

TIMBER IN CONSTRUCTION ROADMAP

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Technical Director

Structural Timber Association

- 950 members
- Represent over 85% of the industry
- 23% of national housing market
- 90% in Scotland
- Typologies
 - Timber Frame
 - SIPs
 - Mass Timber (CLT/LVL)
- Provide technical support
- Mandated QA process - STA Assure
- Installer Training Programme
- Engage with:
 - Government, insurers, warranty providers...



Structural Timber Association

- Existing manufacturing capacity of circa 60k homes – clear pathway to 100k
- Automation and digitisation increasing
 - Digitisation widely adopted
- Range of construction elements
 - Open panel, pre-insulated
 - Closed panel, enhanced closed panel
 - Floor cassettes
 - Prefabricated roof elements – not just trussed rafters
 - Many systems with 3rd party certification / other approvals



Timber in Construction - Roadmap



Roadmap objectives



To safely increase the amount of timber used in construction



To increase the amount of homegrown timber used in construction



To help the UK meet its net zero target by 2050

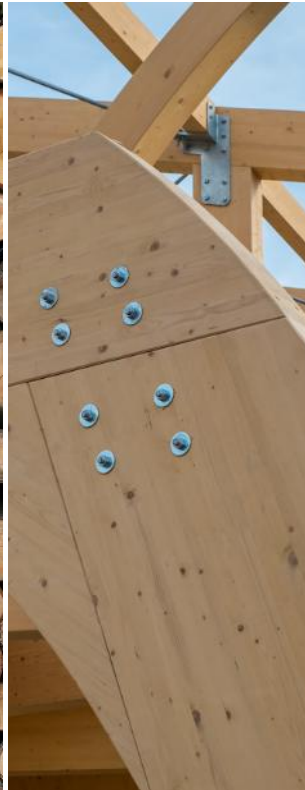


To grow the economy through decarbonization

Seven priority themes



Carbon



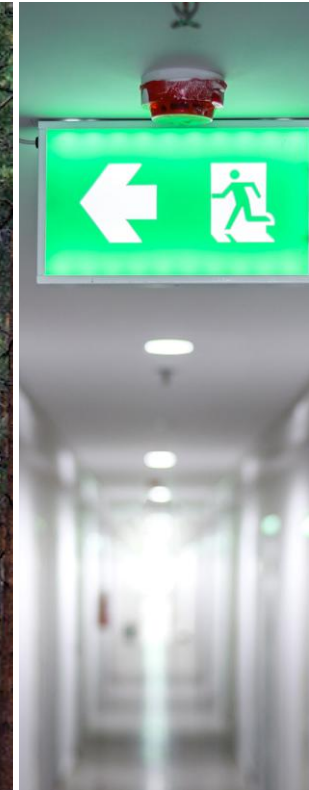
Demand



Skills



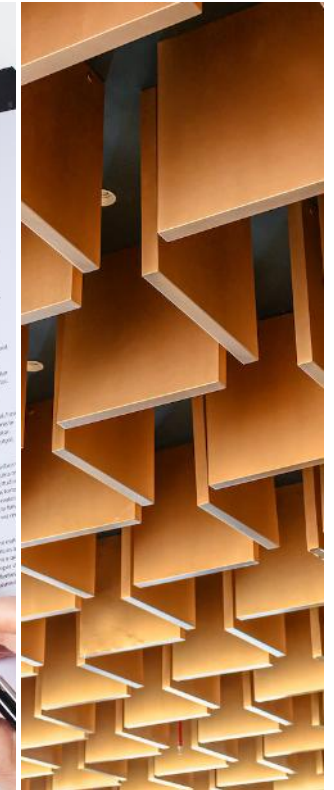
Supply



Safety



Insurance



Innovation

Improving data on timber and whole life carbon

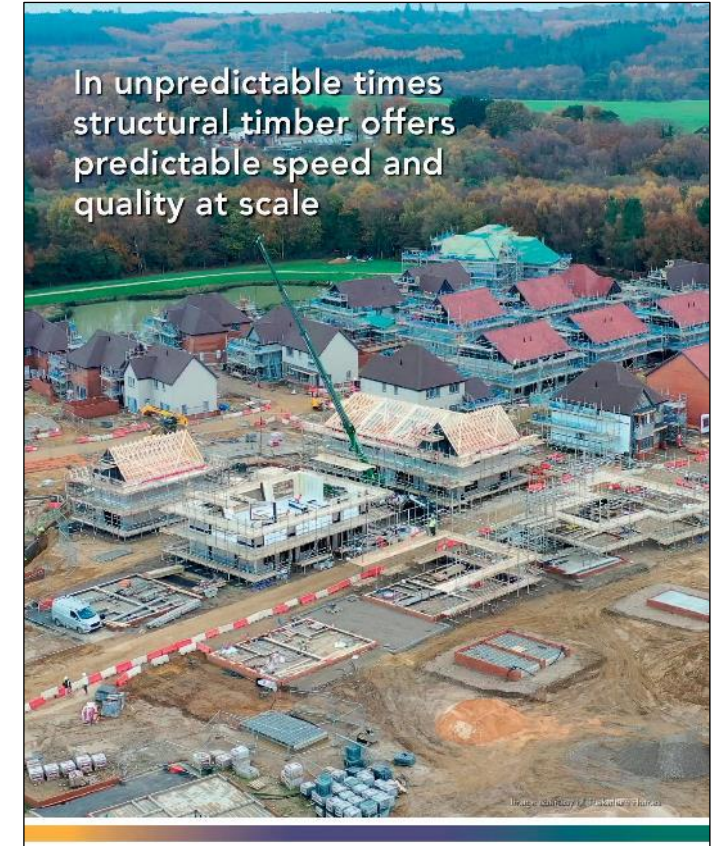
- Improved benchmarking and information sharing on the carbon performance of timber construction projects
- Improve the quality of timber environmental product declarations (EPDs)
- Encourage the inclusion of data on projects that use timber in the Built Environment - Carbon Database
- Participate in Future Homes Hub work**
- Produce generic timber system EPDs**
- Create whole 'kit' carbon calculator**
- Tell the story clearly**



	Number Data Points	Declared Unit	UK Average				Import Weighted Average				UK/Import Weighted Average			
			A1-A3 Biogenic Carbon Content kgCO ₂ e/unit	A1-A3 Total Exc. Biogenic kgCO ₂ e/unit	A1-A3 Total Inc. Biogenic kgCO ₂ e/unit	A4 Transport kgCO ₂ e/unit	A1-A3 Biogenic Carbon Content kgCO ₂ e/unit	A1-A3 Total Exc. Biogenic kgCO ₂ e/unit	A1-A3 Total Inc. Biogenic kgCO ₂ e/unit	A4 Transport kgCO ₂ e/unit	A1-A3 Biogenic Carbon Content kgCO ₂ e/unit	A1-A3 Total Exc. Biogenic kgCO ₂ e/unit	A1-A3 Total Inc. Biogenic kgCO ₂ e/unit	A4 Transport kgCO ₂ e/unit
OSB	19	m ³	-764	107	-657	38	-742	56	-690	56	-750	74	-679	50
Cross Laminated Timber (CLT)	12	m ³	N/A	N/A	N/A	N/A	-758	102	-655	83	-758	102	-655	83
Glue Laminated Timber (Glulam)	14	m ³	N/A	N/A	N/A	N/A	-762	132	-630	69	-762	132	-630	69
Laminated Veneer Lumber (LVL)	3	m ³	N/A	N/A	N/A	N/A	-782	273	-509	76	-782	273	-509	76
I-Joists	5	lm	-6.12	1.94	-4.18	0.28	-9.58	6.56	-3.02	0.59	-7.85	4.25	-3.60	0.43
Softwood Plywood	7	m ³	N/A	N/A	N/A	N/A	-768	235	-561	168	-768	235	-561	168
Hardwood Plywood	5	m ³	N/A	N/A	N/A	N/A	-871	596	-426	242	-871	596	-426	242
Orientated Strand Board (OSB)	6	m ³	-973	112	-861	27	-1,025	217	-808	108	-989	143	-845	51
Medium Density Fibreboard (MDF)	4	m ³	-965	258	-707	34	-1,069	432	-636	122	-1,020	350	-669	80
Chipboard	7	m ³	-1,010	320	-690	23	-1,008	238	-770	81	-1,009	295	-714	40

Promoting the safe, sustainable use of timber as a construction material

- Produce collateral to support new users of structural timber methods
- 'Time for Timber'
- Continue to publish best practice technical standards
- Promote and update Technical Library
- Disseminate care points when constructing using Structural Timber
- Provide a dedicated technical resource for architects, designers and engineers



Skills

Increasing skills, capacity and competency across the supply chain

- STA Installer Training Scheme (ITS)
 - Online learning platform
 - Invigilated testing
 - Required by STA manufacturing members
- Updating training for (timber frame) designers and manufacturers
- CPD programme for the market
- Supporting and participating in CITB impact fund bid



Timber Supply

Increasing the sustainable supply of timber

- Increase home grown timber consumption
- The aim of the Confederation of Forest Industries is to support **sustainable forestry** and **wood-using businesses** through political engagement, market promotion and supporting our members' competitiveness.
- **Identify blockers to the use of homegrown timber**
- **Provide guidance to enable use**
- **Invest in processing and manufacturing**



Addressing fire safety and durability concerns to safely expand the use of engineered mass timber

- Ongoing research with HSE / BRE
- Volume 6 - Mass timber structures
- Moisture management - CLT
- 16 Steps, Separating distance guidance, Category A, B & C product papers
- Volume 1 - Pattern book systems
- Volume 2 - Cavity barriers and fire stopping
- Volume 3 - Members elements pattern book



Increasing collaboration with insurers, lenders and warranty providers

- STA Assure – Quality Assurance Scheme
- Levels of excellence
 - Bronze, silver and gold
- Mandatory requirement for members to supply elements that have proven fire resilience
- Design and Engineering Standards
- Manufacturing controls
- QA Systems transfer from factory to site
- Site safe programme



Innovation

Promoting innovation and high performing timber construction systems

- Improve efficiency and productivity
- Increase circularity
- Communicate how to build with structural timber methods
- Develop further guidance
 - Volume 4 & 5 - 'Pattern Books'
 - Moisture management - closed panels and CLT



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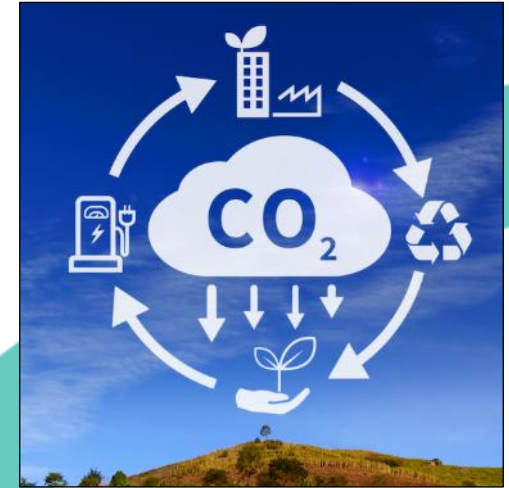
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