



how to reduce climate change.



use wood instead of other materials

- Wood products act as a carbon sink throughout their life
- Wood has the lowest energy consumption and the lowest CO₂ emission of any commonly used building material
- Wood's thermal insulation properties mean timber frame houses use less energy
- Wood is uniquely renewable
- Using wood products encourages forestry to expand, increasing the carbon sink effect and reducing the CO₂ in the atmosphere.

use sustainable wood

- The great majority of Europe's forests are managed sustainably, to generate a sustainable healthy yield, while maintaining biological diversity and replacing harvested stocks
- For additional reassurance, look for wood covered by credible independent third party certification.



recover energy from waste wood products

- Wood is created by photosynthesis and can be considered an efficient way of storing solar energy
- Recovering the energy from wood products at the end of their life – as a substitute for fossil fuels – increases the CO₂ benefit of using wood.

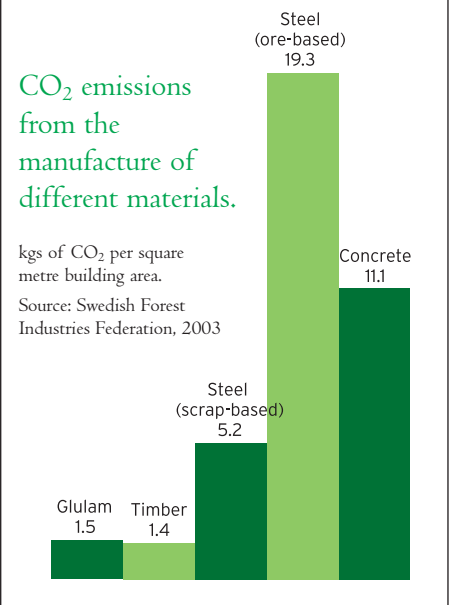
recycle wood products

- The longer the wood stays in use, the longer the carbon sink effect of the product.

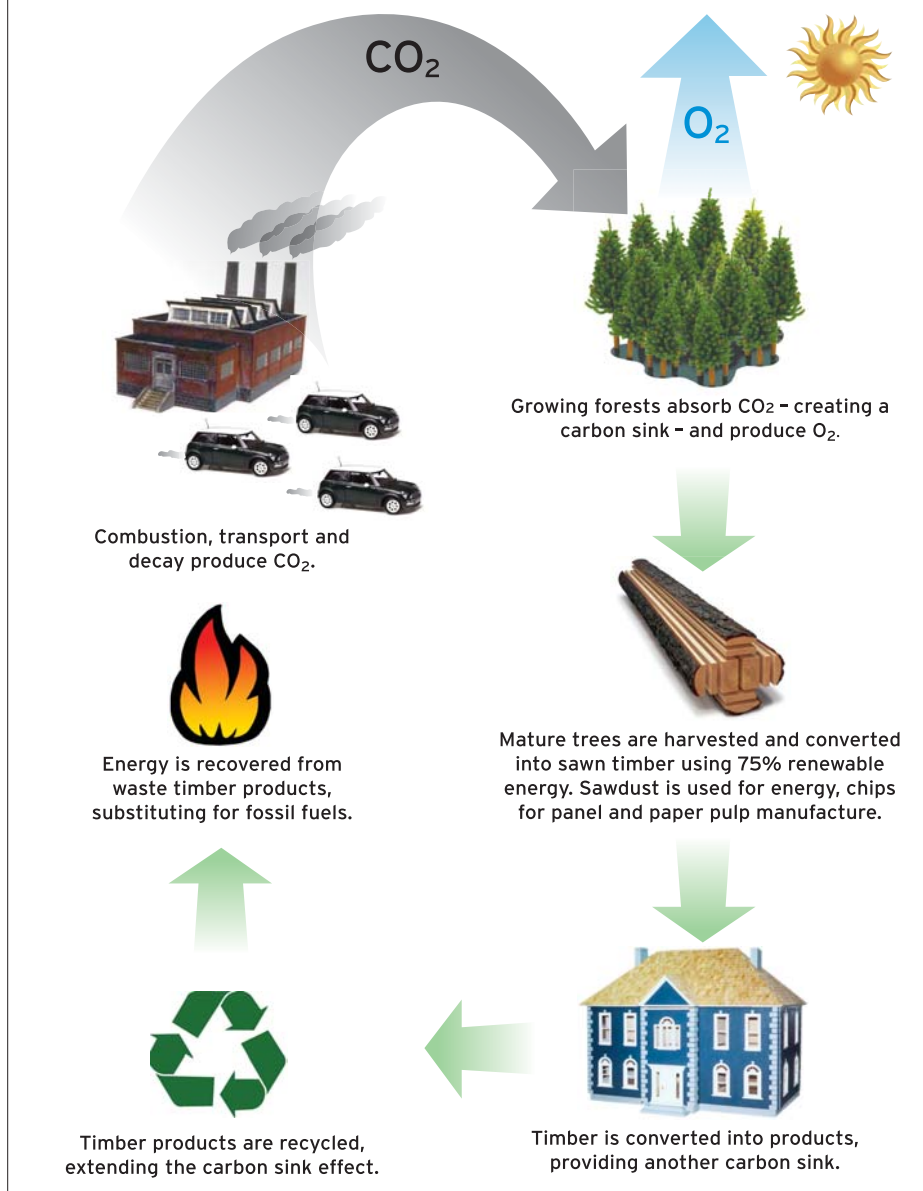


Europe's forests are growing

- The European timber industry, which supplies the overwhelming majority of our timber, has overseen a steady expansion of Europe's forests over the past 60 years
- Between 1990 and 2000 the European forest area has grown by 30%
- This growth continues, as only 65% of the annual growth is harvested, adding some 252 million cubic metres to the carbon sink annually (source: UN-ECE Temperate and Boreal Forest Assessment, 2000)
- The best way to use forests as carbon sinks is to harvest the timber and convert it into products (which continue to store the carbon) while replanting more trees than before
- Growing trees absorb CO₂ from the atmosphere at a rate of 1kg for every m³ of growth and convert it into carbohydrates through photosynthesis, releasing the oxygen we breathe
- The resulting carbon is locked away for the tree's life and the life of the timber and paper products coming from the tree.

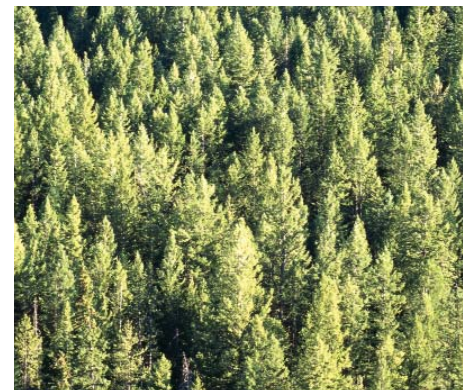


The Carbon Cycle of wood building products.



some facts about wood and CO₂:

- The European wood product stock is estimated at 60m tonnes
- Using 1m³ of wood instead of other materials results in 0.8 tonnes of CO₂ sequestration
- A 10% increase in the share of timber houses built annually in Europe would result in a significant reduction in CO₂ emissions
- Wood products achieve negative net CO₂ emissions – lower than any other building material (source: Building Information Foundation RTS, 2003)
- They require very little non-renewable energy for their manufacture, as over 75% of energy for manufacturing comes from wood residues and recovered wood
- The LCA (lifecycle) of wood products is highly advantageous
- Wood's thermal efficiency means timber frame houses use less energy to heat.



for more information

Life cycle analysis • www.bre.co.uk • www.woodforgood.com