Timber Industry Net Zero Roadmap

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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

C2nstructZERO
The Construction Industry's Zero carbon change programme

UK GBC

WORLD GREEN BUILDING COUNCIL
ADVANCING NET ZERO

TDUK Net-Zero Target

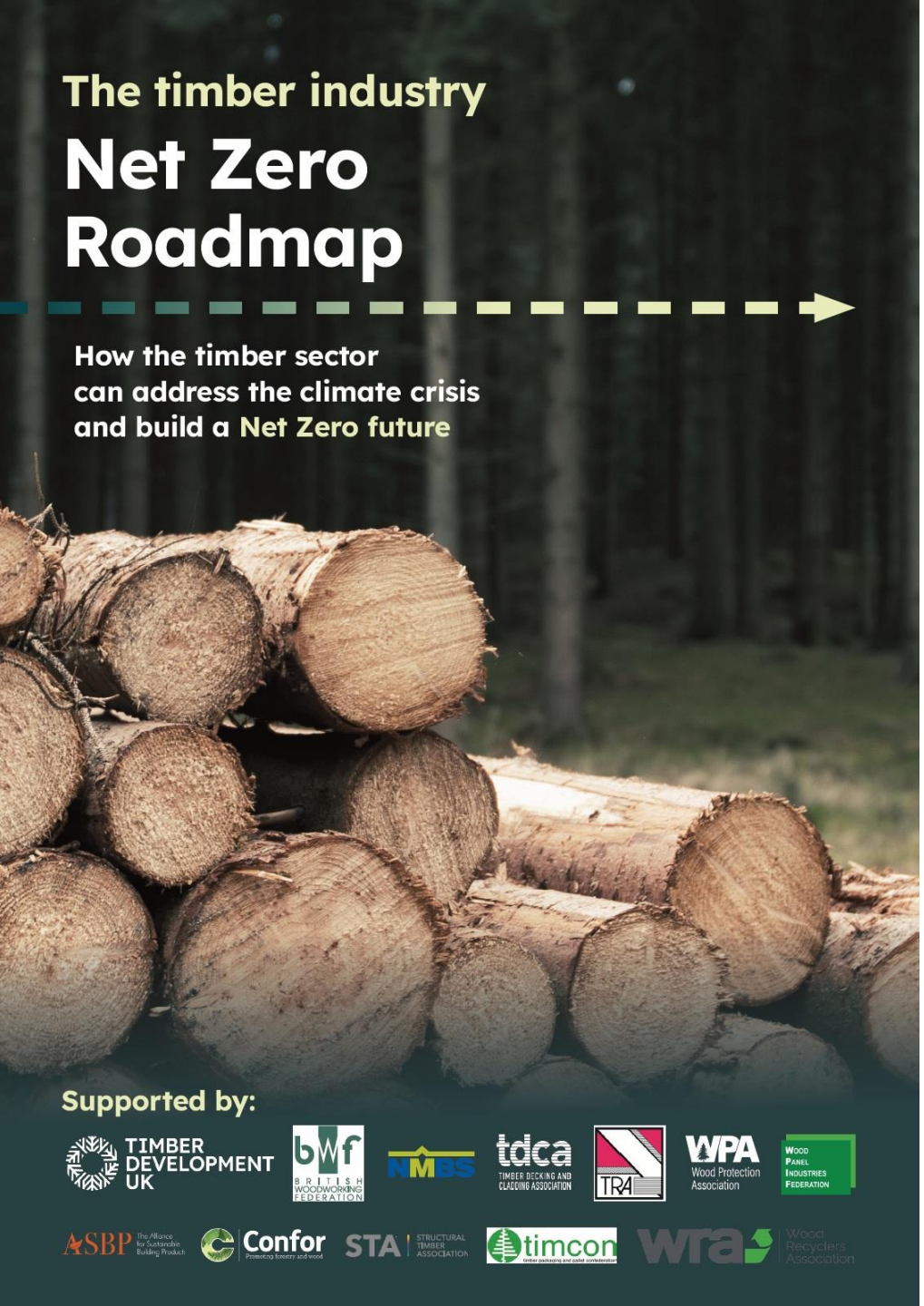
Timber Development UK signed up to SME Climate Hub Commitment Jan 2021:

"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."

Supporting Timber 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

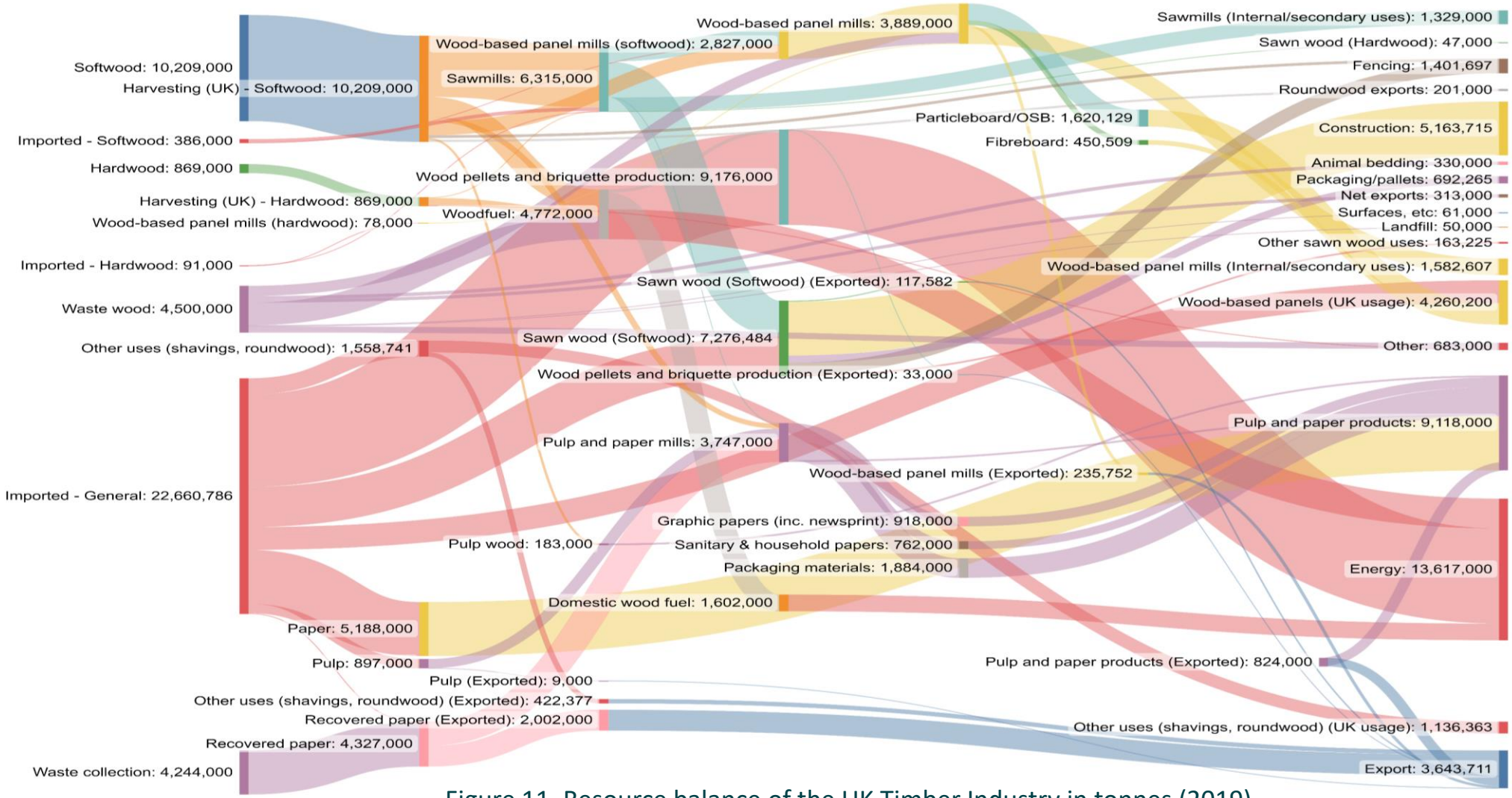

Figure 11. Resource balance of the UK Timber Industry in tonnes (2019)

Timber Industry Emissions Footprint

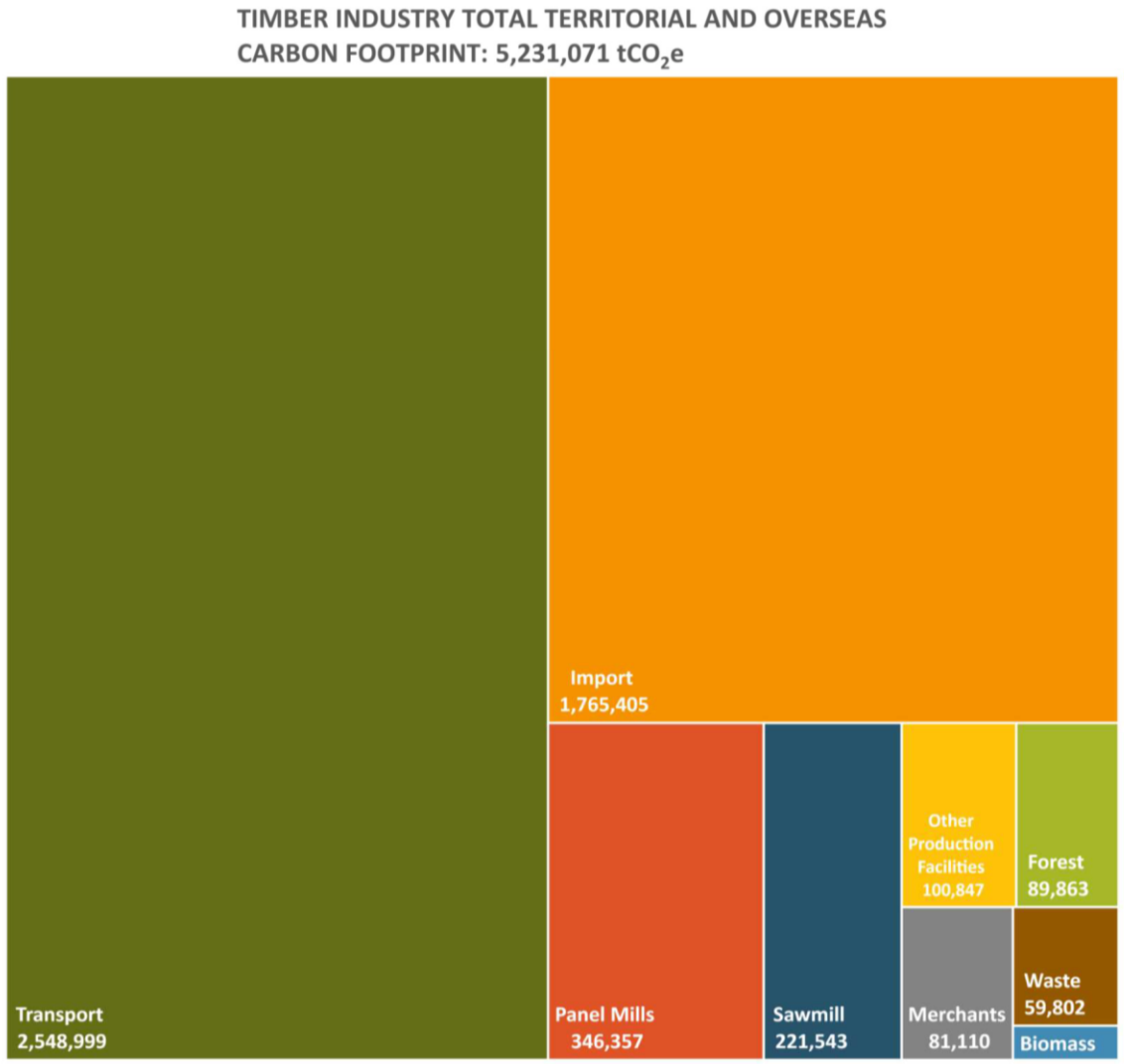

Figure 12. Emissions footprint of the Timber Industry (territorial & overseas)*

- 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

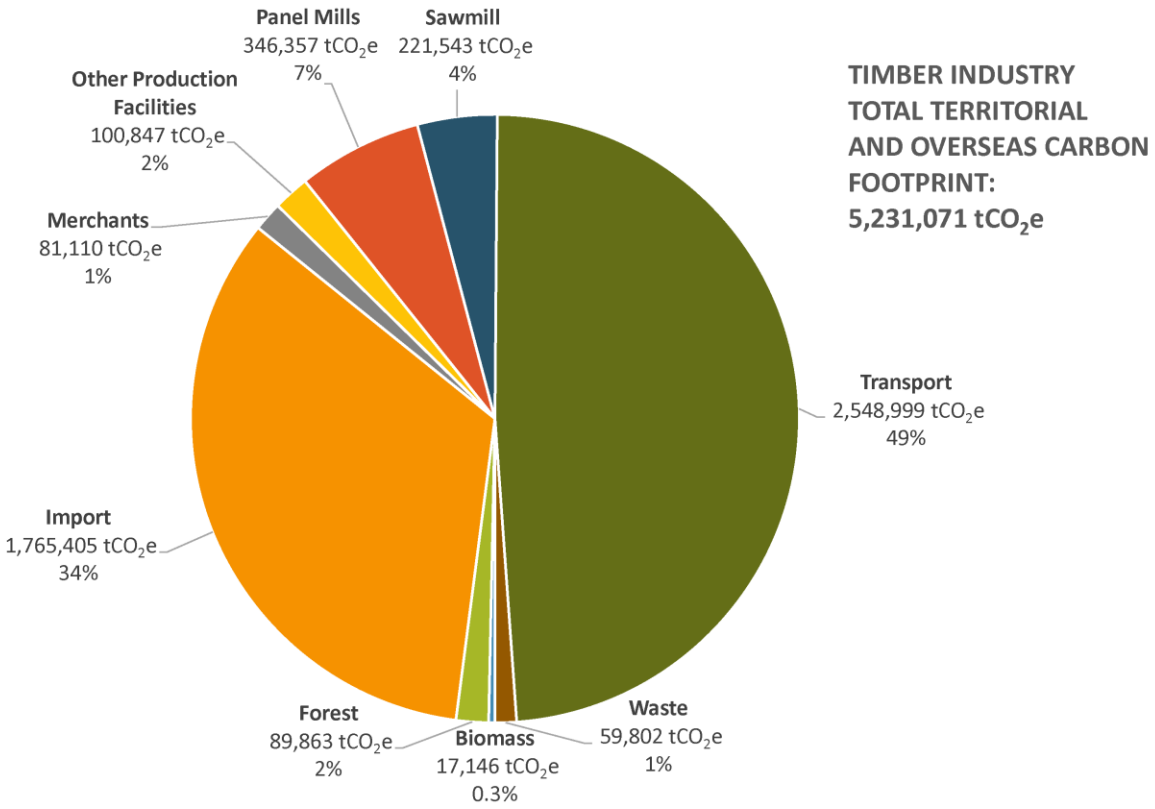

Figure 13. Emissions footprint of the Timber Industry (territorial & overseas)*

Based on total consumption emissions:

- 49% Transportation of timber products
- 34% Imported embodied emissions
  (processing of wood products in the 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

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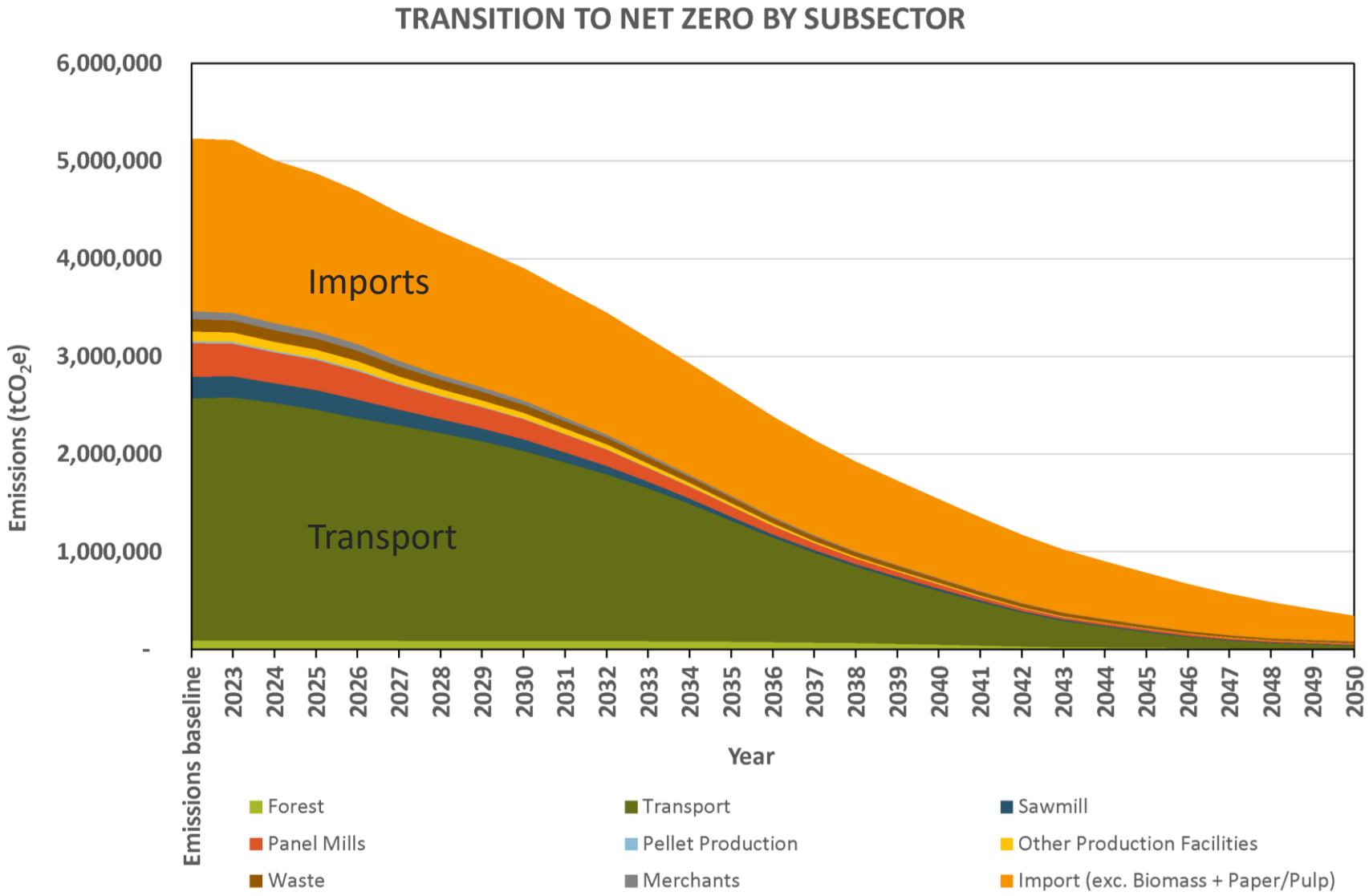

Figure 34. Transition to Net Zero for the UK Timber Industry

Policy Recommendations

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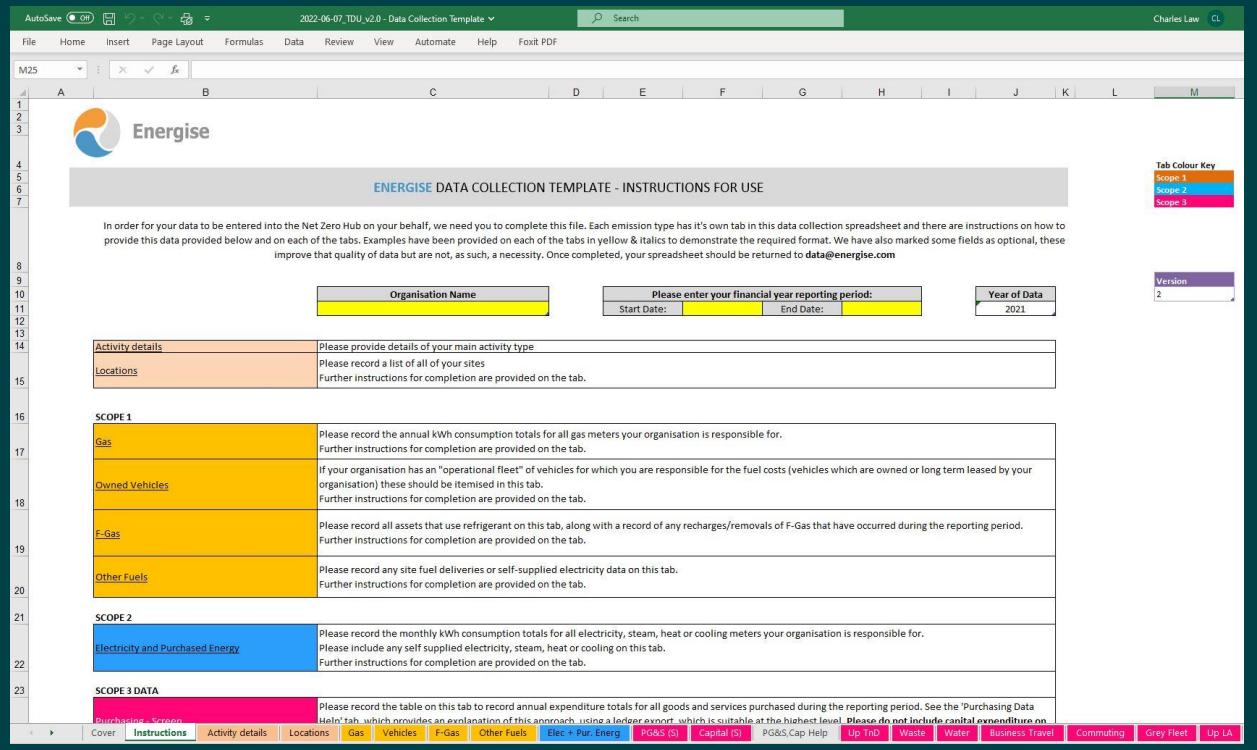
1. Industry should align to GHG protocol to report Scope 1 & Scope 2 emissions by all non-SME operators by 2023.
2. Set industry standard to compile full scope carbon footprints (inc. Scope 3) by 2025.
3. Reduce road going transport emissions intensity by 25% by 2030, and 50% by 2035.
4. Reduce processing/manufacturing 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.
2. Set industry standard to compile full scope carbon footprints (inc. Scope 3) by 2025.



Emission Scopes and Data

CO_2 CH_4 N_2O HFCs PFCs SF_6 NF_3

Source – Greenhouse Gas Protocol

Transport Emission Reductions - Now

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3. Reduce road going transport emissions intensity by 25% by 2030, and 50% by 2035.
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.

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.

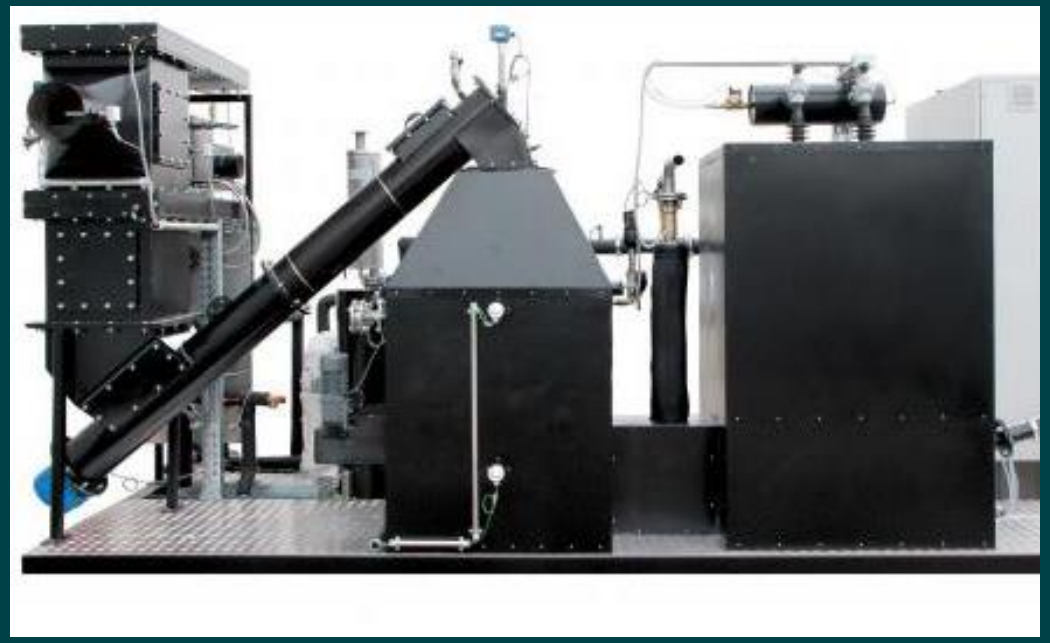
Transport Emission Reductions - Future

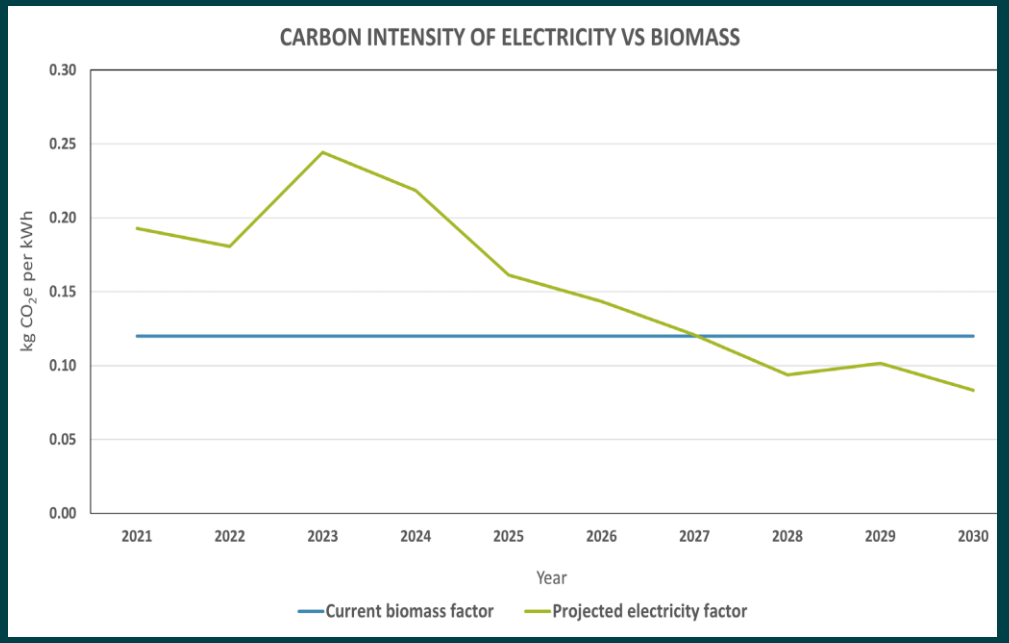
3. Reduce road going transport emissions intensity by 25% by 2030, and 50% by 2035.
6. Reduce Scope 1 & 2 carbon intensity of the industry by 90% by 2045.
7. Reduce Scope 3 carbon intensity of the industry by 90% by 2050.

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

Processing Emission Reductions

4. Reduce processing/manufacturing emissions intensity by 50% by 2030.
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.





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

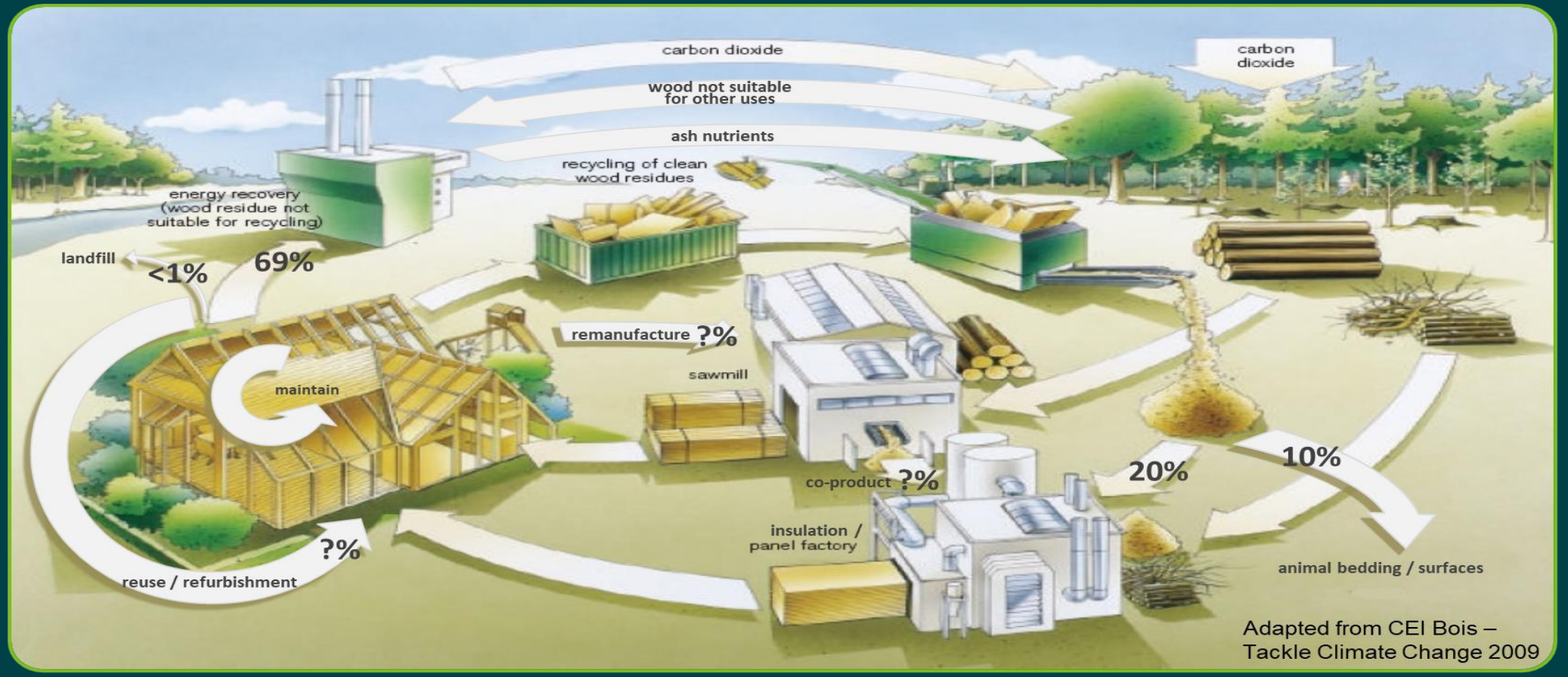
Forestry Emission Reductions

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.

Transition away from diesel to hydrogen powered forestry plant

Circular Economy Roadmap

8. The industry will develop a specific circularity/resource efficiency roadmap by 2024 to accelerate the activity in this key area.



Nature-Based Carbon Removals

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

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


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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
PANEL
INDUSTRIES
FEDERATION


TRA


tdca
TIMBER DECKING AND
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Thank You