

Revolutionising materials and metal recovery— powered by Ionic Liquid Chemistry

Dr Francisco Malaret
(CEO and Co-founder)



INORGANIC MATERIALS

are the essential building blocks of industry, technology, and modern life. For example, zinc oxide (ZnO) is widely used in fast-growing markets, including cosmetics, electronics, tyres, ceramics, paints, semiconductors, and more.



NANOMOX®

THE CHALLENGE

Our mission is to **transform the way the world makes, uses, and regenerates its most essential minerals—for good.**



Example of bulk ZnO production

Energy-Intensive, low-quality, and unfit for high-end uses like cosmetics

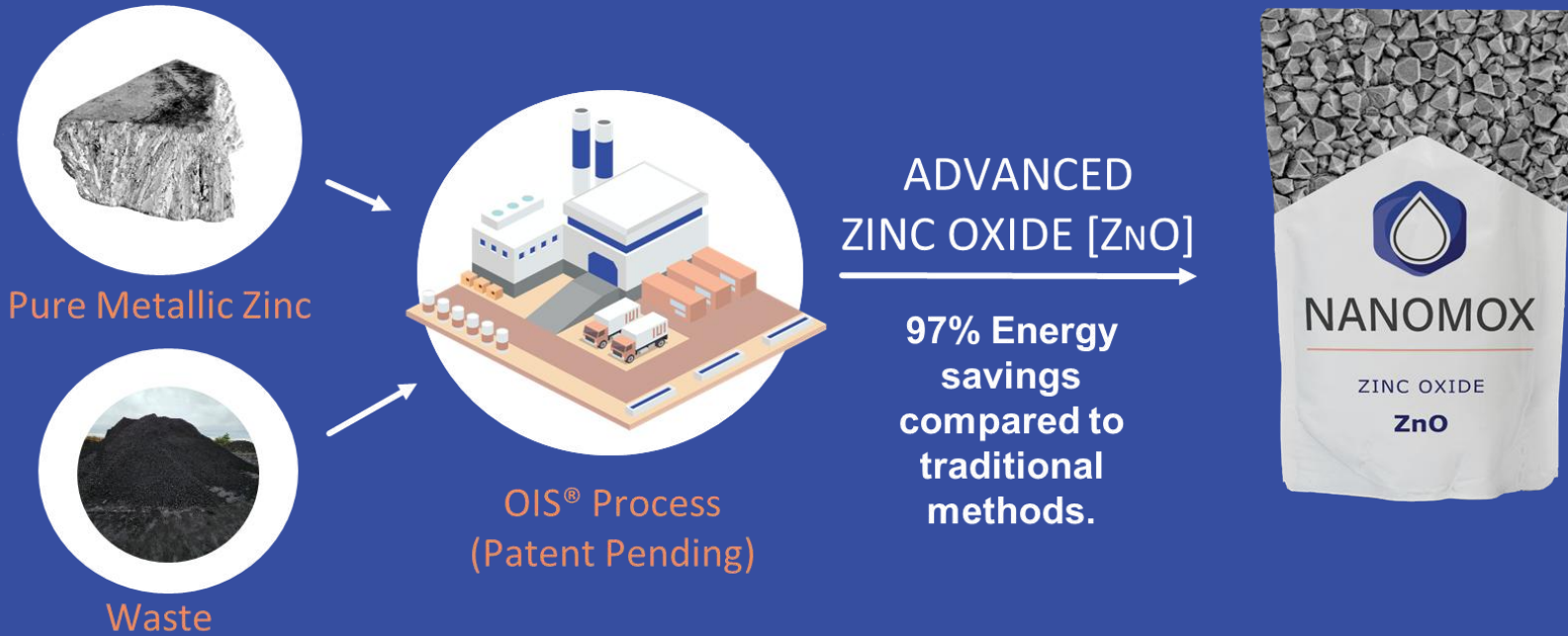


Nanomox[®] ZnO production

Sustainable high-performance materials

OUR SOLUTION

A groundbreaking chemical process that produces high-performance advanced materials with enhanced sustainability at a competitive cost. Our process supports the circular economy by utilizing both pure metals and industrial by-products.



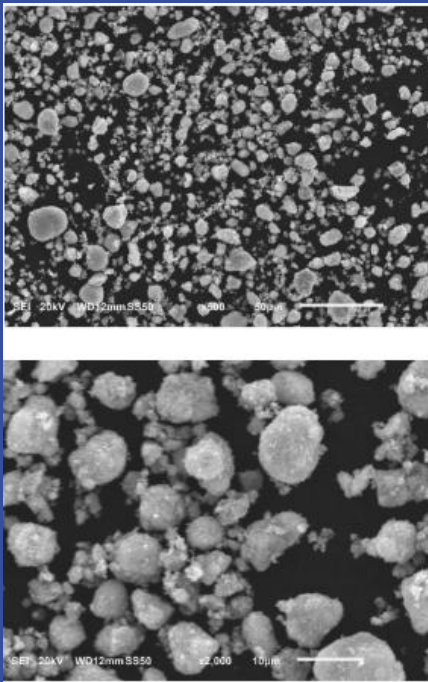
OIS® Process features:



OUR SOLUTION – ADVANCED MATERIALS

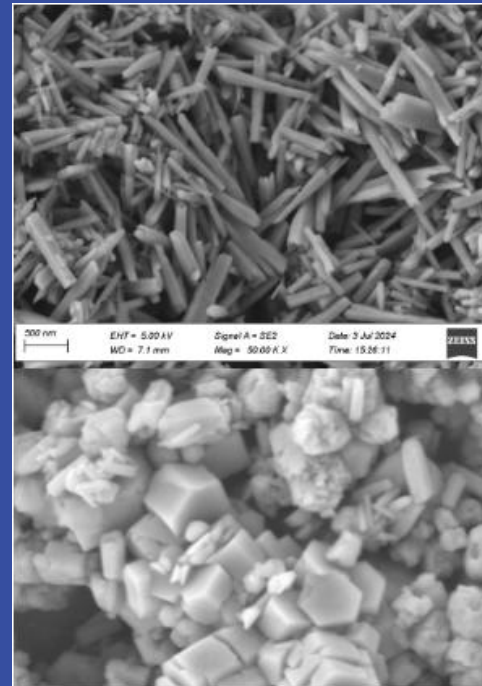
Unlike competitors, Nanomox is optimizing the particle morphology to enhance performance in end-products, allowing optimizing existing products using inorganic materials or enabling new technologies.

The past and present...



Competitors [ZnO]

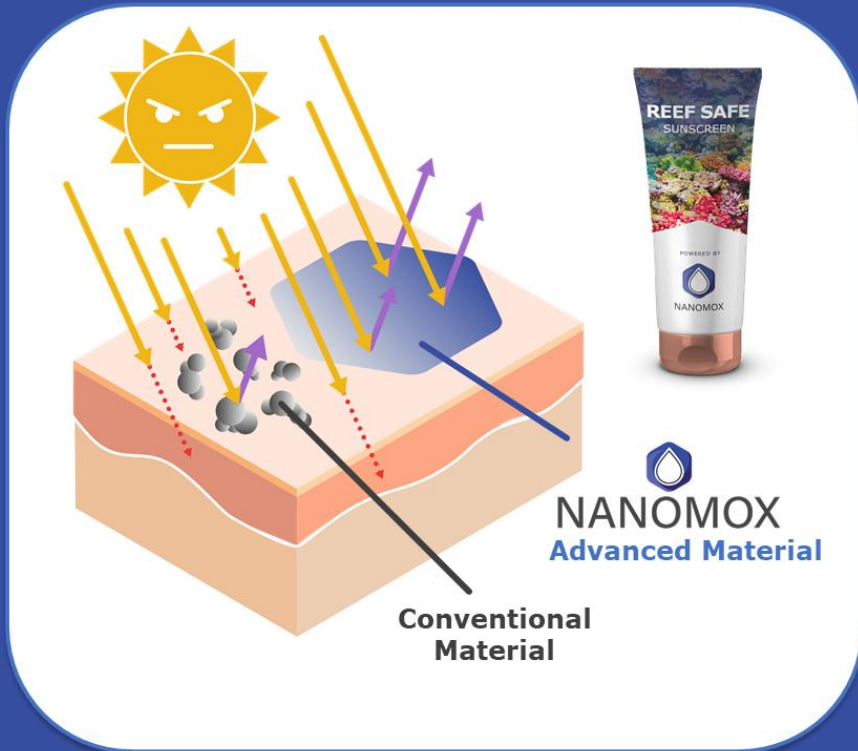
The future...



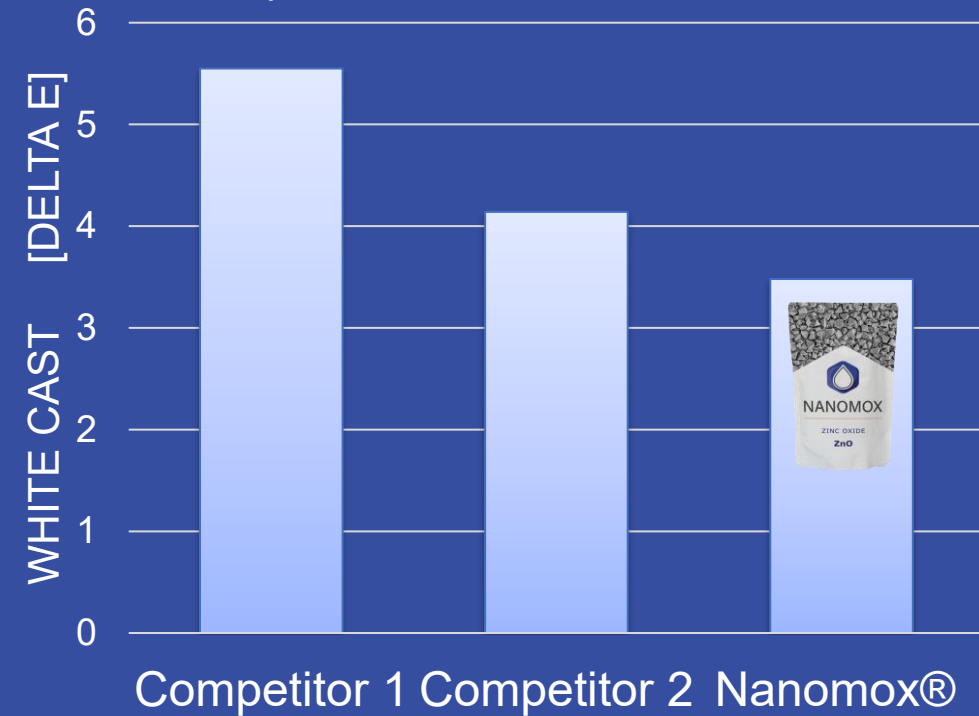
Nanomox® ZnO
(Examples)



OUR SOLUTION – ADVANCED MATERIALS



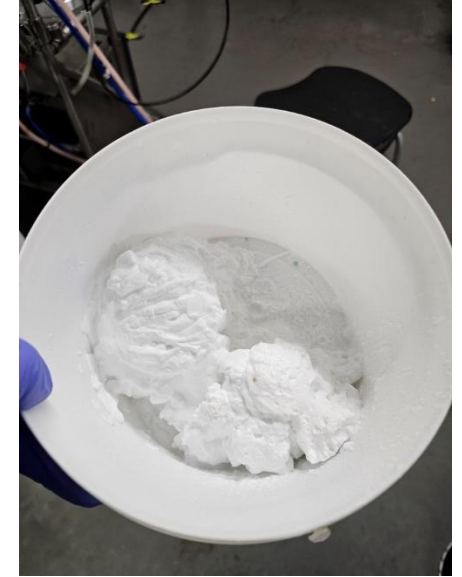
Superior transparency compared to major competitors [50% US market share]



Our initial market is ZnO as a UV blocker, where we outperform major players in UV protection and transparency. Once established in sunscreens, we will optimize particle morphology for broader applications.

GO-TO-MARKET

- Pilot demonstrated in a relevant environment at 8 t/y equivalent.
- First purchase orders secured: 600 kg.
- Material performance validated by a major industry player vs. benchmark.
- Chemical distributor and sales channels identified.



First Scale-up Trial [TRL-5]

MARKETS

2030 Global Market

Zinc Oxide

Metal Oxide

\$8Bn
TAM

\$4Bn
Beachhead TAM

\$1.5Bn
SAM

\$2Bn Metal Oxide Nano
Particles TAM

\$80Bn
TAM

BEACHHEAD
MARKETS



Cosmetics

L'ORÉAL

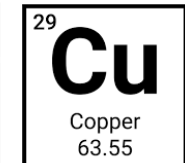
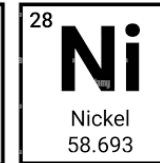
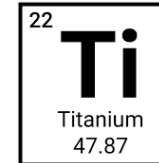
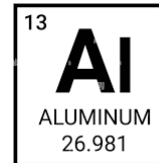


Tyres

BRIDGESTONE

Continental

Future Materials



REE

And beyond...

NANOMOX[®]

COMPETITORS (ZnO PRODUCERS)

**Low
Production
Cost**

~3k USD/ton

EverZinc⁺
The Global Zinc Expert

GRILLO

Zochem

 silox

ZN
ZINC NACIONAL

**High
Production
Cost**

KOBO

CRODA

ADVANCE
ZINCTEK LTD

■ BASF
We create chemistry


SIGMA-ALDRICH

~8k-250k USD/ton


NANOMOX
Oxidative
Ionothermal
Synthesis

Generic (primarily micro-ZnO)

Primary manufacturing methods:
French and American Processes

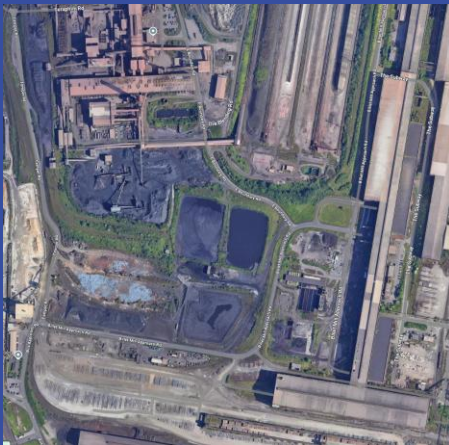
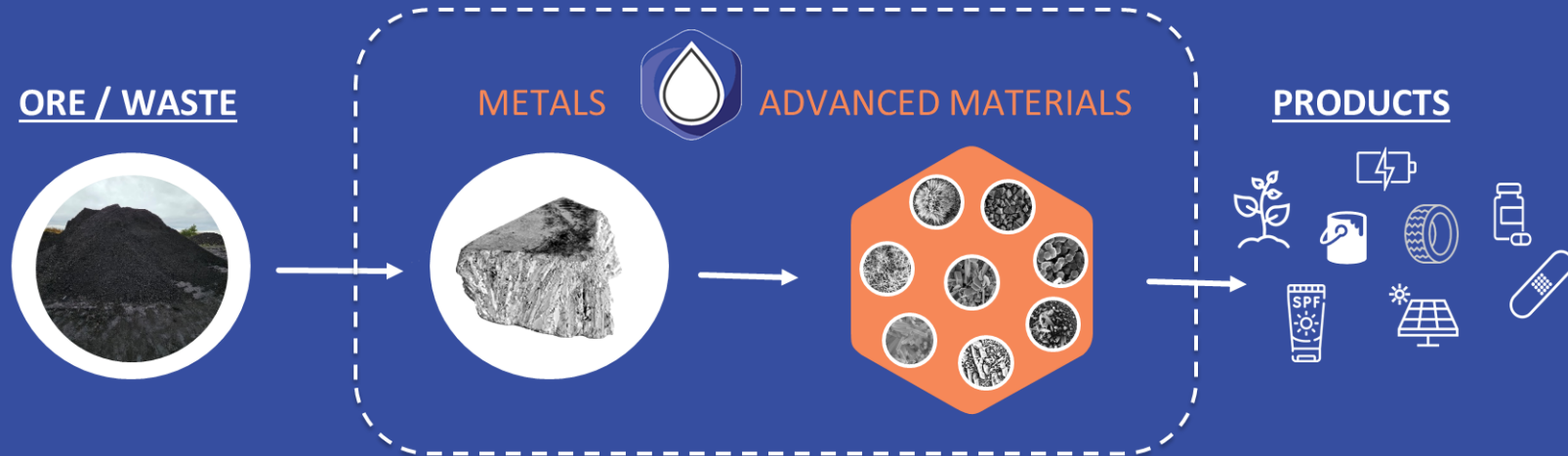
Advanced (primarily nano-ZnO)

Primary manufacturing methods:
*Wet chemistry, Plasma, Chemical
Vapour Deposition*


NANOMOX®

OUR SOLUTION – METAL RECOVERY

Our goal is to leverage our process to recover zinc from various industrial by-products, supporting the circular economy. A key opportunity lies in zinc recovery from steelmaking by-products.



16 million tons of Electric Arc Furnace (EAF) dust produced per year from steel mills containing 2.8 million tons of Zn landfilled every year (~\$9bn/y)

TEAM

15



Francisco Malaret

CEO & Director

Senior Process Eng, PhD



Frank Roche

Head of R&D

Senior R&D Manager, PhD



Biljana Mishevskva

Head of Engineering

Senior Hydrometallurgist



Spiros Koutsoukos

R&D Lead

Senior Chemist, PhD



NANOMOX[®]

13 FTE + 2 Consultants

4 Researchers

(2 PhDs) & 1 Chemical Engineer.

<= previous experience

Board of Directors

5

OBSERVERS

2



Wayne Dam

Chair of the Board

Senior Actuary, FIA



Jason Hallett

NED

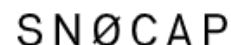
Professor in Green Chemistry



Nate Salpeter [US]

NED

General Partner



Lucas Pescarmona [US]

NED

Founder at Sitrack Crop



Mentors

7



X 1



X 2



X 1

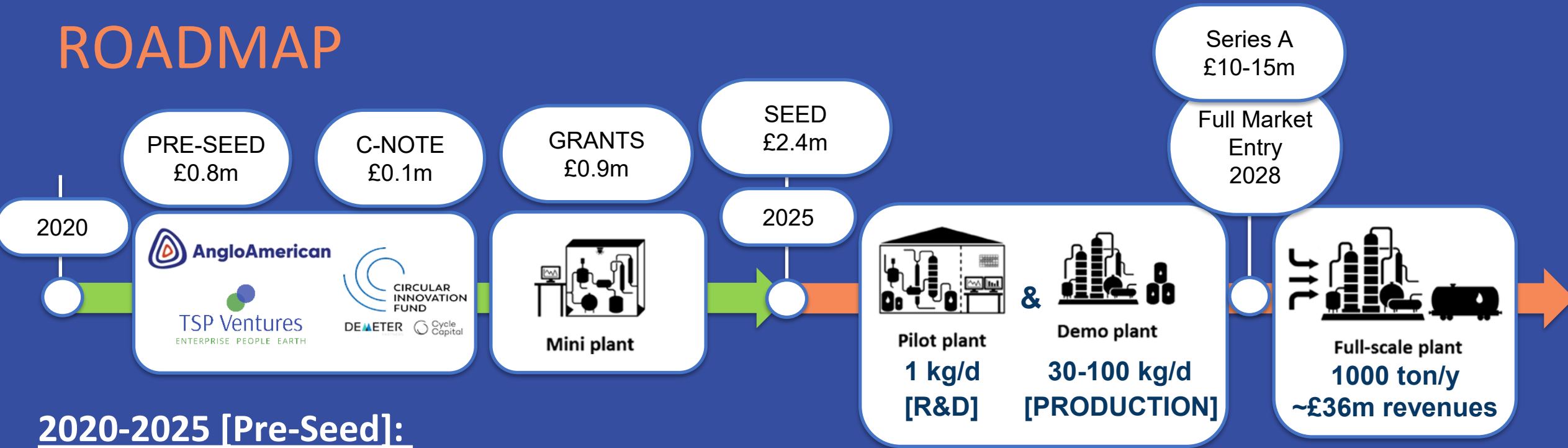


X 3



NANOMOX[®]

ROADMAP



2020-2025 [Pre-Seed]:

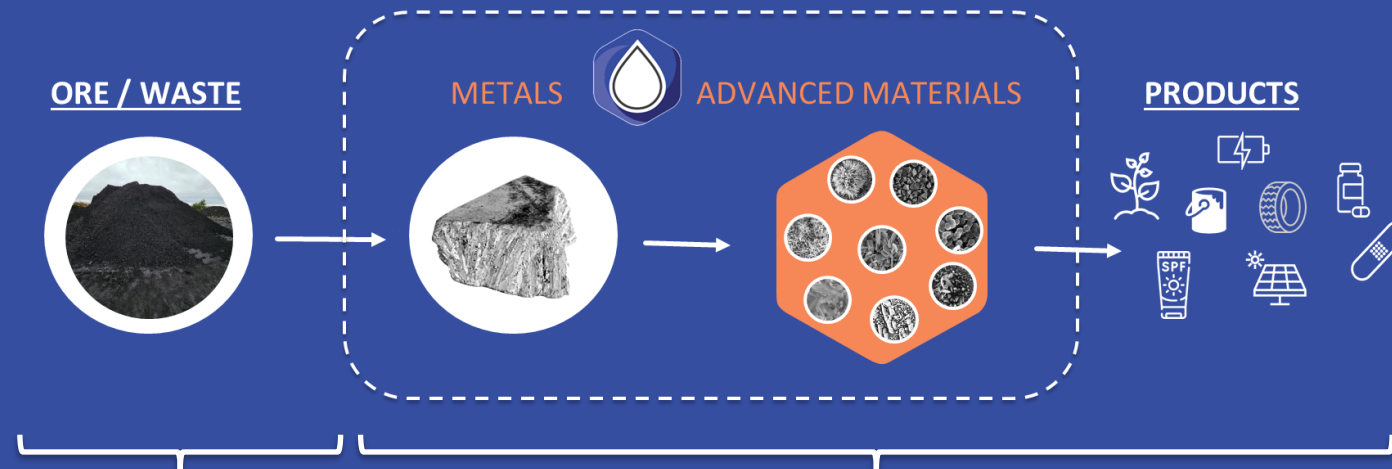
- Patent application filed.
- Process validated at lab-scale and semi-industrially (TRL-5).
- Materials validated in key markets [Cosmetics and rubber]. POs in place. Early adopters secured.
- Road map for Seed Phase [Regulatory, IP, Commercial, Product development, Process Scale-up].

2025-2026 [Seed]:

- Design, construct, commission and operate a demo plant for Nanomox[®] Zinc Oxide production.
- Supply early adopters.
- Expand R&D capabilities [other materials and zinc recovery from industrial by-products].

INVESTMENT ROUND

We seek £2.4m to build a first of a kind pilot plant for Nanomox® Zinc Oxide from pure metallic zinc (Phase I) and expedite R&D pipeline towards metal recovery from steel by-products.



R&D => TRL-5
Zinc recovery
from waste

First product to market
Revenues from direct sales

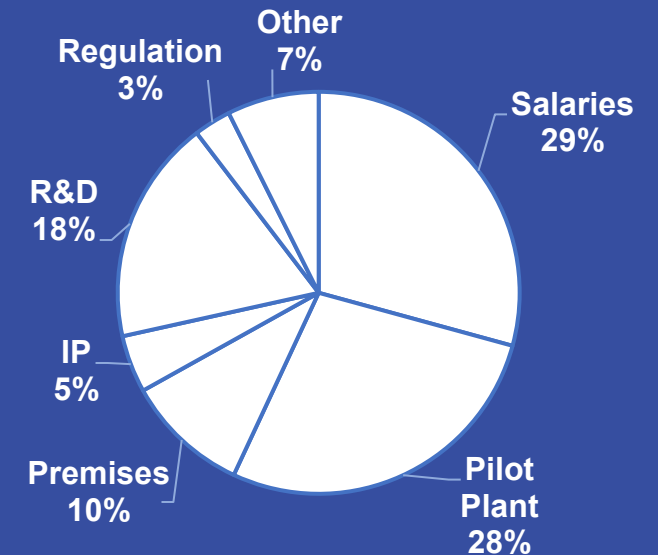
Pilot Plant:

Phase I: Target 30 kg/d

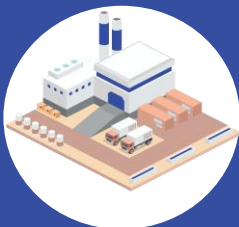
Future extension: 100 kg/d (not included in current funding)

Average production: 24 ton/y per shift [72 ton/y @ 3 shifts]
(£1.2m/y @ 1 Shift // £3.6m/y @ 3 Shifts)

USE OF FUNDS



EIS Eligible





NANOMOX[®]

Sustainable Advanced Materials

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www.nanomox.net
[@NanomoxLtd](https://twitter.com/NanomoxLtd)



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Royal Academy of Engineering

GREATER LONDON AUTHORITY

European Union
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eit Climate-KIC
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