# Organic intelligence core technology (OICT) solves the core problem of AI/ML

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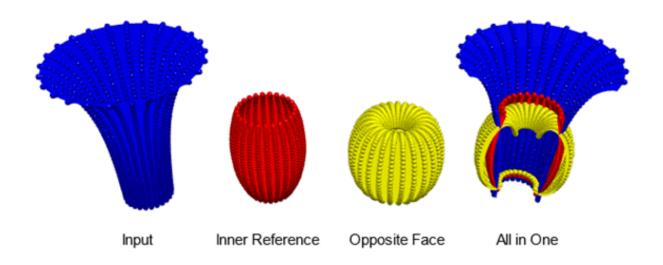


Figure 1: Vortex input, IR (shape of equilibrium), opposite face, combined.

Many businesses are growing sceptical of Al/ML because they fail to see strong returns or solid fundamentals. Inora Organic Intelligence Core Technology (OICT) changes that – built on a strong foundation, it delivers accuracy and sustainable ROI

Artificial intelligence (AI) spending in enterprises has surged – but measurable returns have not. A recent MIT analysis found that despite a staggering \$30-40 billion in enterprise investment into generative AI, 95% of organizations report essentially zero return on investment (ROI): <a href="mailto:only 5% of integrated AI pilots are extracting millions in value, while the vast majority remain stuck with no measurable profit and loss (P&L) impact.</a>

That disconnect is understandable once you look under the hood of today's dominant approach of merely scaling computing power, server farms, and mass reliance on training data. Bigger models can be faster and broader, but they still don't address or change the fundamental way that these systems evaluate information. The result is wasted investment with hard structural limits on value creation.

Inora takes a different, core engineering-rooted path that targets accuracy and value rather than scale. Its <u>Organic Intelligence Core Technology (OICT)</u> – based on the principles of Numerical Balancing and the Inner Reference (IR) – introduces a new mathematical platform for representing and evaluating data. This enables deterministic and explainable results, providing geometrical accuracy that AI lacks.

Numerical Balancing takes any given data set, no matter how complex or large, and applies a mathematical generalisation of Newton's Third Law. For any input data, the corresponding inverse (equal and opposite reaction) is determined, as well as the balanced data, referred to as the IR. By determining the unique "opposite" for any dataset, systems can move between those dual representations for computational convenience and insight. Think of an irregular, shamrock-shaped dataset being mapped to its opposite – a simple square – which is far easier to analyze and reveal hidden structures.

Primal-dual methodologies are already well-established and utilized. Operational research uses primal and dual formulations to identify optimal trade-offs. Structural and electrical engineering exploit complementary representations, for example, force vs. displacement or series vs. parallel, to simplify analysis.

When applied correctly to data science, the primal-dual principle always produces a reliable framework. This IR is the perfect (ideal) condition that resides in any data set. IR accurately partitions expected from unexpected data, allowing a user to focus on either one, based on application:

#### Primal:

Preserves the expected (majority) behavior and suppresses anomalies, making it ideal for stabilizing production processes.

#### Dual:

Preserves anomalies and suppresses the expected – valuable for error detection, quality control, leverage impact, and security.

That choice is not made by obscure training on historical labels, but is derived from a framework of reference by the IR. Many common algorithms can be reformulated using Inora's OICT so the upgraded algorithms autonomously select which data to use or discard. This is a fundamental shift, making decisions rooted within the structures of the present dataset, replacing probabilistic extrapolations from imperfect historical examples.

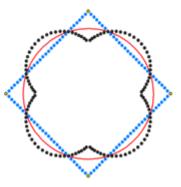


Figure 2: Input (black) – Inner Reference (red) – Opposite (blue).

## Why this matters for businesses

Deterministic, accurate, and repeatable outputs: The same input yields the same output every time. Predictability is crucial for regulated industries, safety-critical systems, and executive-level risk management, where unreliability in AI behavior is costly.

Explainability and control: Primal vs. dual modes provide users with explicit controls to fine-tune behavior and trade-offs. This reduces reliance on obscure models and simplifies oversight and audits.

Reduced data and integration burden: Inora's methods depend on internal data structure rather than massive external training sets. Deployment requires less labeling, less historical data, and fewer integration touchpoints. All of these advantages lead to faster ROI and lower total cost of ownership (TCO).

Inora has deployed OICT in the manufacturing sector. <u>Inora ASYS</u> replaced a process that previously required perfect physical alignment of an object to the quality control system – impractical in production. ASYS uses a balanced coordinate transformation that minimizes the maximum deviation across critical points. Before ASYS, when errors appeared, it was unknown whether they were due to a data analysis error, a comparison error, or a true error in the object.

ASYS saved the investment of a costly high-precision coordinate measuring machine (CMM) that non-Inora systems require for comparisons, still leaving results uncertain. The advantages are lower equipment cost, lower integration cost, faster ramp-up, with consistently accurate and reliable throughput. The business outcomes are immediate ROI with measurable operational savings and lower TCO.

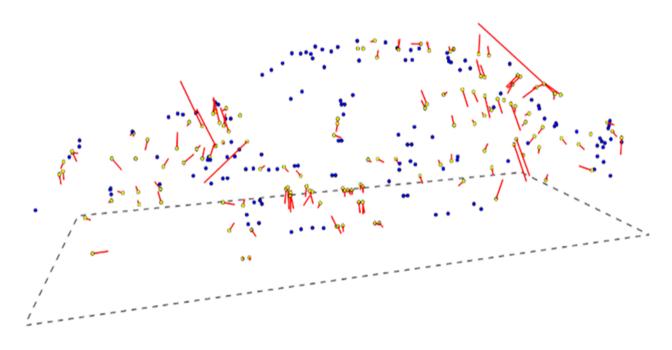


Figure 3: Balanced 12-parameter transformation of a measured object using Inora ASYS.

#### Risk reduction and measurable return on investment

Unlike neural-network approaches that aim for broad generalization and require continuous retraining and tuning, the accuracy of Inora's OICT prevents model drift and operational overhead of revalidation. For investors and executives focused on P&L impact, this means projects are more likely to convert from pilot to production, deliver predictable savings, and scale without runaway infrastructure costs.

# **Practical investor takeaway**

Inora's approach targets immediate, measurable P&L outcomes rather than speculative scale.

Its math-first, primal-dual, and IR complements existing AI investments by offering deterministic, explainable alternatives where predictability and risk control are mission-critical.

Real-world deployments (e.g., ASYS) demonstrate tangible financial savings and faster time-to-value.

For investors and executives evaluating Al/machine learning (ML), it is important to note that Inora provides the core calculation fundamentals that Al/ML are missing. Inora's OICT reduces dependency on scaling up, providing structural insights for operational savings, ultimately delivering reproducible outcomes. Businesses prioritizing predictable ROI and lower integration risk from Al/ML initiatives can partner with Inora to integrate OICT into their systems and processes.

Primary Contributor

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