Carbon implications in using wood products. The Swiss example.

Meeting th EU's 2030 emission reduction targets: the role of the land use and forestry sectors (LULUCF)

Public Hearing of the Committee on the Environment, Public Health and Food Safety (ENVI) of the European Parliament

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EOS EUROPEAN ORGANISATION OF THE SAWMILL INDUSTRY

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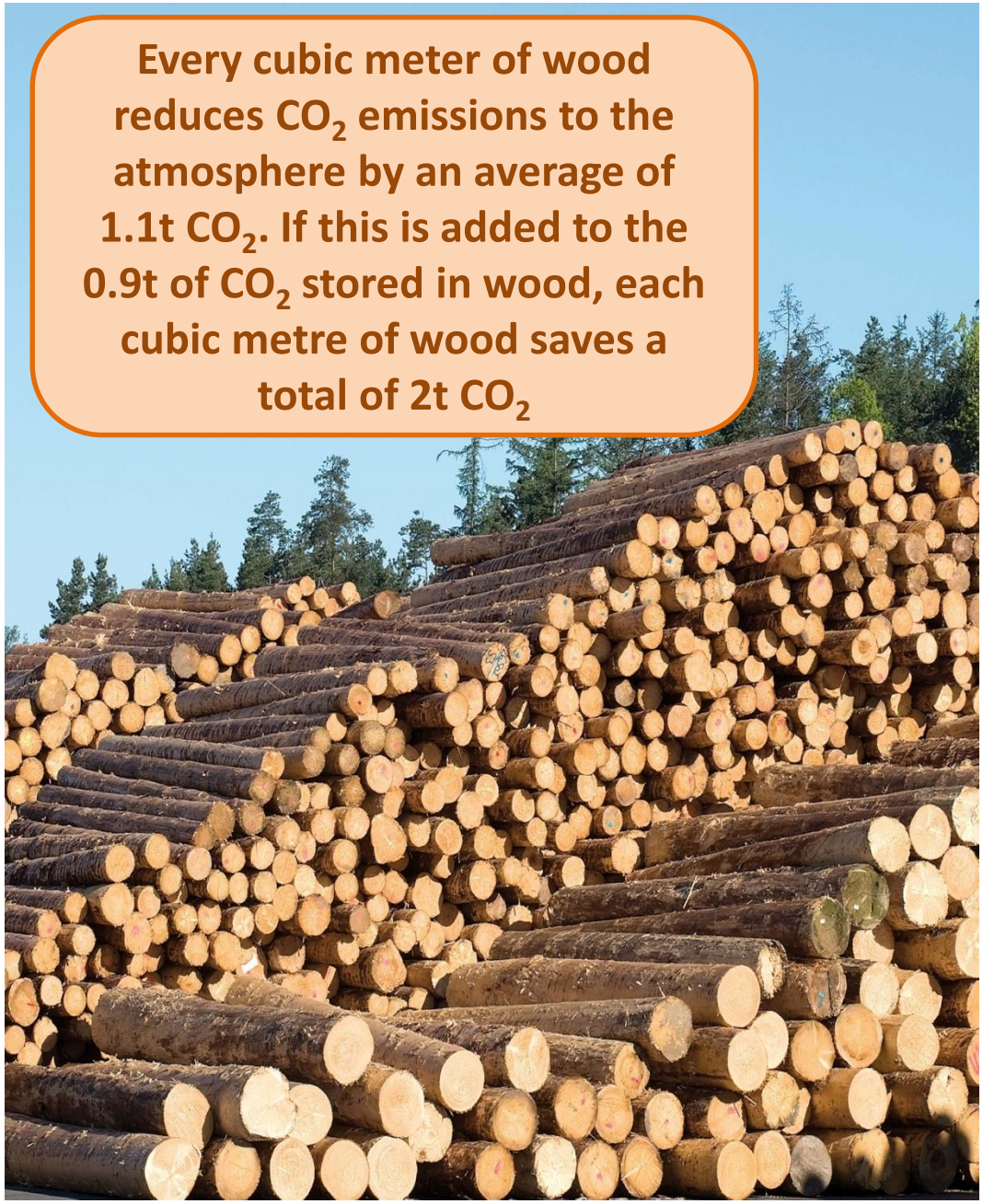
To effectively tackle climate change we must:
remove carbon from the atmosphere as well as **reduce new carbon emissions** into the atmosphere.

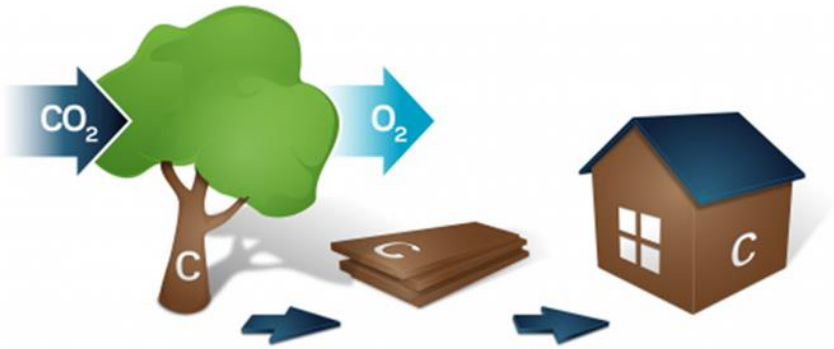
Responsibly sourced wood can achieve both of these.



General overview

CO_2 in trees: 1 ton per m3

1 m3 log		
Dry weight		500 kg
Carbon content	50%	250 kg C
CO2 content (oxidation)	C content x 3,67	918 kg CO_2



CO_2 in wood products

	unit	tons CO_2
Softwood timber	m^3	0.8258
Hardwood timber	m^3	1.2295
Plywood	m^3	0.9495
Particle board MDF	Ton*	1.8350
Fibre board	Ton*	1.6952

*) absolutely dry

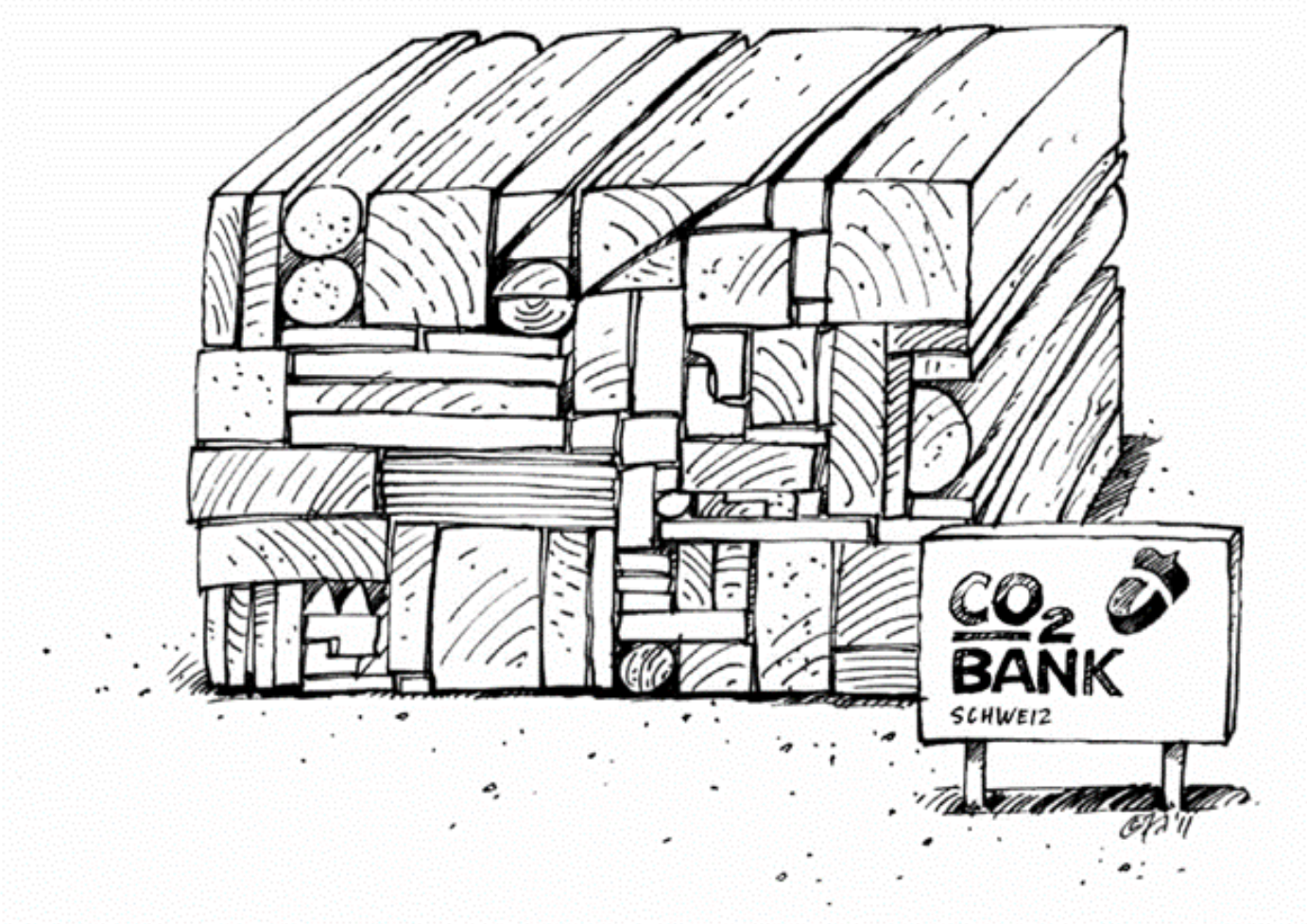
Building with wood is positive for the climate

When fossil fuel-based products are replaced by wood:

- Energy consumption and GHG emissions from the production processes are reduced
- wood products' carbon store increases in the longer term, so more and more carbon is removed from the atmosphere.

Manufacturing processes associated with wood products require less fossil fuel-based energy *and are responsible for far less greenhouse gas emissions than the manufacture of other major building materials.*

The Swiss case



Legal contexte in the Swiss CO_2 Act

Obligation of importers of fossil fuels and operators of fossil thermal power plants to compensate for CO_2 emissions using domestic measures : at least 10% of the CO_2 emissions caused by traffic until 2020).

Admittance of compensation projects which are able to reduce green house gas emissions and the biological CO_2 sequestration in wood products (means recognition of the extended storage effect of timber products)

Implementation

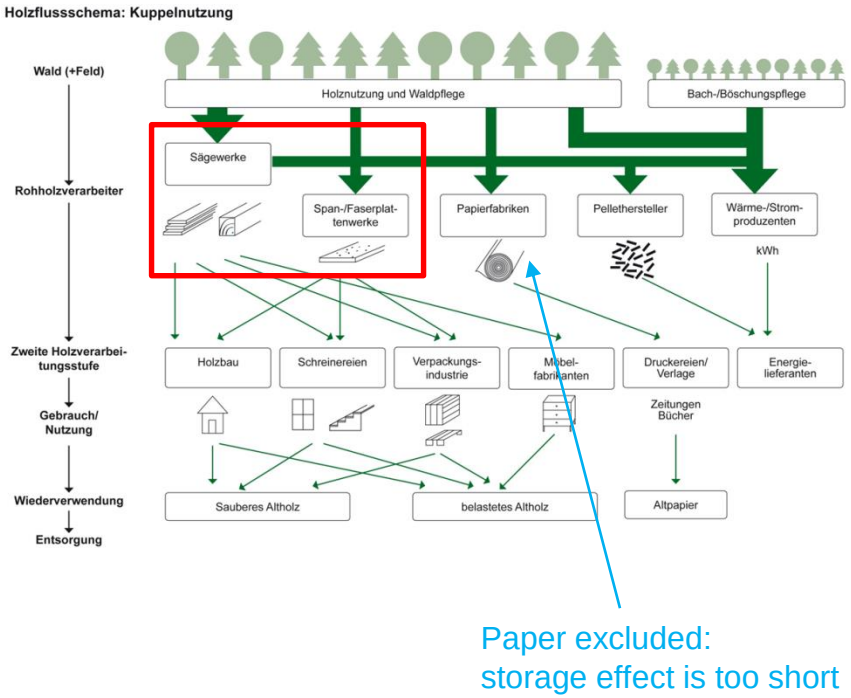
- The importers of fossil fuels created a foundation which began to collect money through a little extra charge on every litre of petrol bought (1-2 cents/lt; max surcharge would be 5 cents)
- Engineers, (natural) scientists and branches began to develop projects and submitted them to the Federal Office for the Environment (FOEN).
- Among the registered projects so far is «Swiss Timber Sink» and more than 20 district heating projects (replacement of oil through wood energy)

Characteristics of the Timber Sink project

Focus on timber and panels as semi-finished products, not on finished products like houses and furniture:

Monitoring the change of the national sink in wood products* is possible on the level of semi-finished products only. The Monitoring of the additionality of measures as well.

*) stock of sequestrated CO_2



Characteristics of the Timber Sink project

The Swiss Timber Sink (HWP pool?) is composed of three different reference levels and lines for
a) timber and plywood
b) particle board and MDF
c) fibre board (insulating)

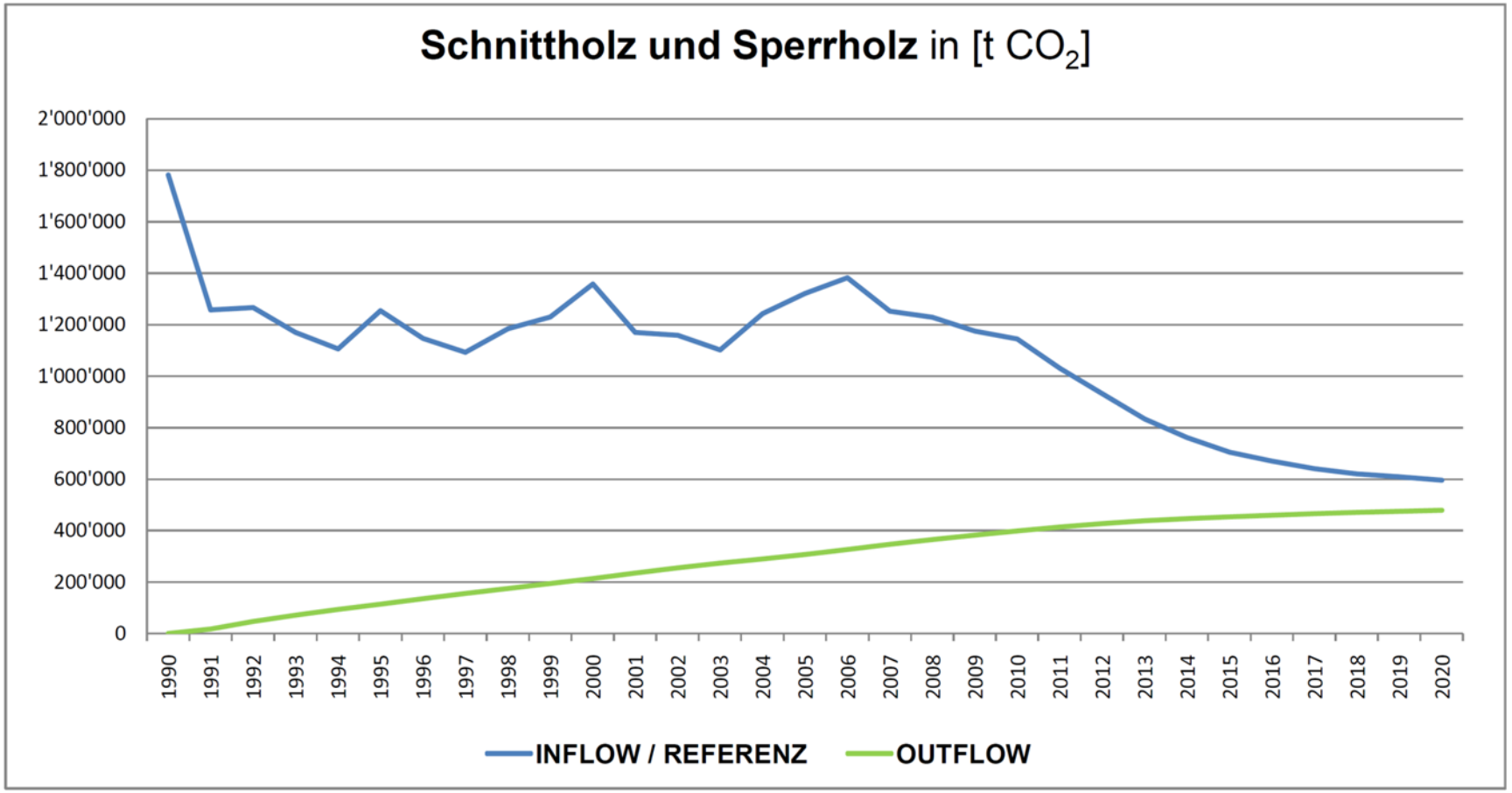
The reference lines show the historical production and a forecast of the future production («business as usual»).

Production = INFLOW respected from 2014 (start of project)

OUTFLOW respected from 1990 with half-life rules applied on the Inflow: Timber 35 years, Particle/Fibre boards 25 years

Attestations for additional production beyond reference line

Timber and plywood in t CO_2

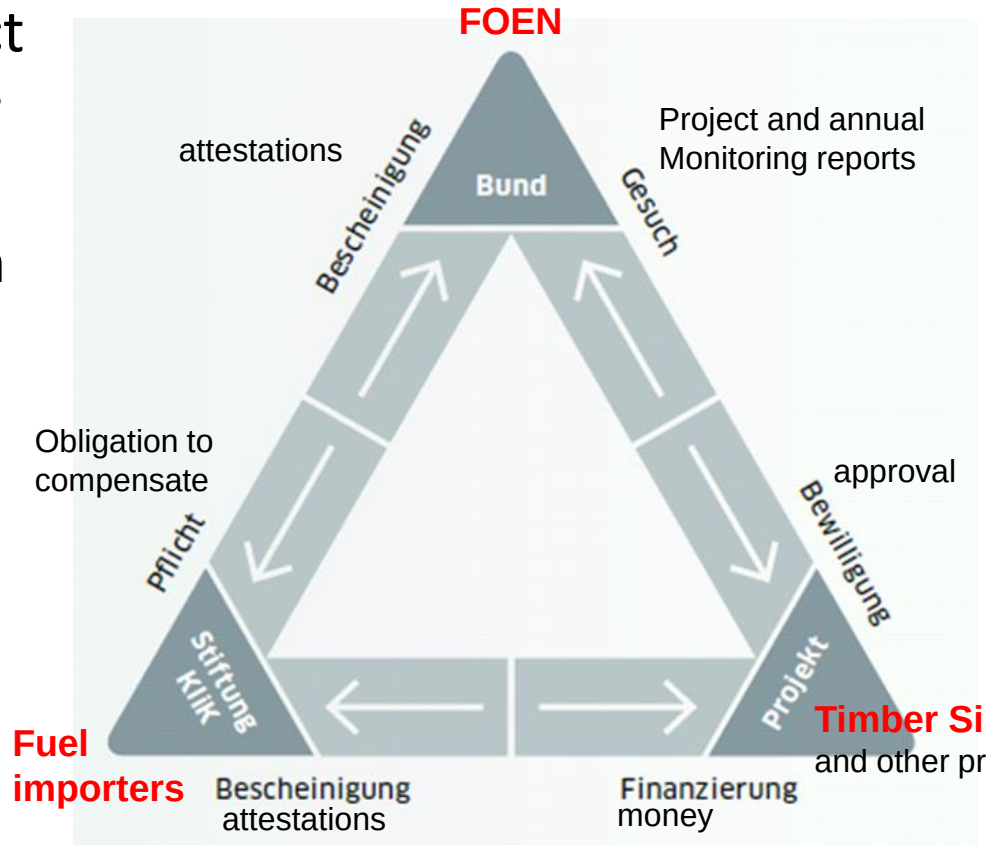


Characteristics of the Timber Sink project

The companies in the project have to produce above their reference level (business as usual), with measures which are

- additional
- would not be achieved without the project
- not supported otherwise already

… to generate attestations



[source: www.klik.ch]

Effects of the Timber Sink project

Effect on Forestry and SFM

Stimulating the harvested volume (in 2015 only 56% of the annual increment)

Encouragement of the forest owners to continue with silviculture instead of neglect

(37% of growing stock in trees with more than 50cm Ø at breast hight).

biodiversity benefits of a little more light in dark forests

Effect on timber industry

Encouraging investments and production

Improving the image of wood products – and of a traditional branche now doing smth substantial against climate change

Promotion of wood used in long living goods

LULUCF: TAKE HOME MESSAGES

1. The Forest Reference Level should aim to find the **highest possible sustainable harvest level** for the period 2020-2030;

2. **Increased use of wood-based products and the substitution benefits** should be promoted;

3. Creation of a **separate pool for HWP** is necessary and easier to monitor and to manage than a forest pool

4. Industries with obligation to compensate can deal with a limited number of timber companies focused on timber processing much easier than with thousands of forest owners of various motivation to do Forest management – or not.

THANK YOU.

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