



ekolution®

leading the green building
material revolution



SOLUTION: EKOLUTION'S HEMP INSULATION OFFERING IS LEADING IN TERMS OF PRODUCT PERFORMANCE, SUSTAINABILITY, COSTS AND CIRCULARITY



Ekolution's products have better insulation performance than traditional materials

7-10%

...lower energy consumption for buildings with Ekolution's insulation installed



Ekolution outperforms competitors on CO₂ emissions with CO₂ negative products

8x

...lower climate impact due to CO₂ sequestration vs. non-organic materials (per kg material)



Ekolution's production costs will be lower vs non-organic when produced at scale

25%

...lower production cost versus competitors when manufactured at scale



Ekolution's products are renewable and fully circular

100%

...recyclable material after use



Ekolution's products create a healthier indoor climate in buildings

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...positive impact of natural fiber insulation on health, working environment and air quality

EKOLUTION'S PRODUCTS ARE BASED CO₂ NEGATIVE RENEWABLE MATERIALS AND ARE FULLY RECYCLABLE, CREATING A GREEN CIRCULAR BIOECONOMY

Environmental IMPACT:

- Annual CO₂ Sequestration per factory:
- 63 000 000 kg CO₂ eq
- 0.54% - Sequestered CO₂ emissions from the entire Swedish construction industry

Ekolution uses renewable and recycled materials:

- 1 ha of hemp binds between 15-20 ton of CO₂ - In 100 days
- Hemp fibers grown with no pesticides and few fertilizers
- Binder made from recycled materials
- Food industry graded flame retardant

Growing

Hemp is grown through organic, toxic-free and CO₂-negative process



Harvesting

Hemp is harvested after 100 days



Recycling

Hemp fibre is recycled after consumption or demolition



Installation

Climate smart Ekolution insulation is installed in the building



Delivery

to construction site



Consulting

Experts in natural buildings



Transport

Hemp bales are transported to processing plant



Refinement

Hemp stems are refined into fibers



Finished product

Finished CO₂- negative home insulation that has positive health effects



EKOLUTION – INVESTOR / BOARD

– COLLECTIVE OF INVESTORS WITH EXPERIENCE FROM CONSTRUCTION, PROPERTY DEVELOPMENT AND AGRICULTURE



Gunnar Hagman
Chair Ekolution /
Investor, Hagman
Green Business

Erfarenhet:



Rickard Dahlberg
Investor / Board,
South Bay Evergreen
AB

Erfarenhet:



Johan Frenckner
Investor / Board,
Longrun Capital

Erfarenhet :



Johan Karlsson
Investor, Slättö
Förvaltning /
Neptunia Invest

Erfarenhet:



Ludvig Friberger
Investor / Board



Henrik Jönsson
Investor / Farmer



Niklas Knöppel
Investor / Serie
Entrepreneur



**Boel Rydenå-
Swartling**
Board

EKOLUTION WAS FOUNDED IN 2013 AND IS FULLY OPERATIONAL SINCE 2021, WITH SEVERAL UNIQUE, CERTIFIED AND STANDARDIZED PRODUCTS INSTALLED ACROSS SWEDEN

COMPLETED

Sweden's largest parking house in wood and hemp, Malmö (2022)



ONGOING

World first net-zero carbon warehouse, Stockholm (2023)

New materials and cutting-edge technologies chosen to reach net zero in embodied and operational emissions

Solar panels, heat pump and battery storage to secure sustainable energy supply and enablement of wider societal green transition

Innovate new materials, drawing from space technology

Carbon free and carbon reduced concrete in slab and foundation

Wooden panels with hemp insulation for roof

Wooden panels with hemp insulation for walls

Cross-laminated timber (CLT) and glulam (GLT) for structure



UPCOMING

Public Housing, Malmö by MKB (2023)



CAPITAL STRUCTURE – Bridge Financing

Q4 2023 – Q1 2025

EKOLUTION FACTORY – STAFFANSTORP

INVESTMENTS	Amount	Status
Machine Park (CAPEX)	12.65 MEUR	Financing completed

WORKING CAPITAL		
Liquidity (OPEX)	3.2 MEUR	Capital Needed

SECURED FINANCING Total	13,83 MEUR	Completed
SEED (2023 Feb)	1.03 MEUR	Completed
SERIES A (2023 Aug)	5.30 MEUR	Completed
APPROVED GRANT (max 8.09 MEUR) 60 %	7.50 MEUR	Completed

Resulting Capital Ask – Bridge Financing

WORKING CAPITAL	2.03 MEUR	
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TIMEPLAN

2023

31 th August - 1st downpayment to machine manufacturer.

1st september - Funds from klimatklivet (Grant) available

31 th September - 2st downpayment to machine manufacturer.

2024

Q1 - Working capital

Q1 - Payment to release the machines / delivery

Q2 - Installation of machine park

Q3 - Comissioning and Calibration

Q4 - Production start and full execution of machine park

2025

Full production

INVESTMENT HIGHLIGHTS

- Problem: Buildings account for 12% of EU emissions (Scope 1).
- Better insulation is a key lever for CO₂ abatement for buildings. However, conventional insulation (mineral wool) cause significant CO₂ emissions in production.
- European construction insulation is a ~8 BEUR market and growing ~10% CAGR.
- **Solution: Ekolution is positioned to transform construction insulation with its high-performance CO₂ net-negative hemp fiber insulation (300% better climate impact, renewable and fully circular).**
- Most of Ekolution's performance metrics score at or above conventional insulation (energy performance, work environment, etc.)
- Ekolution was founded in 2013 and is **fully operational since 2021** with several unique, certified and standardized products installed in buildings across Sweden.
- However, due to the current contract manufacturing setup, Ekolution's current cost performance is not fully competitive vs. conventional insulation.
- A pre-seed round was closed in Q1 2023 to onboard key Board and Advisory team members.
- This round's funds will be used to build a first-of-its-kind integrated hemp fiber insulation plant in Sweden, to be up and running in 18 months, taking Ekolution to >350 MSEK revenue capacity at >25% operational margin.
- **The plant will position Ekolution's product as the most cost-effective insulation on the market, while generating significant CO₂ capture (60k ton CO₂ e / year / plant).**
- In the next 3-5 years, Ekolution plans to scale its production footprint to 4-6 plants across Europe with similar financial and CO₂ performance as the first plant, taking Ekolution to 3-5% market share in key markets.