

# hiil

Upscaling of Constructions with Waste Wood  
A Mass Production Approach

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Drivers for Wood Construction 15.5.2023

I've worked a decade with reclaimed and waste wood.




What could be done from the wood utilized in bridge construction?

**Finnish construction and sawmill industries produce 1 500 000 m<sup>3</sup> of waste wood every year\***

**The problem:**  
Most of it is burned and reduced to energy, releasing the carbon in the wood.





**Can we clean the waste?**

**Is there enough of waste?**

**Can it become an industrial scale business?**

Can we clean the waste?

**YES.**

Is there enough of waste?

**YES.**

Can it become an industrial scale business?

**YES.**

**We're here to  
stop wasting wood.**

**Globally.**

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# CircuWood

Charred & upcycled wood for construction



**100% recycled  
wood**



**Waste as  
energy source**



**Reduction in  
CO<sub>2</sub>**



**Industrial scale  
manufacturing**



**First in  
market**

1m3 of CircuWood keeps 4m3 of trees standing



=



Stop wasting wood.



# We make use of industry side streams

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**Sawmill and planing industries**  
~ 1 000 000 m<sup>3</sup> annually  
in Finland

*Problems:*  
Blue stains  
Poor strength  
Wrong branch quality



**Construction industry**  
~ 500 000 m<sup>3</sup> annually  
in Finland

*Problems:*  
Dirt  
Nails  
Concrete  
Holes  
Bruises



Polttoon?

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**Käyttöön!**

# Simple business model

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**Buy waste wood from:**  
sawmill industry  
planing industry  
construction industry



**Char** the surface of the wood  
with our patent pending,  
energy efficient method.



**Sell** the upcycled wood as  
**CircuWood / Kiertopuu®**

# CircuWood can be used in



## Facades

apartment buildings,  
detached houses, cottages,  
public buildings



## Interiors

wall cladding, furniture,  
sauna interiors



## Public infrastructure

sound barriers, fences, stairs



## Structures in the nature

duckboards, lean-tos, public  
fire places, open cabins,  
wooden toilets

Stop wasting wood.

<b>Annual waste wood</b>	<b>Upcycled by Hiil (2027)</b>	<b>Estimated turnover (2027)</b>
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1 500 000 m <sup>3</sup> (In Finland)	1% = 15 000 m <sup>3</sup> (with 1st facility)	20 million €
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**Drivers for demand:**

CO2 reduction goals, circular economy legislation

# Results in 3 months

## Funding:

0,5 million €

## Production:

Production line testing and adjusting ongoing.

## Waste wood:

Cooperation agreed with 10 sawmill & construction companies.

## Customers:

0,5 million € worth of inquiries.

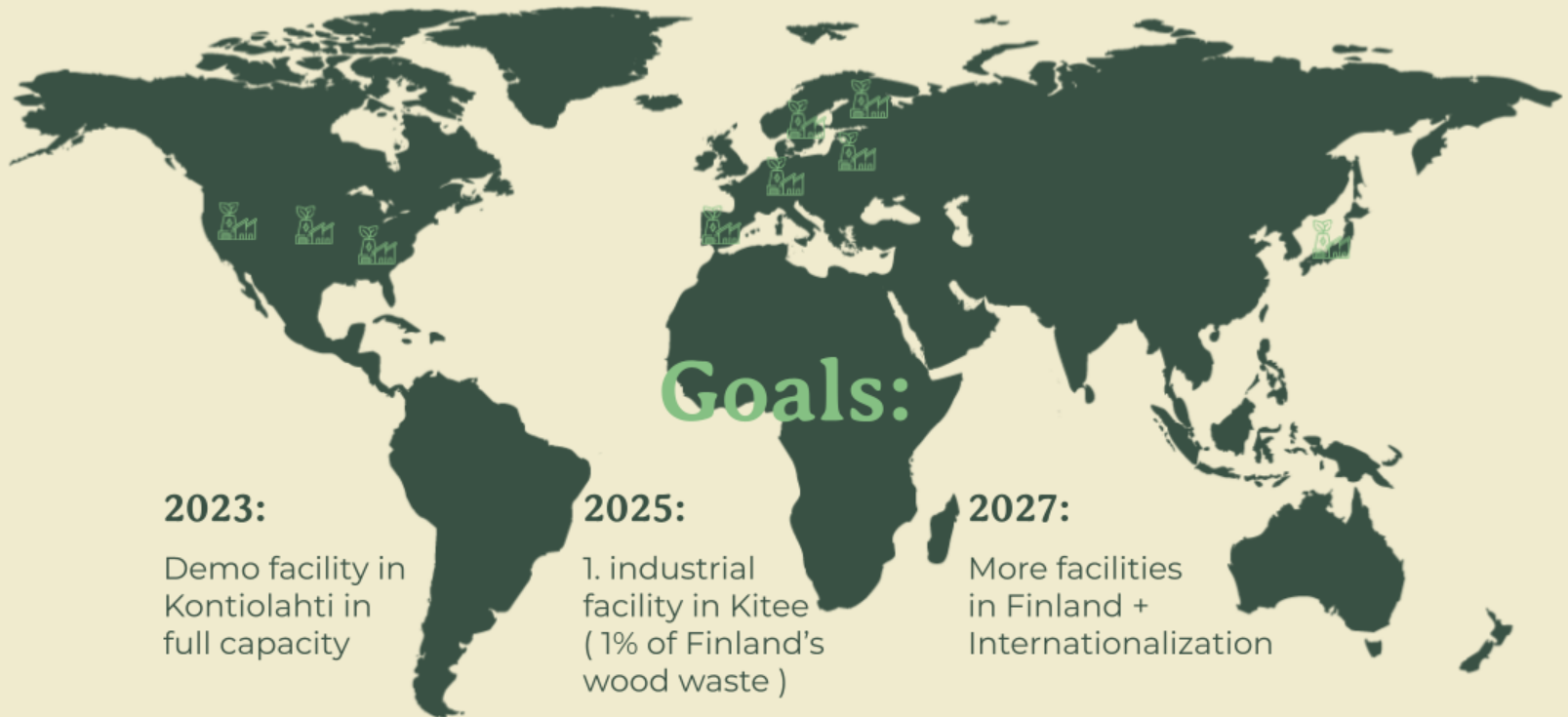
First projects will finish in May.

## IPR:

Patent pending

Trademark granted for Kiertopuu®

# Our goals are abroad





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**Stop wasting wood.**

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