May 2026 | layrr.co

Transforming the feedstocks of **Industry 4.0** into **next-generation materials** through **atomic-level** engineering.

Carbon13 | AgFunder | UKRI UK Research and Innovation | DC>C Data Collective

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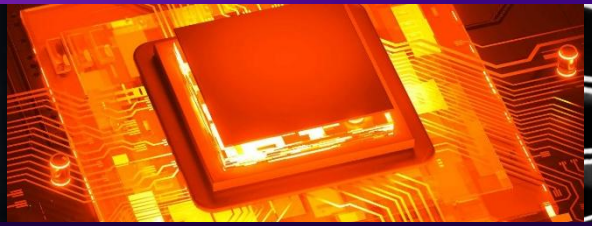
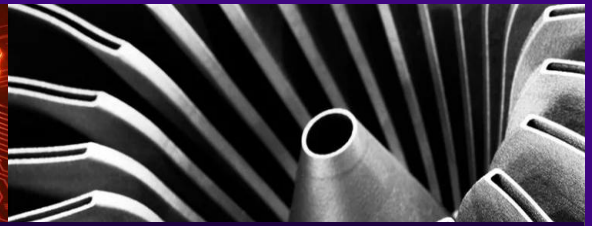
The Problem

Physical limits on materials are constraining global hardware performance





Performance Ceiling

Next-generation AI, EV, and aerospace hardware is hitting physical limits of materials

Supply Chain Vulnerability:

Progression relies heavily on expensive, geopolitically sensitive critical metals

Engineering Gap

Traditional bulk metallurgy cannot manipulate functional thermal properties at necessary atomic level.

E.g.
Heat management in Data Centres

Heat Wall: Next-generation GPUs thermally throttle at peak loads, reducing processing speed

Interface Failure: Thermal materials cannot move heat away from the silicon fast enough

Commercial Cost: Hyperscalers are losing hundreds of millions of dollars per facility in stranded CapEx and wasted cooling OpEx

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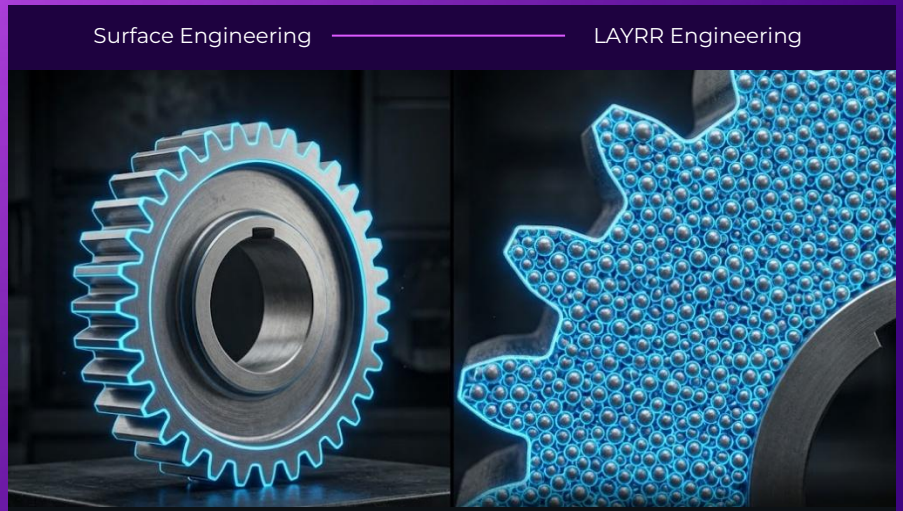
Solution

Bulk property transformation via atomic engineering with radically less material



Hardware-Agnostic Platform

Precisely tuning bulk properties across Thermal, Mechanical, Electrical and Magnetic parameters

Exponential Surface Area

By functionally coating raw powder feedstocks rather than finished components, we engineer the fundamental building blocks of materials.

Ultra-Low Active Mass

Our process delivers 10x material performance using 10% of the active metal, radically lowering dependance on critical supply chains.

Quantum Mechanic Effects

When materials are engineered down to the scale of single atoms or molecular layers, they abandon the predictable rules of classical physics and are instead governed by quantum mechanics, leading to radical performance leaps.

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Solution

STORM - Surface Transformation of Raw Materials

Proven Industrial Scale

100 ton per year capacity. The STORM has been designed to deliver 100 kg batches multiple times a day

Powder Agnostic

Coating possible on any powder from **Metallics, Oxides, Ceramics** etc. It can also be used to remove oxide layers for cleaning powder for **circularity**

Clean Industrial Scale

Continuous, dry, solvent-free process. Eliminates wastewater and powder agglomeration associated with wet-chemistry methods.

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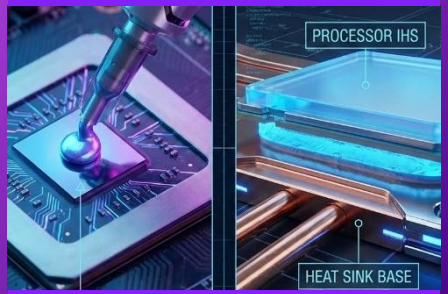
Beachhead Traction

Disrupting the high growth $2.5B Thermal Interface Market

Industry

Thermal Interface Materials



$30bn

TAM

Market Dynamics
Low powder volumes, extreme price insensitivity

Business Model
LAYRR acts a direct materials upgrader, supplying functionalised, formulation-ready powder directly to Tier-1 global formulators

Commercial Traction
NDAs and live customer discussions with:

- Multinational **Tier-1 Electronic Materials** Provider of TIMs for **Data Centres** and **consumer GPU** applications
- Major **Japanese Advanced Materials** Giant for underfill **chipset applications**
- Leading UK Commercial **Fusion Pioneer** for high throughput thermal materials

Paid Development:
Global Leader in **Synthetic Diamond & Supermaterials** targeting **5g & Telecoms, High power lasers & Advanced Microelectronics** thermal management markets

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Unit Economics

Silver pastes for high-end computing

Bottleneck
Premium data centre market currently spends $500 million annually on raw silver filler to prevent GPU thermal throttling

LAYRR Solution
We replace solid silver particles with functionalised base powders, reducing precious metal reliance by >90%.

Revenue Model
Capturing 20% of this specific sub-segment (124 tonnes annually) via our $600/kg licensing royalty yields a $74.4M ARR.

Decoupling performance from critical metal costs

$8,392 per litre*	$133 per litre*

*LAYRR Formulation Cost includes Amortised CapEx, OpEx and Materials

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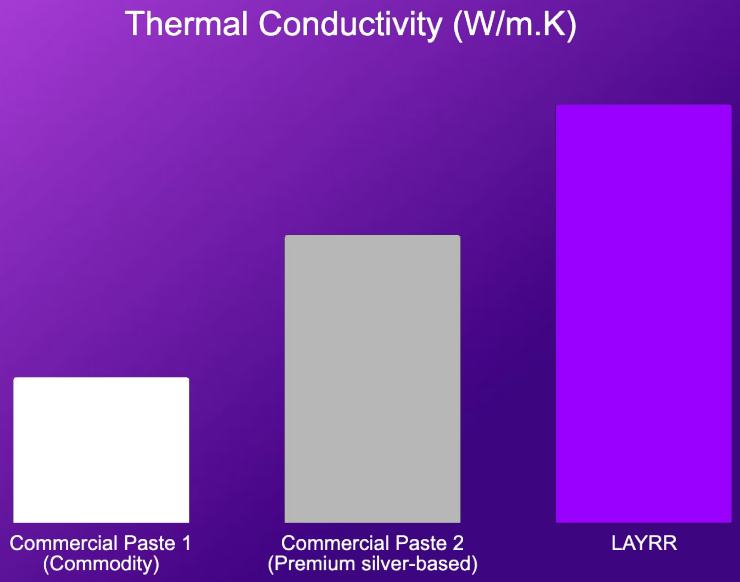
Performance Data

LAYRR-based TIM performs above commercial competitors



30% Improvement

Internal benchmarking against off the shelf commercial thermal interface pastes

Better than Premium

Better Thermal Conductivity. We have proven a better than market leading performance in our in-house tests.

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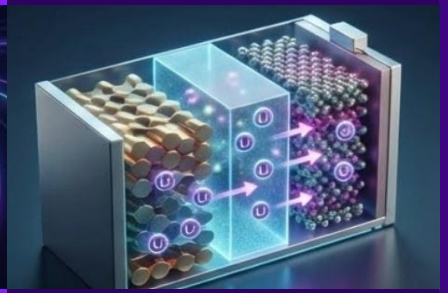
Future Opportunities

Platform Opportunity: One process unlocking multiple billion-dollar supply chains

Industry	3D Printing	Magnets	Batteries
			
TAM	$20bn	$20bn	$38bn

Powders are the building blocks of **industry**

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Traction

Commercial traction across all pipeline verticals

Industry	Thermal Interface Materials	3D Printing	Magnets	Batteries
Paid / Joint Development	Global Leader in **Synthetic Diamond & Supermaterials** (Paid Development)	Specialised **3D Printing Materials** Provider (JDA)	Top 3 Global **Automotive OEM** (LOS) (Grant awarded)	
NDA / LOS (Speed to Signing < 1 month avg)	Multinational **Tier-1 Electronic Materials** Provider Major **Japanese Advanced Materials** Giant Leading UK Commercial **Fusion Pioneer**	Factory-Backed **Formula 1** Team Tier-1 **Motorsports & Aerospace** Subcontractor	Tier-1 Global **Surface Solutions** Conglomerate Top-Tier EV Motor **Magnet Manufacturer**	Major European **Lithium Battery** Manufacturer

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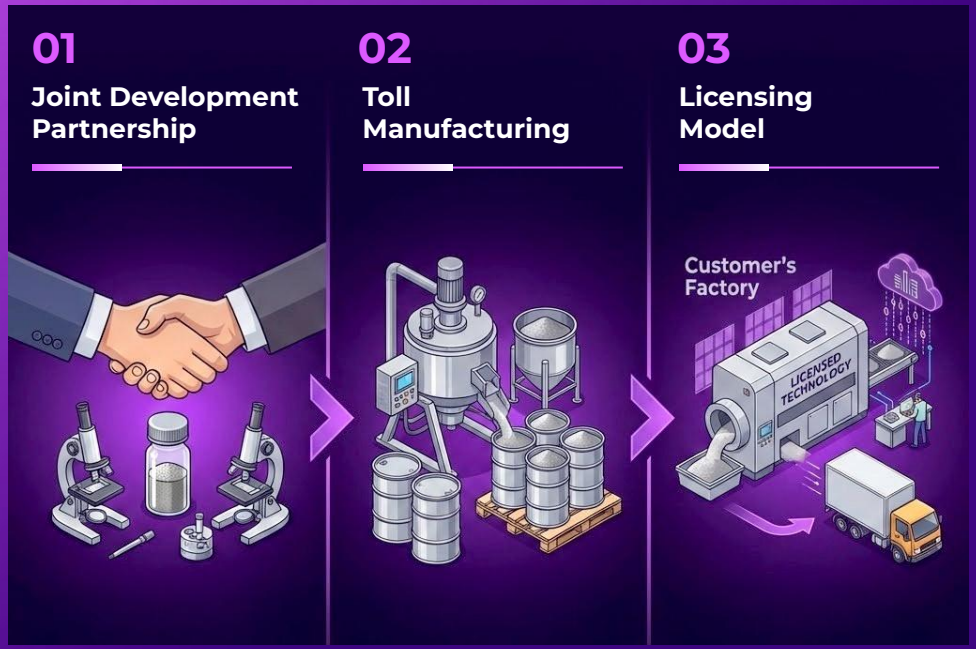
Go To Market

Design-In partnerships to validate urgent material bottlenecks and validate product market fit



Phase 1
Joint Development (Validation):
Validate product-market fit through paid engagements with Tier-1 OEMs

Phase 2
Toll Manufacturing (Direct Sales):
Capture early, high-margin revenue by supplying "print-ready" powders for high-margin, low-volume customers

Phase 3
Licensing (Global Scale):
Deploy high-margin royalty model by dropping our modular STORM reactors directly into existing global supply chains

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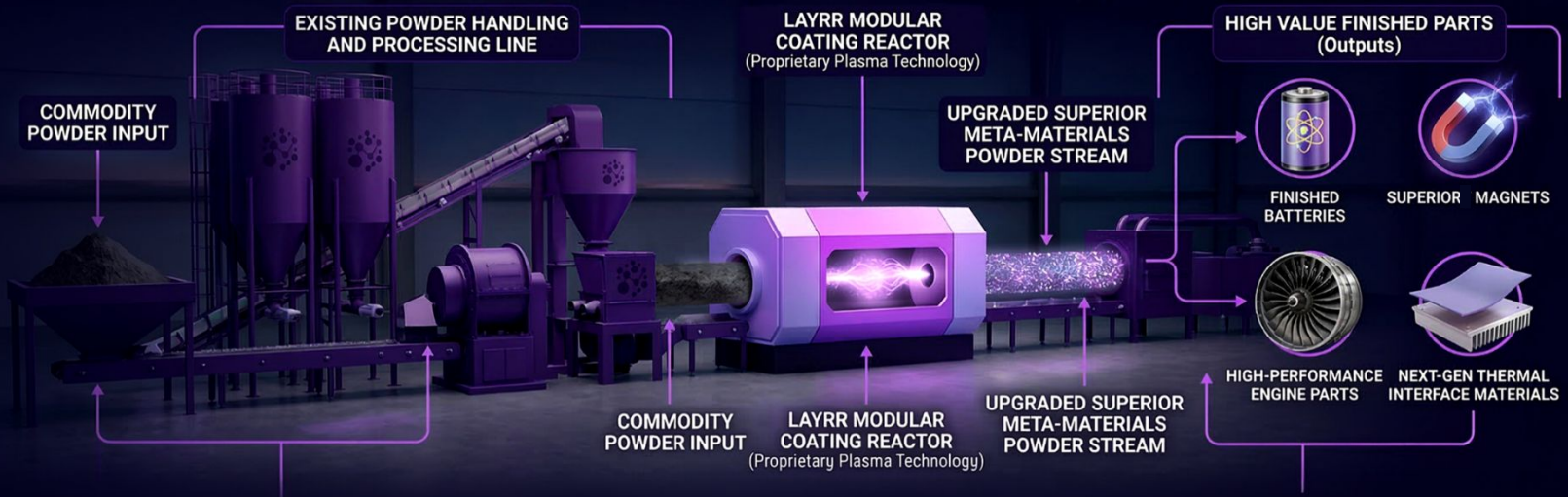
Phase 3 Licensing Model

CapEx-Light Recurring Revenue at Gigafactory Scale

Integrating modular STORM reactors directly into Tier-1 gigafactories to unlock high-margin recurring revenue. High-value battery and magnet powders remain in a fully sealed, inert environment, eliminating cost and hazard of transporting highly sensitive materials.



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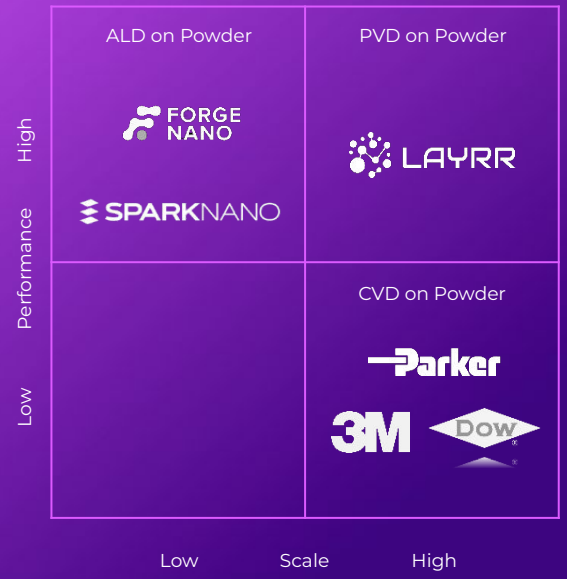
Differentiation

Defensive Moat: Atomic Precision at Industrial Scale



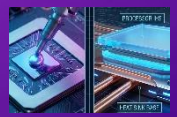
Proven Industrial Capacity
Proprietary STORM reactor, with option to upgrade to continuous mode

Clean-Tech Economics
Completely dry, solvent-free continuous PVD process. We eliminate the toxic liquid waste and powder agglomeration associated with legacy wet-chemistry.

SOM

Scaling the Pipeline: Executing our path to $382M ARR

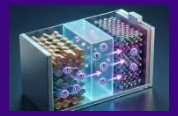
01
Beachhead
(2026-2027)



02
Near Term Expansion
(2026-2028)

03
Mid Term Expansion
(2029+)

04
Global Scale
(2030+)

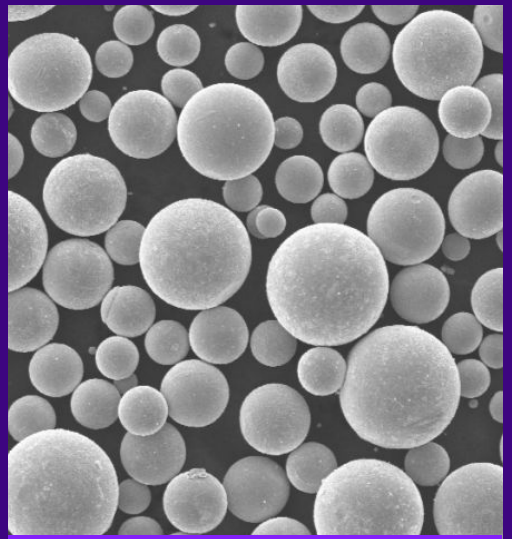


TIMs/Silver Paste | $74M ARR

3D Printable Aluminium | $52M* ARR

EV Motor Magnets | $56M ARR

Battery Cathodes | $200M ARR



Figures represent modelled sub-segments based exclusively on our Phase 3 licensing unit economics, representing a fraction of the broader platform capability

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*Other materials also possible copper, titanium. These would contribute to a greater SOM

Financial Projections

Capital-efficient path to scalable revenue

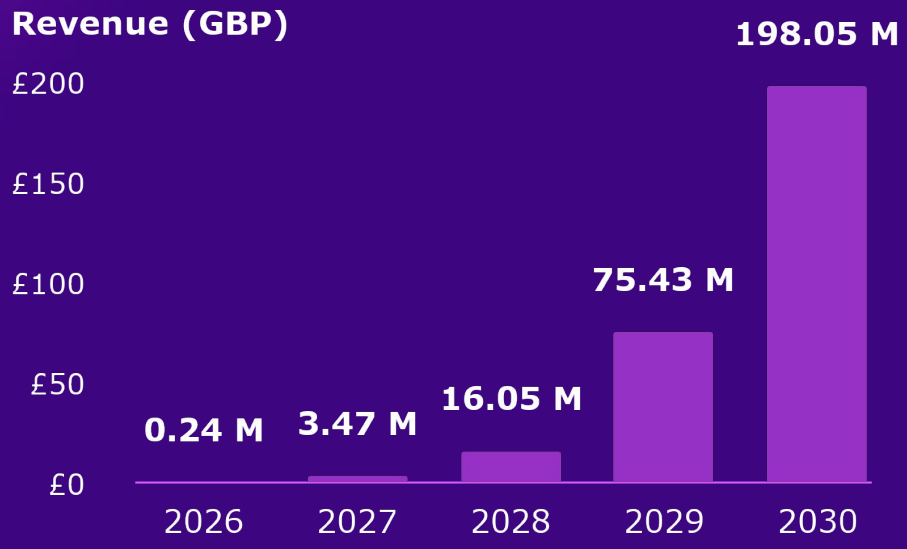
Phased Revenue Plan:

Y1-2 Focus
Build our partnerships to develop state of the art TIMs at scale

Y3-4 Transition
Accelerate growth via High-Margin Product Sales (>70% GM). Develop new capabilities in different sectors.

Y5+ Scale
Layer in high-scalability Technology Licensing & AI royalties.

Long-Term Target Model
>70% Gross Margin / >35% EBITDA Margin .



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Intellectual Property

Structured Hybrid IP Strategy

1

Tier 1
Hardware & Architecture

Patents: Utility patents on the modular STORM reactor design, continuous process integration, and physical architecture.

Trade Secrets: Internal powder agitation, vacuum dynamics, and ‘black box’ embedded control systems.

2

Tier 2
Process Parameters & Chemistry

Patents: Targeted filings on novel powder structures and surface passivation techniques.

Trade Secrets: Internal know-how on gas profiles, plasma parameters, and residence times are not published or shared.

3

Tier 3
Applications & Commercial Control

Patents: Follow-on patenting of final functionalised materials to protect specific manufacturing applications. May be jointly held with partners.

Licensing Contracts: Strict ‘no reverse engineering’ clauses embedded into all Phase 3 gigafactory deployments.

A portion of this round is ring-fenced to execute the utility patent filings for the STORM architecture to secure our global licensing strategy

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The Team

Proven operators in deep-tech, advanced materials and commercial scaling

Phil Hunter
Chief Executive Officer & Co-founder

- Former Race Car engineer
- Serial Entrepreneur
- Data Scientist

Dr Kerry McLaughlin
Chief Operating Officer & Co-founder

- Scientist turned Operator
- Complex R&D management
- Funding expert

Dr Vicky Broadley
Chief Technology Officer & Co-Founder

- Physicist
- PVD & Vacuum Science
- R&D to Production

Dr Phil Carroll
Board Advisor

- Additive Manufacturing Expert
- Founded and Exited powder manufacturing business LPW Technology to Carpenter Additive

Team: 6 FTE inc. 3 Scientists, 3 Engineers.
Fractional Support Functions: Finance, Marketing, Sales, IP

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The Ask

£2M to Drive Commercial Validation & Series A Readiness

2026 Q3	2026 Q4	2027 Q1	2027 Q2	2027 Q3	2027 Q4
Secure Core IP	**Commercial Expansion**	**Commercial Supply**	**ISO Accreditation**	**Inert Transfer Integration**	**Continuous Process Validation**
File foundational patents for the STORM architecture, followed by patents for proprietary coating parameters	Appoint Commercial Lead to build pipeline and convert successful PoC's into commercial agreements	Secure early commercial supply agreements, validating high-margin pricing model and unit economics	Implement quality management standards to meet procurement requirements of Tier-1 OEMs	Develop sealed handling capabilities for safe processing of highly sensitive materials for higher-margin markets	Upgrade STORM architecture to continuous load-locking in readiness for OEM licensing

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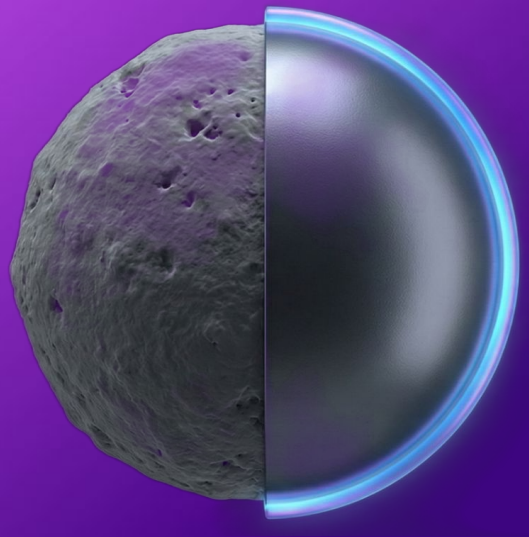
The Deal

Investment Summary



The Ask

£2m

£1M Equity = £1.8M Runway (Includes £815k non-dilutive Innovate UK grant).

Instrument: Priced Equity

EIS Eligible

24 month runway, clear sight to Revenue

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Collaborators & Partners

WMG THE UNIVERSITY OF WARWICK

University of Sheffield

UKRI Research Complex at Harwell

HENRY ROYCE INSTITUTE

diamond

THIRD DERIVATIVE

Cranfield University

Investors

Carbon13

AgFunder

DC Data Collective

Investment Highlights:

- **Massive Market Opportunity:** Platform technology targeting multiple billion-dollar markets with a focused TIM beachhead strategy.
- **Defensible Technology Moat:** Proprietary, scalable PVD-on-powder platform offering significant versatility.
- **Capital-Efficient Business Model:** Phased approach with early revenue from high-value services.
- **Proven Execution & Market Pull:** Core technology de-risked, operational milestones achieved, and active engagement.
- **Experienced, Expert Team:** World-class team with deep expertise in PVD, materials science, and scaling deep-tech ventures.

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Phil Hunter CEO

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