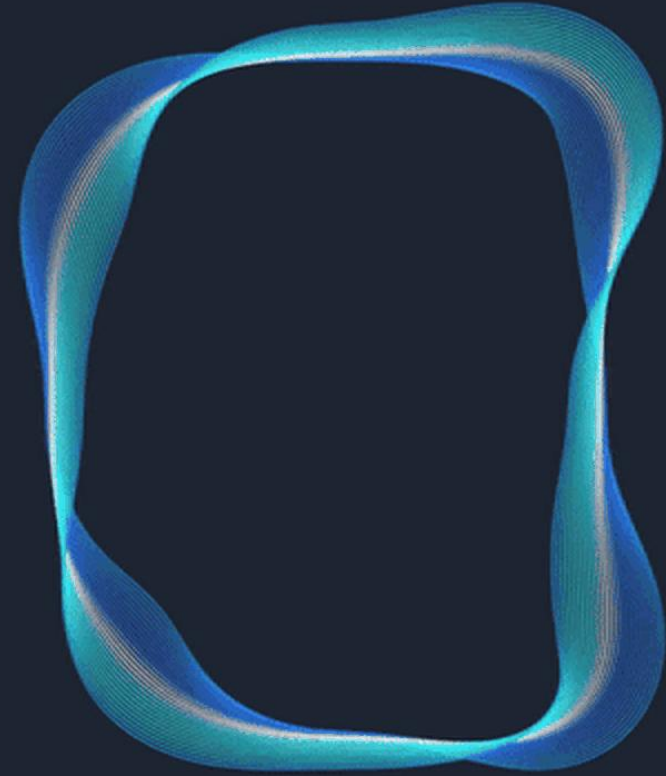


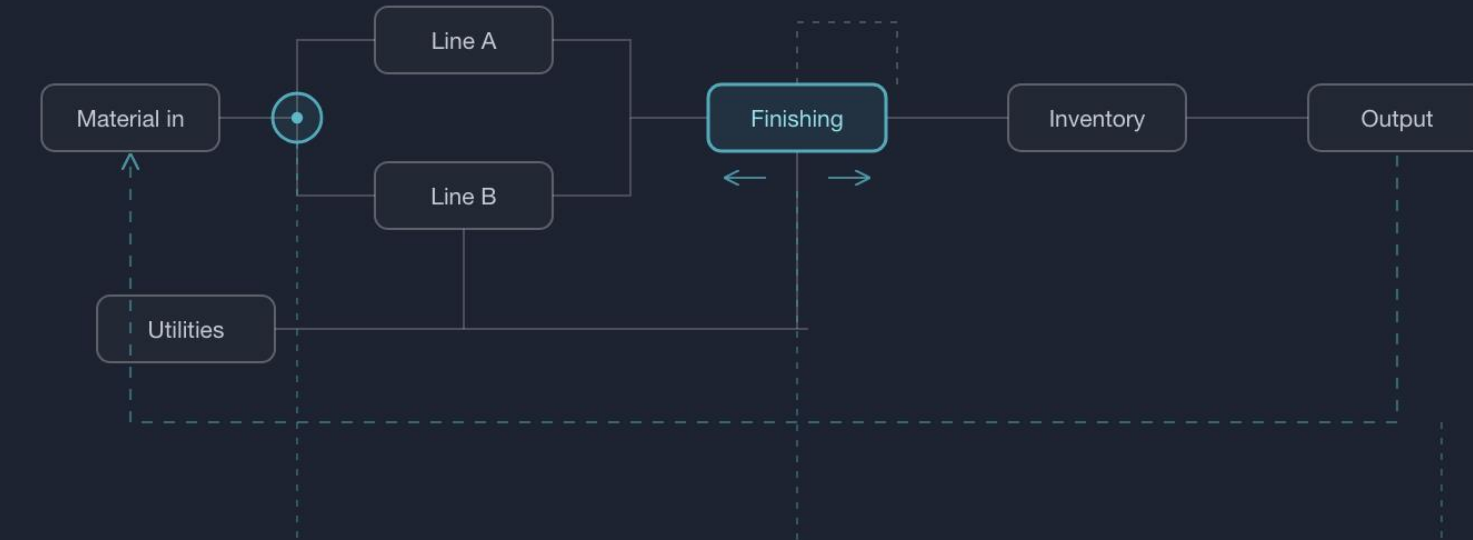
EntroMetrix

An Intelligence Layer
for Industrial Operations,
Built on Physics and AI.



Factories lose margin through **inefficiency they cannot see clearly**.

WHERE MARGIN LEAKS



01

DISCONNECTED DECISIONS

Production and utilities are run as separate decisions.

02

MOVING CONSTRAINTS

The limiting step shifts as operating conditions change.

03

DELAYED ACTION

Losses are found after the cost is already incurred.

MANUFACTURING SHARE
OF GLOBAL ENERGY

54%

SHARE OF GLOBAL
CARBON EMISSIONS

One-fifth

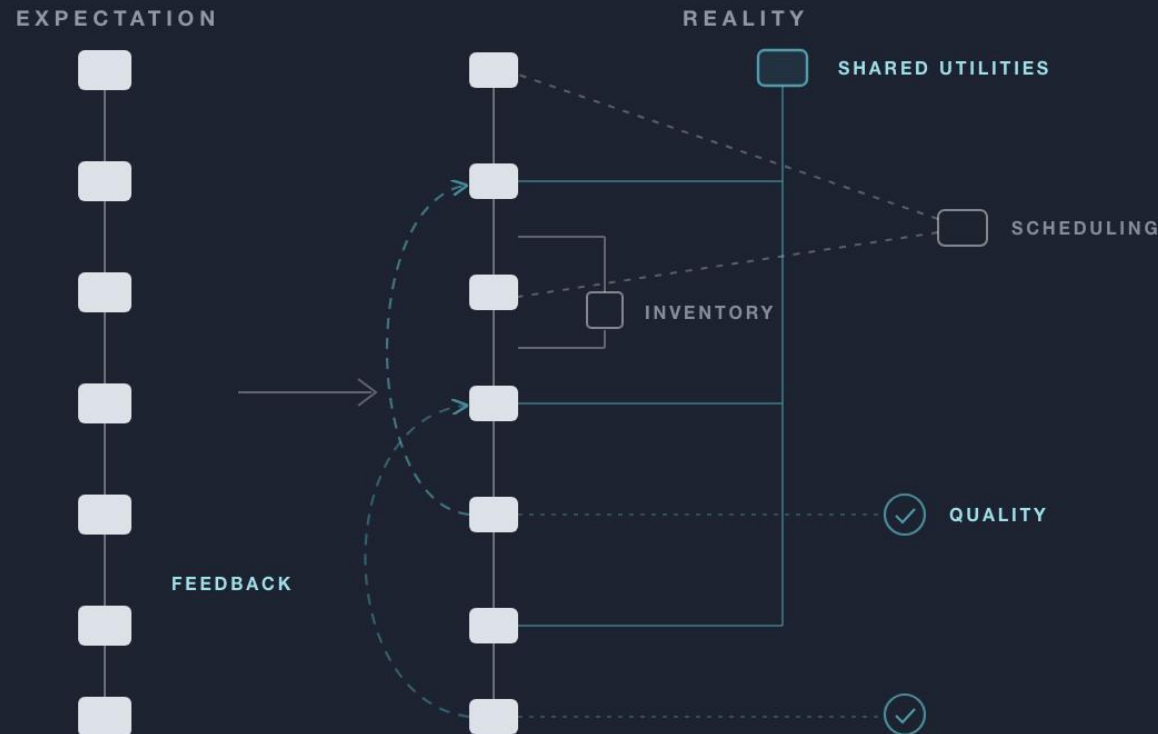
THE ROOT CAUSE

The problem is not lack of data. It is lack of **operational visibility**.



Traditional digital twins are powerful, but **too slow and expensive** for most factories.

OPERATIONAL COMPLEXITY



ANNUAL ENERGY & RESOURCE SPEND

\$1.5T

EFFICIENCY POTENTIAL

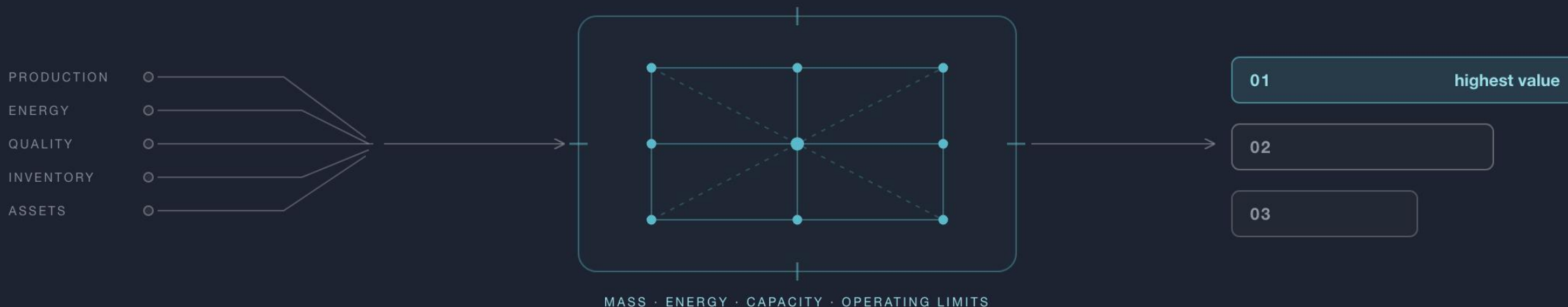
20–30%

WHY IT IS HARD

- Full digital twins require heavy modelling and long deployment cycles.
- Operational data is incomplete, noisy and distributed across systems.
- Existing tools rarely connect production, utilities, quality and inventory.

EntroMetrix builds an **operational intelligence layer** over your existing factory data.

We map how production, utilities, materials and assets interact, then identify where the system can operate more efficiently.



01

OPERATIONAL DATA

Connects production, energy, quality, inventory and asset data.

02

PHYSICS-INFORMED MODELS

Uses engineering constraints to avoid unrealistic recommendations.

03

DECISION SUPPORT

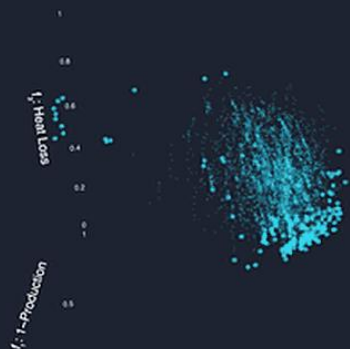
Ranks interventions by financial, operational and energy impact.



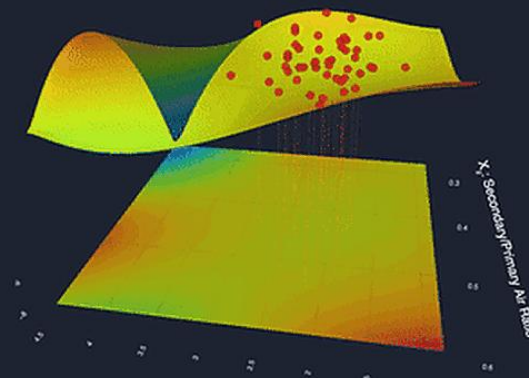
Physics-informed AI models learn from **your real operations** without losing **engineering reality**.

LESS DATA TO BUILD A MODEL

Up to 90%



REAL PLANT DATA



PHYSICS-CONSTRAINED MODEL

WHY IT WORKS

- LEARNS FROM REAL OPERATIONS
- CONSTRAINED BY PHYSICAL LAWS
- BUILT FOR INDUSTRIAL DECISIONS

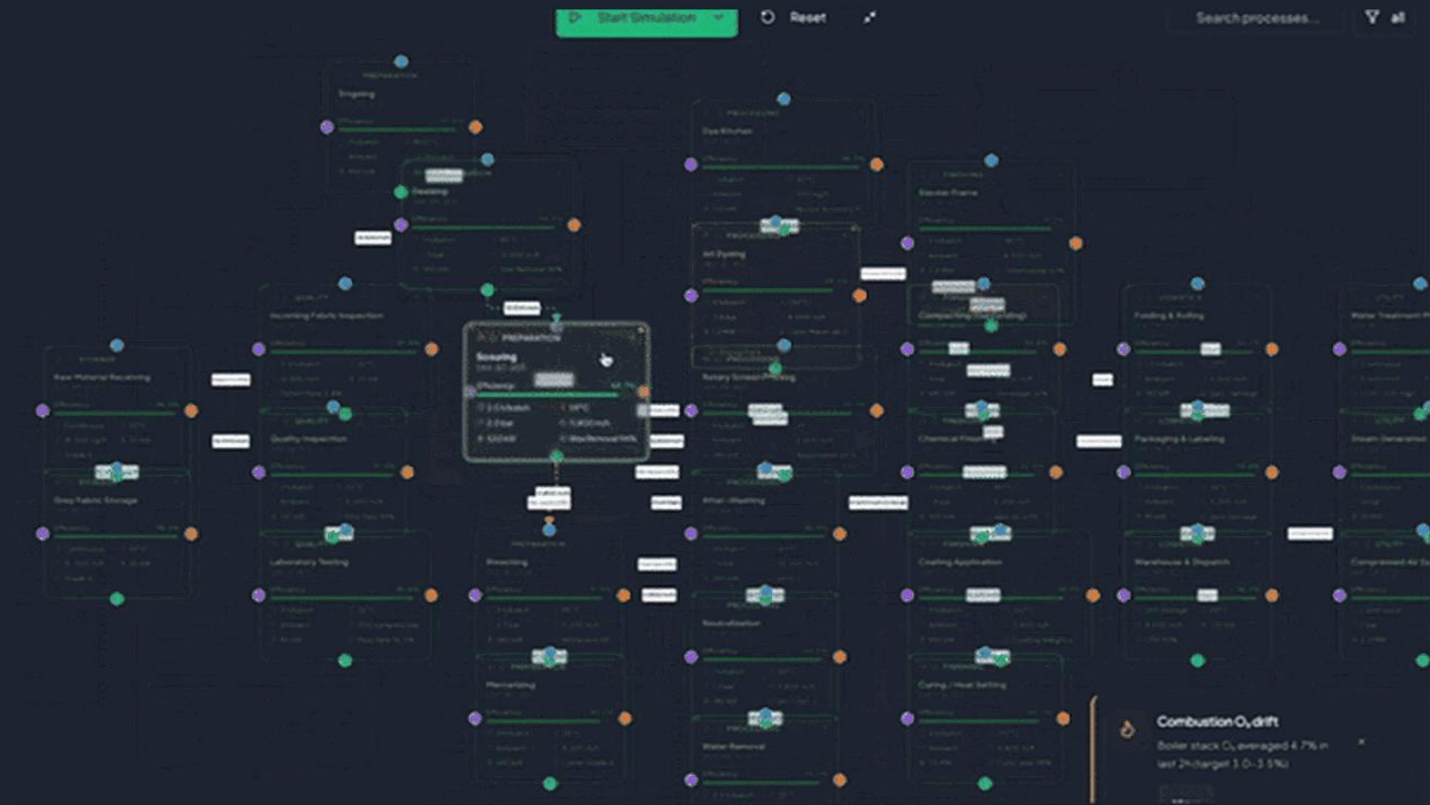
THE RESULT

AI models that find the **best achievable operating point** rather than the best statistical prediction.



Mapping **operational behaviour** shows where **existing assets** can produce more efficiently.

OPERATIONAL VISIBILITY



EFFICIENCY POTENTIAL

Up to 25%

OPERATIONAL EXAMPLE

A production line is operating below its true capability because demand, drying energy, machine availability and inventory constraints are interacting. EntroMetrix identifies the limiting constraint and quantifies the value of changing it.

WHAT THIS REVEALS

- Dependencies across production and utilities
- Hidden bottlenecks and operating trade-offs
- Prioritised pathways to higher throughput and lower waste

THE VALUE

The **full operating system** becomes visible enough to optimise.



EntroMetrix turns operational data into **measurable improvement opportunities**.

RECOVERABLE VALUE IDENTIFIED
IN ONE OPERATIONAL SETTING

£1m+

REDUCTION POTENTIAL ACROSS
WASTE AND LEAD-TIME DRIVERS

8–14%

THROUGHPUT IMPROVEMENT
IDENTIFIED

9%

POTENTIAL AVOIDED EMISSIONS PER YEAR
IN AN ADVANCED MATERIALS SETTING

30,000 tCO₂e

Results depend on site data, baseline conditions and implementation scope.

THE CASE

The commercial case is built from **measured operational losses**, not generic benchmarks.



Already funded and deployed with **industrial and institutional partners.**



FUNDED DEVELOPMENT

H&M FOUNDATION

GLOBAL CHANGE AWARD WINNER

JLR

SUPPLY CHAIN RISK

OQ RPI

PRODUCTION SUSTAINABILITY



Built by **industrial engineers and researchers** from Cambridge and Imperial.

FOUNDING TEAM



Dr. Mohammed Ali

CHIEF EXECUTIVE OFFICER

PhD University of Cambridge
Industrial systems and decarbonisation



Dr. Iusiph Eiubovi

CHIEF TECHNOLOGY OFFICER

PhD Imperial College London
Thermodynamic modelling and machine learning



Prof. Steve Evans

CHIEF OF INDUSTRIAL STRATEGY

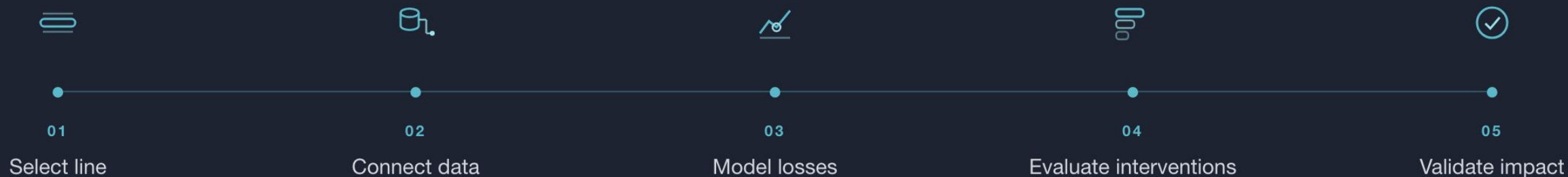
Professor in Engineering and Research Director
University of Cambridge
Industrial sustainability and performance

RELEVANT TEAM EXPERIENCE

Examples of industrial organisations and factory environments the team has worked with previously.

Shell · Ferrari · Unilever · Martin-Baker · SLB · OQ · Chanel

Validate EntroMetrix on **one production line** in **4–6 weeks**.



WHAT WE NEED

- Production and energy data
- Asset or machine information
- Quality, downtime or inventory data where available
- One operational sponsor and one data contact

WHAT YOU RECEIVE

- **OPERATIONAL BASELINE**
- **QUANTIFIED LOSSES**
- **PRIORITISED INTERVENTIONS**
- **ESTIMATED FINANCIAL IMPACT**
- **SCALE-UP RECOMMENDATION**

THE START

Start with the **data already available**. No full digital transformation is required.



Start with **one site**, then scale the **operating model** across facilities.

FROM FIRST FACILITY TO MULTI-SITE ROLLOUT



Reusable models allow deployment across additional lines, sites and operating conditions.

THE ADVANTAGE

PERFORMANCE-BASED PRICING

10% of ROI per site

TRADITIONAL DIGITAL TWIN PROGRAMMES

Up to millions per site

WHY IT SCALES

- PROVES VALUE AT ONE SITE
- TRANSFERS THE OPERATING MODEL
- REDUCES REPEAT DEPLOYMENT EFFORT
- BUILDS A PORTFOLIO-WIDE IMPROVEMENT VIEW

A lower-cost route to **continuous optimisation** across industrial operations.



Redefining manufacturing into an **intelligent**, **efficient**, and **sustainable** future.

25%

EntroMetrix can deliver **up to 25%**
efficiency gains across your
operations.

Predictive insights

Sees problems before they cost
money and prevents downtime.



Continuous optimisation

Keeps every line and utility running
at its efficient point.



Full process visibility

From the shop floor to the supply
chain in one operational view.



For more information or to request a live demo:

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