



## Environment and ecological benefits of ECOBoards.

### Carbon Sequestration :

Straw and other biomass from agriculture and/or horticulture will absorb about 1.78 kg CO<sub>2</sub> per kg Agriculture absorbs even more CO<sub>2</sub> than most forests or trees.

Straw is actually like a little tree that is already cut and that will grow back in a year or 6 months depending on the country .

By using this straw to produce bio based materials like ECOBoards 1.78 kg of Carbon will be stored for every kg produced.

The Life Cycle Analysis shows that the impact to the environment after producing ECOBoards including all energy, additives and transport is MINUS 0.96 kg CO<sub>2</sub> LESS per kg because they start at MIN 1.78 kg of CO<sub>2</sub> .

At end of life the old ECOBoards are reused as raw material for new ECOBoards and thus the Carbon remains saved > cradle2cradle .

Bio based Building is therefor the ideal GEO - ENGINEERING !

The impact to the CO<sub>2</sub> balance is HUGE .

An ECOBoard factory with capacity of 100,000 tons is responsible for

- the storage of > 100,000 TONS CO<sub>2</sub> per year
- has an impact of > 200,000 TONS CO<sub>2</sub> less per year
- and saves 400,000 m<sup>3</sup> per year TREES being cut

### Energy consumption :

thermal energy consumption for mdf production between 2391 and 2386 kWh / m<sup>3</sup>

electrical energy consumption for mdf production between 116 and 131 kWh / m<sup>3</sup>

source: <http://www.tud.ttu.ee/material/piirimae/eco-design/office%20table/PaFiBrds.pdf>

thermal energy consumption for ECOBoard production appr 31 kWh / m<sup>3</sup>

electrical energy consumption for ECOBoard production appr 22 kWh / m<sup>3</sup>

To summarise ECOBoards means saving Energy and storing CO<sub>2</sub>!

The Europlants will be certified CE 2+ and 4, KOMO, DUBOkeur, NATURE Plus, Biobased, LEED, Breeam, CARB, HALAL and aims to be the first to be certified Cradle2Cradle C2C PLATINUM.

A Cradle2Cradle infrastructure will be setup so all end of life ECOBoards and LEFTOVER Material can return to the factories to be reborn and material refund will be possible !

ECOBoards are better resistant to water and naturally fireretardant.

No formaldehyde glue is used but the binding is mainly achieved with the natural lignine of the cellulose fibres.

So ECOBoards takes care of the environment but also the interior environment!

