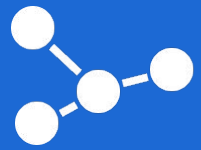


MATER-AI

The Next-Gen Materials Discovery Engine

www.mater-ai.com

Mission

Unlocking $152bn waste heat market

with **physics-informed** & **AI accelerated thermoelectric materials** discovery

Problem

70% of our **global energy** is **lost** to heat

Factories

Data Centres

Vehicles/transport

"Investigating 3 thermoelectric molecules took a year with the ***current R&D cycle (10-20 years)****"*

- Dr. Nickel Blankevoort (CEO)

Solution

New thermoelectric materials

Cutting down discovery time from **decades** to **minutes**:

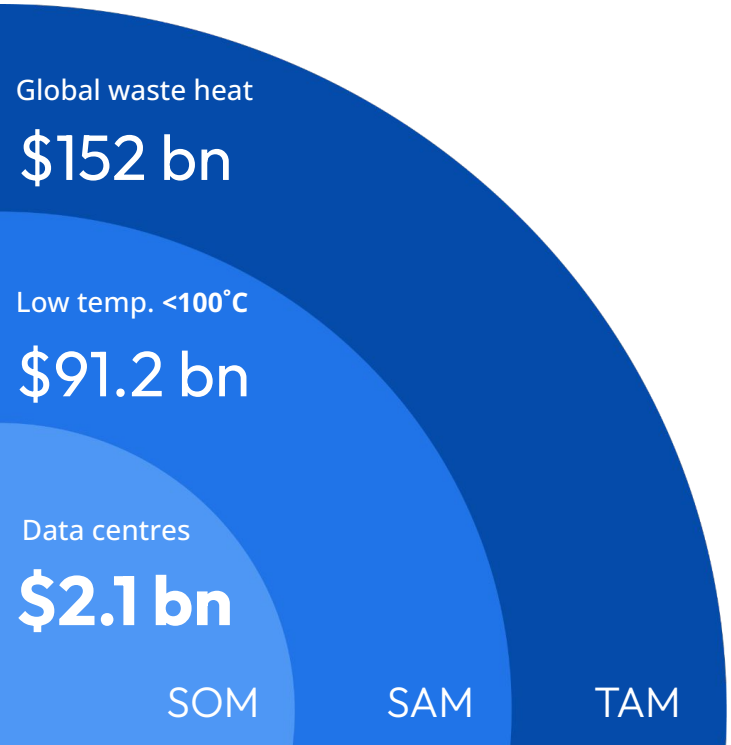
Mater-AI Discovery Engine

Regulations & Specifications	Computational Science	Quantum Algorithms	Artificial Intelligence

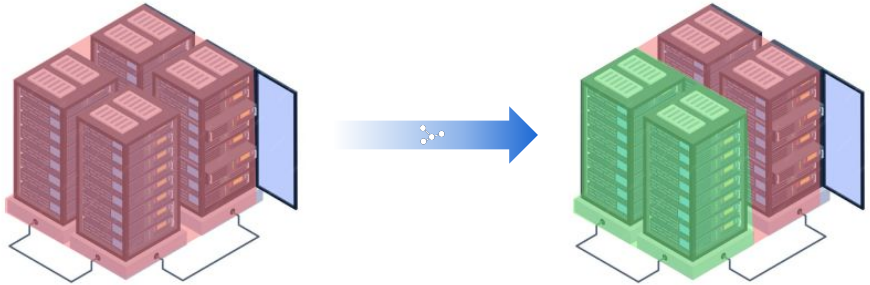
New Organic Thermoelectric Material

Market

Global **waste heat** market **opportunity is $152bn**[1]



Data centres will use **20%** of **global electricity** by **2030**[2]



Now

98% waste heat[3]

With MATER-AI

40%[4] waste heat to clean energy

1. Global waste heat market
2. 2030 electricity demand data centres
3. Data centres waste heat
4. Max efficiency thermoelectric materials

Founding team

PARTICIPANTS IN: conceptionx | BARCLAYS | Eagle Labs | NVIDIA INCEPTION PROGRAM | WARWICK

Dr. Nickel Blankevoort

CEO

Computational Materials Scientist, Quantum Nanoelectronics & Thermoelectrics

Chelsea Williams

CTO

PhD Cand. Quantum Computing, Computational Physics, AI, Quant. Finance

Gatleen Bhambra

COO

Product Lead, Generative AI Products, Ex-Consulting & Commercial Sales

THE UNIVERSITY OF WARWICK | ASML | ENTREPRENEUR FIRST | UNIVERSITY OF CAMBRIDGE | PASQAL | NatWest | JACQUARD | Revolut | GATEONE A Havas Company

Advisors:

Prof. Hatef Sadeghi
Head of Quantum Device Modelling
Uni. of Warwick

Dr. Ke Li
AI for Energy, Biological Science & Medicine
Uni. of Exeter

Dr. Antonio Ferreira
Computational Discovery Lead
US dept. of Energy, WaveBreak, Covant, Roivant

Competitive landscape: **AI materials engines**

Uniquely focussed on **thermoelectric materials**

	MATER-AI	CUSP AI	MATERIALS NEXUS	ORBITAL MATERIALS	OSIUM AI	AI MATERA	SCHRÖDINGER
Thermoelectric materials	✓	×	×	×	×	×	×
Quantum gatekeeper	✓	×	×	×	×	×	×

Competitive landscape: **Waste heat market**

The **only solution** focussed on **converting heat into clean energy**

	MATER-AI THERMOELECTRIC MATERIAL	DISTRICT HEATING	HEAT SINK & PCM	HEAT EXCHANGER
UNIQUE DIFFERENTIATOR Converts heat to clean electricity	✓	✗	✗	✗
No moving parts	✓	✗	✗	✗
Maintenance free and durable	✓	✗	✓	✗
Extreme environments	✓	✗	✗	✓

Business model

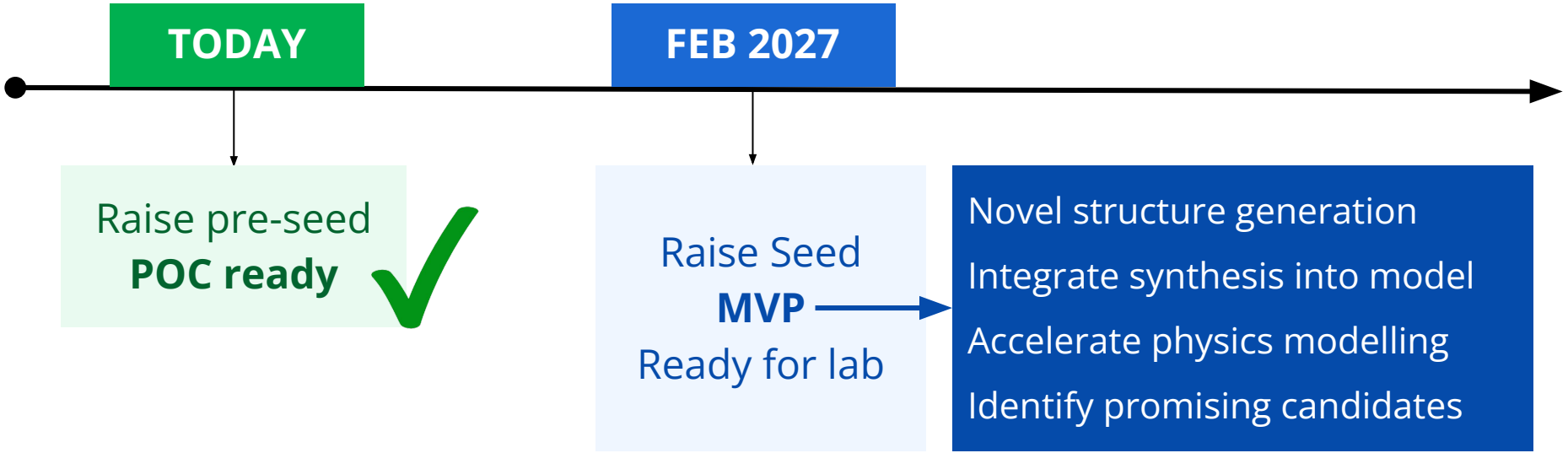
Commercialise thermoelectric **materials** developed in-house

1. Material discovered with our engine
2. Material synthesised & tested
3. Material sold via channel partnerships

*Data centre hardware providers Deerns and McLaren have already showed interest in adopting our solution.

Roadmap

Across 24 months with **two pivotal milestones**



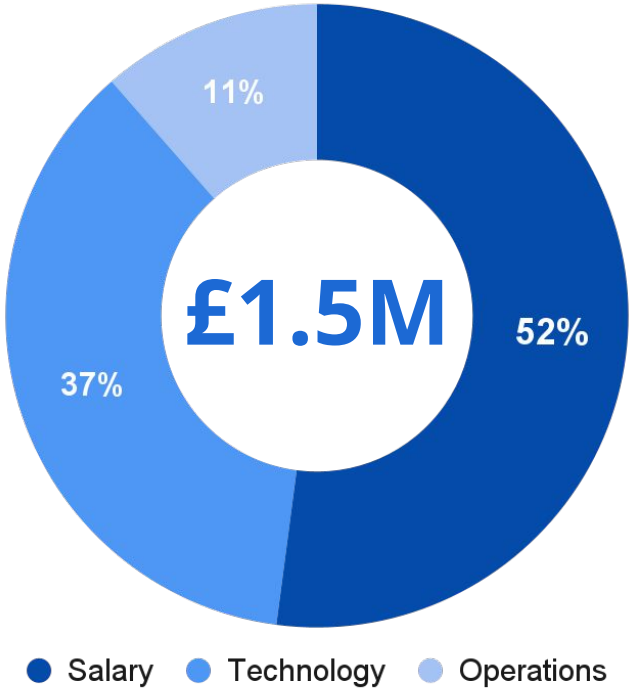
Ask

We’re launching our **pre-seed round**

XTX Ventures has committed £100K

Stage:

POC to MVP



MATER-AI

Join us on this journey

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