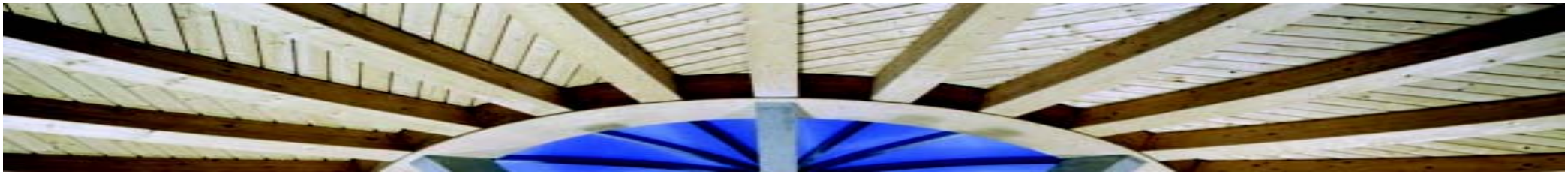

Tackle Climate Change : Use Wood

wood

CEI-Bois Roadmap 2010

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IRG 2007 Proposals for papers

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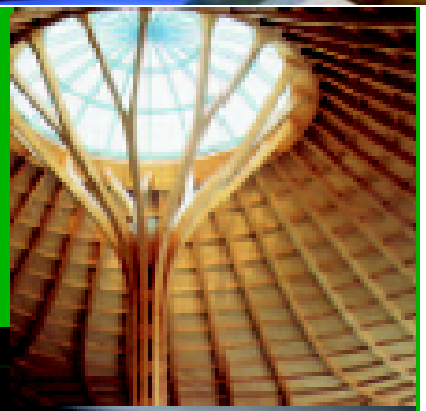
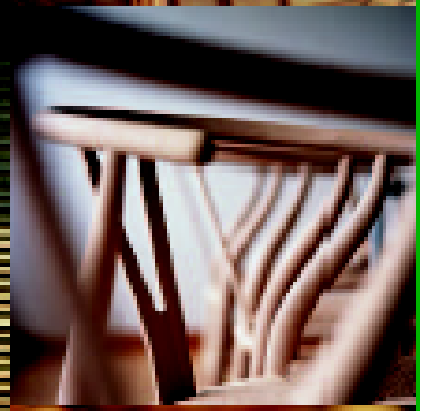
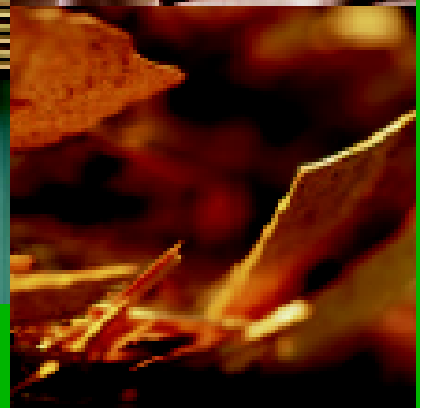
Tackle Climate Change:
Use Wood







wood

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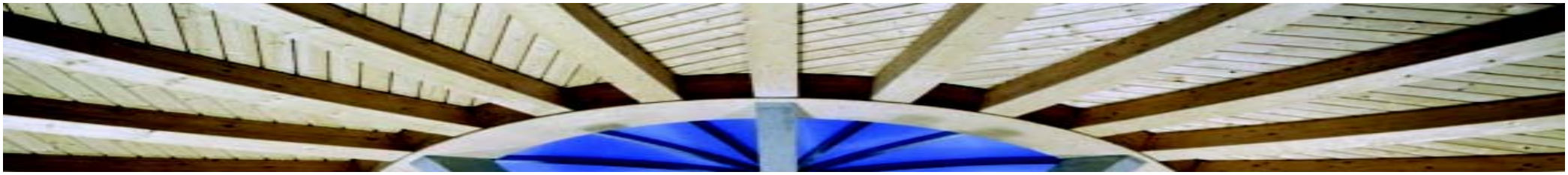
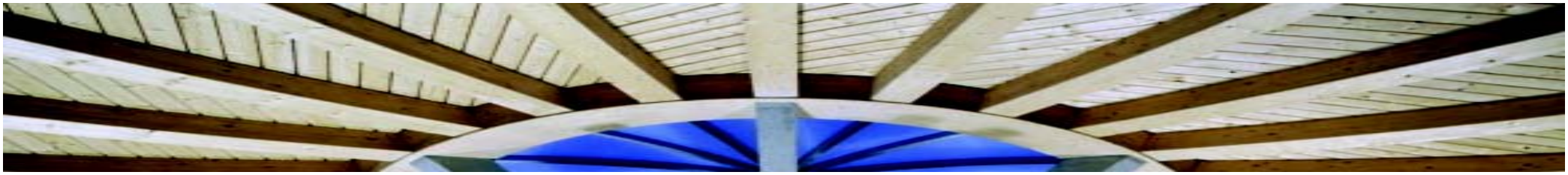


Tackle Climate Change : Use Wood

1. Climate Change
2. Europe’s forests: a renewable resource
3. How wood products help slow Global Warming
4. The eco-cycle of wood and wood based products
5. The benefits of using wood
6. The Industry: facts and figures



Tackle Climate Change : Use Wood

European Confederation of Woodworking Industries – CEI-Bois

Filip De Jaeger : Secretary General

www.roadmap2010.com

wood

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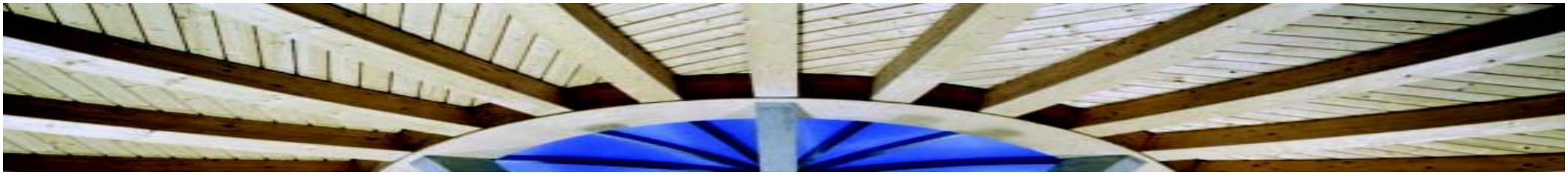
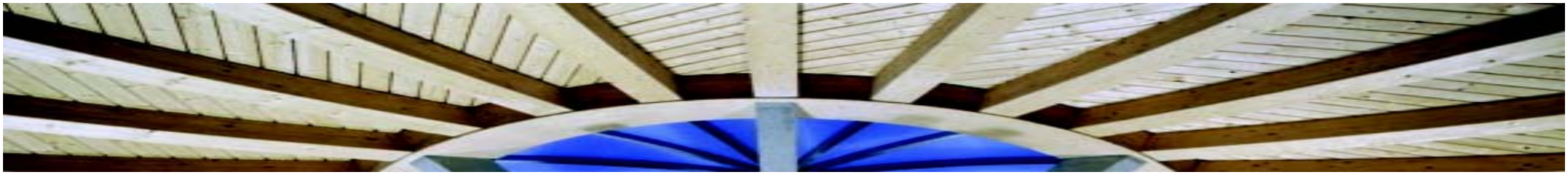


Climate change:

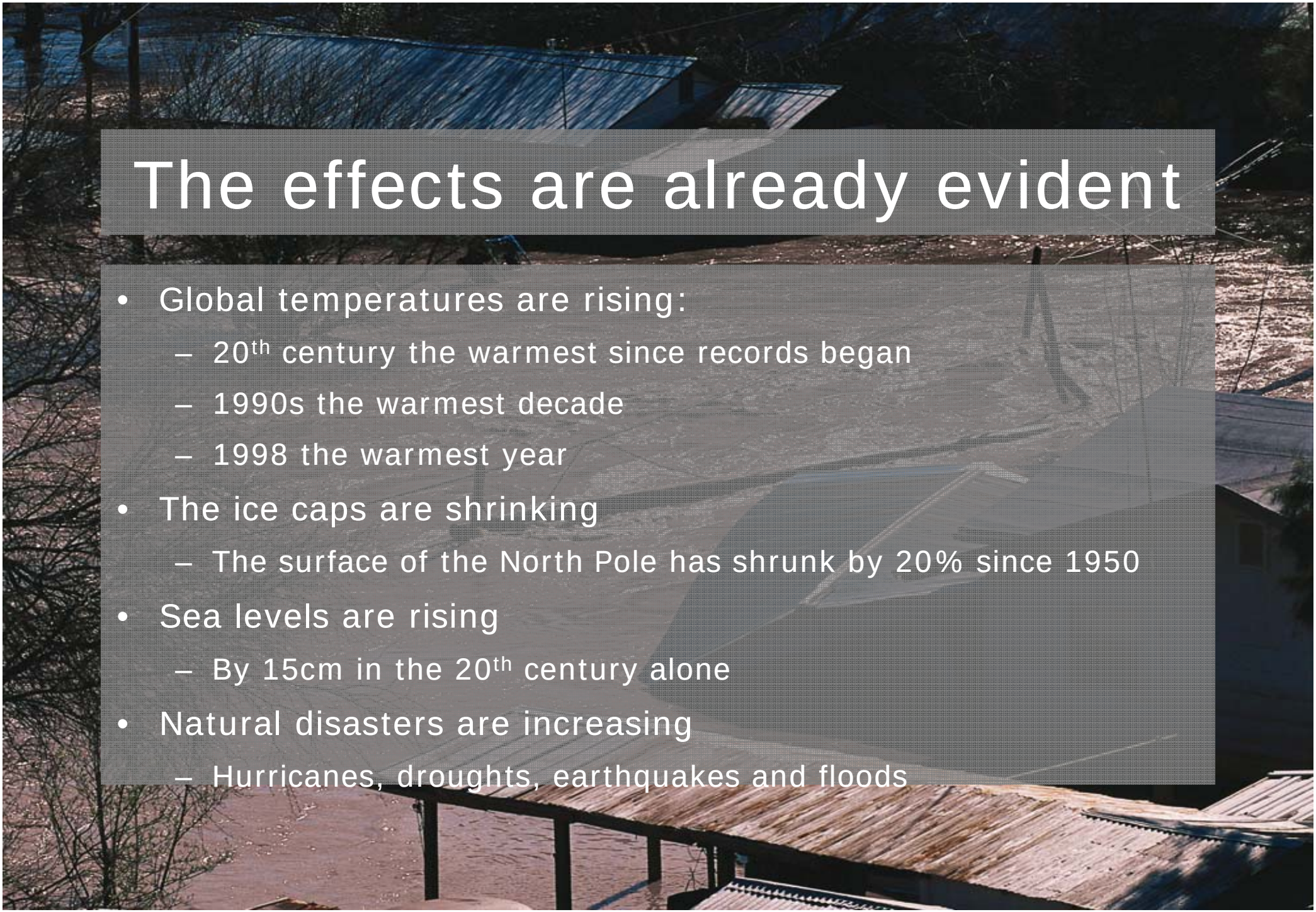
Scientific community agree ?

Public awareness increasing ?



Public awareness of climate change

- « Abnormal » climatic developments
- No real winter in 2006, mild Spring 2007, droughts in Central-Europe
- Public is getting « interested » in the subject …

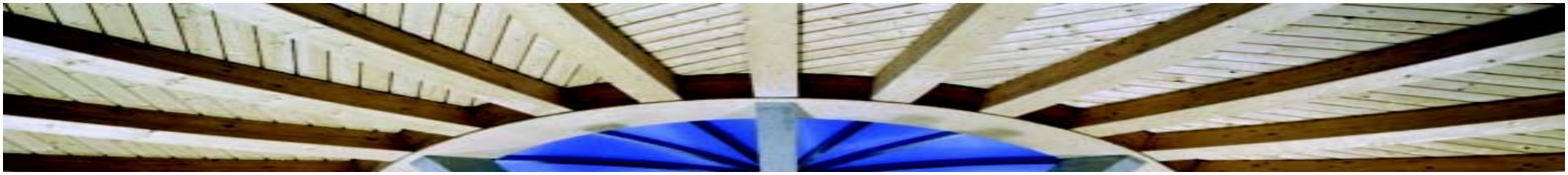


The effects are already evident

- Global temperatures are rising:
  - 20th century the warmest since records began
  - 1990s the warmest decade
  - 1998 the warmest year
- The ice caps are shrinking
  - The surface of the North Pole has shrunk by 20% since 1950
- Sea levels are rising
  - By 15cm in the 20th century alone
- Natural disasters are increasing
  - Hurricanes, droughts, earthquakes and floods

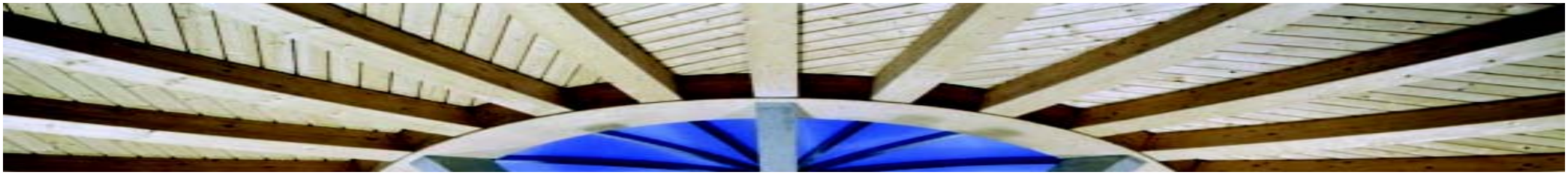
CO_2 emissions are the main cause

- CO_2 is the main greenhouse gas
- CO_2 concentration in the atmosphere has increased by 30% since the industrial revolution
- It is currently increasing by 0,5% a year
- By 2100 it will have doubled
- Therefore global temperatures are forecast to increase by 0,1 to 0,4°C every decade of the first half of the century



Policy measures

- Kyoto Protocol
- CO_2 emission reduction plans
- EU policy: increase biomass for energy production
- Waste Directives
- ….



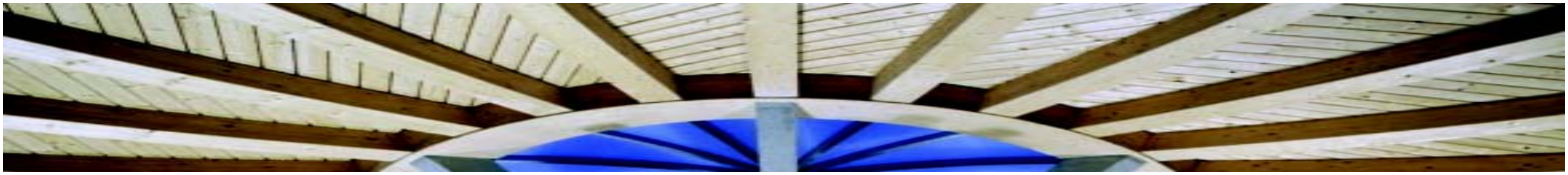
CO_2 reduction

Million tonnes CO_2

Tera grammes CO_2

Visualisation difficult:

Let's make it personal :



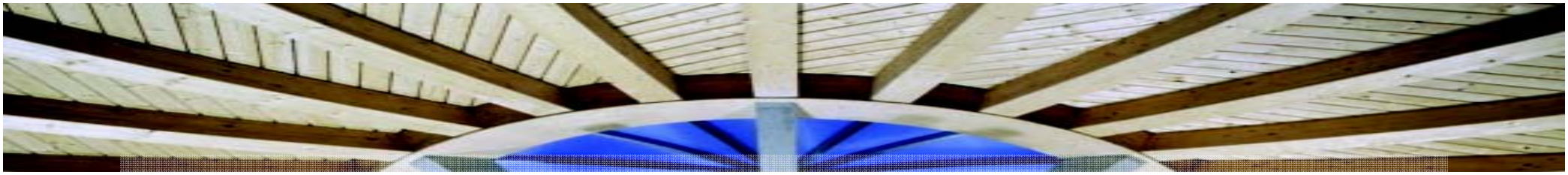
IRG Conference Air Miles

1.9 million miles

8000 miles each delegate

Each used 4.7 tonnes CO_2

How to offset 4.7 tonnes CO_2 each ?



Use wood : Plant Trees

Every person in Europe has
1.42 hectares of forest each.

=Two football pitches

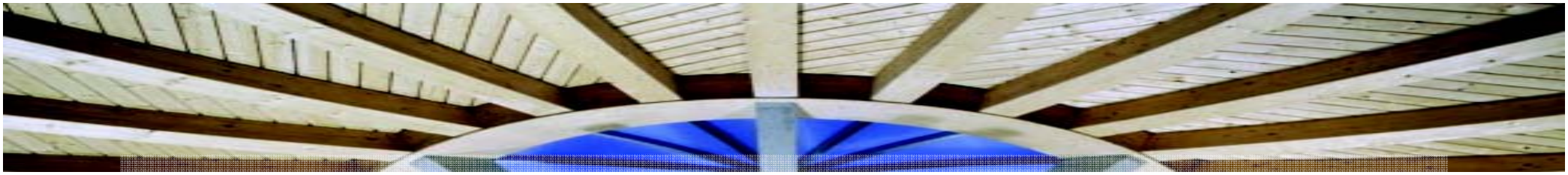
= 400 trees

= 50 m3 standing timber

wood

CEI-Bois Roadmap 2010

www.cei-bois.org



Use wood : Plant Trees

Every IRG delegate:

plants 27 trees

= 25 m2 forest

wood

CEI-Bois Roadmap 2010

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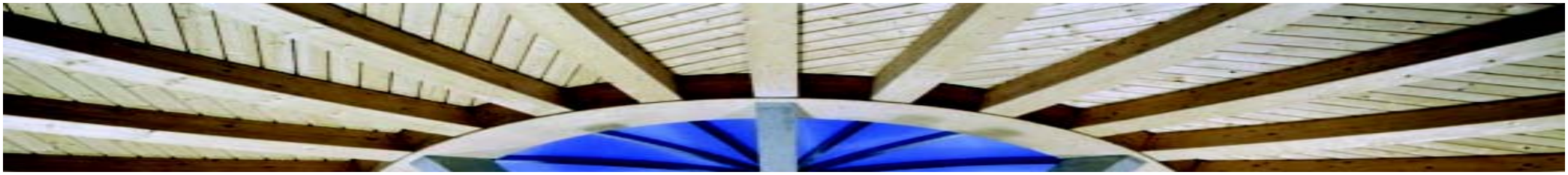
The forest sink

- Europe's forests are huge carbon stores
  - Storing 47 000 million tonnes of carbon
- As the forests grow they absorb more CO_2, becoming carbon sinks
  - Each year the forests absorb an additional 555 million tonnes of carbon
- Using wood encourages further forest growth
  - European legislation requires owners to replant
  - An effective market for wood provides a financial incentive to invest in active forest management



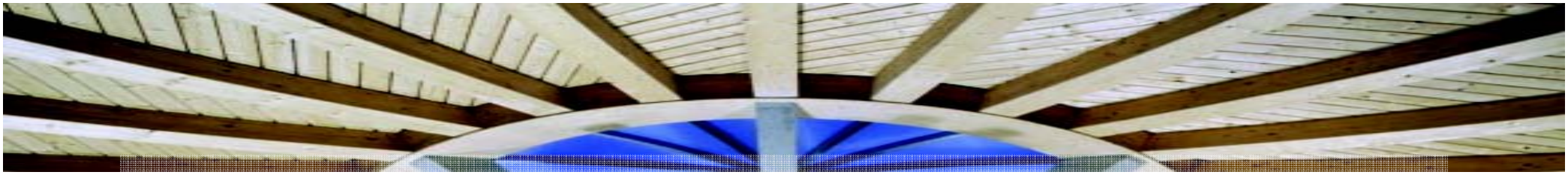
Use wood : Plant Trees

Facts :

Annual increase in standing timber
is enough wood to build one house every second.

0r

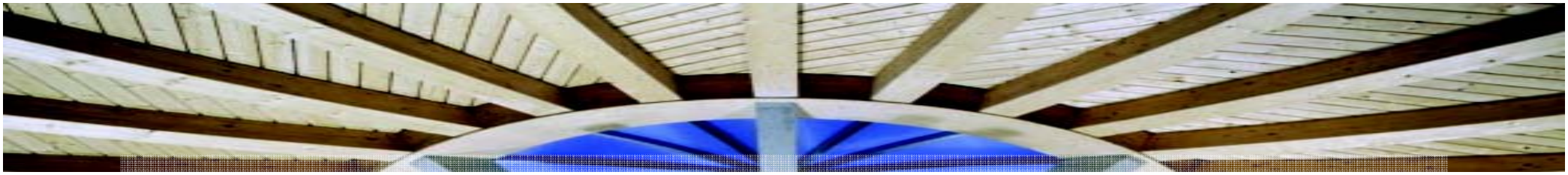
cover Switzerland with a 1 mm thick wood veneer.



Use wood

To Offset IRG each delegate

Plant 26 trees



Use wood

From our personal forest

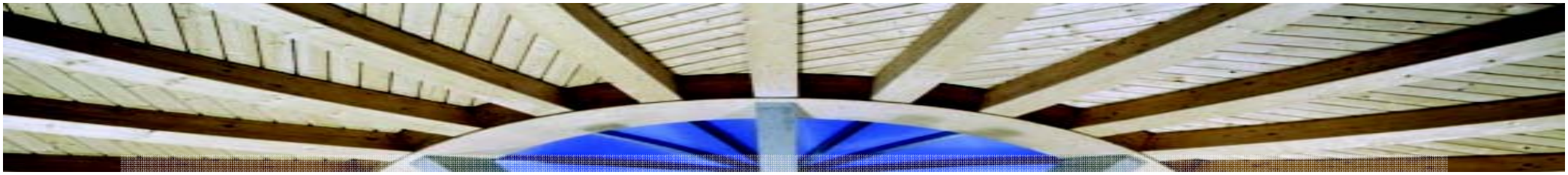
1 m3 of timber produced every year

1 m3 = 0.9 tonnes CO_2 stored

4.7 tonnes = 5.2 m3 wood (e.g. furniture)

The product store

- Using wood extends the carbon storage beyond the life of the tree throughout the life of the product, and further, through recycling
- Using wood, rather than letting trees mature, die and rot, is an effective use of the carbon store



Use wood

To Offset IRG each delegate

Plant 26 trees

Use 5.2 m3 wood

wood

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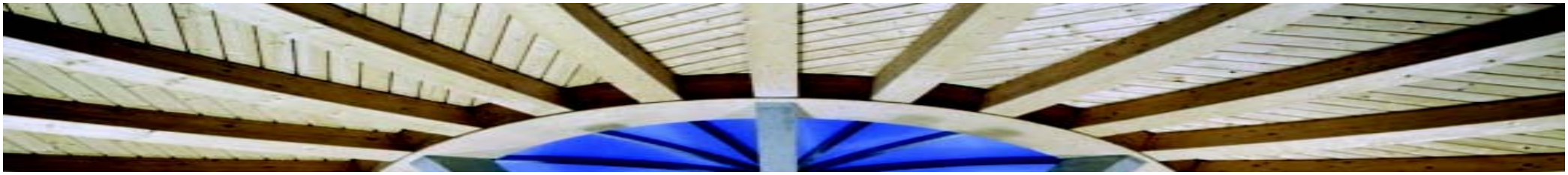


Use wood as a substitute for concrete, steel, plastic

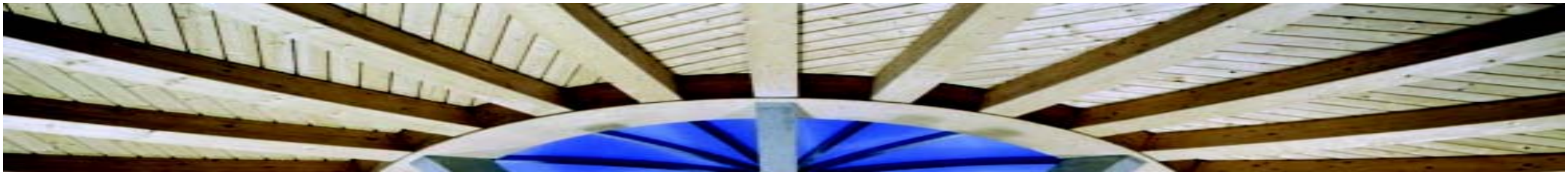
1 m3 = 0.9 tonnes CO_2 stored

+ 1.1 tonnes CO_2 saved

4.7 tonnes =
2.4 m3 wood in construction

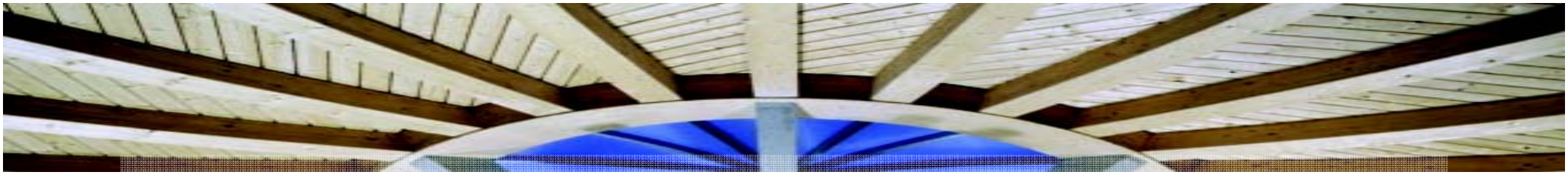
wood

CEI-Bois Roadmap 2010



Substitution

- "Specifying wood in public procurement can help fulfil national and local climate change programmes… Substituting a cubic metre of wood for other construction materials (concrete, blocks or bricks) results in the significant average of 0,75 to 1 tonne CO_2 saving."
  - International Institute for Environment and Development, Using Wood to Mitigate Climate Change, 2004



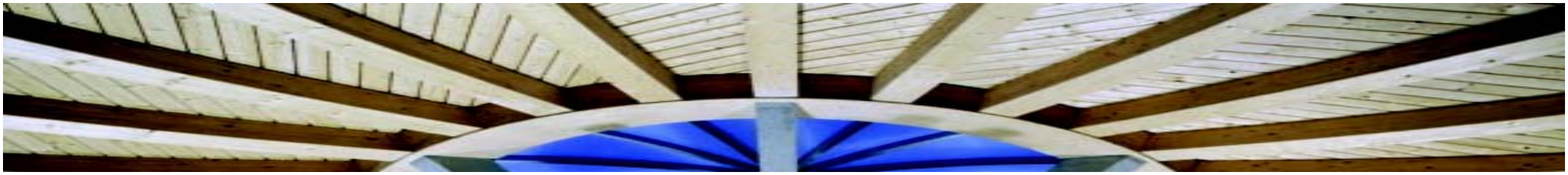
Use wood

To Offset IRG each delegate

Plant 26 trees

Use 5.2 m3 wood

Use 2.4 m3 as a substitute for concrete



Use Preserved or Protected wood as a substitute for concrete

1 m3 = 0.9 tonnes CO_2 stored + 1.1 tonnes saved

10 years protected : 4.7 t = 0.2 m3 wood = 60 cm cube

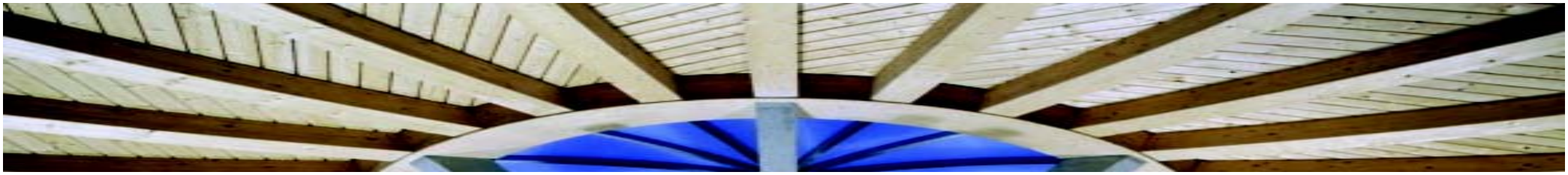
50 years protected : 4.7 t = 0.04 m3 wood = 35 cm cube

= 1 treatment plant : 2 $^1/_2$ minutes

All IRG : one day

wood

CEI-Bois Roadmap 2010



Tackle Climate Change: Use wood

To Offset IRG, each delegate has to:

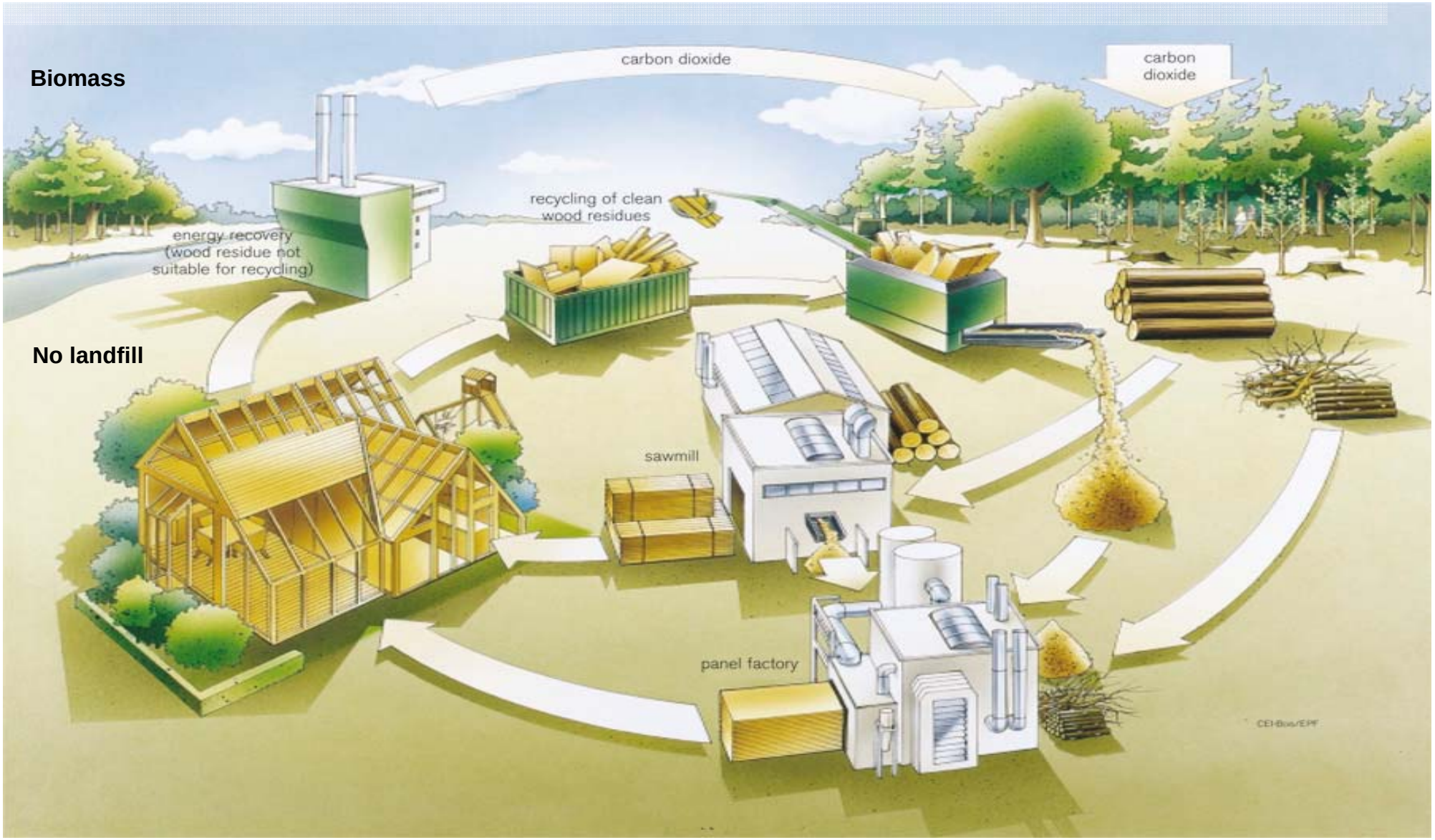
Plant 26 trees

Use 5.2 m3 wood

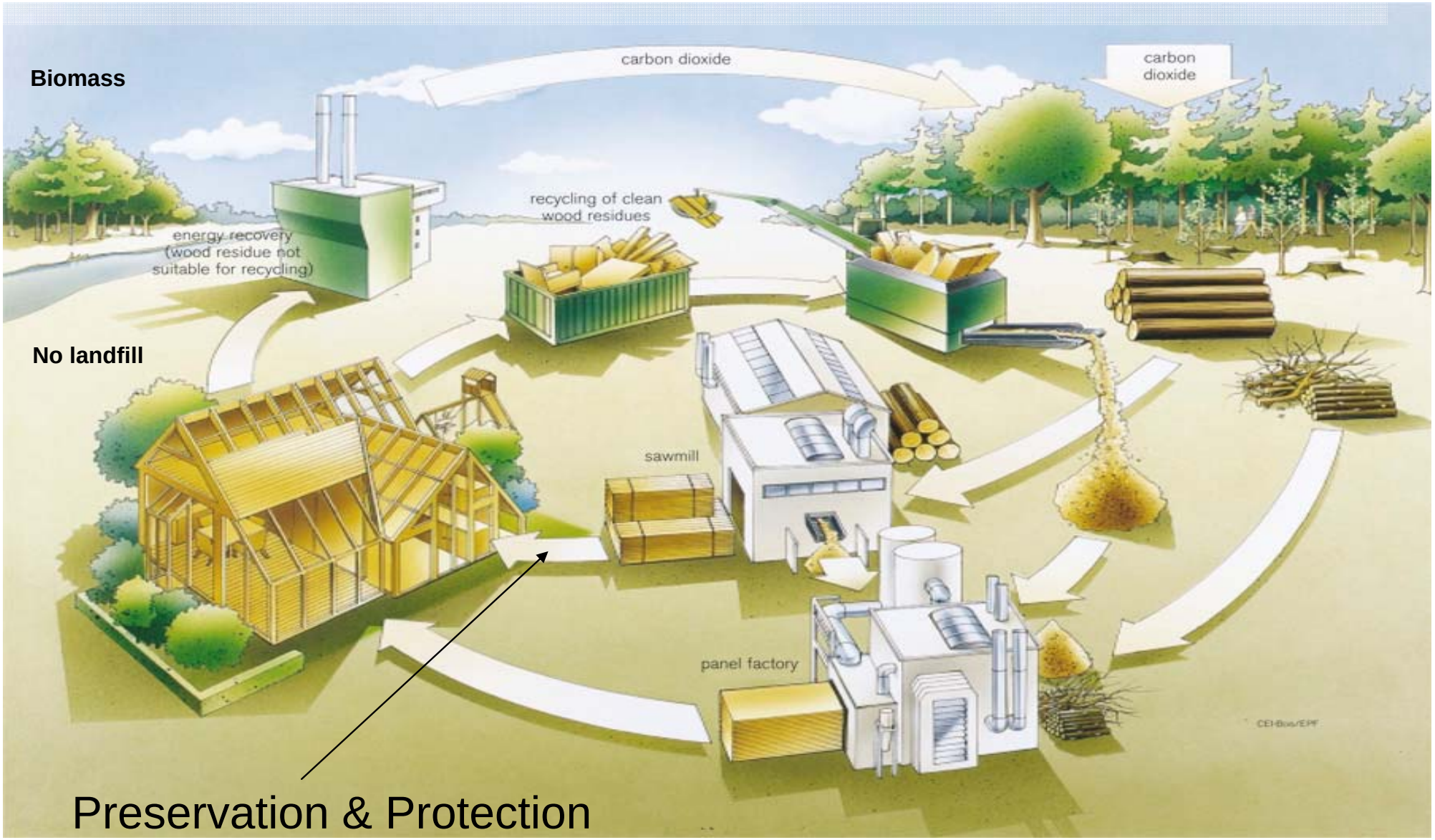
Use 2.4 m3 as a substitute for concrete

Protect 30 cm cube of wood for 50 years

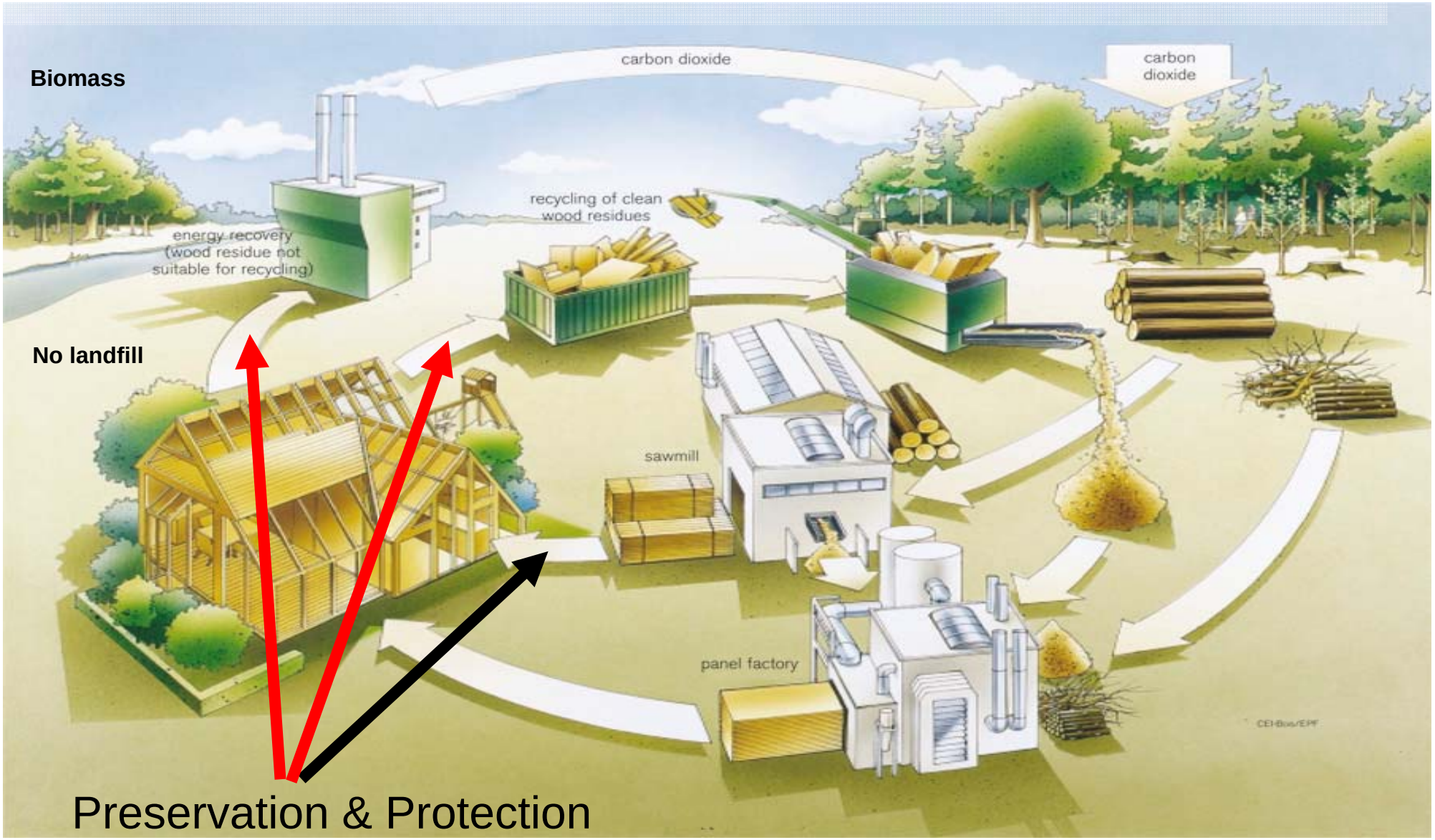
The wood eco-cycle

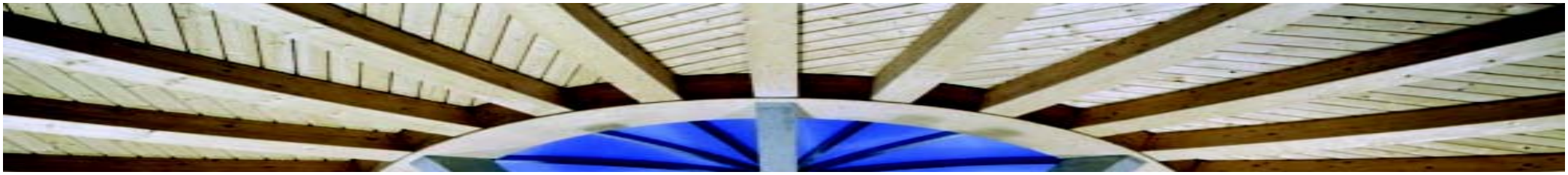


The wood eco-cycle



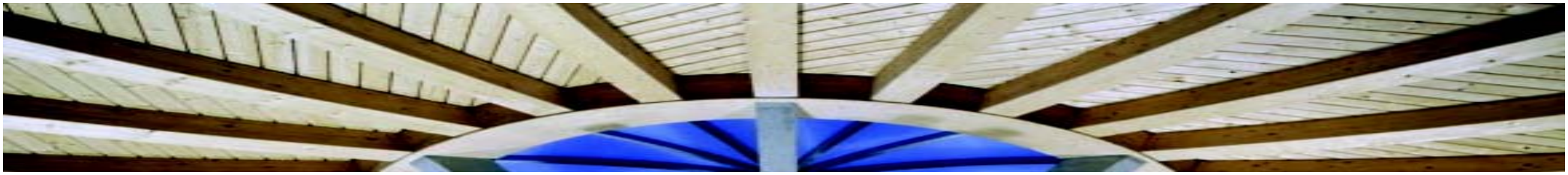
The wood eco-cycle





The role of the forest industries in tackling climate change

- Promote an increased use of wood and wood-based products
- Create innovative applications opening up new markets
- Research new products and materials from the wood raw material



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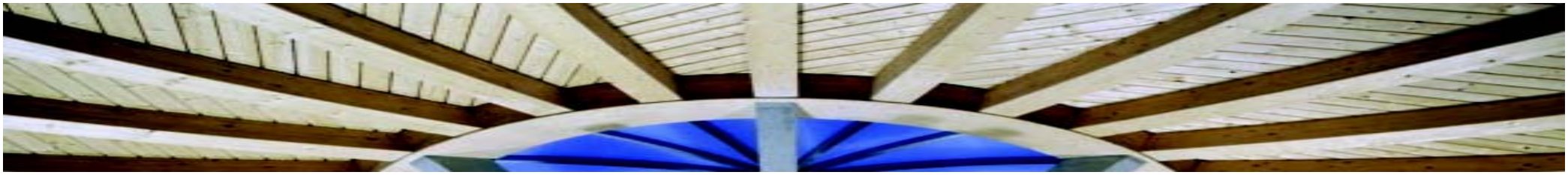
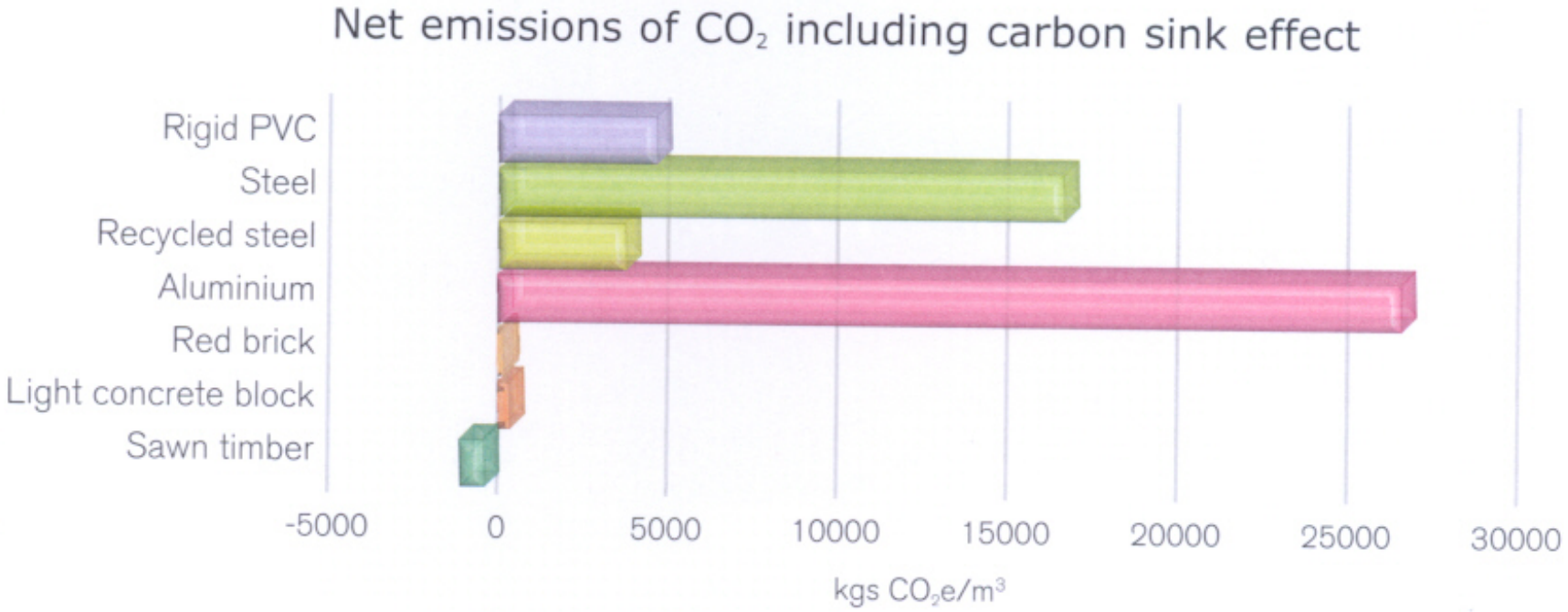
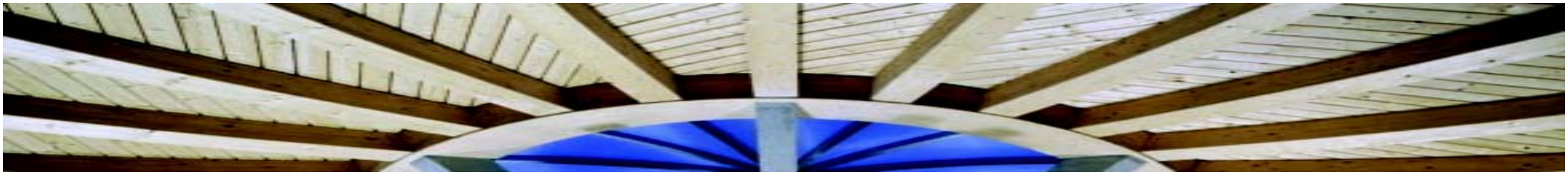


Wood can reduce CO_2 emission:

Wood has the lowest embodied energy of any building material



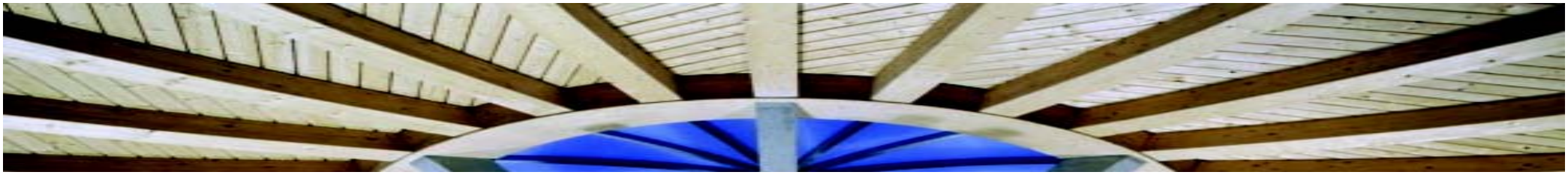


Wood can reduce CO_2 emission:

Wood stores carbon

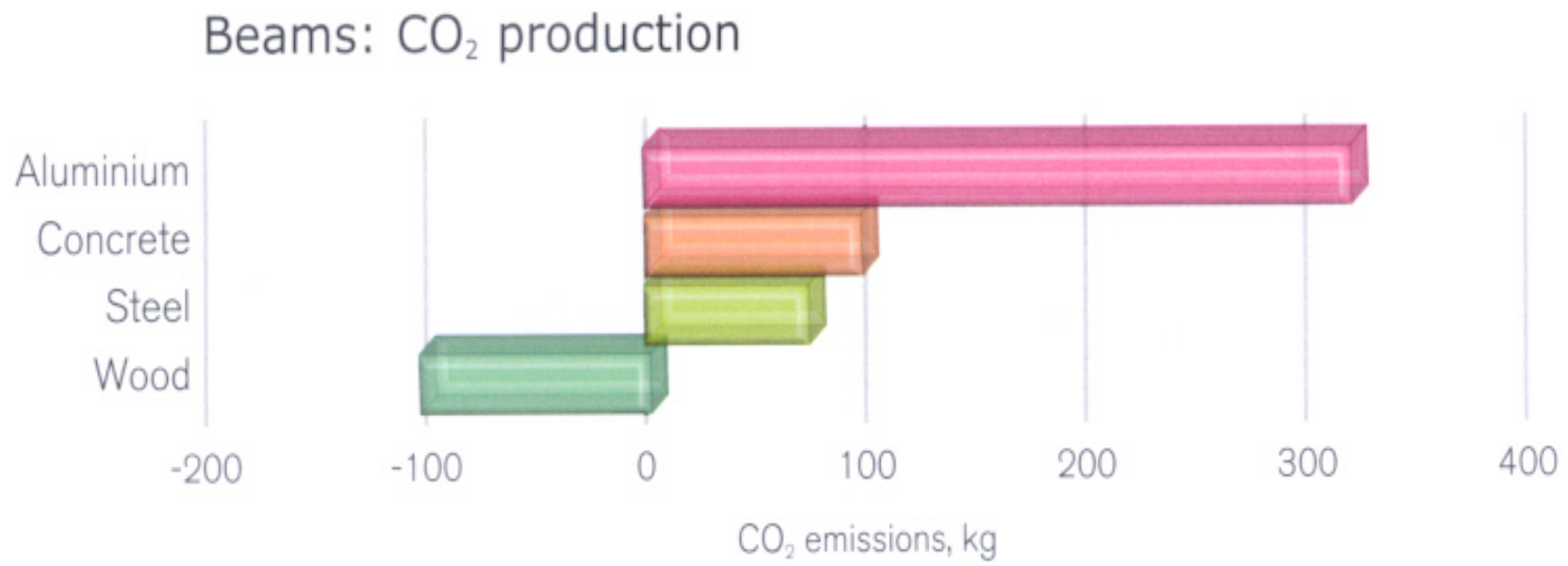
Carbon storage in domestic products

Unit	Carbon Content
House	10-25 t C/house
Wooden window	25 kg C/window
Wooden flooring	5 kg C/m^2
Furniture	1 t C/household
House and contents	12-30 t C



Wood can reduce CO_2 emission:

Wood has low emission from house components



wood

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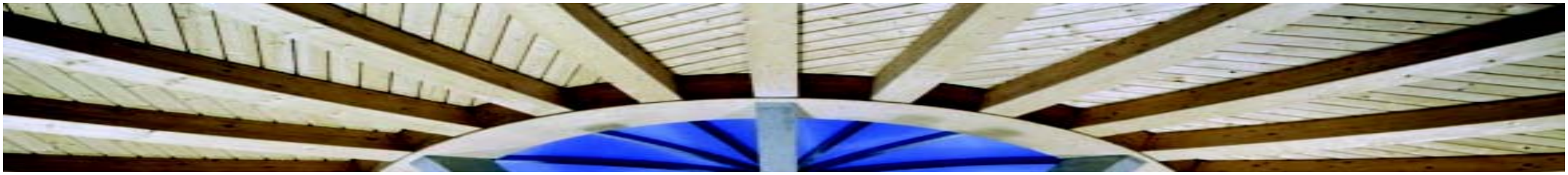
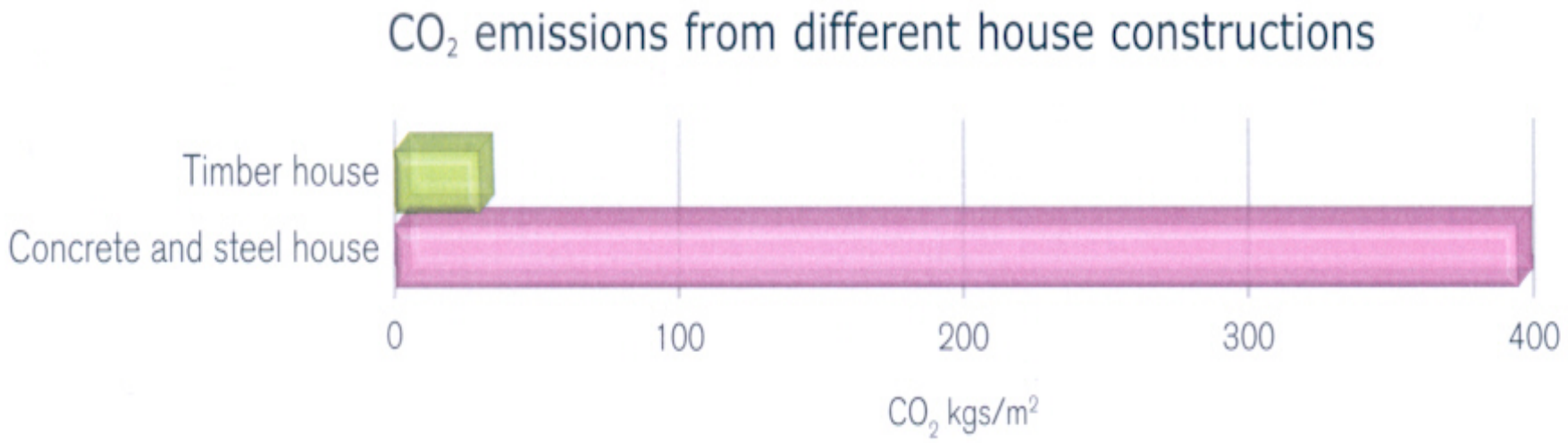
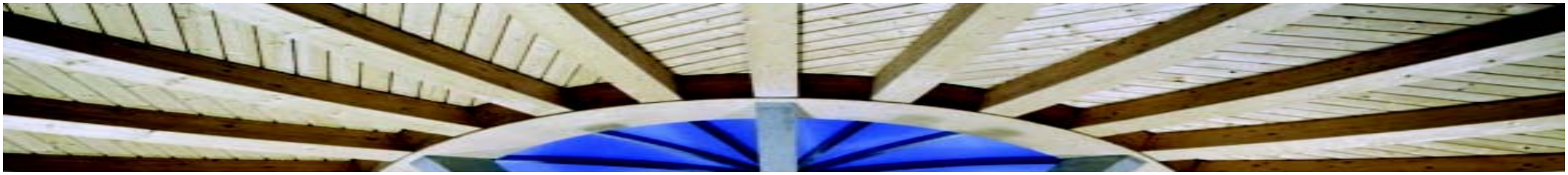


Wood can reduce CO_2 emission:

Wood has low emission from house constructions



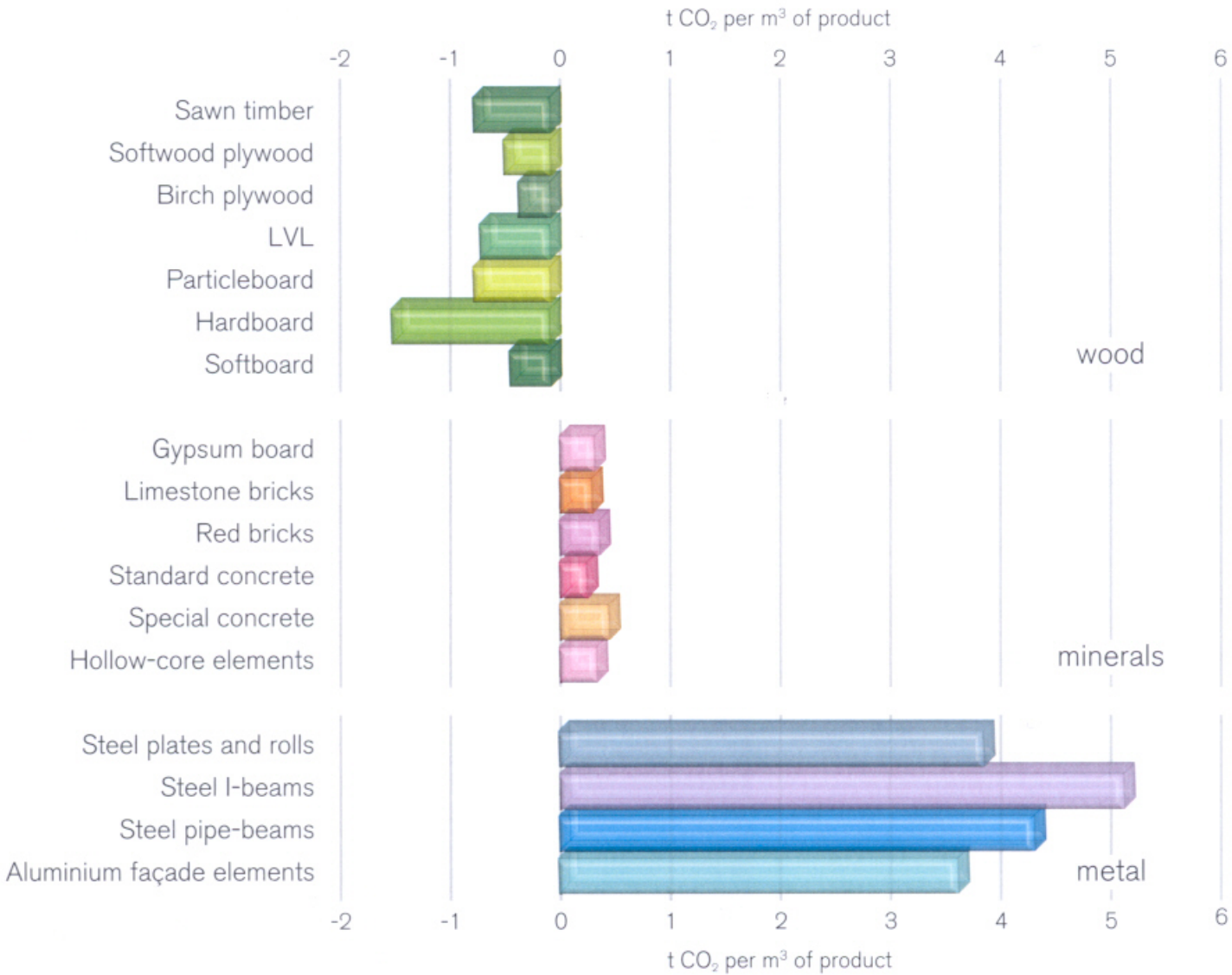


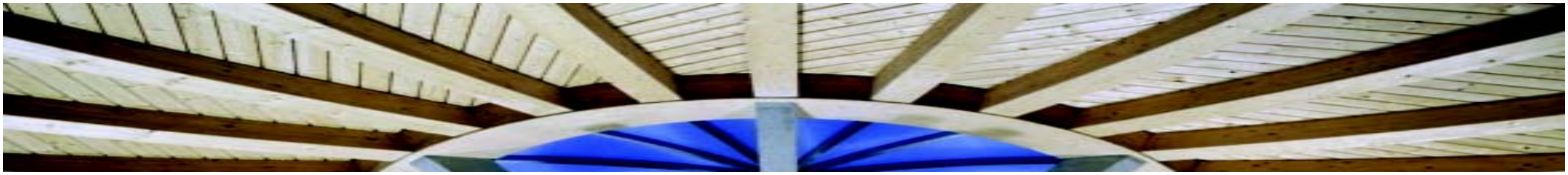
Wood can reduce CO_2 emission:

Wood has low emission from house constructions

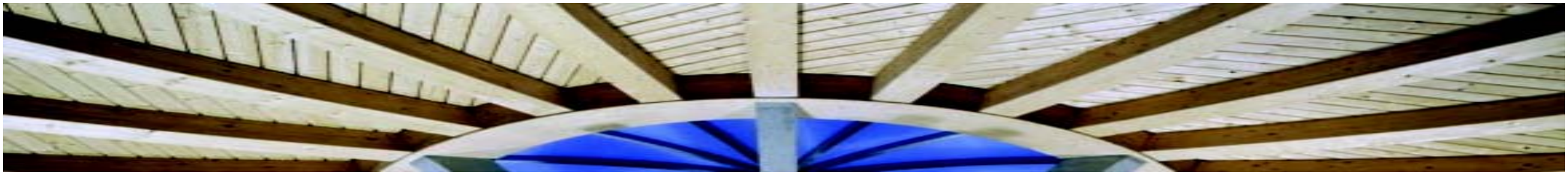
- Thermal efficiency
  - Wood continues to save CO_2 throughout a building's life, because its natural thermal efficiency saves energy

Net CO_2 lifecycle emissions






Wood is an important and growing European resource. Using more wood offers a simple way to reduce CO_2 emissions and to encourage the further growth of Europe's forests.



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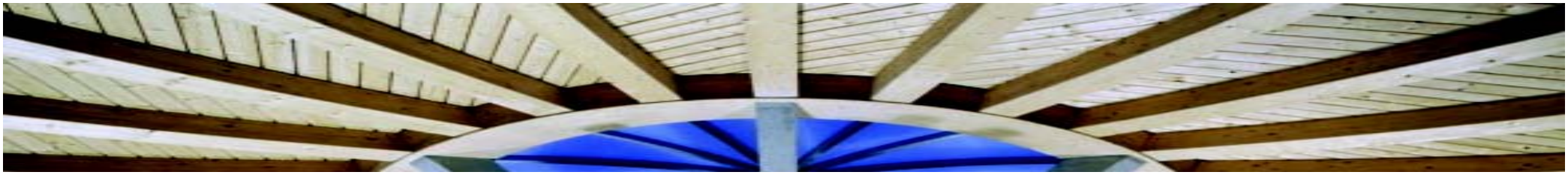

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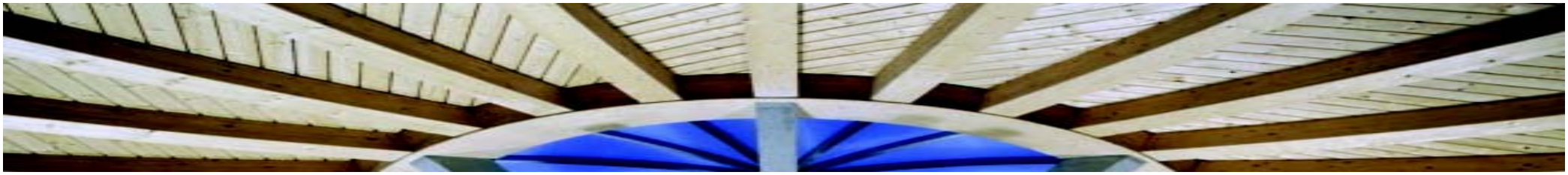

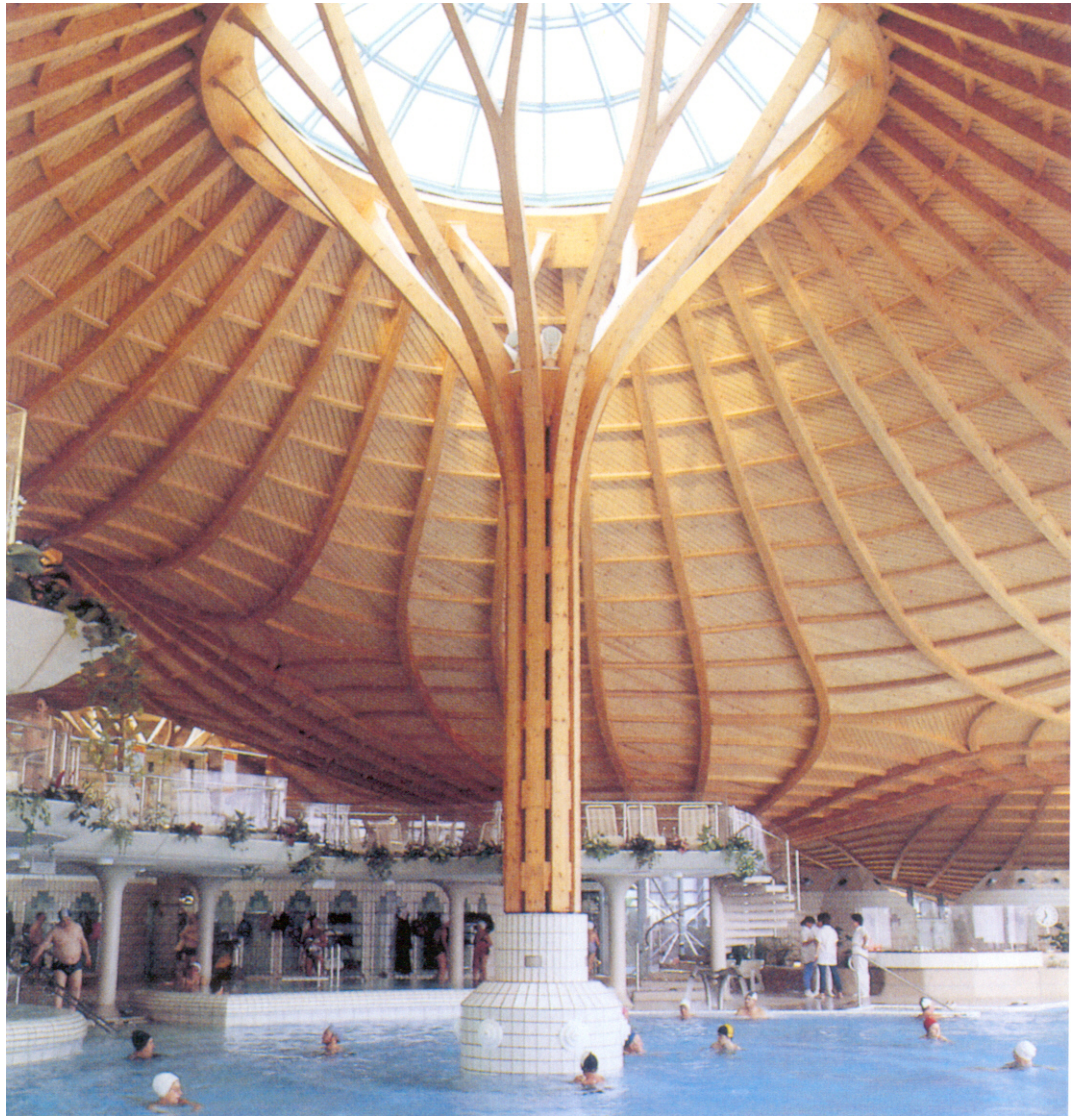

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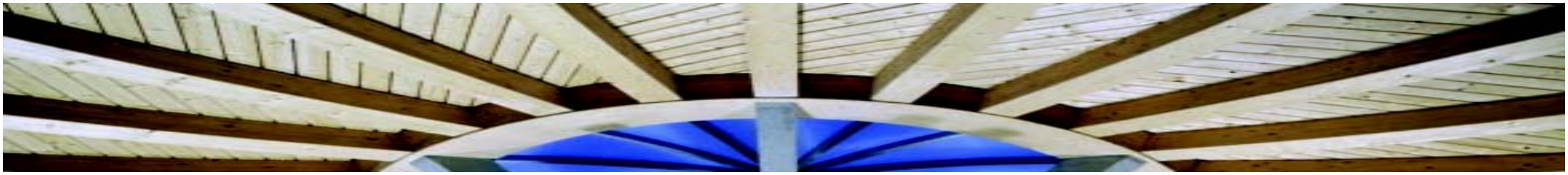
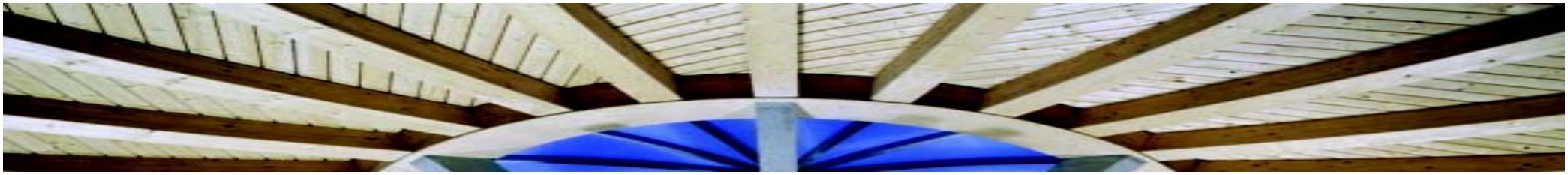


- “It has been estimated that an annual 4% increase to 2010 in Europe’s wood consumption would sequester an additional 150 million tonnes CO_2 per year and that the market value of this environmental service would be about € 1,8 billion a year”

CEI-Bois Roadmap 2010, Executive Summary, 2004



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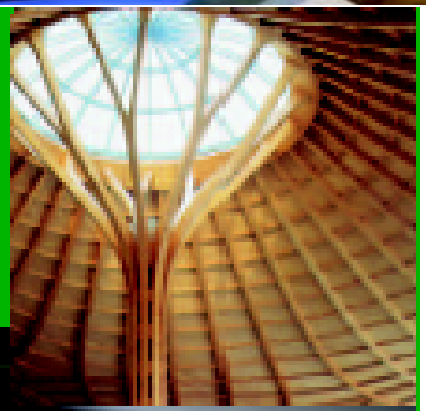
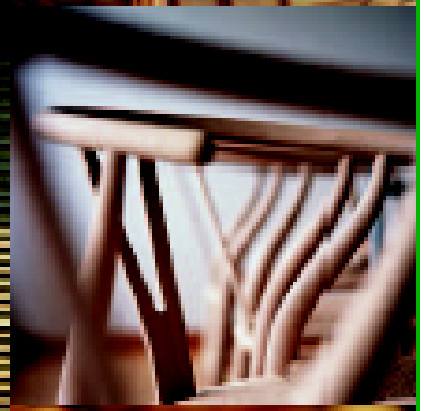
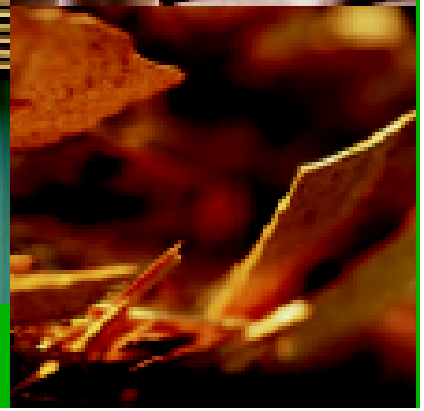
5. Preserved Wood : Fast Facts for Sustainability
6. Preserved Wood in Cutting Edge Architecture
7. Aesthetic Uses of Preserved Wood
8. Preserved Wood : A Century of Service
9. Recent Developments in the Life Cycle Analysis of Preserved Wood
10. Promotion of Preserved Wood : A Global Perspective
11. The Role of Preserved Wood in Limiting Climate Change
12. A Comparative Assessment of the Carbon Footprint of Construction Materials
13. Research Needs in Wood Protection
14. Sustainable Use of Preserved Wood after Removal from Service

Tackle Climate Change:
Use Wood







wood

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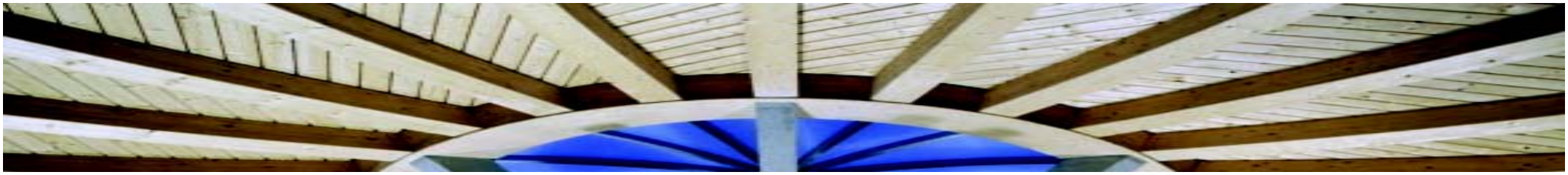

wood: the solution

Thank you for your attention!