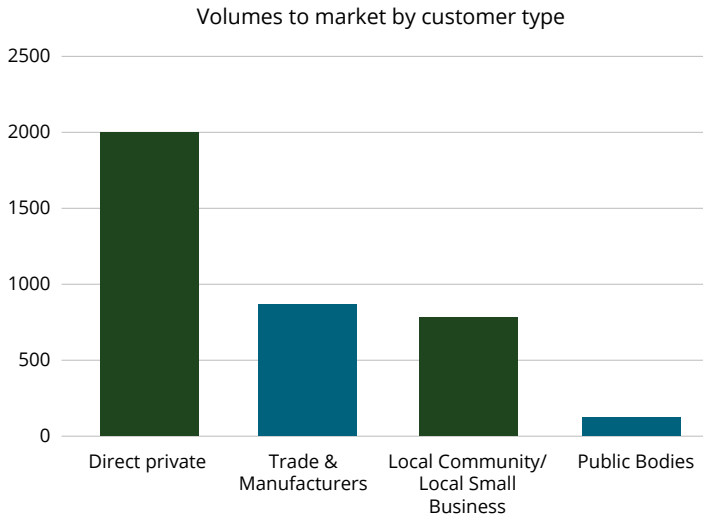


Figure 44: Volumes sold to each customer type (total, m^3)

By number of transactions, most sales are made directly to private customers, with smaller shares going to trade, manufacturers, and local businesses. This indicates a highly distributed, relationship-based model, with mills engaging frequently with individual customers and small buyers.

By volume, direct private customers still account for the largest share, but the distribution is less extreme than the transaction data suggests. Trade and manufacturers, along with local businesses, account for a more meaningful proportion of total volume than their transaction share would imply. This reflects differences in business model and market orientation, with some operations supplying higher-volume markets while others focus on smaller, more frequent direct sales.

This distinction is important. A high frequency of small, direct sales underpins day-to-day activity, while a smaller number of higher-volume flows contribute a significant share of total throughput. Analyses based on volume alone risk overlooking this layer of activity, which is central to how these businesses operate

CUSTOMERS AND MARKETS

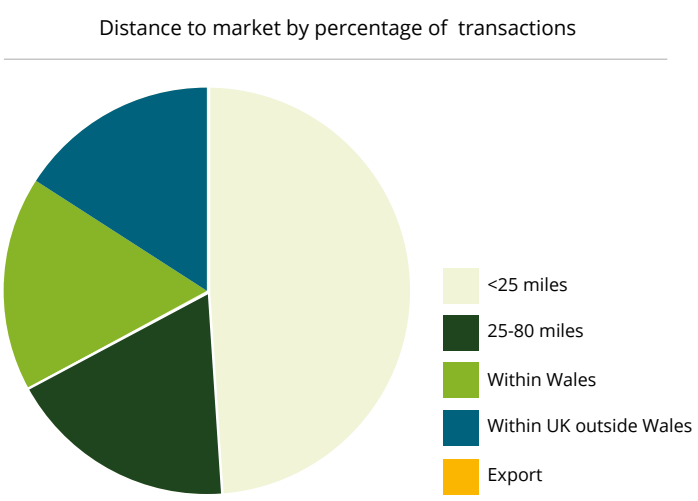


Figure 45: Distances to market, split by percentage of transactions

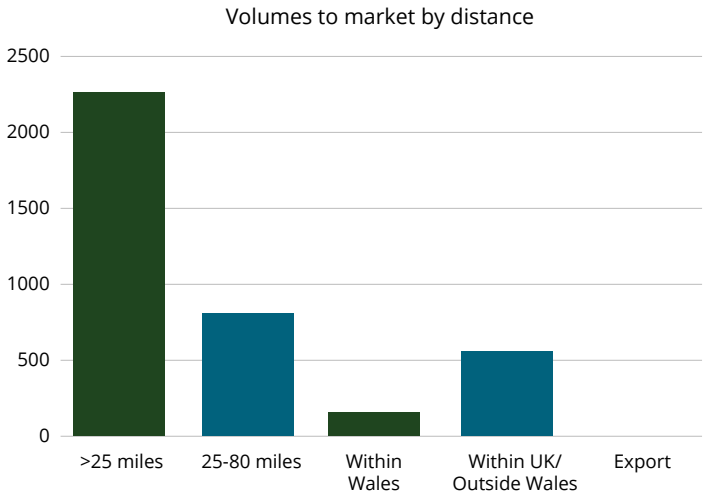


Figure 46: Distance to market split by total volume to each category

By number of transactions, most sales occur within a local radius, typically within 25 miles, indicating that the majority of customer interactions are local.

By volume, however, the pattern is more distributed. While the largest share of timber still moves within 25 miles, there is a substantial proportion moving over longer distances, particularly within the UK outside Wales and within the 25–80 mile range. This reflects differences in business model and market orientation, with some operations supplying markets beyond their immediate area, while others remain focused on local, direct sales.

Across both customer type and distance, the same pattern holds: what happens most often is not what moves the most material.

Frequent, small-scale transactions are concentrated locally and form the backbone of day-to-day activity. Larger volumes are moved through fewer transactions, often over greater distances and to different types of customers. This distinction is not well captured in conventional statistics focused on volume. In practice, the sector operates through a dense network of local exchanges, even where material flows extend beyond the immediate area.

CONSTRAINTS

Constraints are spread across multiple factors, with no single dominant limitation. Capital, space, and practical setup constraints feature prominently, alongside time and staffing. A notable share also indicated that further secondary processing does not fit their business model.

Limitations are not purely technical, in many cases, decisions not to expand processing reflect how businesses are structured and what they are trying to achieve, rather than a simple lack of capacity.

Marketing and market visibility may be a hidden constraint: few respondents raised it directly at this stage, but later discussion around what would unlock business development suggested that clearer routes to customers, better promotion, and improved market awareness may warrant further investigation.

What constraints limit your capacity for secondary processing?

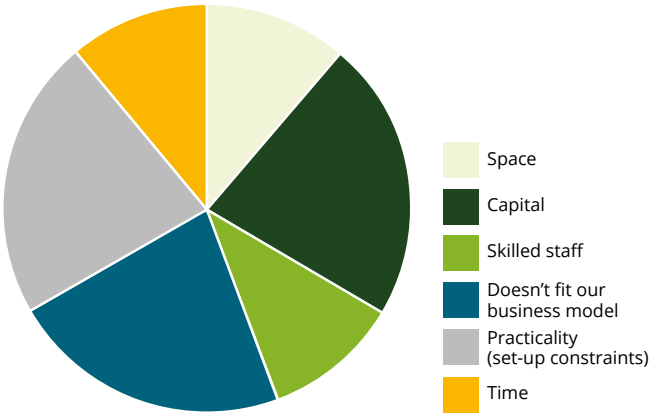


Figure 47: Notable constraints to secondary processing

Main source(s) of power on site

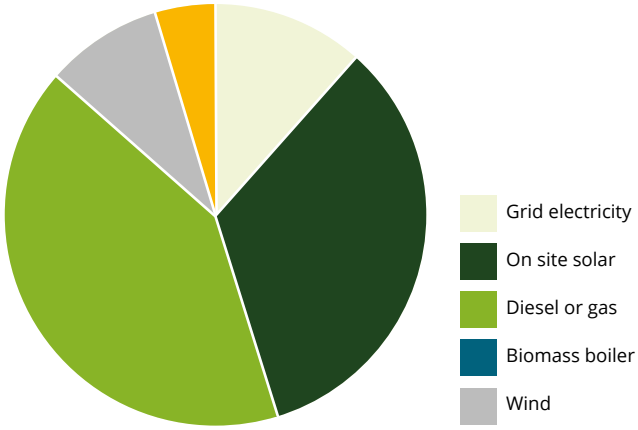


Figure 48: Power sources on site

Is energy supply a constraint?

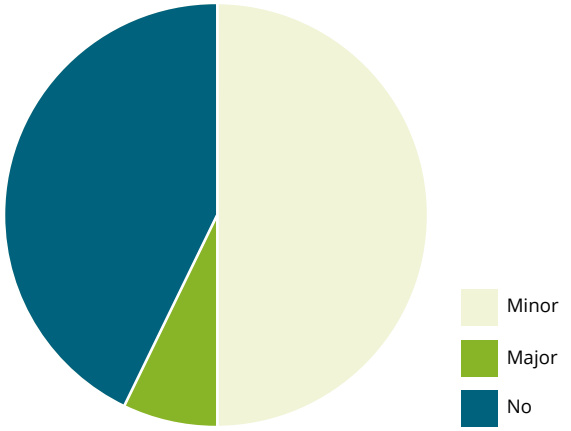


Figure 49: Energy supply constraints

Power provision is mixed. While some sites have access to grid electricity, a significant proportion rely on diesel or gas generators, with smaller contributions from solar and biomass systems. This reflects the rural and often constrained nature of sites, where grid access, particularly three-phase, is not always available or economically viable.

CONSTRAINTS

Energy is rarely reported as a major constraint, but often sits as a background limitation. Most respondents identified it as either a minor issue or not a constraint at present. However, interview responses suggest a more nuanced picture. For some, the absence of three-phase supply limits the ability to expand:

"No three phase, we looked, but didn't follow through as it would have cost us £20k."

"Three phase is just down the road. We could get on, we just haven't really needed to."

Others highlighted infrastructural reliability and cost issues:

"Power lines keep falling over."

"Our generator is reaching the end of its days... it's about to get expensive."

In some cases, capacity is already close to being a constraint: operations are approaching grid limits, which could restrict further investment in machinery, even where current needs are being met.

Overall, energy is not an immediate barrier for most, but sits as a latent constraint that could become more significant if businesses attempt to scale or upgrade.

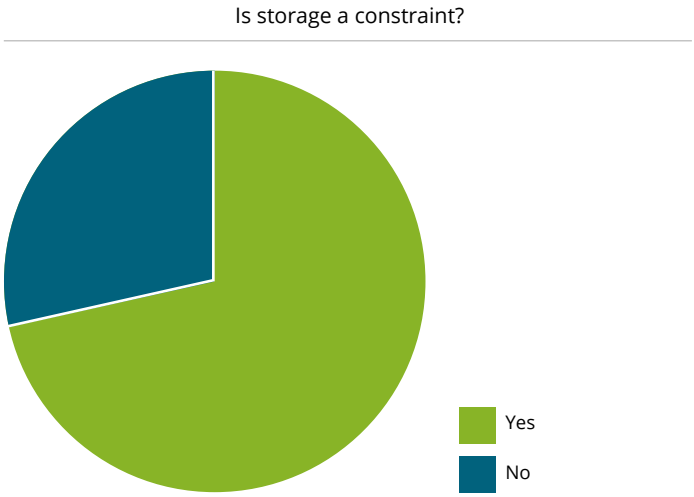


Figure 50: Did respondents describe storage availability as a constraint

CONSTRAINTS

Storage is more consistently identified as a constraint. A clear majority of respondents reported limitations in storage capacity, linking back to earlier findings on site size, layout, and infrastructure.

Limited covered space restricts the ability to hold higher-value or processed material, and can constrain drying, workflow, and stockholding.

A number of respondents reported turning away orders, with reasons spread across capacity limits, staffing, timber supply, and pricing.

Price misalignment features as a notable category, suggesting that in some cases the issue is not an inability to supply, but a mismatch between what customers are willing to pay and what it costs to produce at this scale.

Capacity-related responses reinforce earlier findings: constraints are often operational rather than purely technical. Businesses are balancing limited time, labour, and space, and are selective in the work they take on as a result.

The "other" category provides additional insight into how decisions are made. Several respondents described turning away work based on personal or ethical considerations, including a lack of alignment with the design or end use of the product. In some cases, jobs were declined because they were seen as repetitive or uninteresting. This highlights a degree of agency within the sector, where work is not accepted purely on economic grounds, but also on preference, values, and the nature of the work itself.

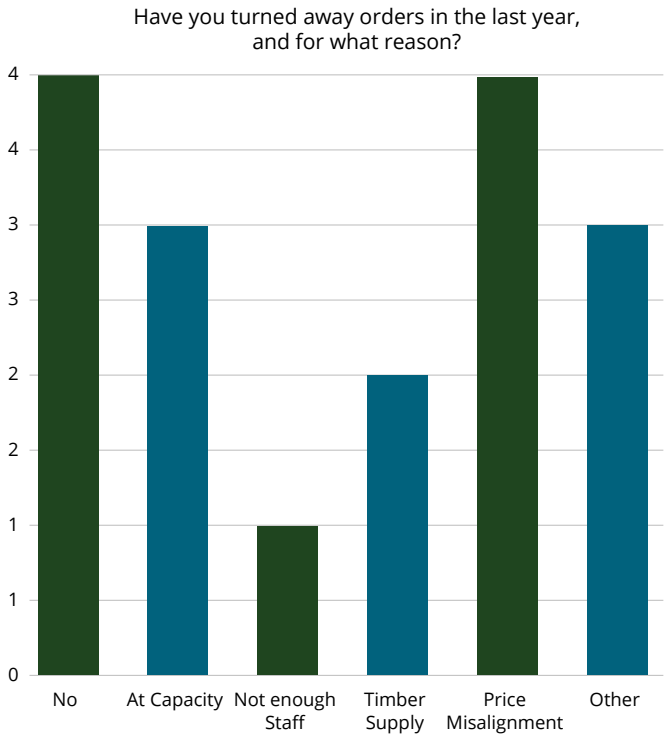


Figure 51: Number of total orders 'turned away' for various reasons

FINANCIALS

Sawmill firms are extraordinarily resilient, in that they survive

Sawmill firms are individually resilient in the simple sense that they have survived. Across the survey, respondents had been in business for an average of 18 years. Roughly three-quarters had been in operation for more than 10 years. This contrasts with the wider UK company population, where around 70% of companies on the register have been in operation for under ten years.

This survival is probably not unrelated to the fact that these businesses collaborate.

Survey respondents appear to be loosely and informally networked. Operators were asked to identify the different forms of collaboration they were involved in, with multiple responses allowed. When these responses are accumulated, roughly one-third relate to informal collaborative arrangements. Shared storage accounts for a further 15% of cumulative responses, followed by shared drying and shared machinery arrangements, each accounting for around 11%. (See figure 62 on page 72)

Thin margins limit financial headroom

The survey asked sawmill operators to disclose their latest sales revenue figures, operating profits and employment costs. From this information, we can assess the average cost structures of the sawmill businesses surveyed.

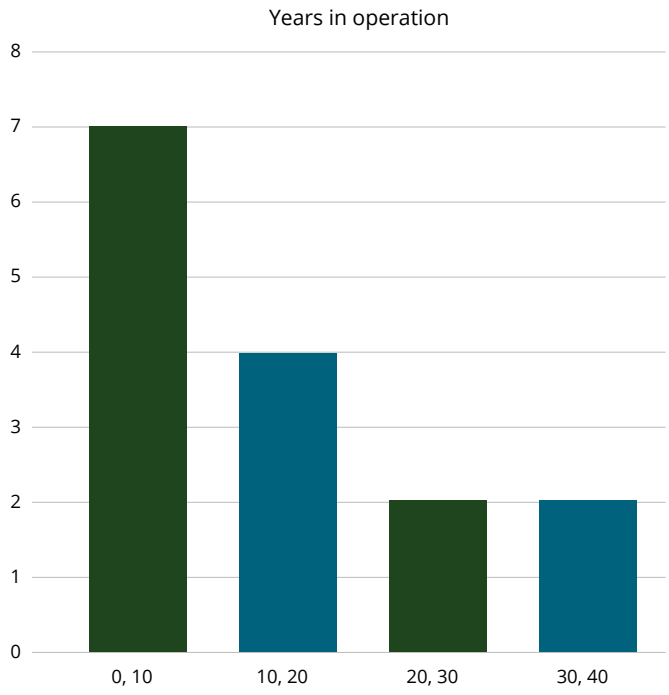


Figure 52: Distribution of years in operation

FINANCIALS

The bottom line is that small and micro sawmills are operating with very thin profit and cash margins because the share of revenue taken up by external purchases and employee costs is high. On average, external purchases account for 70% of total revenue. This leaves roughly 30% of total revenue as value added, meaning the share of income retained within the business to cover internal operating costs.

Employment costs account for 26.6% of total revenue. Put another way, employment costs absorb around 88% of value added. The residual operating profit margin is therefore only 3.4% of revenue.

The average small or micro sawmill therefore generates very thin operating profit and cash margins. These businesses have very little headroom to absorb either a loss of income or an increase in operating costs relative to income.

The average does conceal variation, with some sawmills making losses and others only just into profit. However, the precarious financial nature of running a small or micro sawmill becomes clearer when the operating cost percentages are converted into purchase and employment costs per employee. After deducting purchase costs of £44.8k per employee, value added per employee is £19.2k. This is already below the annual salary implied by the National Minimum Wage, assuming a 35-hour week at £12.21 per hour. The average employment cost from this value added is then roughly £17k.

We understand from survey respondents that some employees choose to work part time. However, the survey evidence also suggests that sawmill operators themselves are often not taking much cash income out of the business.

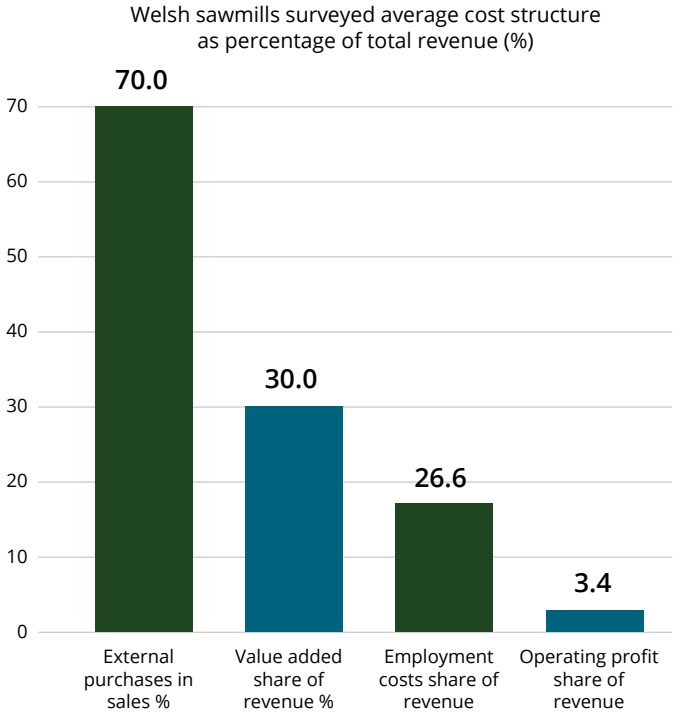


Figure 54: Average cost structure of surveyed Welsh sawmills as a share of total revenue. External purchases accounted for the largest share of revenue, while value added represented 30.0% and employment costs 26.6%. Operating profit averaged 3.4% of revenue

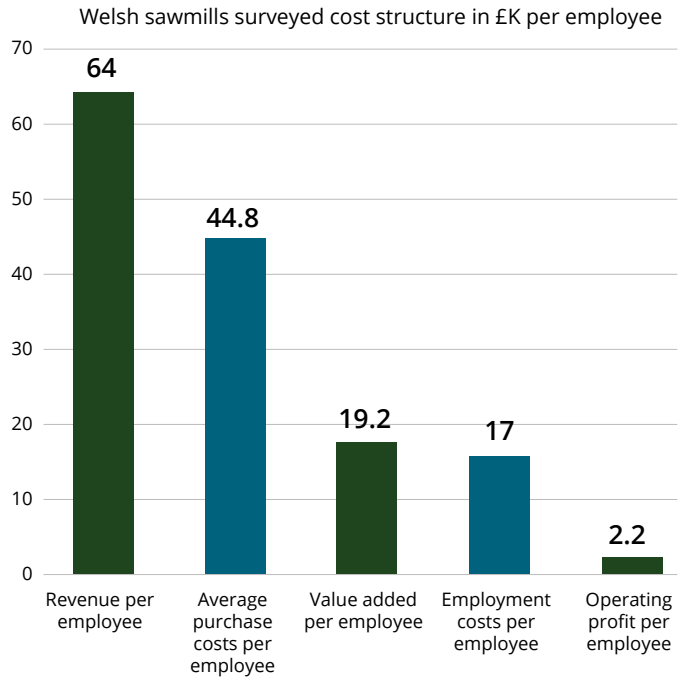


Figure 55: Cost structure of surveyed Welsh sawmills, expressed per employee. Revenue per employee was substantially higher than value added and operating profit per employee, indicating relatively narrow margins once purchase costs and employment costs are accounted for

FINANCIALS

Another aspect of this financial marginality is parsimony around investment. In relation to tangible assets - machinery, buildings, equipment and other fixed assets - there is a considerable range between the lower and upper ends of the survey sample. This partly reflects the fact that some mills use equipment that is second-hand, modified, repaired or adapted for reuse.

For 11 of the 17 sawmills surveyed, tangible assets fall within an entry range of roughly £70k to £200k. Above this, there is a marked jump, with other businesses reporting tangible assets from around £375k up to £2.7 million. A general pattern is that sawmill operators with higher levels of tangible assets are more likely to have added wood manufacturing capabilities, enabling further value-added conversion of sawn wood into assembled structures.

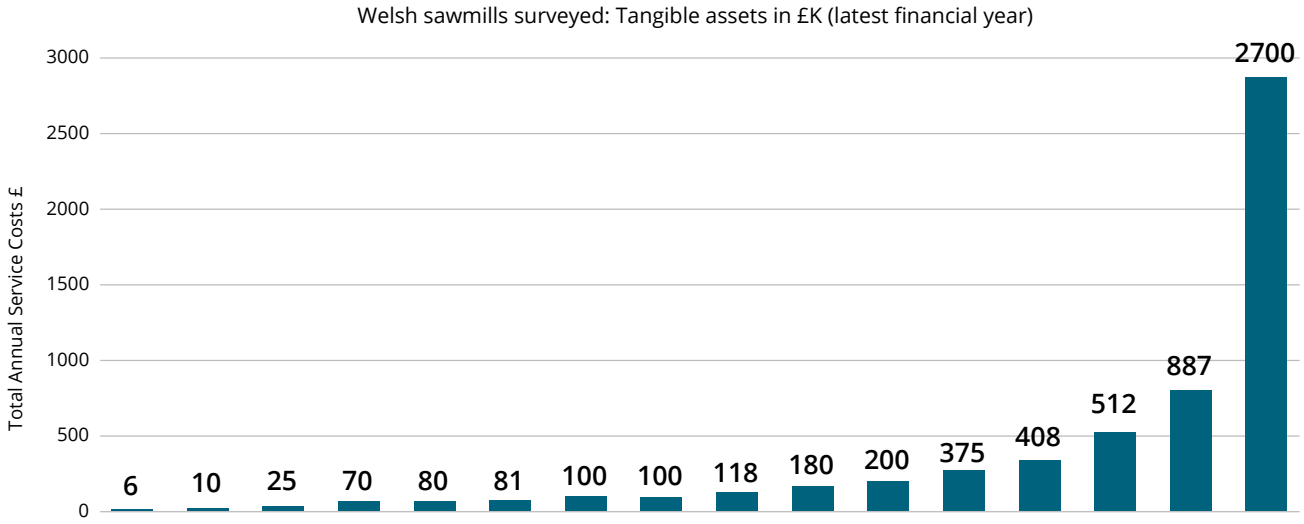


Figure 56: Tangible assets for the latest financial year

These small firms are valuable contributors

The small and micro sawmills surveyed make a valuable local economic contribution despite their modest scale. Their contribution is not simply measured by operating profit. It also comes through the money they spend with other local businesses, including timber suppliers, contractors, hauliers, repair services, machinery suppliers and other rural enterprises.

The small and micro sawmills surveyed make a valuable local economic contribution despite their modest scale. Their contribution is not only measured by their own operating profit, but also by the spending they generate through other Welsh businesses.

Across the survey, small and micro sawmills spend around 70% of their revenue on external purchases. By value, very close to 100% of these purchases are made in Wales. When this is compared with the 30% of revenue retained as value added within the sawmill business, it gives a local value relationship of approximately 2.3:1.

In practical terms, this means that if a local sawmill increases revenue, this feeds through into a higher value of purchases from other Welsh businesses. If local purchases remain close to 100% within Wales, then the additional local purchase value created is around 2.3 times the value added created by the sawmill processor itself.

This is a substantial local economy effect and a measure of the wider social benefit arising from local sawmill activity. It also shows why the value of these businesses should not be judged only by their own operating surplus. Their activity supports timber suppliers, contractors, hauliers, repair services, machinery suppliers and other local firms.

FINANCIALS

The strength of this local effect depends on where purchases are made. For example, if only half of sawmill purchases were made in Wales, the local purchase-cost to local value-added multiple would fall to roughly 1. This reinforces the importance of local sourcing, local service networks and Welsh-based supply.

CURRENT SOURCES OF FUNDING

As noted above, small and micro sawmills operate with thin operating and cash margins. This limits their capacity to self-fund investment in fixed capital, such as machinery, buildings and equipment, or working capital, such as timber stock and cashflow. It also limits their ability to take on external finance where interest and loan repayments have to be met from operating income.

The survey asked sawmill operators to identify the external finance sources they had used. Respondents could select one or more sources, so the responses have been accumulated and converted into a percentage share of total responses.

The highest-ranked source of external funding was Covid-related loans, accounting for 22.6% of responses. This is unsurprising given that Bounce Back Loans were available at 2.5% interest. These were followed by grants, asset finance or leasing, and bank finance, each accounting for 19.4% of responses.

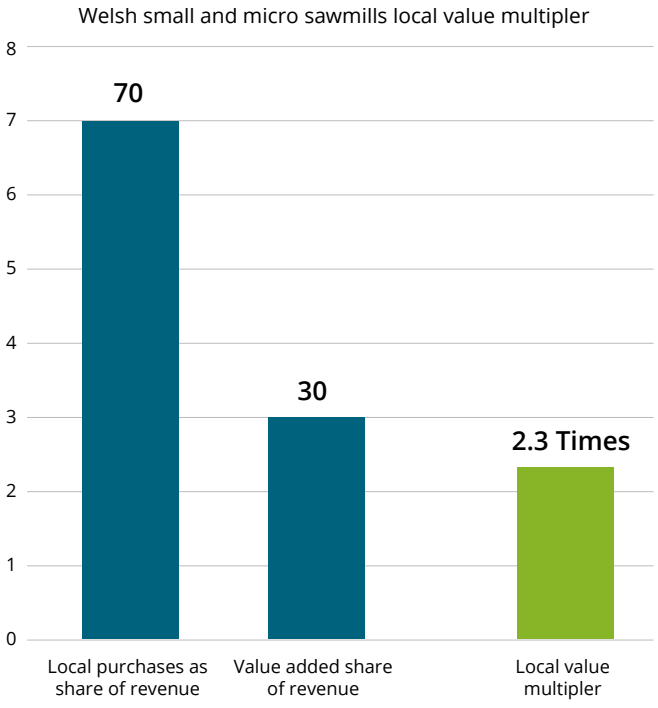


Figure 57: Local value multiplier for surveyed Welsh small and micro sawmills

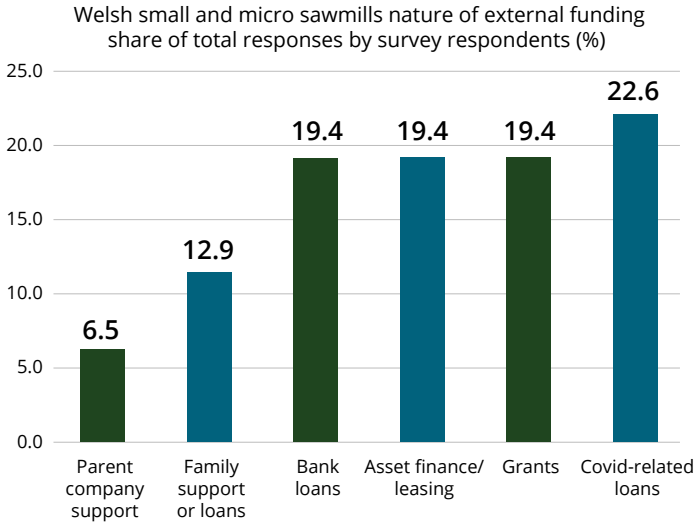


Figure 58: Local value multiplier for surveyed Welsh small and micro sawmills

FINANCIALS

These sources play different roles. Grants provide capital without requiring repayment, provided the money is used for the approved purpose and within the grant conditions. Asset finance and leasing allow businesses to acquire essential equipment while spreading payments over time from operating cashflow. Bank finance is more likely to take the form of overdraft facilities or short-term finance used to bridge cashflow gaps.

Family support and family loans accounted for 12.9% of responses, while parent company support accounted for 6.5%. This underlines the mixed nature of finance in the sector. Alongside formal lending and grant support, some businesses also rely on personal, family or wider business resources to sustain investment and manage cashflow.

EXPANSION AND RE-INVESTMENT

Survey respondents reported a strong appetite for expansion over the next five years. Overall, 71% of respondents said they planned to expand their activity, while 29% expected to maintain their current scale. No respondents reported plans to reduce activity, and none were unsure.

For many respondents, expansion means improving the business as much as increasing throughput. Across the survey, this included plans for new or improved machinery, additional woodland, forestry equipment, kilning, drying and storage, secondary processing, finished products, and staff capacity.

FINANCIALS

Many of these ambitions are practical and incremental. Respondents described wanting to remove bottlenecks, improve recovery, reduce handling time, increase storage, add drying capacity, or move more timber into finished products.

Some businesses are aiming to increase turnover directly. Others are focused on making the business more stable, efficient, or better able to capture value from the timber already being processed.

Comments

"Always looking to get better... our data is showing expansion, and company [name redacted] is only in its infancy. Secondary processing is always growing."

"I would like to expand the sawmilling side, but a lot depends on the climate. We are very lucky as we have a bit of a niche market... We'd like to increase our capacity in terms of kiln drying and storage, and expand in terms of adding value to timber, not more processing."

"Expand massively, looking at purchasing woodland, new mill, new forestry equipment, want to employ four new staff members..."

For many respondents, the priority is not only to process more timber, but to process it better, hold it for longer, dry it, finish it, and sell it into more stable or higher-value markets.

Expansion is also conditional. Respondents described opportunities in secondary processing, finished products and local markets, but also pointed to constraints including the economic climate, timber availability, drying capacity and storage. Investment ambition is therefore closely tied to the practical conditions under which each business operates.

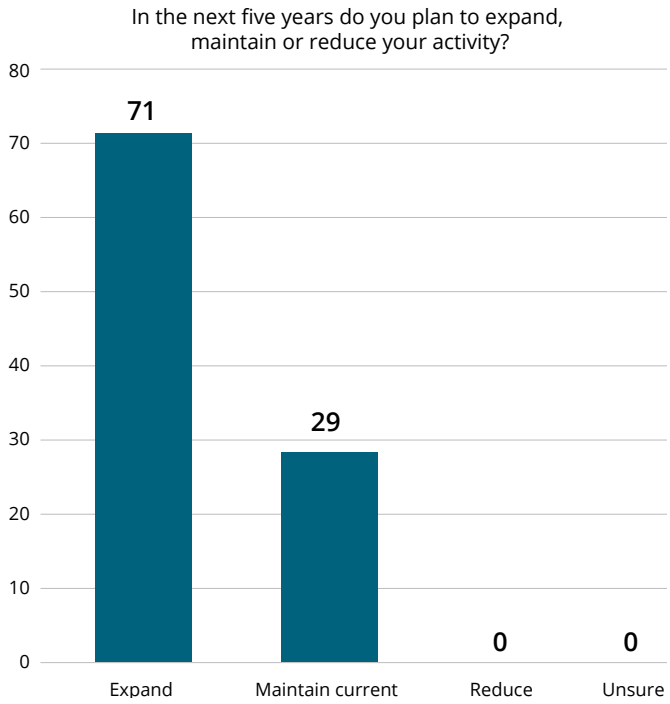


Figure 59: Respondents plans for expansion

FINANCIALS

SALES AND MARKETING

Notably, current reinvestment in marketing and sales is limited or non-existent. Several respondents were uncertain how to interpret this category, with many recognising that they undertake little or no formal marketing activity at all. Only following discussion did they begin to appreciate that this is a ripe opportunity, and in some sense, pushing on an open door. This aligns with wider observations: few businesses operate a storefront, and online presence is typically minimal or functional rather than developed, even for those who specialise in high-value amenity, luxury and home improvement products.

Sales are instead driven by direct relationships, repeat customers, and word of mouth. While this approach is effective at the current scale, it also highlights a structural gap. Compared to more organised sectors elsewhere (ASHS), there is limited outward-facing capacity to coordinate demand, communicate value, or represent the sector collectively.

'We didn't get anywhere until we got some proper marketing' – ASHS

Reinvestment in lifestyle

Investment in the sector does not always take the form of business expansion in the conventional sense. While some respondents reported investment in machinery, buildings, or processing capability, a significant share of investment is directed toward improving the wider conditions in which the business operates.

In practice, this often means investment in housing, energy systems, site infrastructure, and other aspects of day-to-day life. For many operators, particularly those based on farms or in rural settings, the boundary between business and household is blurred. Investment decisions are therefore not driven only by profit, but also by reducing living costs, improving resilience, and maintaining a workable quality of life.

This form of investment is not easily captured in conventional economic metrics. Measures such as turnover or GVA do not account for the extent to which income supports reduced expenditure, improved living conditions, or long-term stability. As a result, low reported profit does not necessarily mean poor outcomes for operators. It may also reflect a different way of creating value.

This does not imply an absence of constraint or ambition. Rather, it highlights that development within the sector is not always oriented toward scale. In many cases, it is oriented toward sustaining viable rural livelihoods under specific local conditions.

These businesses also contribute to wider rural viability. They keep people in work locally, support nearby contractors, hauliers, farmers, repair services and other trades, and help sustain the everyday economic activity on which rural communities depend.

SECTION 3:

BUSINESS DEVELOPMENT

Constraints are spread across multiple areas, with timber supply, space, labour, and access to finance all featuring prominently. No single factor dominates, reinforcing the point that limitations are rarely isolated.

Several respondents pushed back on the framing of constraints altogether. In practice, many are working within the limits of their site, setup, and market by design, rather than actively trying to overcome them. As one respondent put it: "There's only one of me". capacity is often defined by the scale and intention of the business, not just external barriers.

Where constraints are more fixed, planning and regulatory conditions can be significant. These include limits on operating hours due to noise, restrictions on site development, and difficulties in securing permission for infrastructure improvements. For some businesses, these factors directly limit their ability to expand or reconfigure operations.

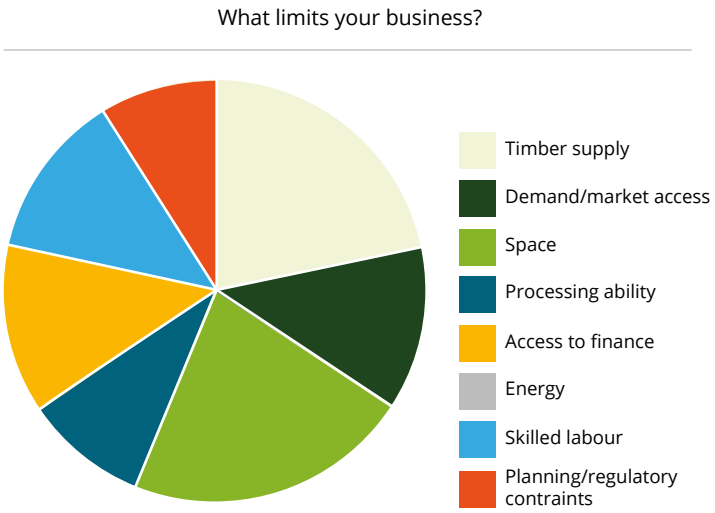


Figure 60: Limiting factors for business development

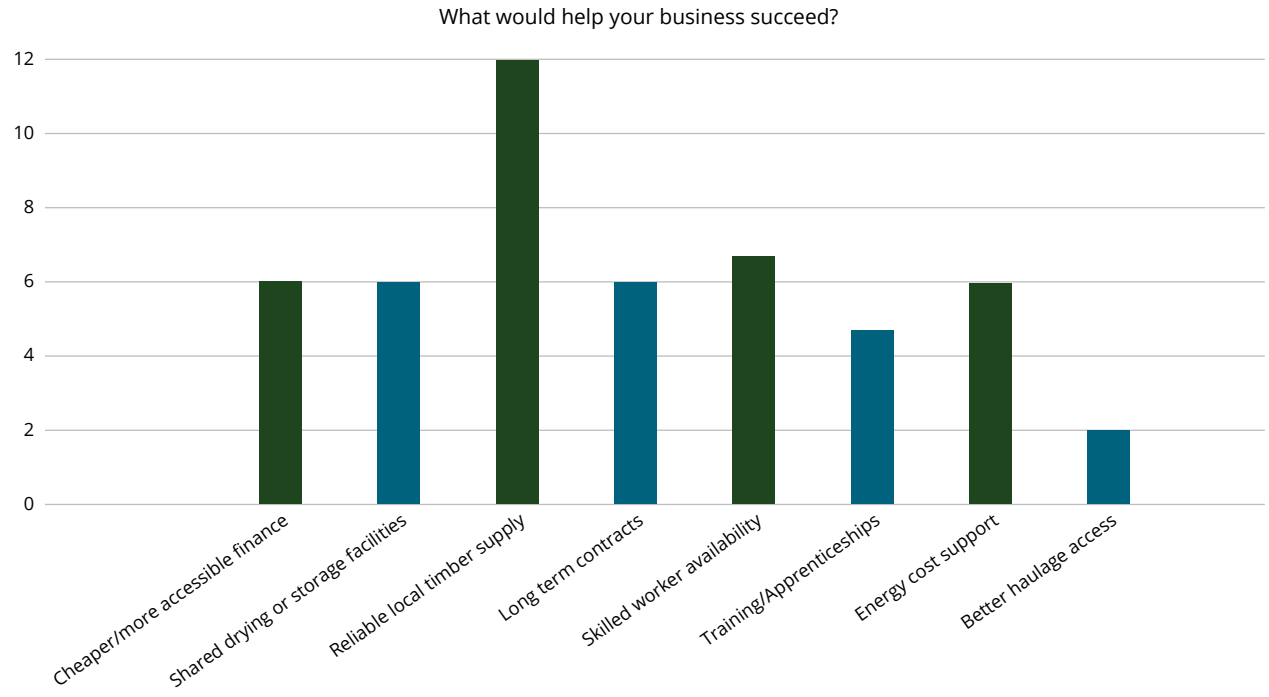


Figure 61: Respondents identified what would enable their success

BUSINESS DEVELOPMENT

There are also structural factors shaping access to timber. In some cases, respondents noted that certain parts of the market, particularly public sector sales, are difficult to access at smaller scales, with supply often coming forward in larger volumes than are practical for these businesses. This does not appear as a direct constraint in all cases, but it does influence how and where mills are able to operate within the wider timber market.

Respondents were clear that reliable timber supply is the single most important factor for future success. This aligns with earlier findings on sourcing, where availability, consistency, and access to material are ongoing challenges.

Other priorities include skilled labour, long-term contracts, and improved infrastructure such as buildings, drying capacity, and energy systems. These are practical enablers rather than transformational changes, aimed at stabilising and improving existing operations.

Training and apprenticeships are identified as helpful, but their potential impact is limited by wider demographic and structural factors. Many respondents noted that they do not expect their children to take on the business, and in some areas there is a limited pool of (particularly younger) people available to train. This reflects broader challenges in rural areas, where housing affordability, infrastructure, and lifestyle factors make it difficult to attract and retain new entrants. As a result, workforce development is constrained not only by the availability of training, but by the viability of sustaining a working population in these locations.

Cost-related factors also feature, including energy costs and access to shared facilities. These point to the potential value of collective, collaborative solutions, particularly where individual investment is not viable. This is already happening in areas of the sector:

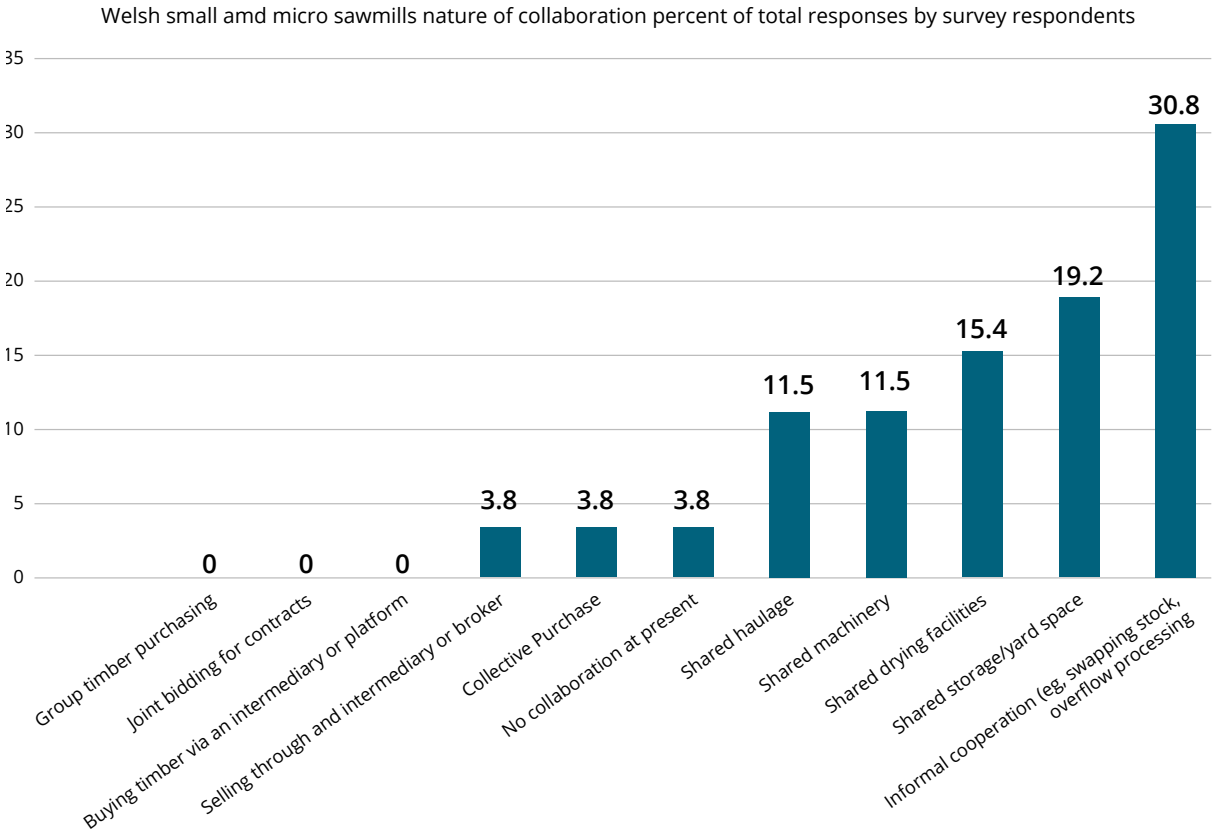


Figure 62: Welsh small and micro sawmills nature of collaboration

BUSINESS DEVELOPMENT

Collaboration is already present, but it is largely informal. The most common forms include sharing storage space, machinery, and drying facilities, as well as swapping stock or passing on work.

More formal or coordinated models such as group purchasing, joint bidding, or collective marketing are absent. This suggests that while there is a willingness to collaborate, it tends to emerge through practical, local relationships rather than structured arrangements.

There is also a small number of respondents reporting no collaboration at present, indicating that participation is uneven and not yet embedded across the sector.

Synthesis: Constraints and opportunities for development
Across these findings, a consistent pattern emerges: development is incremental, situational, and shaped by the interaction of multiple constraints rather than a single limiting factor.

Capacity is best understood as a system, defined by the relationship between:

- input supply
- processing capability
- labour and time
- site conditions and infrastructure
- market demand

Constraints in any one of these areas can limit effective output, regardless of the others. As a result, businesses are not “below capacity” in a simple sense, but operating within a set of interdependent limits.

Investment follows this pattern. Rather than large, coordinated expansion, most businesses develop gradually; adding machinery, improving infrastructure, and adapting workflows over time. In many cases, activity is shaped by what is already in place, with opportunities pursued as they arise. There are exceptions, particularly where businesses have developed around a clear market or product from the outset. However, these remain the minority. Collaboration offers a potential route to overcoming some constraints, particularly where shared infrastructure or coordinated activity could unlock capacity.

In practice, the most commonly cited limiting factors are labour, time, and space. Many businesses are owner-operated or run with small teams, meaning that time and workforce availability directly limit throughput. Site constraints, including yard size, covered storage, and workshop space, further shape what can be processed and how efficiently work can be organised. Workflow is also a key factor. Some operations are structured around continuous production, while others are project-based or opportunistic, responding to available material or specific orders. These differences influence how capacity is used, and whether it can be expanded.

TYPOLOGY OF SMALL SAWMILL BUSINESSES IN WALES

The sector is diverse, but this diversity is not random. Across survey responses, a small number of recurring operating models emerge, shaped by differences in scale, resource access, and business intent. These patterns help explain why businesses behave differently, face different constraints, and respond in different ways to opportunity.

The typology below is intended as a practical tool for understanding this variation, not a rigid classification. Many businesses sit across more than one type and may move between them over time. It is best read as a framework for avoiding one-size-fits-all assumptions about capacity, growth, or support needs — rather than as a definitive sorting of businesses into fixed boxes.

1. Micro Operators — Small-scale, flexible, often opportunistic

These businesses process modest volumes — typically tens of tonnes per year — on a jobbing or irregular basis. Sawmilling is one of several activities alongside arboriculture, firewood, or farming, and income is variable and reactive. Sourcing is highly local, processing is usually limited to primary breakdown, and there is rarely any drying or stockholding capacity.

- sawmilling is undertaken at a small scale, with limited infrastructure, limited stockholding or drying capacity, and a reactive workflow shaped by available material, customer requests, and the wider livelihood of the operator. Their value lies in providing flexible, low-volume processing capacity within local areas, especially where timber parcels, customers, or jobs are too small, irregular, or geographically specific to fit more structured processing systems.

- Key constraints are time, labour, and limited access to higher-value markets.

2. Integrated Land-Based and Community Enterprises - Sawmilling embedded within wider land-based, social, or community activity

These businesses use sawmilling as part of a wider farm, estate, forestry, arboricultural, community woodland, training or social enterprise model, rather than as a standalone processing business. In these cases, the mill is often there to make the wider enterprise work: turning awkward, occasional or locally arising timber into usable products, co-products, cashflow, materials for the business, or wider social and community value.

- Sawmilling may not appear highly profitable when viewed in isolation, but it plays an important enabling role within the wider enterprise: helping farms and land-based businesses remain viable, making use of timber and co-products, responding to local opportunities, supporting skills and employment, and creating value that is not always strictly financial.

- Timber supply is often irregular and difficult to aggregate, while businesses may lack the time, equipment, yard space, drying capacity or haulage arrangements needed to process and move material efficiently.

3. Mid-Scale Processors — More structured operations, but still constrained

These are the most recognisably commercial businesses in the sector — running continuous or semi-continuous production, with invested machinery, site infrastructure, and some secondary processing capability such as planing, profiling, or kiln drying. Sawmilling is the core income source, supply relationships are more formal, and there is a clearer market orientation toward construction and trade.

- They act as a bridge between small-scale and industrial processing, anchoring local capacity and supplying consistent volumes.

- But they operate under significant financial pressure - thin margins, cashflow exposure, and debt associated with the investment required to reach this scale.

TYPOLOGY OF SMALL SAWMILL BUSINESSES IN WALES

4. Specialist and Niche Producers - Focused on particular materials, products, or markets

These businesses have built around a specific offer - hardwoods, oversize timber, bespoke joinery, furniture, or high-specification structural products. Scale varies, but the model is consistently demand-led: lower volumes, stronger customer relationships, and higher margins than the rest of the sector.

- Their role is to unlock value from material that others cannot or will not process, serving markets where quality, character, and provenance matter.

- Constraints are less about capital and more about sustaining consistent demand, finding skilled labour, and managing the time intensity of bespoke production.

5. Emerging and Transitional Businesses - Early-stage or actively evolving

These are businesses that are recently established, or in the process of significant change - redefining their model, investing in new capacity, or experimenting with markets and products. Revenue streams are often uncertain, and there is a high degree of learning through doing.

- Their importance to the sector is prospective: they represent future capacity, a source of adaptation to changing supply conditions, and an indication of where new entrants are finding viable pathways.

- Constraints are high uncertainty, capital and knowledge gaps, and the difficulty of identifying which markets are genuinely accessible at this stage of development.

6. Social enterprise and community woodland processors - employment, training and wider social value

Social enterprise and community woodland processors are different from the other business types because their purpose is not only commercial sawmilling. These organisations may process timber, sell products and invest in machinery, but they also exist to deliver wider social, environmental and community benefits. This can include local employment, training, volunteering, woodland management, education, wellbeing, biodiversity work and keeping woodland value within a community setting.

- This type should therefore be treated separately from conventional commercial mills. A social enterprise may not appear especially strong if assessed only on turnover, profit or throughput. However, this would miss much of its value. In some cases these organisations are significant local employers or training providers, and their role in sustaining rural work, skills and community woodland management may be as important as the timber products they sell.

- Their constraints are also different. They may need support with governance, staff capacity, project funding, grant management, volunteer coordination, market development and business planning, as well as conventional sawmilling issues such as machinery, drying, storage and timber supply. For this reason, they may require different treatment in policy and support design.

TYPOLOGY OF SMALL SAWMILL BUSINESSES IN WALES

CONNECTING SMALL WOODLANDS, FARMS AND LOCAL TIMBER MARKETS

Across several business types, there is a recurring theme around small, farm and community woodlands. These woodlands can contain timber that is suitable for local processing, but many farm and small woodland owners are not yet connected into the processors, buyers and local markets that could make use of logs.

Small sawmills can play an important role in making use of timber from farms, small woodlands and community woodlands, particularly where volumes are too small, irregular or mixed for larger supply chains. Firewood and biomass remain important markets; the point is to widen the options for local timber where suitable logs could also be used for durable products, local manufacture or specialist applications. Where suitable logs are available, small processors can turn them into durable products that support local businesses, retain value in rural areas, and keep carbon stored in useful materials for longer. This connection is especially important because many small woodland owners and farmers do not have the volume, infrastructure or market access to engage easily with larger processors.

This is a question of connection. There may be value in a practical brokerage role that can identify suitable timber, advise landowners, aggregate small parcels, coordinate extraction, and match logs with appropriate local processors[13]. Small-scale haulage, mobile milling, shared contacts and local contractor networks may all have a role, but the economics are fragile where volumes are small and forwarder, haulage or labour costs are high.

The potential prize is that farmers, small woodland owners and community woodlands may receive better value for timber while local mills gain access to material that is currently invisible or difficult to mobilise.

FEASIBILITY OF NEW SECTOR ORGANISATION

Workshop sessions with sawmillers were used to explore the feasibility of a new sector organisation. As part of this, material from the Association of Scottish Hardwood Sawmillers (ASHS) was shared and discussed. This was widely seen as a strong and inspiring example of what coordinated sector development can achieve.

ASHS: What It Is and What It Represents

The Association of Scottish Hardwood Sawmillers (ASHS) is a cooperative of small and medium-sized businesses supplying Scottish hardwood and premium softwood timber and timber products to the UK market. Its membership spans sawmills, timber extractors, merchants, and processors, alongside an associate membership of allied trades and professionals — furniture makers, foresters, tree surgeons, oak framers, architects, and landowners. From six founding members in the late 1990s, ASHS has grown to over 100 members[14].

ASHS was formed in direct response to a crisis of underutilisation. By the 1990s, an estimated 90% of Scotland's hardwood resource was undervalued. Of the highest-quality timber that did reach market, most was exported as low-value round logs, with all value-adding processing happening elsewhere. At the same time, Scotland was importing over £100 million worth of hardwood products annually - some of which may have originated from its own woodlands[15]. It was within this context of lost value, declining markets, and overlooked local potential that a small group of sawmillers came together to explore what collective action could achieve. With support from Scottish Forestry (then the Forestry Commission Scotland), ASHS was formally established.

Its stated objectives are: to promote and increase marketplace awareness of locally grown, sustainably sourced timber; to revive the culture of sourcing timber from local sawmills; to represent and support small Scottish timber businesses; and to encourage and facilitate cooperation across the industry.

[13] European "log yard" models provide a useful reference here. The Parc à Grumes de Wallonie is a grouped international sale of selected high-quality logs, managed by Wallonia's Department of Nature and Forests, and described as a showcase for the quality of Walloon timber. The 2026 catalogue, for example, lists 134 individual lots, including oak, sycamore maple, cherry, elm, ash, Douglas fir and other species, with bids submitted in advance and opened at a formal sale. See Wallowood, Parc à Grumes de Wallonie and Vente groupée internationale par soumissions de bois précieux façonnés; similar models are also reported in France, Germany, Luxembourg and Flanders.
[14] Association of Scottish Hardwood Sawmillers (ASHS), About the Association of Scottish Hardwood Sawmillers, https://www.ashs.co.uk/about-us
[15] Scottish Wood, History of Scottish Wood, https://www.scottishwood.co.uk/about-us.

TYPOLOGY OF SMALL SAWMILL BUSINESSES IN WALES

In practice, ASHS operates through a members' directory and referral network, training events and learning visits, a biannual journal, and the Scottish Working Woods Label, a provenance mark for homegrown timber products. Full membership costs £100 per year and includes a share of ownership in the cooperative. The organisation is member-owned and member-governed, with voting rights at the AGM and the option to stand for the board.

Crucially, ASHS did not emerge fully formed. It developed gradually over more than two decades, building trust, visibility, and practical value incrementally. The conditions that underpin it today - the membership base, the training offer, the brand recognition, the relationships with Scottish Forestry - are the product of that long process, not its starting point.

Development in Wales - Where the Sector Currently Stands and What the Pathway Looks Like

The Welsh small sawmill sector does not yet have a direct equivalent to ASHS, but it is not starting from nothing. The Woodknowledge Wales Sawmillers Community of Practice, active since 2021, has provided a regular and valued forum for small-scale processors to meet, share knowledge, and work through common challenges around log supply, species selection, kiln drying, and business models. A study visit to ASHS member businesses in Scotland in May 2024 gave Welsh participants direct exposure to what cooperative sector development looks like in practice and generated genuine enthusiasm for developing something comparable in Wales. These are meaningful foundations. What does not yet exist is a shared brand, collective marketing, a coordinated route to market, or a formal body with the mandate and resource to represent the sector's interests externally. What exists instead is a dispersed network of individual businesses, connected informally through personal relationships, shared knowledge, and the CoP - but without the visibility or structure to act collectively beyond it.

This is not a criticism. It reflects where the sector is. Most businesses are owner-operated, time-constrained, and focused on day-to-day operational demands. Formal sector development is not a priority when there are logs to process and orders to fulfil. The absence of collective infrastructure is a structural feature, not a failure of ambition.

At the same time, the survey and workshop findings point clearly to a set of shared needs that individual businesses cannot easily meet alone: access to wider markets, greater visibility among specifiers and trade buyers, a stronger collective voice on timber access and policy, and the practical benefits of shared knowledge and resources. These are precisely the kinds of needs that a sector organisation, developed over time, could address.

TYPOLOGY OF SMALL SAWMILL BUSINESSES IN WALES

The lesson from ASHS is not that Wales should attempt to replicate its current form. ASHS today represents the outcome of over twenty-five years of gradual development. The more useful lesson is about the conditions that made it possible: a small number of motivated individuals willing to invest time in collective action; early institutional support that provided legitimacy and resource without imposing structure; a focus on practical, tangible benefits for members rather than abstract sector goals; and a willingness to let the organisation grow organically, adding complexity only as the membership and trust base could sustain it.

Early steps in Wales have begun to establish a presence without requiring formal structures prematurely. These include the appointment of a small sawmiller to represent the sector within the Confederation of Forest Industries (ConFor) processors group[16], and participation in wider industry leadership discussions, notably, the newly formed Industry Leadership Group[17]– both representing significant recognition by government and policy makers. The Woodknowledge Wales Sawmillers Community of Practice, active since 2021, has provided a regular forum for small-scale processors to share knowledge, discuss log supply and demand, explore species selection, and consider collaborative purchasing. A study visit to ASHS member businesses in Scotland in May 2024, organised through Woodknowledge Wales, gave Welsh participants direct exposure to what cooperative sector development looks like in practice, and generated strong interest in developing something comparable in Wales.

The pathway forward is likely to involve several overlapping elements, developed sequentially rather than simultaneously:

Building visibility and shared identity

The research suggests there may be value in strengthening the shared visibility of the sector among specifiers, architects, developers, and the wider public. Opportunities discussed during the project included a shared online presence, a directory of Welsh mills and their products, and clearer communication around provenance and Welsh-grown timber. These kinds of initiatives could help strengthen awareness of existing capability while remaining relatively light-touch in terms of structure and ongoing resource requirements.

Building on existing forms of collaboration

The most durable forms of cooperation in this sector emerge from practical need. Shared drying, shared storage, stock swapping, and passing on work are already happening. Supporting and extending these habits, through shared infrastructure, facilitated networks, or modest coordination resource, is more likely to build the trust and relationships on which more formal collaboration can later be built.

Strengthening representation and communication

The research highlighted a desire for stronger communication between smaller processors and the wider policy, forestry, and construction landscape, particularly around timber sales, procurement, specification, and rural business support. Establishing even a light-touch representative function, whether through an existing body such as Confor's Processor Group, the recent Industry Leadership Group, or a new emerging sector group, would begin to address this gap.

Dedicated coordination rather than formal committee structures

One of the practical lessons from ASHS and similar organisations is that early-stage sector development depends heavily on a small number of individuals willing to invest sustained effort. A dedicated coordinator with a clear remit to spearhead connecting businesses, facilitating knowledge exchange, and developing the sector's external profile, is likely to be more effective than a committee structure without dedicated resource.

None of this requires replicating ASHS. It requires building the conditions under which a Welsh equivalent can emerge in its own way, at its own pace, from the sector's existing strengths.

[16] *Confor: Confederation of Forest Industries, https://www.confor.org.uk/.*
[17] *Welsh Government, Timber Industrial Strategy, July 2025, https://www.gov.wales/sites/default/files/publications/2025-07/timber-industrial-strategy.pdf*

TYPOLOGY OF SMALL SAWMILL BUSINESSES IN WALES

Austrian Forest Fund

A useful international reference point is Austria's Forest Fund and Austrian Wood Initiative, a major public investment package for forests under pressure from climate change, bark beetle damage, high levels of calamity wood and market disruption during the Covid period[18]. It links forest-sector support with the development of wood use across the value chain.

The Wood Initiative is funded through the Forest Fund and includes timber construction, research, education and training, networking, innovation, communication, and work on legal and social framework conditions. It has a total budget of €110 million for 2020–2029, with objectives including strengthening the optimised use of wood, securing income and creating regional jobs, supporting interdisciplinary cooperation, and participating in wood-related policy at national, European and international levels.

The initiative is therefore not only about helping firms produce more timber. It is also about building the conditions around timber use, including advice, standards, networks, public communication, construction examples, applied research and innovation. The construction element is particularly relevant, aiming to advance wood building and related research, encourage wood as a raw and building material, substitute CO_2-intensive materials, and store CO_2 in wooden structures. The most concrete demand-side mechanism is the CO_2 Bonus for timber construction. This provides funding for residential and public buildings using large-volume timber construction, paying €1 per kg of wood from sustainable forestry, with a further €0.10 per kg for insulation made from renewable materials.

After five calls, 134 projects have been funded with €20.7 million. The Austrian Wood Initiative supports projects that use timber, as well as firms and institutions working around timber production. In doing so, it creates a clearer demand-side signal for builders and public projects, while also giving processors and the wider wood value chain a more stable context in which to invest, collaborate and develop over time.

[18] Austria's Forest Fund was established in 2020 under the Forest Fund Act, adopted by the Austrian National Council on 7 July 2020, as a major support package for forests affected by climate change, bark beetle damage and market disruption. The Austrian Federal Ministry describes the fund as a "rescue and future package" for forests, originally endowed with €350 million and increased by a further €100 million in 2023 to €450 million. Measure 9 of the fund supports increased use of wood as a raw material and provides the basis for the Austrian Wood Initiative, which has a total budget of €110 million for 2020–2029. The initiative covers construction, innovation, education, communication, infrastructure, governance and research, including the CO Bonus for large-volume timber construction. This pays €1 per kg of wood from verifiably sustainable forestry, plus €0.10 per kg where renewable insulation materials are used; ministry material reports more than 130 supported timber buildings, with project material identifying 134 projects and €20.7 million after five calls. Sources: Austrian Federal Ministry of Agriculture, Forestry, Regions and Water Management, Forest Fund; Austrian Federal Ministry, Austrian Wood Initiative – Projects and Measures; IUFRO, Austrian Wood Initiative Projects.

CONCLUSION

This review shows that the Welsh small sawmill sector is highly varied in scale, business model, market orientation, and technical capability. There is no typical mill. Some businesses are very small and occasional, others operate continuously or near-continuously, and many sit somewhere in between. Some are highly specialised and value-adding despite limited equipment, while others with greater throughput remain focused on simpler outputs.

In many cases, sawmilling is not a standalone enterprise, but one part of a wider livelihood strategy that may also include farming, forestry contracting, joinery, firewood, tourism, or training. This heterogeneity matters. It means the sector cannot be understood through a single model of growth, capability, or need. It also means that even where typologies are useful, they only go so far. The diversity of drivers, conditions, and ambitions within those typologies remains significant.

A consistent finding throughout the report is that volume alone is a poor guide to the nature and value of the sector. A small number of businesses account for much of the throughput, but most mills operate at low volume through frequent, small-scale transactions. This is not incidental. It is central to how the sector functions. The sector is dense in transactions, relationships, and local exchange, even where volumes are modest. That is not well captured in conventional forestry statistics, which tend to see only throughput and therefore miss much of the economic and practical activity that actually defines the sector. This matters because the value of the sector lies not only in what it produces, but in what it enables. Small mills provide routes to market for timber that might otherwise remain unmanaged, underused, or uneconomic to process. They create value from mixed, awkward, oversize, and locally specific material. They support a wide range of downstream uses, from one-off structural timber and cladding to joinery, framing, furniture, signage, homeware, and local construction. In doing so, they occupy a part of the timber economy that larger processors are often not configured to serve.

The report also shows that the sector is adaptive, but not in a simplistic sense. Businesses are resourceful and opportunistic, but this should not be confused with the absence of constraint. Capacity is rarely defined by machinery alone. It is shaped by the interaction of timber supply, labour, space, infrastructure, workflow, and market demand. Businesses are not below capacity for any single reason. They are operating within interdependent limits. This helps explain why development tends to be gradual. Investment is typically incremental and opportunistic rather than coordinated and transformative. Equipment is added when opportunity arises, when funding becomes available, or when an immediate need appears. Setups evolve over time and rarely make perfect sense as integrated systems, but they work well enough within the conditions in which they have developed. There are exceptions, particularly where a business began with a clear market, inherited contracts, or sustained early investment. But these are not the norm.

A further key finding is that many of these businesses are not organised around growth in the conventional sense. Reinvestment often extends beyond production and into the wider conditions of life and work. Operators invest in housing, energy systems, yards, and day-to-day infrastructure that reduce living costs, improve resilience, and support a workable rural lifestyle. This is a form of value creation that is not fully captures in GVA. In this part of the economy, low profit does not necessarily mean poor outcomes. It can also mean that income is being converted into lower living expenditure, greater independence, and better quality of life. This is an important point because growth is too often assumed to be the measure of wellbeing. In this sector, that assumption does not hold. Some of the most resilient and interesting businesses are not those pursuing scale at all costs, but those making careful trade-offs between income, work, autonomy, and place. That does not mean they are unconstrained. It means the logic of success is different.

CONCLUSION

bour and succession are likely to become major limiting factors. Many respondents do not expect their children to take on the business, and many work in places where there are few younger people to train in the first place. This is not simply a skills issue. Training alone will not resolve labour shortages where rural living itself is a barrier. High housing costs, weak infrastructure, limited services, and the difficulty of sustaining a viable life in remote areas all act as constraints on the future workforce. Even where apprenticeships or training opportunities exist, they will have limited effect if there are too few people able or willing to remain in these places.

The report also highlights a growing disconnect between supply expectations, market norms, and policy awareness. Species shifts are being navigated pragmatically, but largely through local knowledge and perceived supply trends rather than formal forecasts or technical literature. At the same time, there are clear frustrations about the premature loss of high-value material into low-value outlets, and about the difficulty small mills face in accessing species and parcels suited to their markets.

Collaboration is already present, but it is informal, practical, and grounded in day-to-day need. Shared machinery, shared drying, borrowed yards, stock swapping, and passing on work are more common than formal joint purchasing or coordinated selling. This is not a weakness. It is evidence that the sector already collaborates where it makes practical sense. Future sector development is most likely to succeed where it starts from these existing habits of cooperation, rather than trying to impose an institutional model from above. For the same reason, the lesson from ASHS is not that Wales should try to recreate its present form. The more useful lesson is that strong sector organisation emerges over time through practical value, trust, visibility, and repeated collaboration. The Welsh sector is at an earlier stage. The right goal is not to build something that looks like ASHS immediately, but to create the conditions under which a Welsh equivalent can emerge in its own way.

Taken together, the findings suggest that the Welsh small sawmill sector should be understood less as a high-growth industrial segment and more as a distributed layer of enabling infrastructure within the wider timber economy. Its importance lies in flexibility, locality, material use, and the practical ability to connect woodland resource to high-value and locally meaningful outcomes. If that is the case, then support should focus less on chasing scale for its own sake, and more on strengthening the conditions under which this dispersed capacity can persist, coordinate, and develop.

RECOMMENDATIONS

1. Recognise the sector's enabling role in policy and statistics

Small, locally oriented sawmills should be understood and represented not by the volumes they produce, but by the functions they perform. These businesses provide routes to market for timber that would otherwise remain unmanaged or uneconomic to process. They support dispersed woodland management, sustain local supply chains, and maintain rural employment and skills in places where few alternatives exist. They handle awkward, mixed, oversize, and locally specific material that larger processors are not configured to serve. In doing so, they occupy a part of the timber economy that is practically significant but almost entirely invisible in current data.

The problem is structural. Forest Research statistics, and the policy frameworks that draw on them, are built around aggregate throughput. A sector that operates through frequent, small-scale transactions - processing modest volumes across a dense network of local exchanges - will always appear marginal by these measures, regardless of its actual contribution. This needs to change. There is a clear case for incorporating measures of transaction frequency and local economic activity alongside volume; for recognising enabling functions such as bringing small woodlands into active management; and for reflecting the role of small mills in supporting distributed, place-based economies. Without this shift, the sector will continue to be undervalued in decision-making, and interventions will continue to be calibrated to a picture of the sector that does not reflect its reality.

2. Prioritise access to timber for small-scale processing

Reliable timber supply is the single most important factor shaping the future viability of small mills in Wales. This finding is consistent across every part of the survey and interview data. Yet the current structure of the timber market - particularly in the public sector - systematically disadvantages smaller processors. NRW standing sales are dominated by a small number of large, integrated operators. Smaller mills participate primarily through the roadside market, where they operate in a more reactive and constrained position, with limited ability to plan ahead or secure consistent supply.

Public sector timber sales are already under review[19]. This includes a structured to intention to improve access for smaller processors, and Welsh Government should prioritise ensuring progress with this and intervene if necessary. This does not mean diverting material away from larger operators wholesale, but it does mean recognising that some timber, particularly species parcels of larch, Douglas fir, or stands of exceptional character delivers greater overall value when processed through smaller, more flexible systems than when absorbed into bulk commodity flows.

Mechanisms such as retained timber elements within standing sales, or reserved roadside lots at appropriate scales, could provide a practical route to improving access without disrupting the wider market. The principle is straightforward: a selective, value-oriented approach to the public timber resource, rather than a purely extractive one.

3. Explore demand-side tariff mechanisms to support domestic processing

Welsh Government should explore a targeted financial mechanism to support domestic timber processing by incentivising the use of Welsh timber products in construction and manufacturing - drawing on models such as Austria's Forest Fund as a reference point.

The economic case is clear. Small and medium-scale processors operate with thin and volatile margins, limited financial resilience, and constrained capacity to invest. Many report low operating profits and short cashflow horizons, leaving them exposed to fluctuations in supply and demand. At the same time, their wider contribution to local economies, woodland management, and supply chain resilience is not reflected in market pricing. The market, left to itself, does not reward the enabling functions the sector performs.

A Welsh mechanism could address this imbalance by providing a financial incentive to end users - developers, manufacturers, contractors - who purchase timber from Welsh processors. This would strengthen demand for domestically processed material, improve market conditions for processors, and help retain value within Wales rather than exporting it as raw or semi-processed timber. Critically, this approach should be framed not as a production subsidy, but as a targeted intervention to correct a market failure - one that recognises the broader economic, environmental, and social value generated by local processing. Supporting demand at the point of use is more durable than supporting supply at the point of production, and more likely to create the stable market conditions that processors need to invest and develop with confidence.

[19] NRW Timber sales and marketing plan 2027. Available at: https://ymgynghori.cyfoethnaturiol.cymru/communications-cyfathrebu/growth-and-value-strategy/user_uploads/draft-timber-sales-and-marketing-plan---published-eng.pdf

RECOMMENDATIONS

4. Focus support on existing collaboration and enabling conditions

Small sawmills should be recognised as contributor businesses which support local timber use, rural employment, woodland management, and wider economic activity. The evidence from this review suggests that they deserve support, and that support needs to reflect how these businesses actually operate and develop.

Grants remain important. Many businesses have limited financial headroom for investment, and one-off capital purchases can be difficult to fund from operating income alone. Support should therefore include grants, soft loans and leasing facilities. It should also be available on a regular or repeatable basis, rather than through occasional one-off grant rounds only, so that businesses can make staged improvements over time. This matters because development in the sector is often incremental. A business may need to improve storage before adding drying capacity, upgrade handling equipment before increasing throughput, or invest in secondary processing only after testing a market. Regular support would allow businesses to respond to opportunities as they emerge, rather than forcing them to fit development plans around a single funding window.

Support should also build on the collaboration that already exists across the sector. Survey respondents described informal arrangements around shared knowledge, contacts, machinery, drying space, storage, haulage and work. These relationships are often practical and local, based on trust between independent businesses rather than formal structures. Collaboration has a wider role than simply sharing equipment or facilities. It enables businesses to learn from one another, solve practical problems, develop confidence, identify markets, and develop together while remaining independent. This kind of peer learning is especially important in a sector where many businesses are small, dispersed and highly dependent on owner experience. Support should therefore focus on enabling conditions as well as individual purchases. This could include grants for machinery, drying, storage, handling and site improvements, alongside soft finance, leasing options, coordination support, shared learning, market visibility, technical advice, and practical networks between mills, woodland owners, farmers, contractors and customers.

The objective should not be to replace existing informal collaboration with a new formal structure, or to assume that collaboration removes the need for funding. It should be to strengthen the conditions that allow independent businesses to invest, adapt, work together and continue contributing to rural areas. Their value is not limited to the volume of timber processed. They help keep work, skills, spending and practical services within local economies.

5. Address labour constraints as a structural rural issue

Access to skilled labour is a consistent constraint across the sector, and it is likely to become more acute over time. Many respondents do not expect their businesses to continue beyond their own involvement. Succession is uncertain across much of the sector, and in many of the rural areas where these mills operate, there are simply too few younger people available to train. This is not a skills problem. It is a structural problem, rooted in the conditions of rural life.

High housing costs, weak infrastructure, limited services, and the difficulty of sustaining a viable livelihood in remote areas all act as barriers to attracting and retaining new entrants — not just to sawmilling, but to rural employment more broadly. Apprenticeships and training programmes have a role to play, but their impact will remain limited as long as the conditions that make rural living viable are not addressed. Workforce development in this sector cannot be separated from broader rural policy questions about housing affordability, infrastructure investment, and the sustainability of dispersed rural communities. Treating labour as a skills issue to be solved through training alone will not work. It requires a recognition that the future of the sector depends, in part, on whether Wales can sustain the kinds of rural places in which these businesses exist.

6. Support timber mobilisation from farms, small woodlands and community sources

Welsh Government and sector partners should recognise small processors as a key route for bringing dispersed, irregular and locally sourced timber into use. Support should include practical mechanisms for connecting farms, small woodland owners, tree surgeons, community woodlands, contractors and processors; guidance on timber sorting and presentation; small-scale roadside lotting; and support for local aggregation where this is useful. This should include social enterprises and community woodlands, whose value may include training, employment, woodland management, education and community benefit as well as commercial timber throughput.

woodknowledge WALES

Woodknowledge Wales Limited
22 Cathedral Road, Cardiff, CF11 9LJ

Ariennir gan
Lywodraeth Cymru
Funded by
Welsh Government