Timber Industry Net Zero Roadmap Actions

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Drivers for Net-Zero Carbon

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- The need to limit global warming to well below 2˚C, preferably to 1.5˚C, compared to pre-industrial levels as agreed at COP 21 in Paris (Dec 2015).
- UK Government legal target to reach Net-Zero by 2050 (June 2019)
- UK Government interim target of 78% reduction by 2035 compared to 1990 levels (April 2021)
- Targets from various organisations within our value chain, including the Construction Leadership Council, World & UK Green Building Councils, Manufacturers and Merchants

TDUK Net-Zero Target

Timber Development UK signed up to SME Climate Hub Commitment Jan 2022:

“Timber Development UK, recognising that climate change poses a threat to the economy, nature and society at large, commits to take action immediately in order to:

- *Support our members in halving greenhouse gas emissions intensity before 2030*
- *Achieve net-zero emissions before 2050*
- *Disclose our progress on a yearly basis*

In doing so, we are proud to be recognised by the United Nations Race to Zero campaign, and join governments, businesses, cities, regions, and universities around the world with the same mission.”

Science Based Targets Initiative (SBTi)

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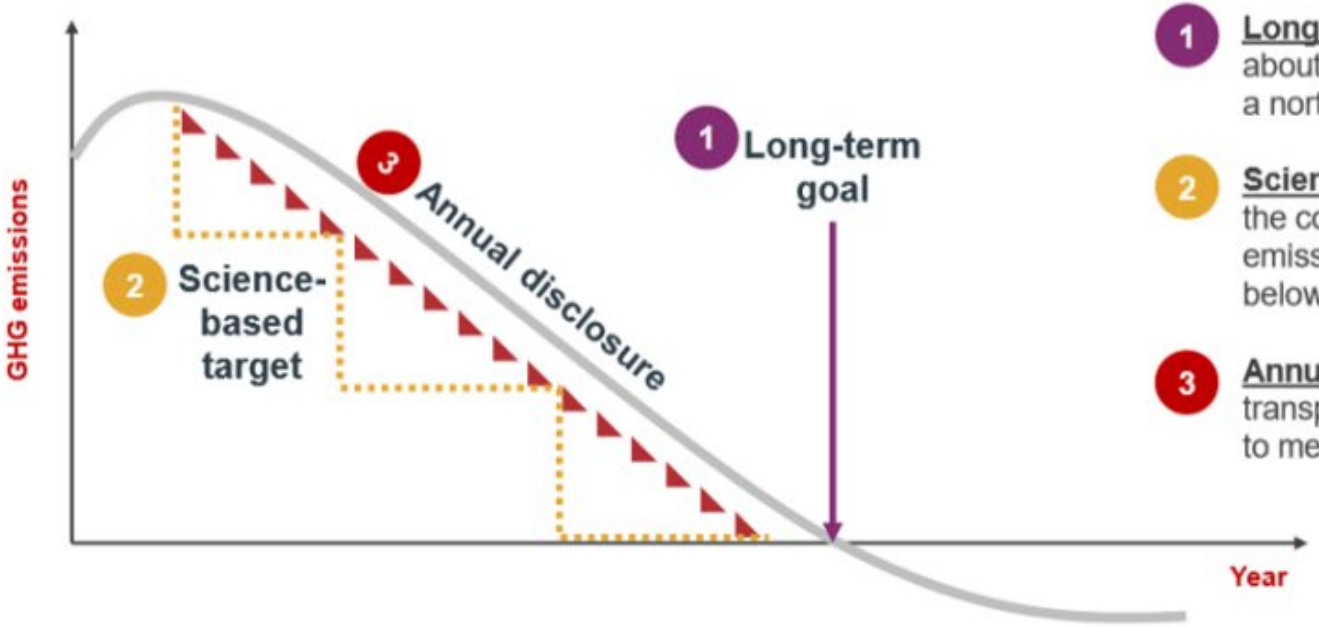
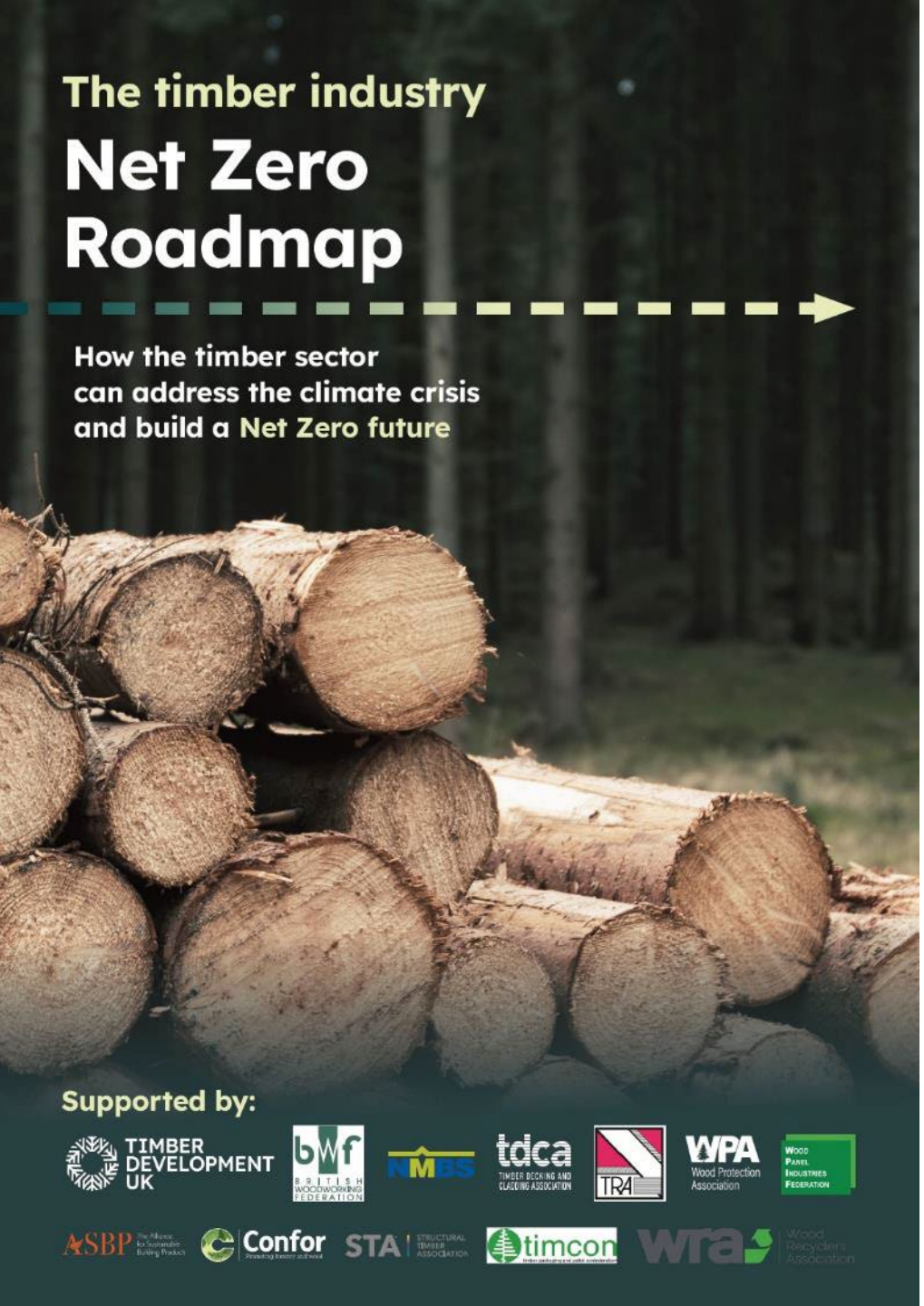
"GHG emissions reduction targets that are consistent with the level of decarbonization that, according to climate science, is required to keep global temperature increase within 1.5 to 2°C compared to pre-industrial temperature levels"



1. **Long-term goal:** A net-zero long-term goal provides certainty about the direction that the company will follow and serves as a north-star for long-term strategic decisions;
2. **Science-based target:** Science-based targets ensures that the company is taking shorter-term action to reduce emissions at a pace that is consistent with keeping warming below 1.5°C / well-below 2°C;
3. **Annual disclosure:** Climate disclosure provides transparency about the progress that the company is making to meet its long-term and medium-term goals

www.sciencebasedtargets.org | @sciencetargets

Supporting Associations



Energise

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Sector Net Zero roadmap, sector standards / guidance and toolkit (opportunity checklist, action plan template, communications template)

Carbon calculator for ongoing use (Excel or option to subscribe to Net Zero Club online tool)

High-level policy costs for implementing emissions reduction projects (Scope 1 & 2)

Understanding of suitable offset options

Industry Material Flows

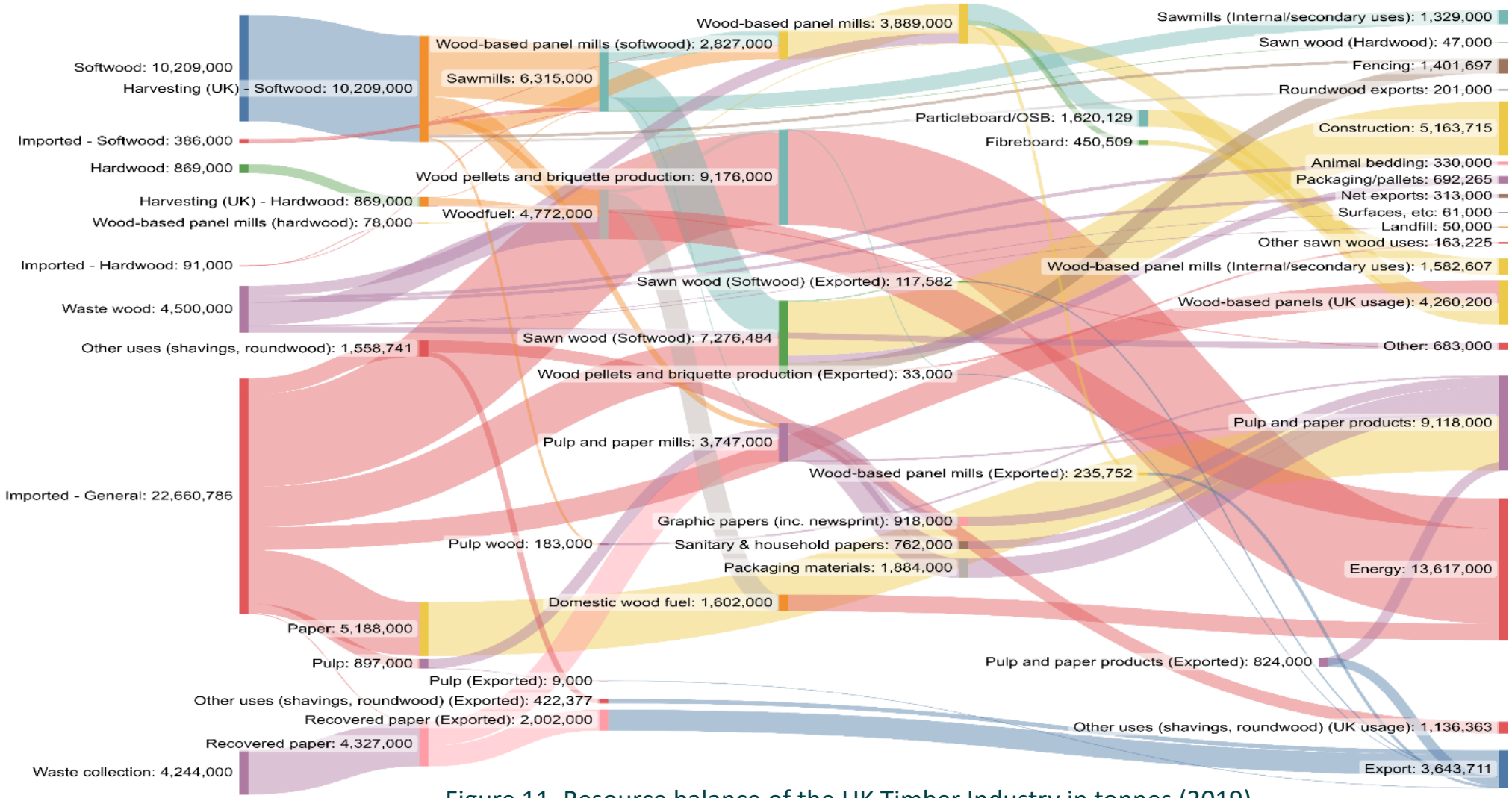

Figure 11. Resource balance of the UK Timber Industry in tonnes (2019)

Timber Industry Emissions Footprint

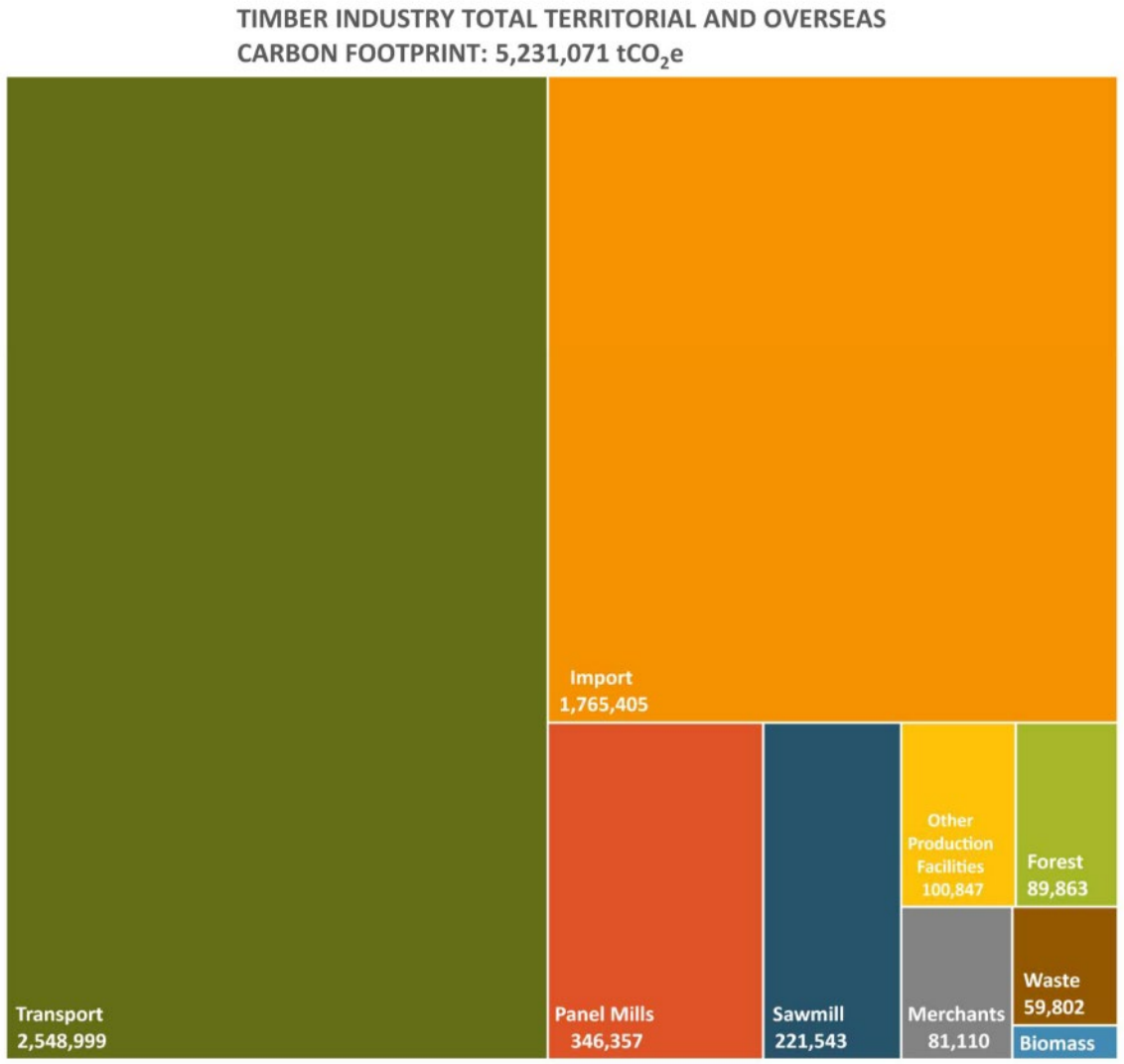

Figure 12. Emissions footprint of the Timber Industry (territorial & overseas)*

- Timber related industries in the UK* responsible for **1,575,356 tCO_2e** territorial emissions (0.35% of UK).
- Very low compared to other industries:
  - Steel: **12 million tCO_2e** (2.7% UK)
  - Concrete: **7.3 million tCO_2e** (1.5% UK)
- Timber industry also responsible for 3,655,715 tCO_2e of imported embodied emissions, which if added to the above, total consumption emissions still only 0.68% of total UK emissions.

*Excludes paper, cardboard, pulp, and imported biomass for the energy industry.

Timber Industry Emissions Footprint

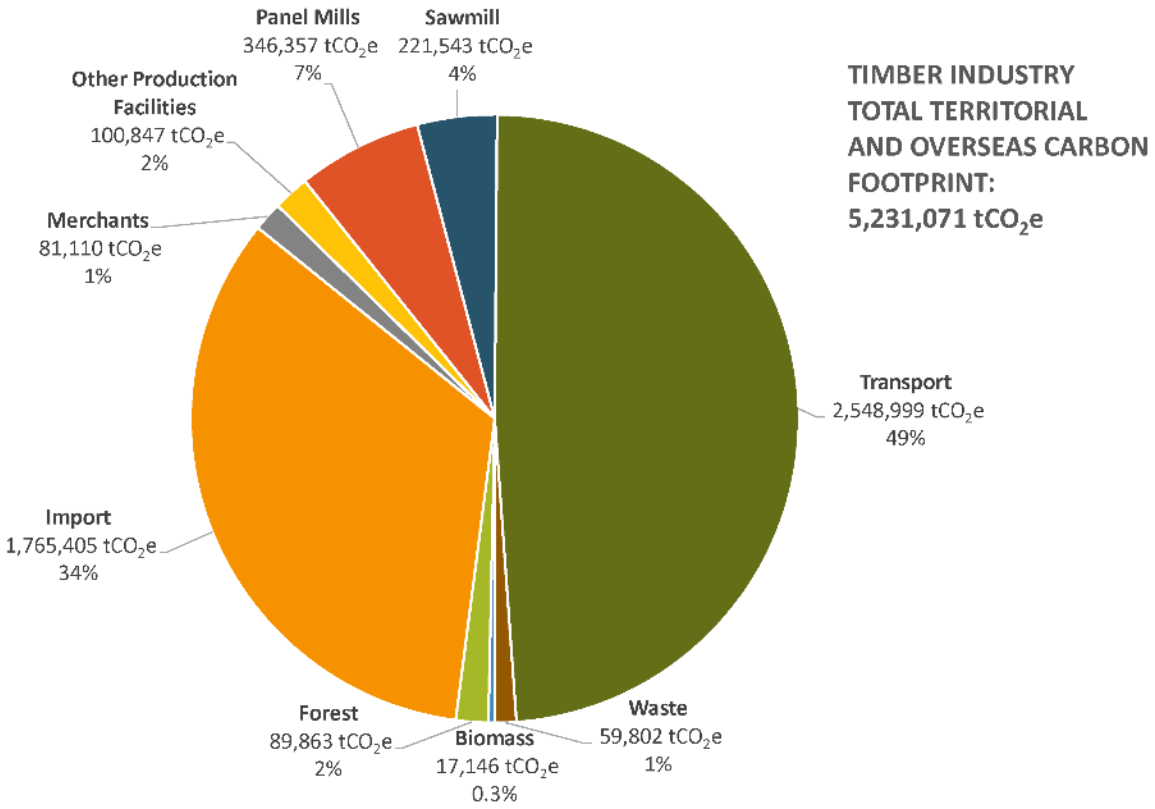

Figure 13. Emissions footprint of the Timber Industry (territorial & overseas)*

Based on total consumption emissions:

- 49% Transportation of timber products
  (inc. transport of wood products from country of origin)
- 34% Imported embodied emissions
  (processing of wood products in country of origin)
- 14% UK production facilities & merchants
- 2% Forest activities
- 1% Waste

*Excludes paper, cardboard, pulp, and imported biomass for the energy industry.

Timber Industry Net Zero Transition

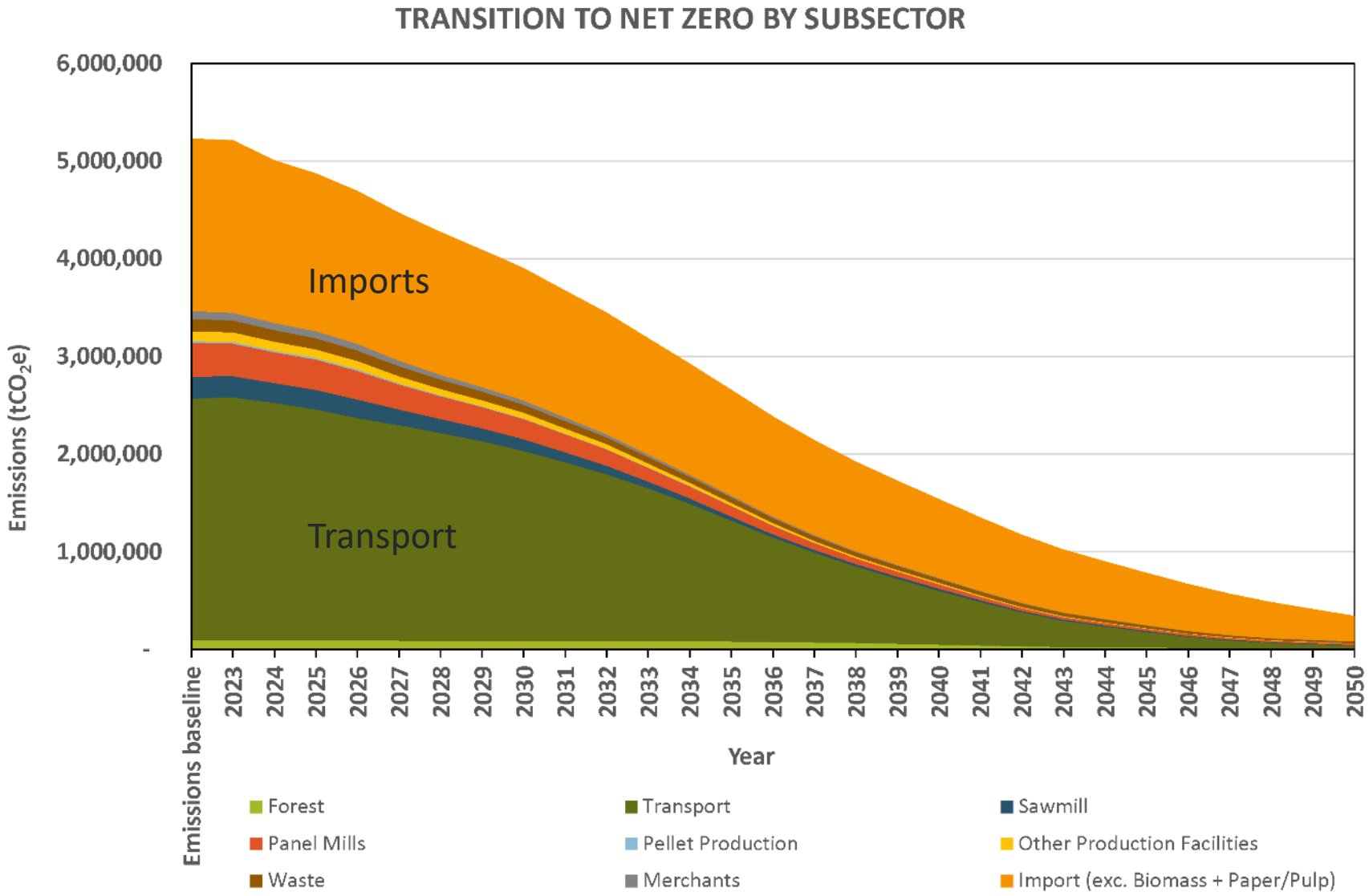

Figure 34. Transition to Net Zero for the UK Timber Industry

Policy Recommendations

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1. Industry should align to GHG protocol to report Scope 1 & Scope 2 emissions by all non-SME operators by 2023.
2. Set industry standard to compile full scope carbon footprints (inc. Scope 3) by 2025.
3. Reduce road going transport emissions intensity by 25% by 2030, and 50% by 2035.
4. Reduce processing/manufacturing emissions intensity by 50% by 2030.
5. Reduce forestry emissions intensity by 50% by 2040.
6. Reduce Scope 1 & 2 carbon intensity of the industry by 90% by 2045.
7. Reduce Scope 3 carbon intensity of the industry by 90% by 2050.
8. The industry will develop a specific circularity/resource efficiency roadmap by 2024 to accelerate the activity in this key area.
9. Nature-based solutions (combined with the above reductions) focused on permanent carbon removals to be used for offsetting.
10. The industry will support targets/initiatives to increase domestic production and expansion of the domestic woodland stock.

Data Quality Improvements

1. Industry should align to GHG protocol to report Scope 1 & Scope 2 emissions by all non-SME operators by 2023.
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Emission Scopes and Data

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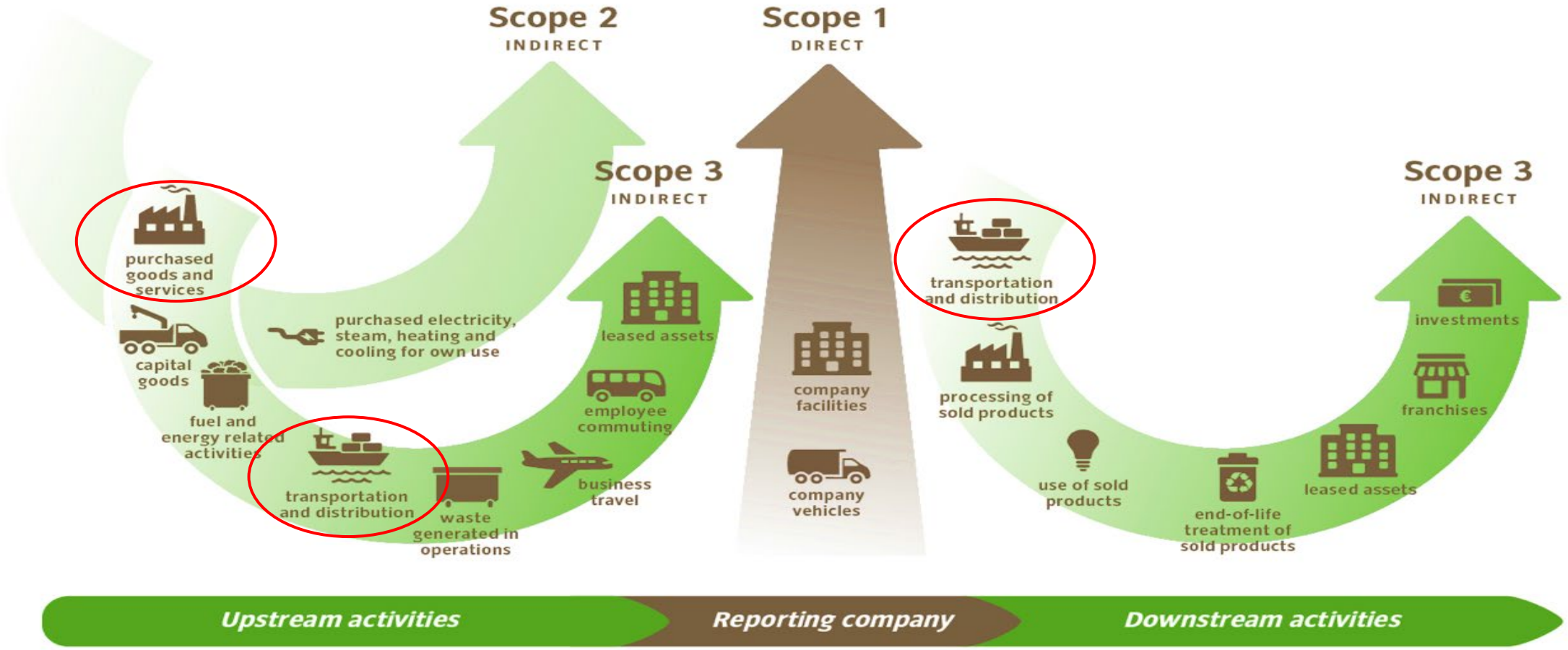
CO_2 CH_4 N_2O HFCs PFCs SF_6 NF_3



Source – Greenhouse Gas Protocol

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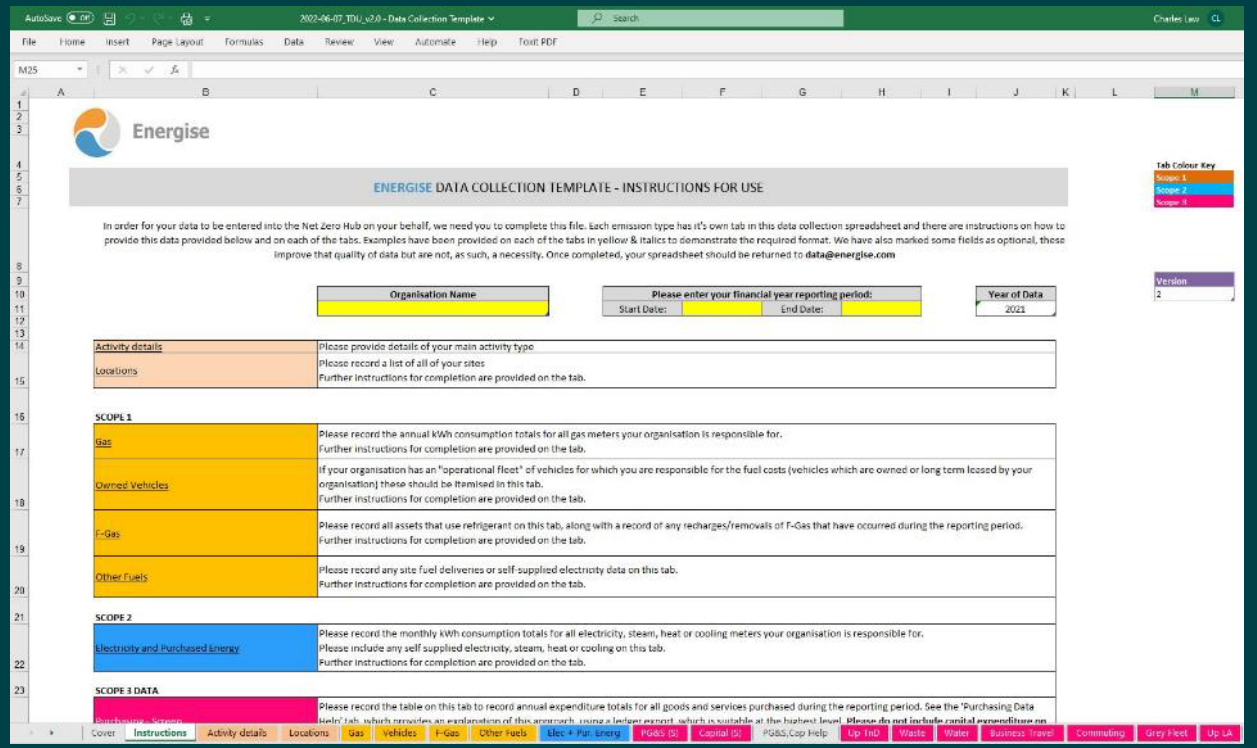

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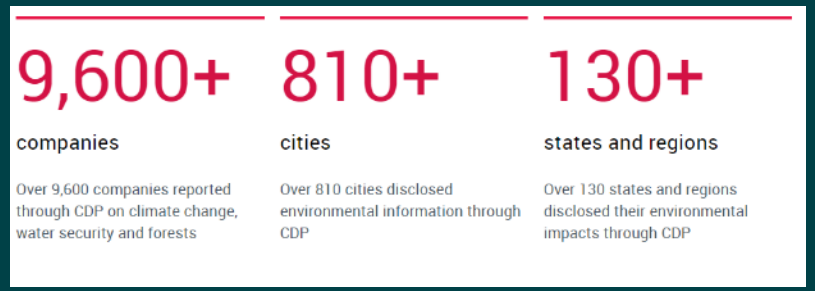

Carbon Disclosure Project

Transport Emissions

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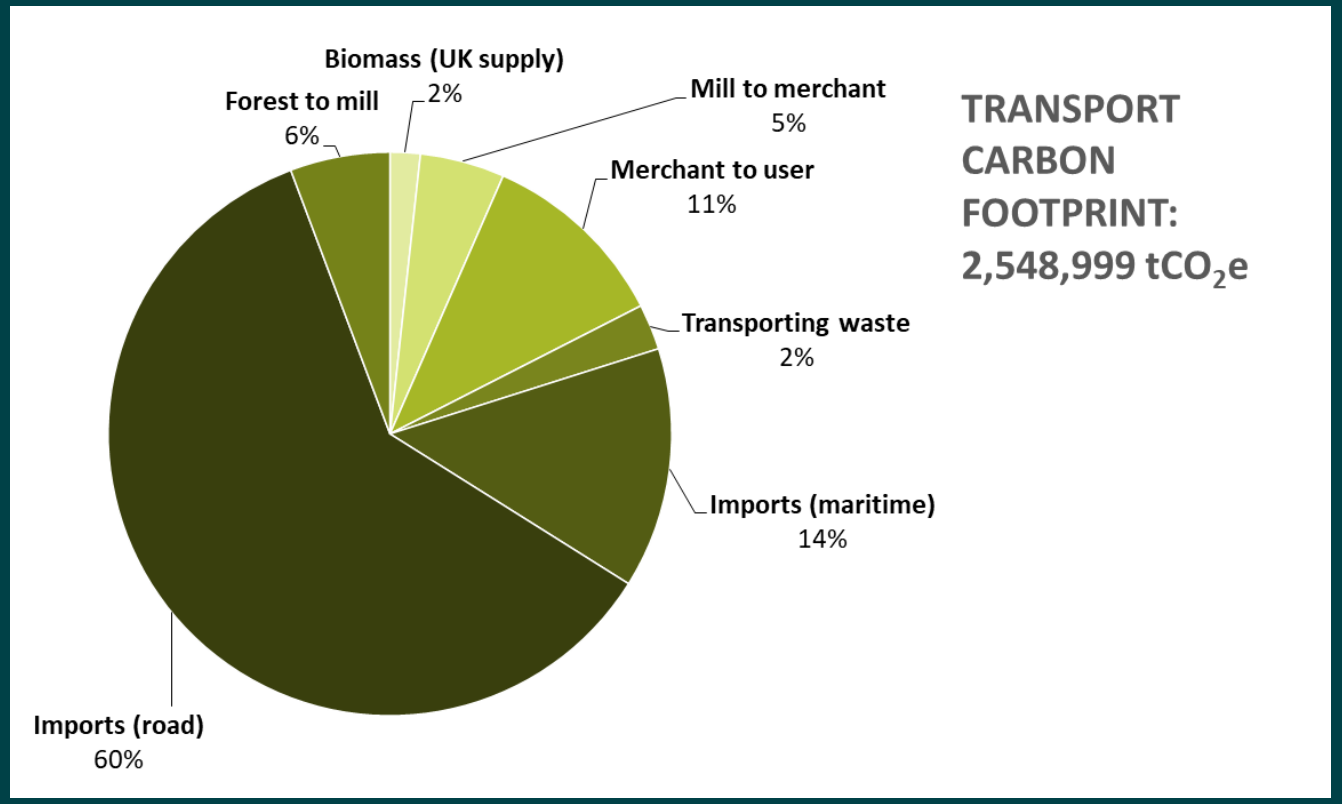

Transport Emission Reductions - Now

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Typical Energy Savings (as a % of total usage)	Cars	Truck
Tyre Replacement to A class	1.67%	2.65%
Tyre optimal inflation pressure	3%-5%	3%-5%
Driver style (training)	5-10%	5-10%
Reduce idle time	2%	2%
Aerodynamics (Cab roof deflectors, air dams, cab sun visors, cab side-edge turning vanes)		5%-10%
Wheel alignment	2.00%	4.50%
Turn off air conditioning	1%-10%	1%-10%

Table 3. Operational savings in an HGV

Up to 30% reductions with efficiency improvements and route optimisation.

Transport Emission Reductions - Future

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Zero emission Electric (or hydrogen?) powered trucks by 2030

Processing Emissions

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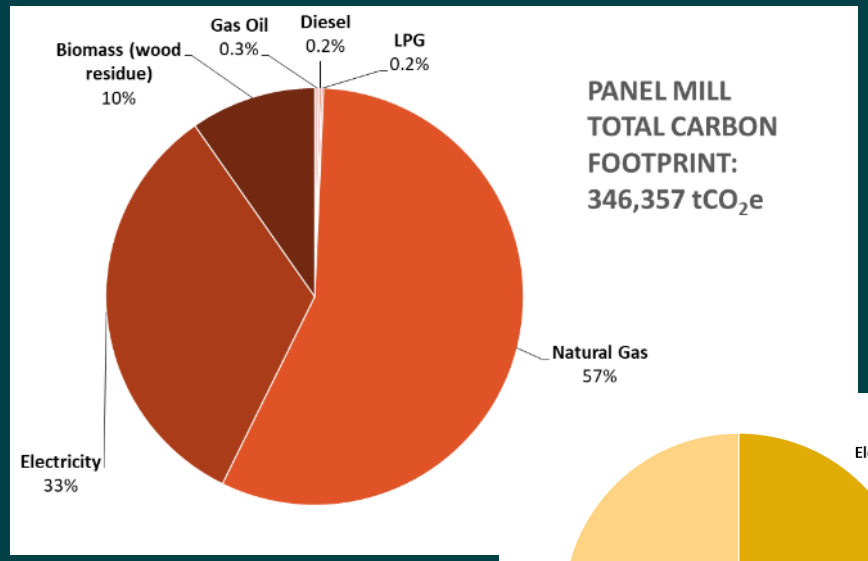

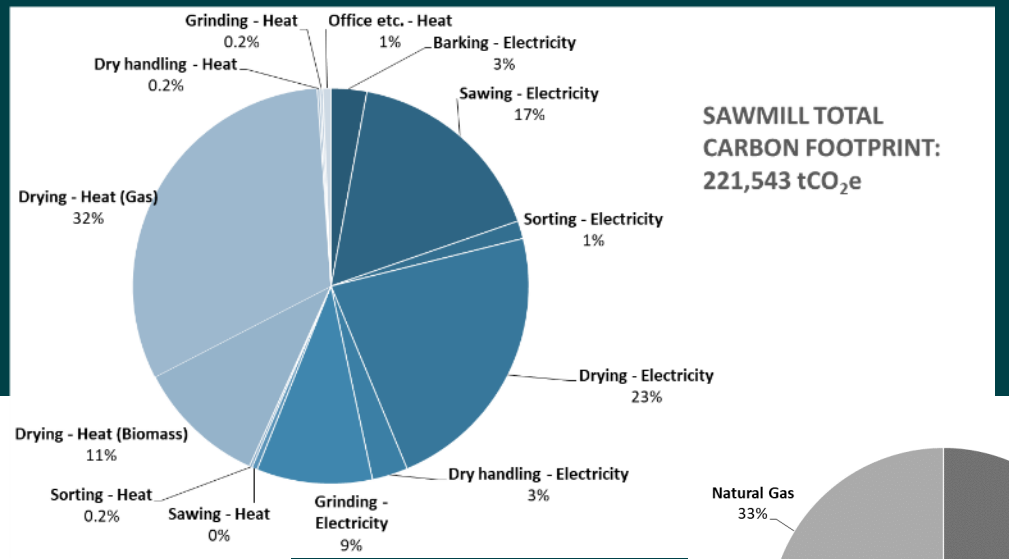

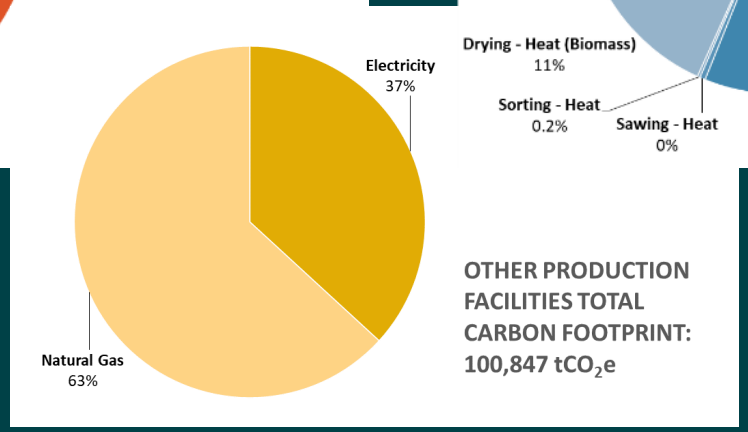

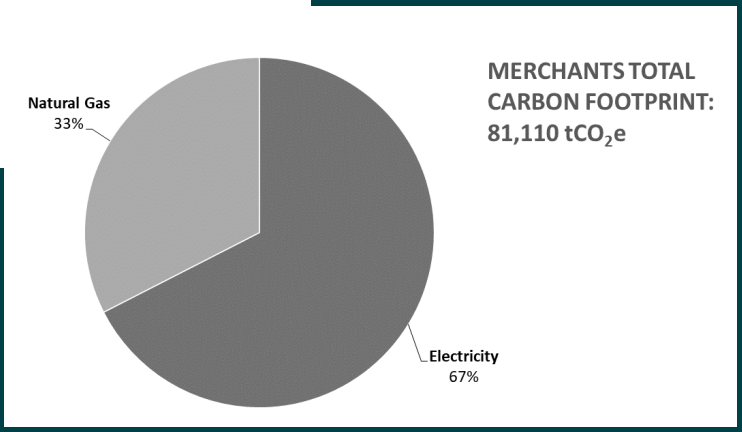

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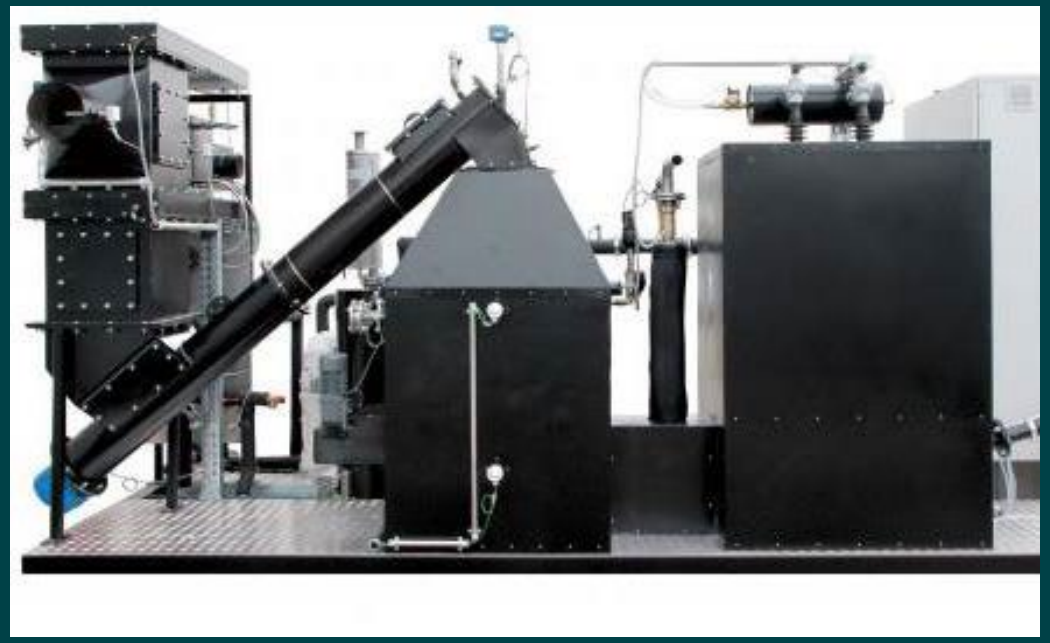

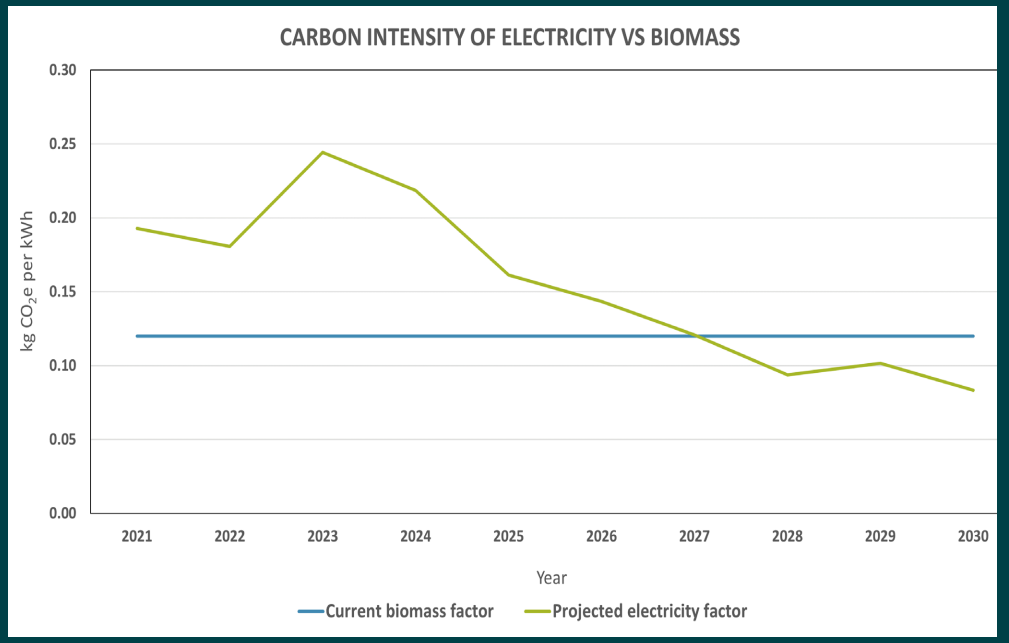

Energy efficiency improvements along with transition away from natural gas to biomass and/or electric for heat (drying and space heating).

Forestry Emissions

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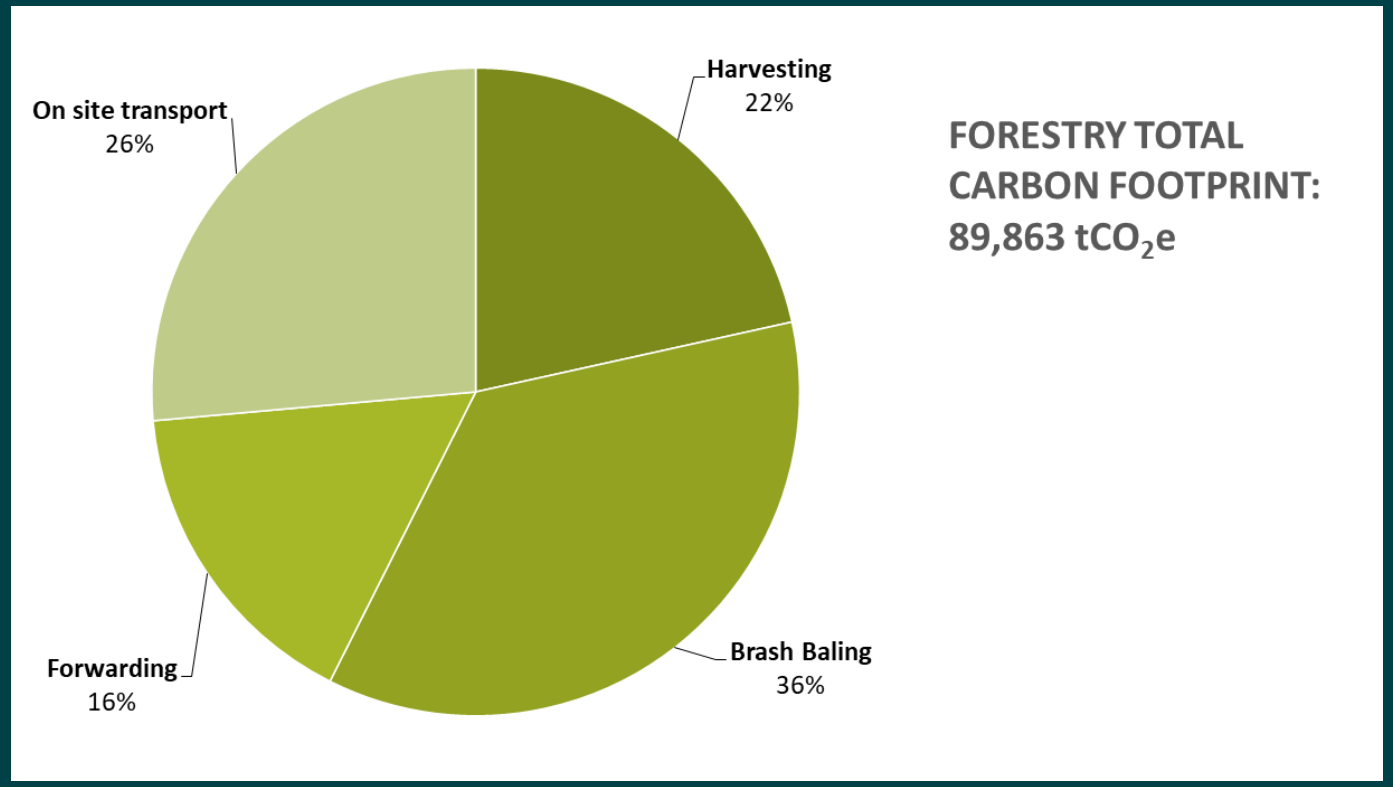

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Transition away from diesel to hydrogen powered forestry plant

Circular Economy Roadmap

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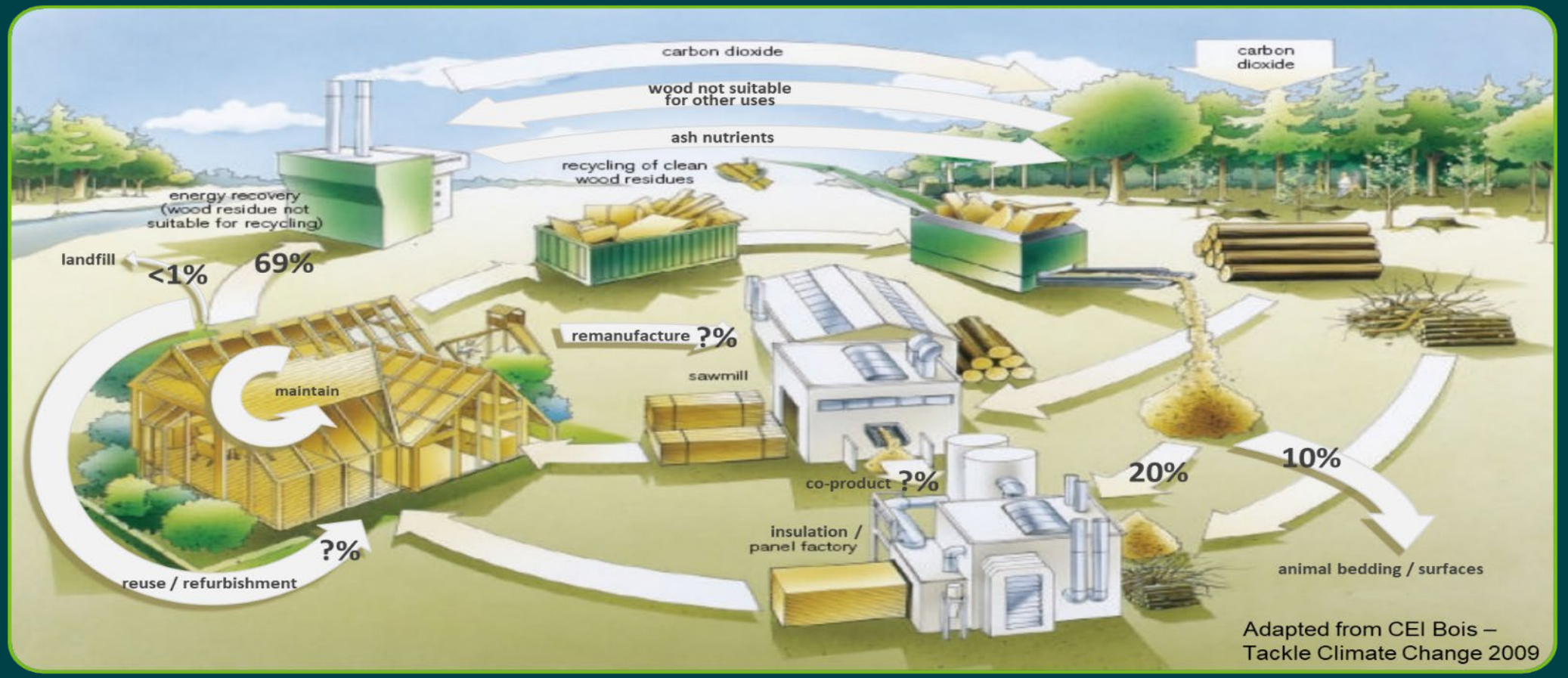

Nature-Based Carbon Removals

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9. Nature-based solutions (combined with the above reductions) focused on (permanent?) carbon removals to be used for offsetting.

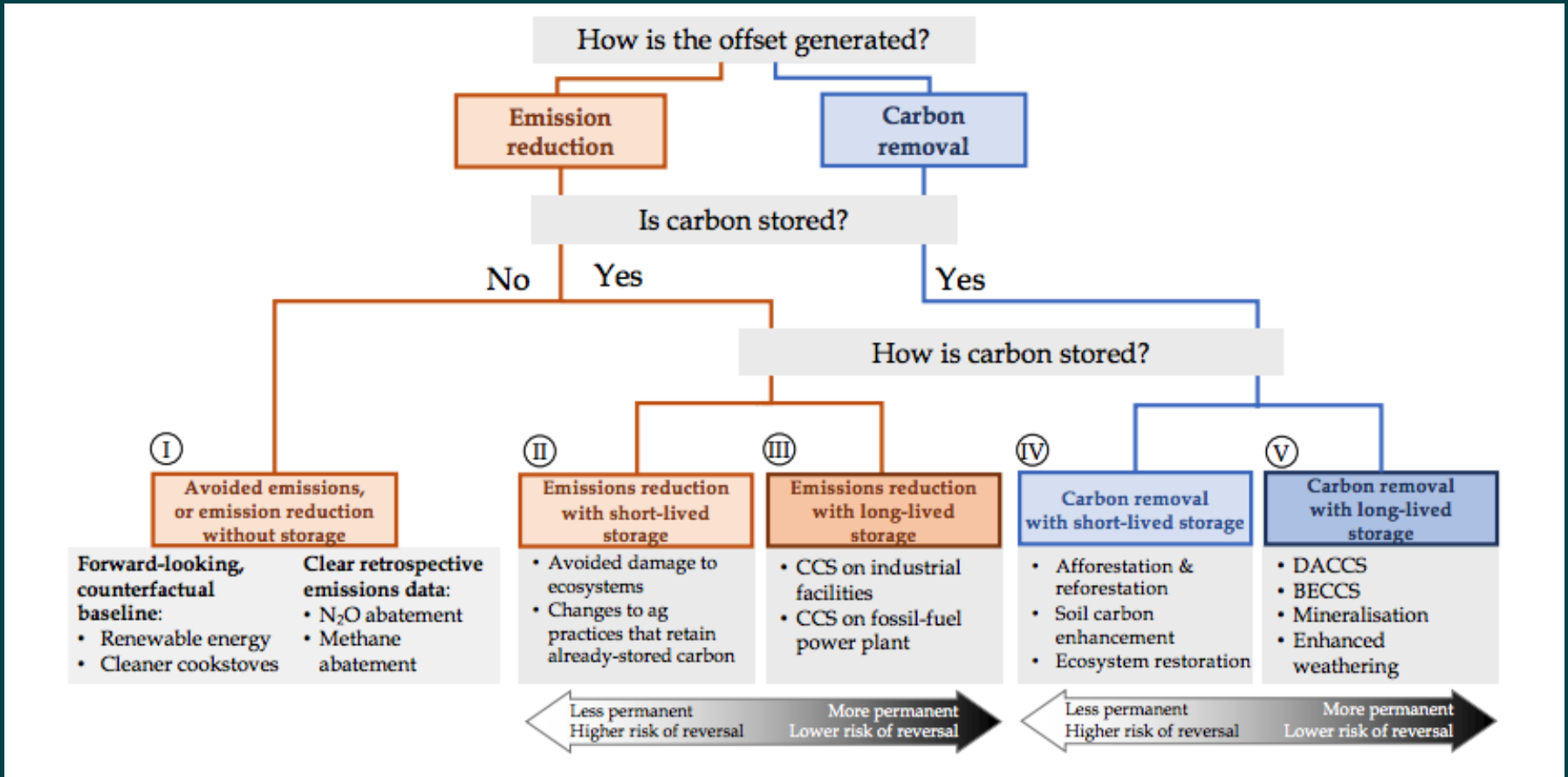

Image: Oxford Offsetting Principles

Nature-Based Carbon Removals

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Photo: PEFC

Increasing Domestic Woodland & Production

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10. The industry will support targets/initiatives to increase domestic production and expansion of the domestic woodland stock.

Call to Action

- Support the Timber Industry Net Zero Roadmap.
- Timber industry members to consider signing up to the SME Climate Hub Net Zero by 2050 Commitment, or equivalent, and join the Race to Zero (Recommendations 3-7).
- Timber industry members to improve reporting of Scope 1 & 2 emissions by end of 2023, and Scope 3 by end of 2025 (Recommendations 1-2).
- Implement relevant emission reduction opportunities identified in the Roadmap. These will save carbon and reduce cost over time (Recommendations 3-7).
- Incorporate Circular Economy design principles to ensure optimum resource efficiency, long life, and end of life reuse (Recommendations 8).
- After all reduction measures have been exhausted, use nature based 'Carbon Removal' offsets (e.g. tree planting) for residual carbon emissions (Recommendations 9-10).

Questions


TIMBER
DEVELOPMENT
UK


ASBP
The Alliance
for Sustainable
Building Products


bwf
BRITISH
WOODWORKING
FEDERATION


Confor
Promoting forestry and wood


wra
Wood
Recyclers
Association


TIMBER
DEVELOPMENT
UK


NMBS
STRENGTHENING
INDEPENDENTS


WPA
Wood Protection
Association


STA
STRUCTURAL
TIMBER
ASSOCIATION


WOOD
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TRA


tdca
TIMBER DECKING AND
CLADDING ASSOCIATION


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Thank You