



Llywodraeth Cymru
Welsh Government

Datblygu'r diwydiant pren yng Nghymru Making wood work for Wales

Strategaeth Ddiwydiannol ar gyfer Pren Timber Industrial Strategy

Naomi Matthiessen

Making Wood Work for Wales: Priorities

1. Increasing timber supply
2. Increasing resilience in our forests
3. Resource efficiency and circular economy
4. Instilling confidence in demand
5. Developing sector capacity
6. Underpinned by behaviour change



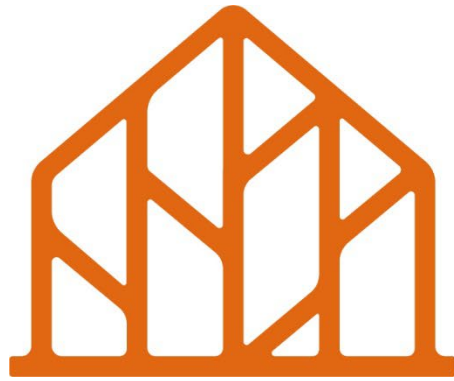
Making Wood Work for Wales

The Welsh Government's Timber Industrial Strategy

Social Housing pipeline - stimulating demand



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TAI AR Y CYD



If you want to go fast - go alone. If you want to go further - go together

Tai Ar Y Cyd – Vision & Benefits

- 25 social landlords collaborating to build our aggregated pipeline of next generation, high performing, healthy, sustainable & affordable homes.
- Benefits of innovative collaboration already being realised.

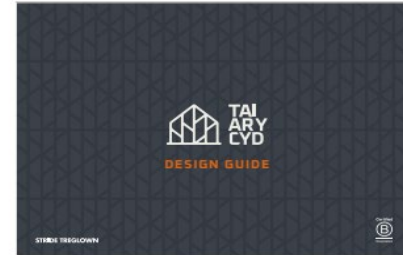
Tai ar y Cyd documents



Pattern book of homes



Performance specification



Design guide



Pattern book details

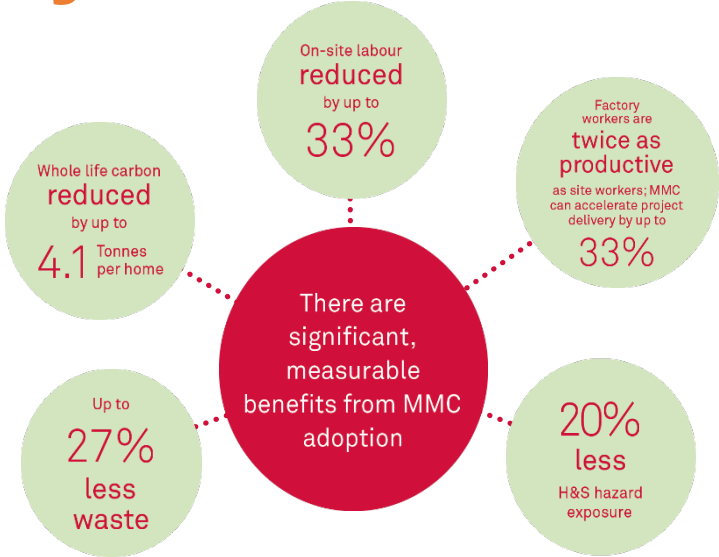
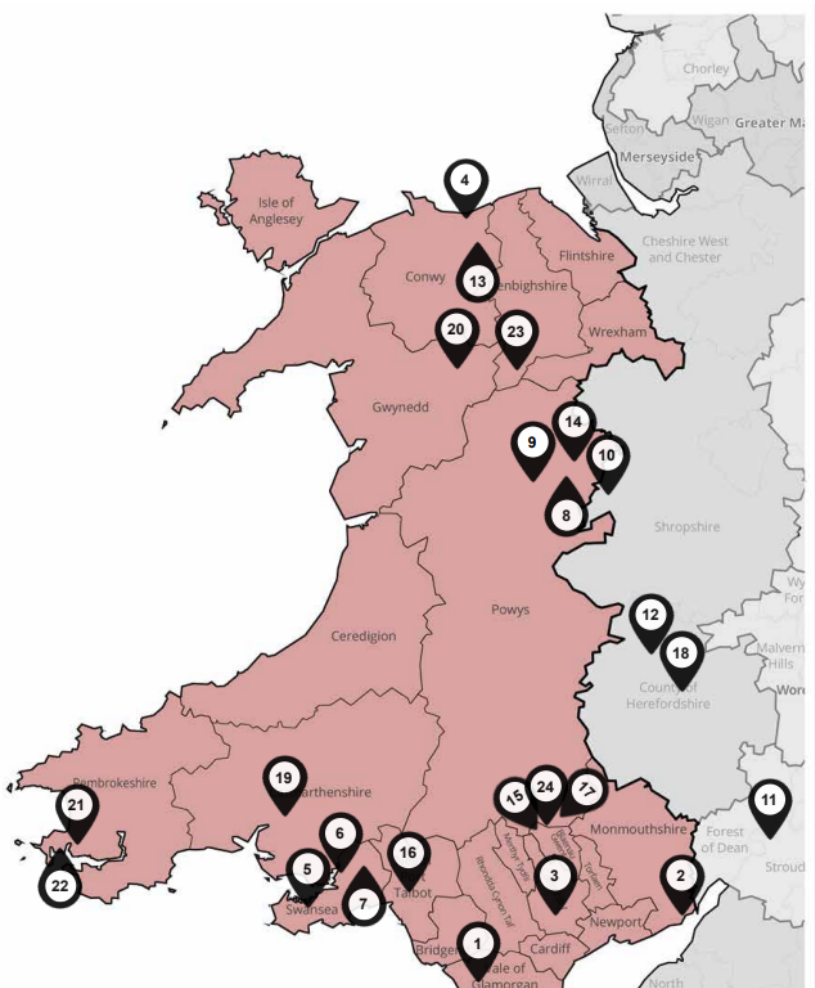


Circular and Foundational Economy Possibilities

Timber first, fabric first Supply chain engagement

Mapping of existing timber frame manufacturing sites has been undertaken to establish the potential supply chain locations that could serve construction of the Tai ar y Cyd Pattern Book homes.

- | | |
|-----------------------------------|-----------------------------------|
| 1. Ashdown Construction Group | 13. PK Joinery |
| 2. Benfield ATT | 14. PVC Construction |
| 3. Celtic Offsite | 15. Roe Timber Frame Ltd |
| 4. Creating Enterprise | 16. SO Modular |
| 5. Down to Earth Project | 17. Target Timber Systems |
| 6. Fforest Timber Engineering Ltd | 18. Taylor Lane Timber Frame Ltd |
| 7. FREDs Timber frame Ltd | 19. TRJ Construction Ltd |
| 8. Huws Gray Timber Engineering | 20. Williams Homes Bala Ltd |
| 9. Kenton Jones | 21. JSI Timber Frame |
| 10. Lowfield Timber Frames Ltd | 22. Manderwood Timber Engineering |
| 11. MBC Timber Frame UK Ltd | 23. Cambrica Timber Frames |
| 12. Merlin Timber Frame Ltd | 24. Crendon Timber Frame |



Prototyping - 16 Landlords – 12 sites - 400 Homes

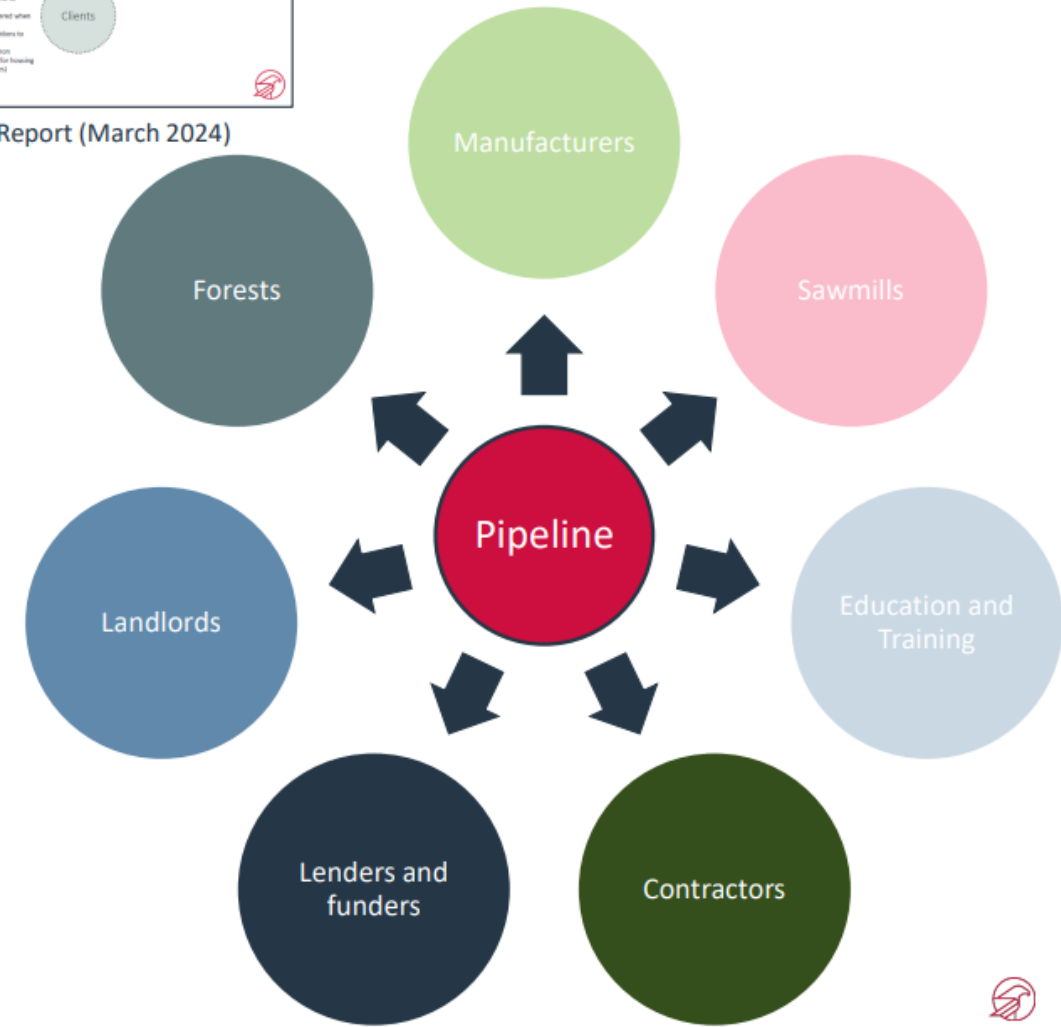
- **Community of Practice**
- Safe space - deep listening - high challenge - sharing - **accelerated earning**
- Immediate demand for **Welsh timber**
- **Cost** optimisation possibilities
- Surface **Skills** needs
- **Placemaking/Planning** engagement
- **Resident** engagement – **healthy homes**



Pipeline Visibility

- Pipeline visibility is needed to build this market opportunity
- Immediate priority
 - What **information** is needed?
 - How do we **bring** this pipeline information **to life**?
 - What can we learn from others incl Scottish Futures Trust - **Pipeline Tool**?
- This pipeline with **frame procurement** options for social landlords

Report (March 2024)



Tai ar y Cyd Recognition During 2025

- Constructing Excellence in Wales – 2025 Collaboration Award



**ADEILADU
ARBENIGRWYDD
YNG NGHYMRU**

**CONSTRUCTING
EXCELLENCE
IN WALES**

Gwobrau 2025 Enillydd

Awards 2025 Winner



- Structural Timber Association – 2025 Pioneer Award
"the best thing to happen in timber construction in years
- Welsh timber frame manufacturer

Home Grown Homes 2



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A Welsh Government-funded project, in two phases. The project sponsor is Powys County Council with Woodknowledge Wales as the delivery body.

Purpose – to create a more climate resilient future by expanding timber use in social housing to accelerate decarbonisation of the natural and built environments.

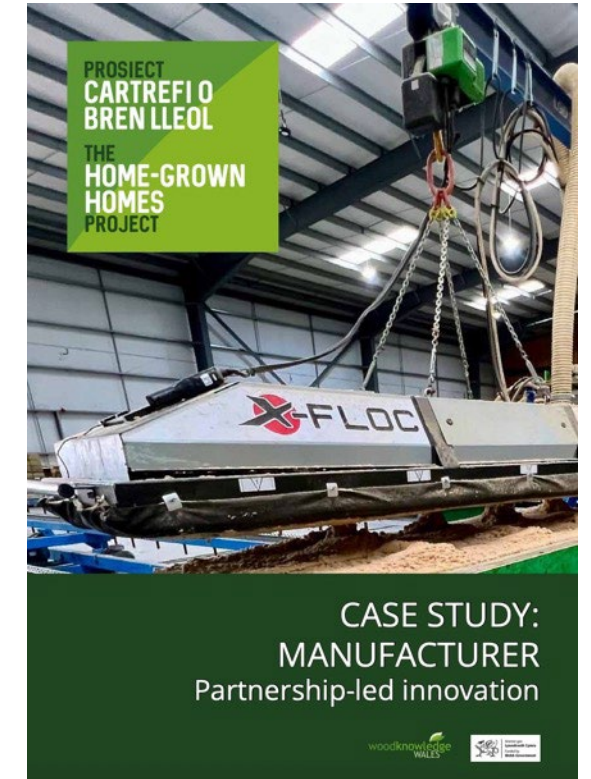
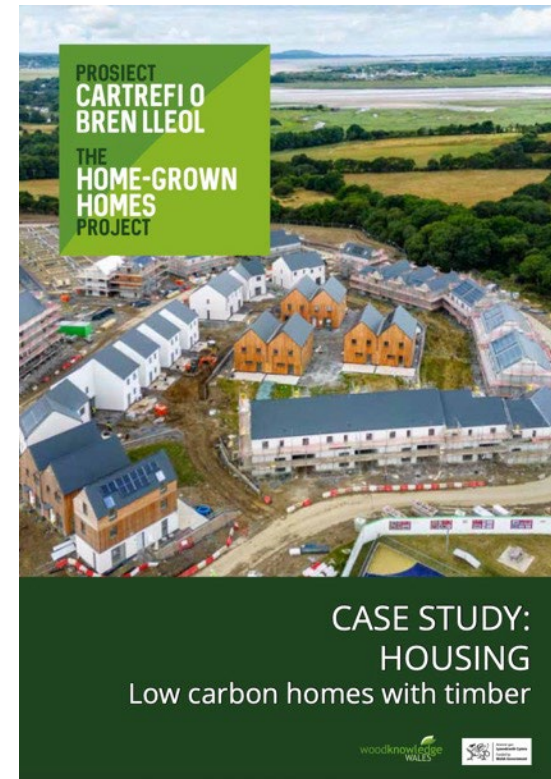
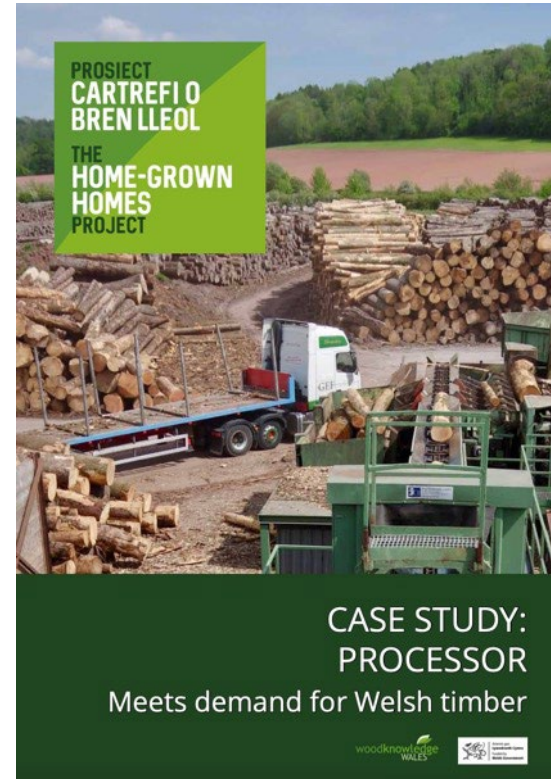
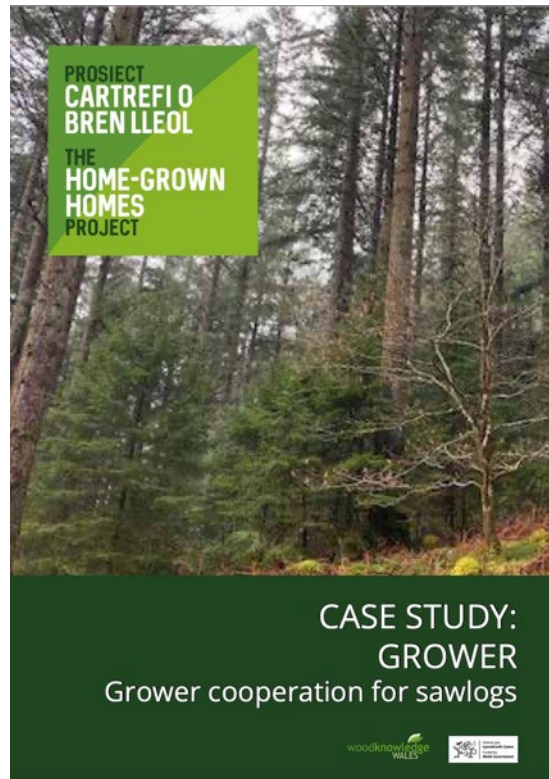
Phase 1 (2018 - 21): applied knowledge gained from delivery of high performance, low carbon, timber social housing to inspire the development of Wales's forest industries and identify policy opportunities.

Phase 2 (2023 - 26): supporting implementation of new policies across decarbonisation, social housing, forestry, circular and foundational economy to drive sector development, inform and support implementation of Wales's first Timber Industrial Strategy.

Project Outputs: Case studies

<https://woodknowledge.wales/home-grown-homes-case-studies/>

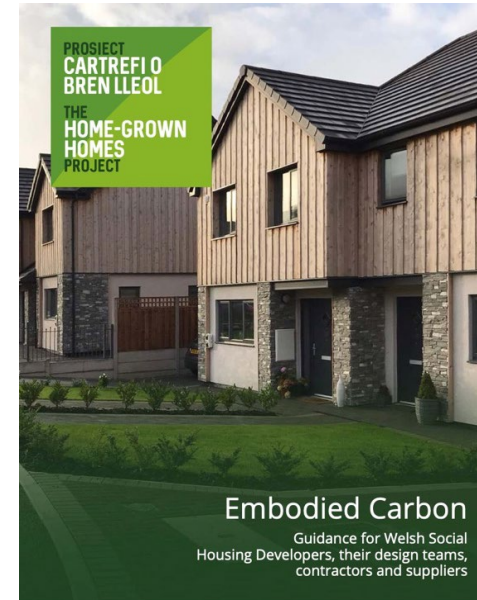
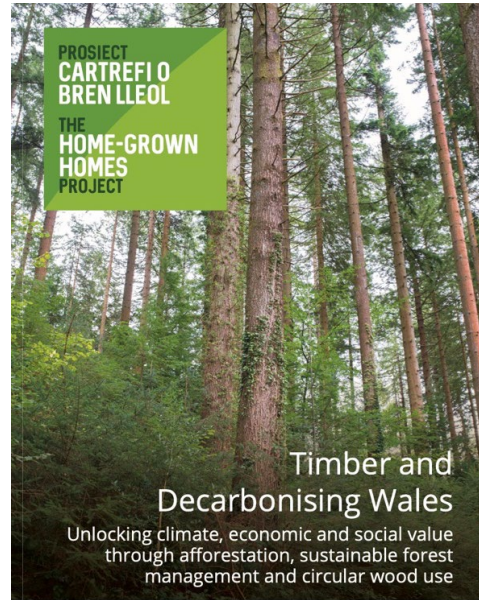
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THE
HOME-GROWN
HOMES
PROJECT



Project Outputs: Guidance & Reports

<https://woodknowledge.wales/home-grown-homes-guidance/>

<https://woodknowledge.wales/reports/>

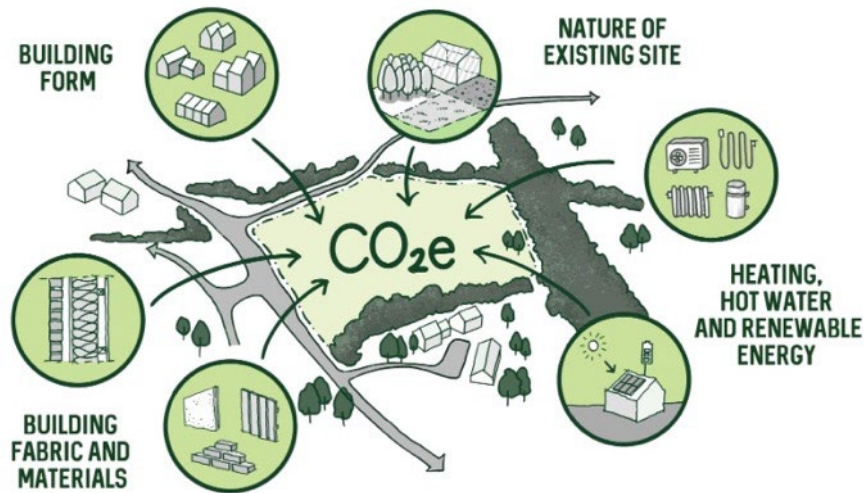


Project Outputs: Tools

<https://woodknowledge.wales/tools/>

EARLY STAGE EMBODIED CARBON TOOL

This tool seeks to inform users on the embodied carbon implications of key decisions made as part of a new low rise housing development process.



WHOLE LIFE CARBON											
UPFRONT CARBON				EMBODIED CARBON							
PRODUCT		CONSTRUCTION		IN USE				END OF LIFE			
A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Raw material supply	Transport to site	Manufacturing	Construction	Use	Repair	Replacement	End of life	Disposal	Recycling	Re-use	Landfill
OPERATIONAL CARBON											
B5 Operational energy											
B6 Operational water											

WALLS

Estimation of upfront embodied carbon impacts.
Calculated per m² external wall area to a common U-value of 0.13W/m²K.

Includes wall structure, insulation, internal lining, membranes and cladding.

Brick cladding has been assumed for all options. An allowance has been made for wall ties and fixings according to the wall structure.

Excludes additional structural elements such as lintels or double studs.



Based on a notional detached 2-storey 3B house of 80m²

↑
We focus on upfront carbon as they are most likely the majority of embodied carbon impacts associated with a project.
Included are product stages A1-A3, plus transport A4 to Wales and material waste from construction installation A5W.
Excluded are A5A emissions due to energy usage on site during construction and installation.

⚙️ It's important to compare build-ups to the same performance and U-value to account for different thicknesses of materials!
Always bear in mind the context of your project, any additional requirements, as well as wider influencing factors when choosing a build-up, material or system.
Never rely on one single metric and keep the bigger picture in mind!

EMBODIED CARBON IMPACTS

WALLS

Other things to mention...



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- **Flexible Skills Programme** - in Nov 2024 Welsh Government added Forestry and Timber Supply Chain as an eligible sector [Flexible Skills Programme \(FSP\) | GOV.WALES](#)
- **Prioritisation of future productive tree species** – work by Forest Research and partners Bangor University and Edinburgh Napier University to create a future productive species selection tool for Wales.
- **Confor Industry Leadership Group** – The ILG will be led by the private sector with Welsh Government collaboration and regular access to the Cabinet Secretary

Diolch yn fawr / Thank you



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