

AISTI

Aisti Corporation Oy

Sustainable acoustic tiles
for safe and sound construction

Aisti

- **Our vision is to harness the power of nature to make natural and sustainable products for modern construction**
- **Our first commercial product is sustainable, high-performing and low-cost acoustic tile. The material is patented**
- Aisti is the result of years of experience, technological knowledge, and relentless research and development. The company was born out of the construction industry's need to develop sustainable materials at affordable prices into acoustics and is now disrupting the way acoustic solutions are designed and manufactured globally.
- Aisti was established in 2019 by the three co-founders Petri Jetsu, Antti Fredrikson and Mikko Paananen
- Headquartered in Jyväskylä, Finland, Aisti currently employs eight senior employees
- Aisti raised €1.6 million in its first funding round from Maki.vc and a consortium organized by Valve Ventures Oy
- With the first funding, Aisti has built a small-scale R&D center to produce acoustic tiles for customer samples and further testing

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Our Team



Mikko Paananen
CEO



Suvi Sell
CFO



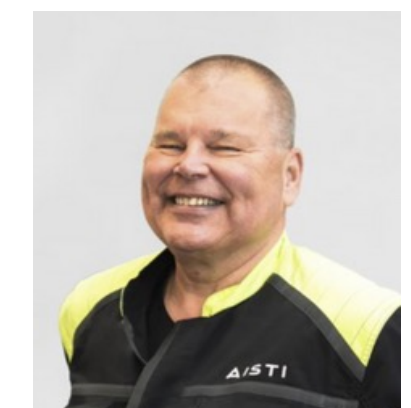
Juha Houni
R&D Engineer



Antti Fredrikson
COO



Heidi Luck
Head of Brand & Marketing



Jouni Mehto
R&D Engineer



Petri Jetsu
CTO



Aya Ahmed
Communications Manager

The global challenge and drivers for change

"Buildings are currently responsible for **39 %** of global energy-related carbon emissions."

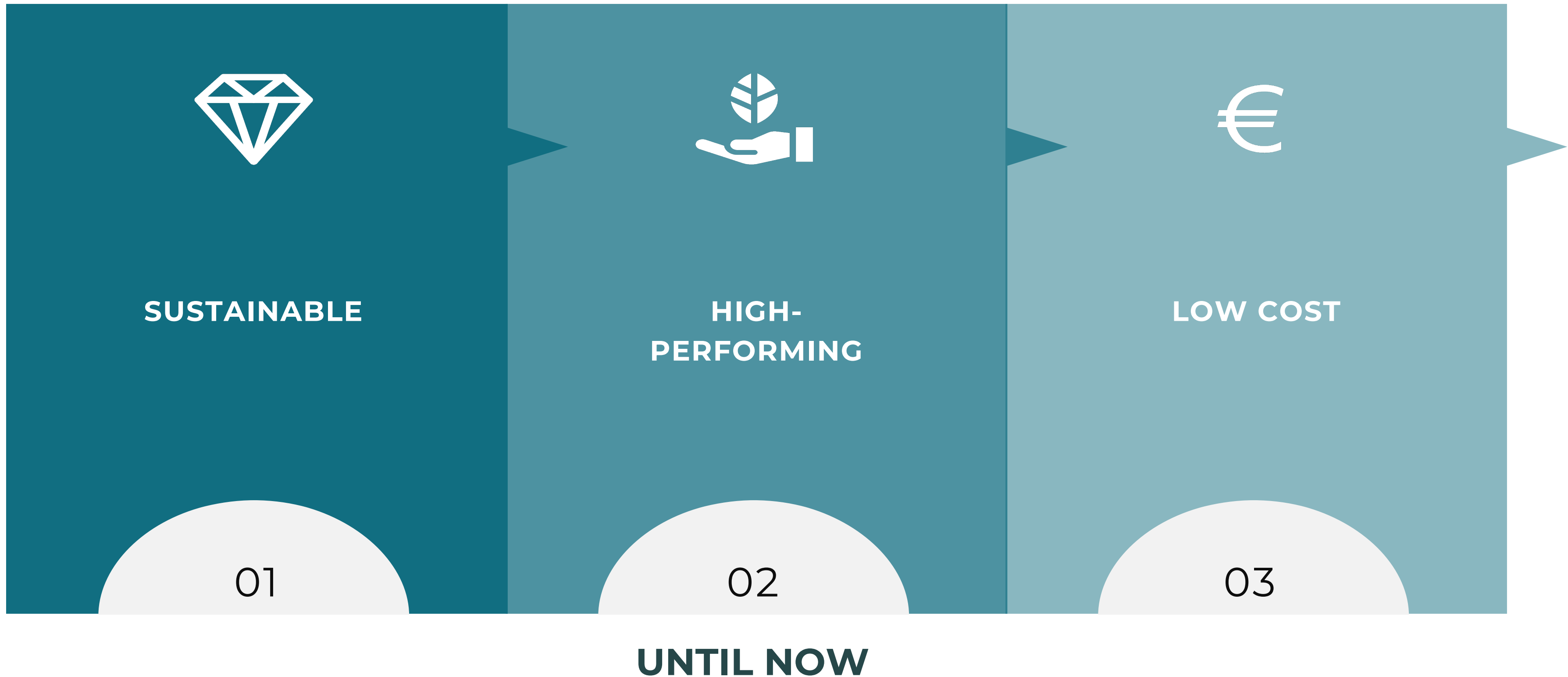
WORLD GREEN BUILDING COUNCIL 2022

- The construction industry worldwide is subject to **various carbon emission laws, regulations and policies**. (The European Climate Law, The EU Green Deal, The UN Sustainability Goals 2030)
- EU and USA **plan to realize net zero by 2050**. China and India are making net-zero commitments by 2060/2070 (Deloitte, 2023).
- **80% of European construction companies prioritize** decarbonization and emission reduction commitments (Deloitte, 2023).
- Consequently **ALL CONSTRUCTION MATERIALS** must meet the requirements of sustainability and low carbon footprint in the future.

Projected daily growth of buildings constructed worldwide by 2050



In acoustics there has not been a product in the market which ticks all the boxes of



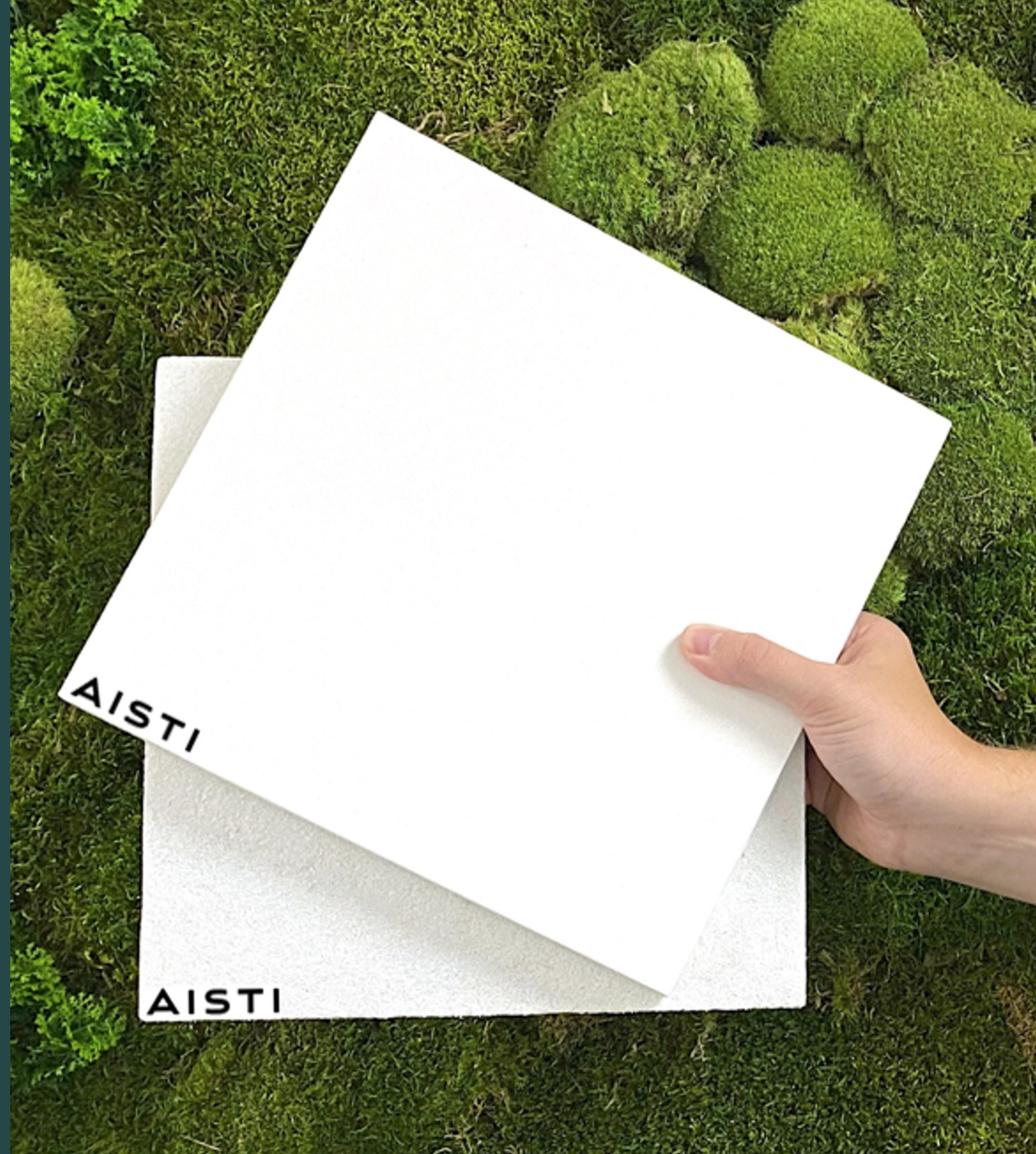
Our Unique Solution

Aisti® Teno Acoustic Tile

Aisti has selected **acoustic tiles** as the first commercial product.

Value added for the acoustic tile is **29 times higher** compared to cellulose pulp and even higher compared to sawn timber.

The same **technology can be applied other applications** such as fiber boards, thermal insulation products or protective packaging materials.



Our Unique Solution

Aisti® Teno Acoustic Tile

- Aisti manufactures **the world's first** low-cost, fire-retardant and carbon-sequestering acoustic tiles from wood fibers.
- Our patented solution can reduce the carbon emissions of suspended acoustic ceiling tiles by **up to 60%**, outperforming non-renewable alternatives in the market.
- It achieves a positive carbon handprint by **sequestering 2.6 kg CO₂e/m²** in its core material. The product is easy to recycle, plastic free and non-irritating to the skin. It has low volatile organic compound (VOC) emissions, a Class A sound absorption rating and meets a minimum fire retardancy standard of Class B-s1, d0 (Euroclass).
- It can fully replace the existing mineral wool panel alternatives with the same technical properties and still meets **sustainability, performance and affordability** requirements seamlessly.

Our Innovative Process

Foam Forming Technology

- Foam forming technology developed by Aisti enables the production of **low-density fiberboards** from cellulose fibers **without** any synthetic binders
- Foam forming technology enables **cost-effective manufacturing** in large volumes
- Technology Readiness Level (TRL) of foam forming process in production of acoustic panels is estimated at **TRL 6-7** by a third-party. For other process steps, solutions represent mature technology with **TRL level 9**
- Concept design and pre-engineering work is **already completed** with experienced engineering partners
- Aisti has a **product patent** to cover ultralow density fire-retardant foam material produced of cellulose fibers.

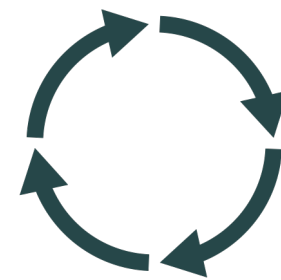
Driving Circular Economy

Committed to innovation our company spearheads a sustainable future with a unique, simple and cost-efficient foam forming technology approach which allows us seamlessly combining acoustic excellence with ecological responsibility to deliver a harmonious fusion of performance and sustainability in every application. This is how we do it in:



RAW MATERIAL

The utilization of recycled paper, cardboard and textiles as well as industrial and agricultural side streams as a raw material of acoustic tiles.



PROCESS

Recycling of production side streams back to raw material for the acoustic tile production (closed loop process).



PRODUCT

Recycling of end-of-life acoustic tiles to be utilized as raw material in the production of acoustic tiles or other fiber-based products.

Typical non-residential buildings with suspended ceilings



Demand for acoustic materials in buildings is typically greater than the floor space (ceiling + wall installations)

Aisti's competitive advantages

Aisti has an opportunity to become a global market leader in sustainable acoustic materials.



Easy to install

The same dimensions and installation process as the currently existing products.



Ecological

Natural wood fibers. 0% plastics. The amount of sequestered carbon in the product is higher than the lifetime carbon footprint.



Cost-efficient

Ecological products at a conscious price. Lower life cycle cost than with existing products.



Recyclable

Our core material is 100% and easily recyclable. Our tiles are commodity at the end of their life cycle.



Safe and sound

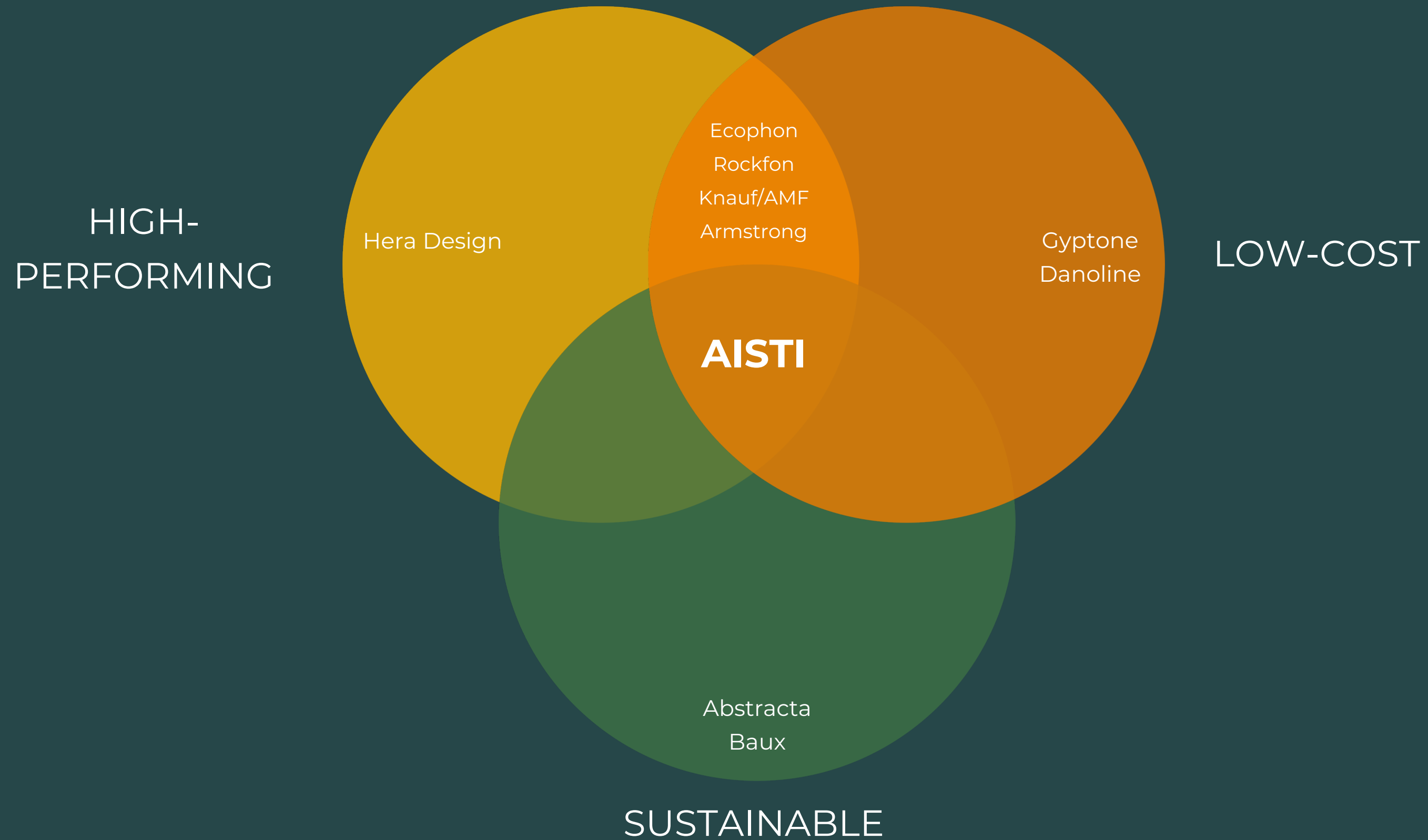
Fulfills the highest fire safety requirements obtainable for natural materials (Euroclass B-s1, d0). Fulfills the highest requirements for sound absorption (Class A).



Promotes wellbeing

Low VOC emissions. No irritating fibers. Clean indoor climate.

Competitor analysis



Competitive Advantage Compared

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	AISTI	GLASS WOOL	ROCK WOOL	PLASTERBOARD	ALUMINIUM	PLASTIC PET	CEMENT WOOD WOOL	PULP	CORK
LOW PRICE									
SOUND ABSORPTION									
FIRE CLASS B-s1, d0 or higher									
BENDING STRENGHT									
VOC EMISSIONS									
CARBON NEUTRAL OR NEGATIVE									
PLASTIC FREE									
EASY TO RECYCLE									
NO IRRITATING FIBERS									

Customer feedback

Signed off-take agreements:

- **Inlook Group Oy** (agreement value 2,4 M€)
- **Entercore AS** (agreement value 3,6 M€)
- **Nordicacoustic AS** (agreement value 0,2 M€)
- **System Montasje AS** (agreement value 0,4 M€)
- **Kjonnerod Montasje AS** (agreement value 0,2 M€)

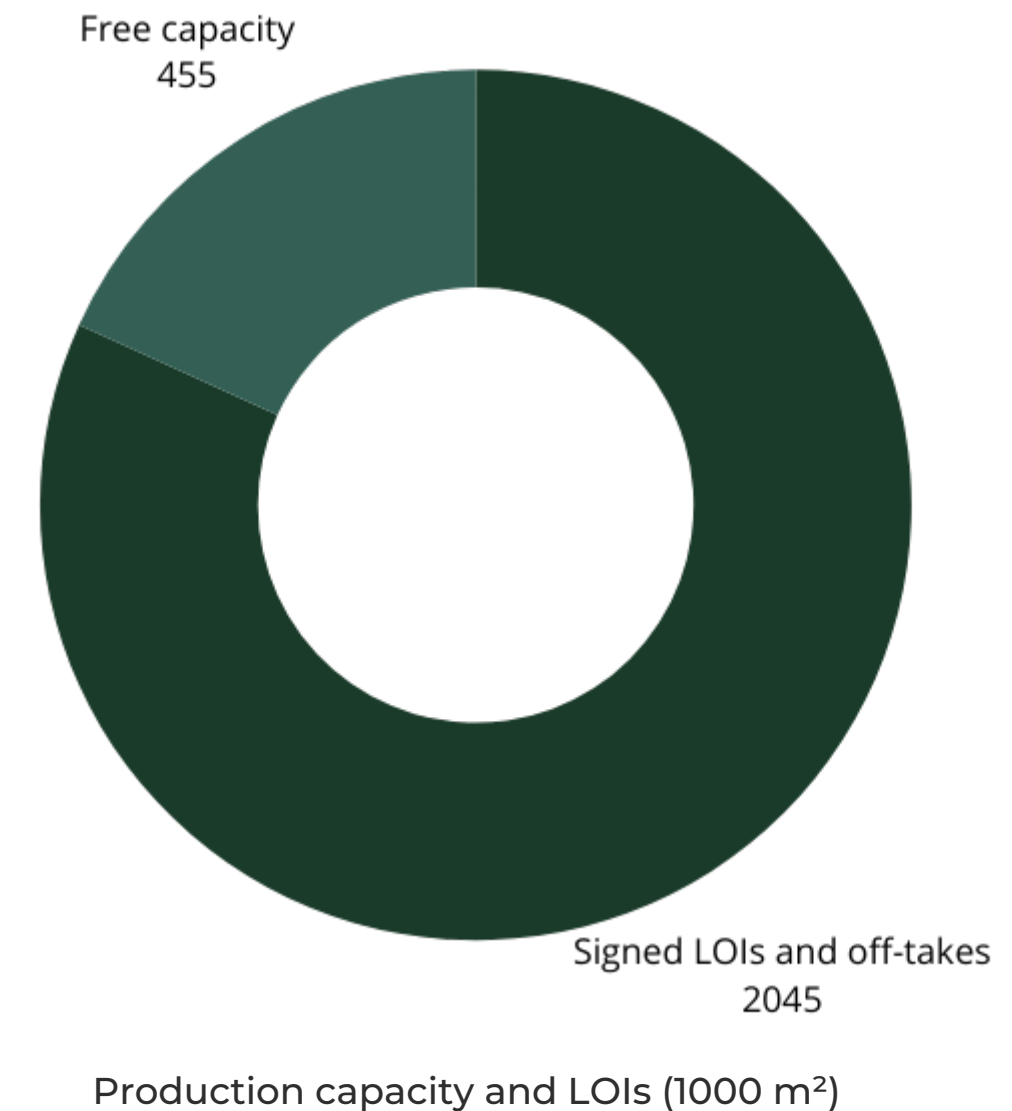
Signed Letters of Intent with different interest groups:

- **Inlook Group Oy** (annual potential 900.000 m²)
- **YIT** (annual potential 300.000 m²)
- **NREP / Nordics** (annual potential 300.000 m²)
- **SRT Sisärakennustekniikka** / FI (120.000 m²)
- **Pozzoni Architecture** / UK (100.000 m²)
- **Arkkitehtipalvelu** / FI (50.000 m²)
- **Teknorakennus** / FI (75.000 m²)

"If you can provide the tiles to industry with this price point, mineral wool manufacturers will go out of business, as it doesn't make sense to use them anymore."

-Inlook Group, the biggest user of acoustic tiles in the Nordics

**Signed LOIs for over 2 million m² annual usage,
~82 % of the maximum capacity**



Business model in the construction business value chain



WHO

Developers, Private property owners & municipalities

Architects

Construction companies

Sub-contractors

Role in the value chain

Decide on new investments and the partners used in the project (architect / construction company)

Define the material specifications and requirements on the building projects

Responsible for the construction phase based on the specifications. Place purchase orders on materials directly or through sub-contractors.

The actual buyers of the products, after all other players have contributed on the project first.

Aisti's Partners by segment

- NREP (Nordics)
- YIT (FI)

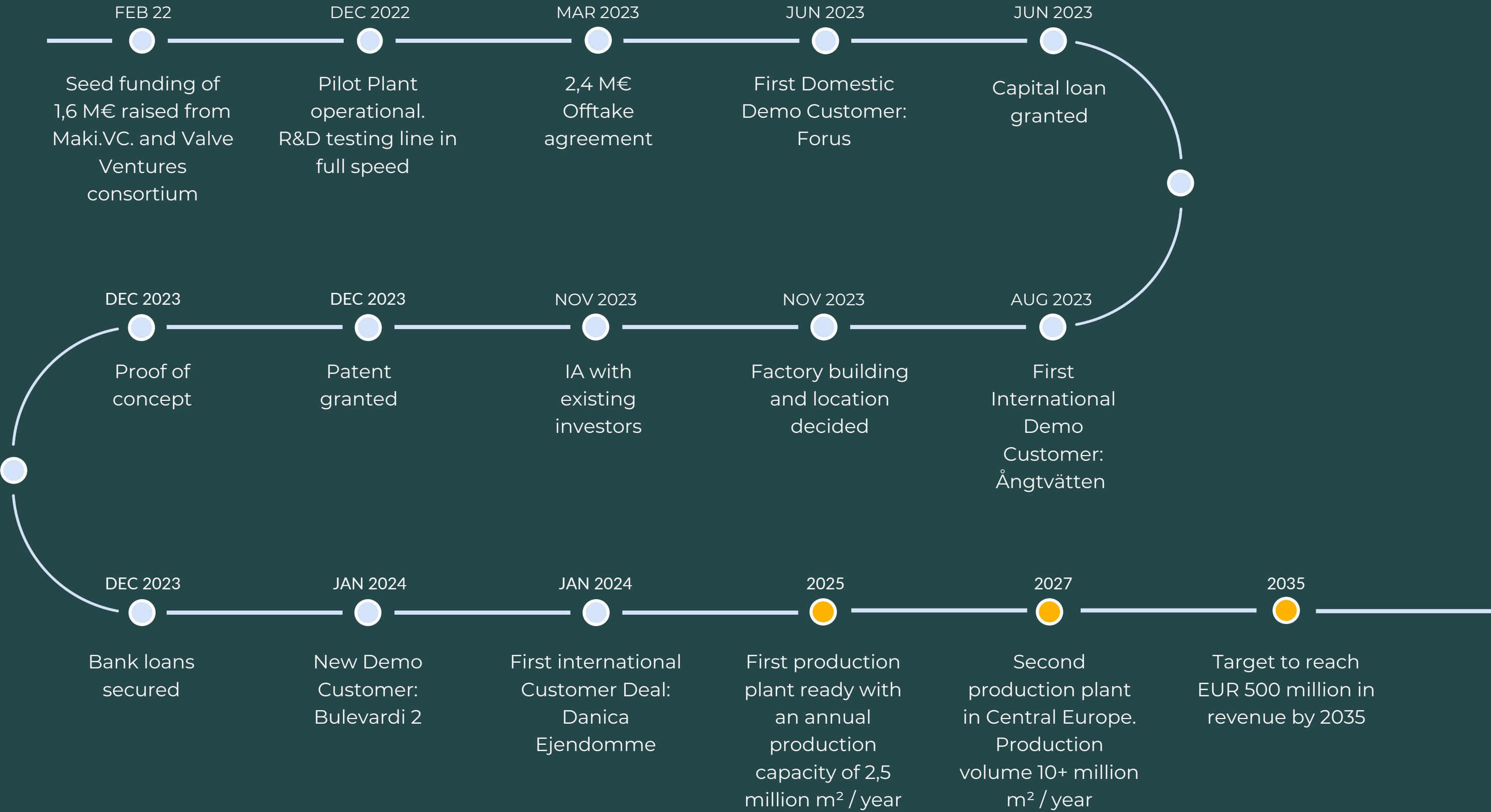
- Pozzoni Architecture (UK)
- Arkkitehtipalvelu (FI)

- YIT (EU)

- Inlook (Nordics)
- Teknorakennus (FI)
- SRT Sisärakennustekniikka (FI)

Aisti has already signed Letter of Intent agreements with all the stakeholders in the value chain for 75 % of the annual production capacity.

Milestones for Global Growth



Market highlights

- Increasing demand for carbon neutral or negative construction materials supported by environmental legislation and growing climate awareness
- Highly consolidated acoustic tile market: only 4 players globally in lower price category acoustic tiles with sound absorption class A
- No alternative solutions at the moment
- Global market size is ca. EUR 10 billion
- High traction already existing with signed LOIs with different customer segments (estimated annual need of 2 M m²)
- Two off-take agreements signed with a value of EUR 6 M
- Good buy-out target for the big players in the longer term

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Company highlights

- Unique know-how in foam forming process
- Unique products based on renewable wood fibers
- Core material is fully and easily recyclable materials; meets all circular economy standards
- Fulfills the buying criteria and minimum legal requirements for acoustic tiles in public buildings:
 - Sound absorption class A
 - Fire-retardancy: Euroclass B-s1, d0
 - Can carry its own weight
 - Low VOC emissions (M1 / French A+)
 - Competitive pricing
- Highly profitable business due to the cost-effective production process based on foam forming
- Cash-flow positive after one year
- Technology is easily scalable
- Patent granted

AISTI

Building a safe and sound future tile by tile

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