

# Work Intelligence

## The Enterprise's Missing System of Record

*You have digitized your transactions, your designs, and your records. The one asset you could never digitize — how your best people actually do the work — is now capturable. This paper defines the new class of enterprise system that captures it, in terms for the executive office and the shop floor alike.*



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## Executive Summary

The modern enterprise has digitized nearly everything: transactions in ERP, designs in CAD and PLM, customers and people in CRM and HR. Yet the asset those systems exist to serve — the operational competence that actually runs the plant, the rig, the hospital, the line — has never had a system of record. It lives in the hands and judgment of experienced people, it appears nowhere on the balance sheet, and it retires when they do. Meanwhile, roughly 90% of enterprise value is now intangible<sup>1</sup>, and the workforce that holds the deepest share of it is leaving.

This paper introduces **Work Intelligence (WI)**: a new class of enterprise system — the system of record for how physical work is actually performed. It does not replace ERP, CAD, or PLM; it captures the one asset they never could, and sits alongside them in the stack. It became possible only in the last two years, when four separate breakthroughs converged: AI that builds intelligent 3D twins automatically; field devices that both observe and guide work; capture grounded in 3D space rather than text; and the ability to judge, verify, and compound what comes back from the field. EON holds all four, closed into a single loop — the Intelligence Flywheel — and has built toward this category since 2018.

The name states the position: Business Intelligence told the enterprise what it did; Work Intelligence captures how it actually works. The simplest way to understand the difference: everyone else turns the work into words — AI watches a video and writes a description, producing a smarter manual. EON turns the work into a world — a living 3D simulator in which the knowledge is embedded in the space and the components, and which gets smarter every time someone does the job. The result serves three audiences with one asset: people are multiplied (Human 2.0), the enterprise gains an owned, compounding data asset, and — when robots arrive — the curriculum they will need is already written.

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<sup>1</sup>Ocean Tomo, Intangible Asset Market Value Study (updated 2025): intangible assets rose from roughly 17% of S&P 500 market value in 1975 to approximately 92% by the end of 2025.

# 1. Intelligence Is Not Enough

An AI can pass any exam. It can describe how to commission a compressor, explain a lockout-tagout procedure, and summarize a maintenance manual in seconds. It still cannot run a refinery, repair a turbine, or keep a production line safe — because it has never been taught how the work is actually done.

The reason is the oldest fact about expertise. The knowledge that matters most — the feel, the judgment, the thousand small corrections that separate the written procedure from reality — is *tacit*. “We know more than we can tell,” as Michael Polanyi put it<sup>2</sup>. Because it cannot be fully written down, it has never been digitized; because it has never been digitized, no AI model has ever been trained on it. The most valuable operational knowledge on earth is, by construction, absent from every dataset.

And it is disappearing. Roughly a quarter of manufacturing workers are 55 or older, and nearly all employers report concern about the expertise leaving with them — the “Great Crew Change”<sup>3</sup>. The World Economic Forum now ranks the skills gap the single largest barrier to business transformation, cited by 63% of employers<sup>4</sup>.

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<sup>2</sup>Michael Polanyi, *The Tacit Dimension* (1966).

<sup>3</sup>Industry surveys on the “Great Crew Change” and manufacturing brain drain: roughly a quarter of U.S.

manufacturing workers are 55+, and ~97% of manufacturers report concern over knowledge loss from retirements.

<sup>4</sup>World Economic Forum, *Future of Jobs Report 2025*: 63% of employers cite the skills gap as the leading barrier to transformation; ~39% of core skills change by 2030; 59 of every 100 workers need reskilling.

## 2. The Blind Spot: Digitized Everything Except Competence

Consider what the enterprise has already captured. Transactions and process live in ERP. Designs and engineering live in CAD and PLM. The structured record of customers and people lives in CRM and HR systems. Decades of investment have given almost every category of enterprise knowledge a system of record — a place where it is held, governed, and compounded. Intangible assets now represent roughly 90% of enterprise value<sup>5</sup>, and much of that share is captured in exactly these systems.

One layer never made it in: how work is actually performed. Not the procedure as written — the work as done. Which valve the master operator checks first and why; the sound that tells a technician a bearing is failing; the sequence a veteran uses that is faster and safer than the SOP. No ERP holds it. No PLM models it. No LMS verifies it. It is the largest unmanaged asset — and the largest unmanaged risk — in the modern enterprise.

*Every category of enterprise knowledge has a system of record — except the one that actually runs the operation.*

For the executive office, this is the correct frame for what follows: Work Intelligence is not a training tool and not an AR application. It is the missing system of record — a strategic data asset the enterprise owns, sitting alongside ERP, CAD, and PLM in the stack. ERP for your resources. CRM for your customers. PLM for your products. WI for your work.

### 3. Words vs. a World

To see why this layer is only now possible — and why EON's approach differs from everything that came before — start with the simplest version of the idea.

Every previous attempt to digitize work knowledge flattened it into **words**. An AI looks at a photo or a video and writes a description. The output is text: a smarter manual, a richer report — words *about* the work. Text is flat. It does not know where things are, how they move, or what happens when you turn the wrong valve.

EON turns the work into a **world**: a living, interactive 3D digital twin — a simulator with the components, the behaviour, and the actions of the real thing. Things move; you can move things; you can step in and actually do the job. The knowledge is embedded in the space and the geometry itself. And critically, what happens in the field is captured *into* that world — at a contextual level. The system does not merely record that something happened; it knows what happened, where in the space, and on which component. That spatial grounding is a categorically higher level of fidelity than any text log, and it is what makes the knowledge replayable, simulatable, and actionable.

*Everyone else writes a better manual. EON builds a flight simulator that gets better every flight.*

## 4. Four Breakthroughs That Had to Converge

Work Intelligence was not built earlier because it could not be. Four separate problems each had to fall, and they fell only in the last two years:

### 4.1 Build the twin — automatically (Genesis)

An intelligent digital twin is not just geometry; it is geometry plus behaviour — components that move, act, and respond like a true simulator. Building one used to be a six-figure, months-long project for specialist teams, and the result was obsolete the day the plant changed. The first breakthrough is that AI now builds these twins automatically: it can look at the real asset — a pipe rack, an MRI suite — reconstruct its structure (including what it cannot directly see), identify the components, understand what each does, and connect the whole to the standard operating procedures. Authoring that once required armies is now conversational.

### 4.2 See and guide — at the point of work (Field IQ)

The second breakthrough is the field device: glasses and cameras that act as both an eye and a voice. They observe what the worker actually does, and they guide the worker interactively, drawing on the twin — the right knowledge, in context, exactly when it is needed. A two-way channel at the point of work existed in no previous generation of hardware.

### 4.3 Capture in 3D — context, not a text log (Assess IQ)

The third breakthrough is capture at contextual fidelity. Field activity is not reduced to an image caption or a report; it is registered into the 3D twin — grounded in the space, the geometry, and the components. This is what makes the captured knowledge usable: it can be replayed, compared against the gold standard, simulated, and acted upon surgically.

### 4.4 Judge and compound — close the loop (Verdict · Compound IQ)

The fourth breakthrough — the hardest and the most valuable — is judgment. Of everything that comes back from the field, what was good and what was bad? What should be corrected in the worker, and what should be kept? EON Verdict adversarially verifies what is reliable enough to trust; Compound IQ folds the validated good — the clever moves that were never in the original twin — back into the 3D world. The twin thickens. The next worker starts from a better world.

These four are not a feature list; they are a loop — Encode, Deploy, Capture, Compound: the Intelligence Flywheel. And the strategic point is singular: plenty of companies are chasing one node — a 3D-capture startup, a smart-glasses maker, a learning platform. Owning one node yields a product. Owning all four, closed into a loop that compounds, defines the category. Only EON holds all four.

## 5. The Old World vs. Work Intelligence

	The old world	Work Intelligence
<b>How know-how is held</b>	In people’s heads, undocumented	Captured, structured, queryable
<b>How it transfers</b>	Apprenticeship, manuals, luck	Authored once, delivered to everyone instantly
<b>What AI does</b>	Talks about the work	Guides the work, in context, in the field
<b>Who is in control</b>	The one remaining expert	The expert’s judgment, on every worker — and every machine
<b>What compounds</b>	Nothing — it walks out the door	Every action sharpens the system
<b>The asset</b>	Off the balance sheet; lost at retirement	Owned, measured, transferable, compounding

The loop in plain words: the 3D world teaches the worker (show me, let me try); on the job, AI watches what the worker actually does; it coaches — what was good, what to fix; and the clever new moves, never in the manual, are added back into the world. Every time someone does the job, the world gets smarter — so the next person starts from a better one.

## 6. Trust, Engineered for Safety-Critical Work

Physical operations cannot adopt AI the way office work did, because the cost of being wrong is an incident, not a typo. Work Intelligence is therefore engineered around earned trust:

- **Advice, not authority.** The AI suggests; the expert always decides. It never acts on its own. Autonomy is earned — by being right, repeatedly, on the record — before it is extended.
- **Adversarial verification.** EON Verdict stress-tests every twin and every procedure before it is trusted into the loop.
- **A standard to measure against.** The gold-standard twin is the specification; AssessIQ measures the real-world delta against it — objectively, not anecdotally.
- **A complete audit trail.** Via the xAPI standard, every action and every verification is traceable - the enterprise can prove what happened.

In plain words: it suggests, people decide; everything it learns is checked before it is trusted; and it gets more reliable the more it is used.

## 7. The Laws of Work Intelligence

Five operating principles define the category — for EON and for anyone who follows:

- **01 — Competence is captured, not written.** The valuable part is tacit; it must be observed at the point of work, never transcribed from a manual.
- **02 — The loop runs both ways.** Knowledge becomes action in the field; action becomes new knowledge in the twin.
- **03 — Trust is earned in stages.** Advice before authority. The system proves itself before it acts alone.
- **04 — The operator owns the competence.** Not the model vendor. Where foundation models absorb enterprise knowledge into a shared brain, Work Intelligence keeps it the operator's own asset.
- **05 — It is embodiment-agnostic.** The same captured competence trains a human today and becomes a machine's curriculum tomorrow.

## 8. Three Faces of One Category

**For people — Human 2.0.** The experience is simple: it is like placing the most experienced expert at every worker's shoulder, guiding them in the moment. People are not replaced; they are multiplied. The worker carrying the layer outperforms the expert who used to gatekeep it.

**For the enterprise — a new asset.** The previously-uncapturable slice of intangible value — now owned, measured, transferable, and compounding under enterprise control. The skills walking out the door stop being an unmanaged risk and become a managed asset.

**For the machines — the curriculum.** As AI advances toward what the industry now calls Physical AI<sup>6</sup>, robots will have to be taught how physical work is done — and there is no public dataset for that. The 3D world that teaches people today is exactly what a robot will need tomorrow. Machines get Physical AI; the enterprise gets Work Intelligence — and that curriculum is already being written.

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<sup>6</sup>NVIDIA, Jensen Huang, CES 2025 keynote: AI's progression from perception to generative to agentic to physical AI.

## 9. Built Since 2018

Categories are earned by having seen the future early and built toward it while it was still impossible. EON has built toward this since 2018 — when the conviction that human capability could be extended beyond its limits was right, and the technology was not yet ready. The four breakthroughs have now arrived, and the loop runs end to end: Genesis encodes, FieldIQ deploys, AssessIQ captures, Verdict verifies, and the Intelligence Flywheel compounds — backed by 25 years of operating history, 4,400+ institutional customers across 80+ countries, and a granted U.S. patent position in XR.

*We capture what no one could capture before: how the work is really done. And we turn it into a world that gets smarter every day.*

The category will exist — the physical economy is too large, and the loss of competence too steep, for this layer not to be built. The only question is who defines it and who owns the standard. EON intends to. For people first. Machines next.

## Sources

Full citations appear as footnotes throughout. Primary sources include: Ocean Tomo, Intangible Asset Market Value Study (2025); Michael Polanyi, *The Tacit Dimension* (1966); World Economic Forum, *Future of Jobs Report 2025*; industry analyses of the “Great Crew Change” and manufacturing knowledge loss; and NVIDIA’s CES 2025 framing of Physical AI. Figures are rounded; estimates vary by source and are presented as ranges where appropriate.