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COMPANY PRESENTATION

Physical Intelligence & Assurance for critical operations

Quanteon turns fragmented physical-world evidence into a living operational picture—and into governed decisions that can be trusted.

See the real condition. Anticipate what comes next. Act with confidence.

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WHY NOW

The cost of uncertain physical reality is rising

Ageing assets, scarce expertise and longer replacement cycles make weak evidence harder to absorb.

27 h

Average monthly unplanned downtime reported per large site

Siemens / Senseye survey; multi-sector sample and self-reported data.

~60%

Energy companies reporting labour shortages

IEA World Energy Employment 2025.

Up to 4 y

Lead time reported for large power transformers

IEA transmission-grid supply-chain analysis.

Sources: Siemens / Senseye, The True Cost of Downtime 2024; IEA, World Energy Employment 2025; IEA, Building the Future Transmission Grid.

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THE OPERATIONAL GAP

Critical operations still run on fragmented physical truth

People

Rounds, judgement, tacit knowledge

Fixed sensing

SCADA, historians, cameras, condition monitoring

Mobile sensing

Portable instruments, robots, drones, specialists

Context

Drawings, configuration, weather, work history

When evidence is not aligned by asset, time, configuration and confidence, every decision begins with reconciliation.

THE MISSING LAYER: PHYSICAL REALITY TO GOVERNED ACTION

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THE CATEGORY

Physical Intelligence creates understanding. Assurance establishes confidence.

PHYSICAL INTELLIGENCE

Observe physical state. Interpret condition and uncertainty. Anticipate credible change. Support timely action.

The intelligence can come from people, fixed or mobile sensors, software and machines.

ASSURANCE

Establish when sensors, models, missions and resulting decisions remain fit for purpose—and make that trust inspectable.

Robots are optional. Assurance is not.

QUANTEON BUILDS AND GOVERNS THE OPERATING LAYER CONNECTING BOTH

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THE QUANTEON LOOP

One governed loop from asset question to assured action

01 — Define

Asset question, consequence and authority

→

02 — Observe

Human, fixed, mobile and robotic evidence

→

03 — Reconcile

Update state, provenance and uncertainty

→

04 — Reason

Rules, probability, AI and expert challenge

→

05 — Act

Bounded adaptation or human decision

→

06 — Learn

Record outcome and requalify the mission

Configuration · Cybersecurity · Data lineage · Verification · Change control

Every observation updates state. Every action updates evidence.

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THE LIVING DIGITAL TWIN

The operational memory of the asset—not a static 3D model

What the asset is	Configuration, function and limits
What it is doing	Current state and operating context
What is known	Evidence, provenance and validity
What remains uncertain	Conflicts, gaps and confidence
What changed	Time-aware state and decision history
What should happen next	Mission context and authority

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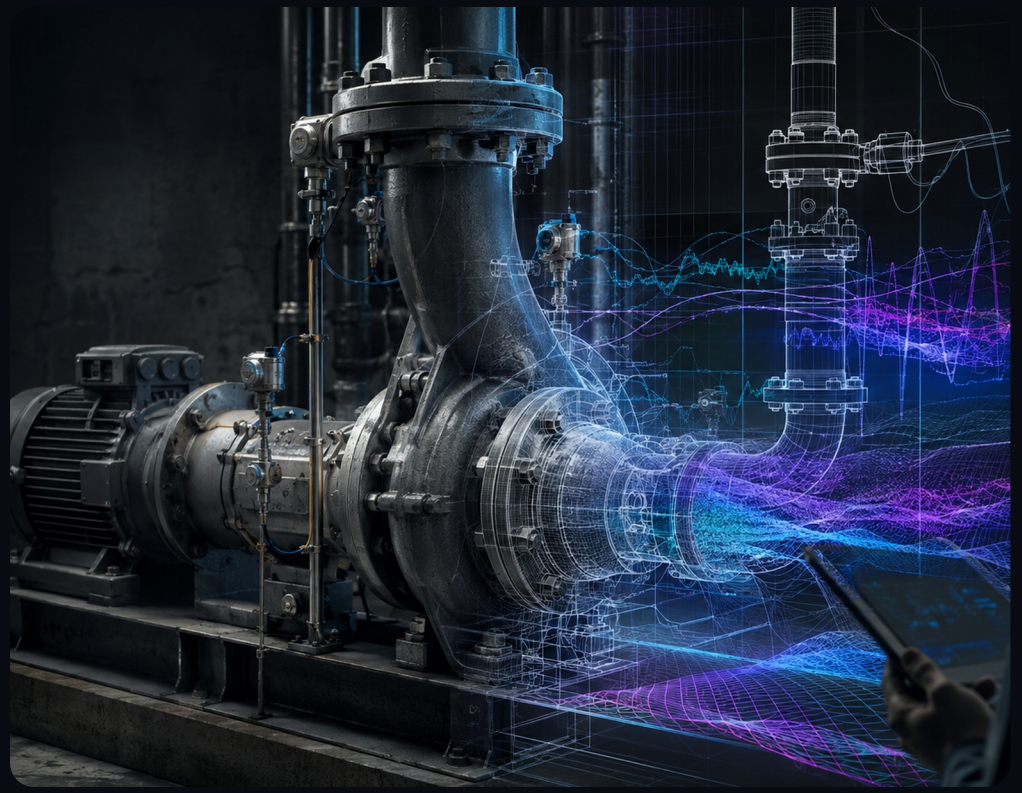
HYBRID INTELLIGENCE

One reasoning method is never enough



DETERMINISTIC

Physics, thresholds, logic, procedures and operating envelopes

PROBABILISTIC

Reliability, competing hypotheses, degradation and uncertainty

AI-ENABLED

Perception, anomaly detection, classification, forecasting and retrieval

HUMAN AUTHORITY

Challenge, accountability and approval for high-consequence decisions

AI contributes evidence. It does not sign the safety decision.

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EVIDENCE ECOSYSTEM

Persistent context and targeted reach in one evidence system

Fixed sensing	Continuous baseline, trends and early warning
Human observation	Judgement, exceptions and accountable interpretation
Mobile sensing	Targeted reach, spatial context and rapid re-tasking
Operational context	OT, EAM/CMMS, drawings, work history and weather

The twin aligns every observation by asset, time, location, configuration and confidence.

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TWIN-NATIVE FIELD SYSTEMS

Robots and drones become evidence endpoints—not the company category

1 **Receive context**

Expected observations, constraints and validity conditions

2 **Observe locally**

Local controls, machine safeguards and payload checks remain authoritative

3 **Check evidence**

Quality, provenance, location and configuration are assessed in mission

4 **Return or escalate**

Repeat, re-task or involve the human within the approved authority envelope

Current: mission engineering, integration and supervised deployment. Roadmap: native multi-vendor orchestration and qualified Quanteon field systems.

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DECISION AUTHORITY

Human authority is designed into the operating model

ROUTINE	Execute inside an approved envelope	Machine checks + automatic evidence logging
EXCEPTION	Escalate missing, conflicting or low-confidence evidence	Specialist review + bounded re-tasking
HIGH CONSEQUENCE	Qualified expert and accountable asset owner decide	Approval, override, safe halt and audit trail

Local machine safety and control functions remain authoritative at all times.

THE ASSURANCE ASSET

Every mission carries a Mission Assurance Record

Purpose	Mission scope, operating question and acceptance criteria
Configuration	System state, sensors, calibration and operating envelope
Evidence	Provenance, completeness, quality and exceptions
Reasoning	Methods, assumptions, uncertainty and disagreement
Authority	Human roles, approvals, safe states and overrides
Outcome	Action, result, change control and requalification

A field trial becomes a repeatable, transferable and auditable operating capability.

The record connects qualification, operations, cybersecurity, evidence and accountability.

ASSURANCE COMPOUNDS

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INITIAL CUSTOMER WEDGE

Start where physical uncertainty has a real cost

Recurring operator rounds

Visual, thermal, acoustic and gauge evidence across rotating, electrical and piping assets.

Targeted condition investigation

Focused sensing, repeat measurement and anomaly triangulation around a known concern.

Persistent site assurance

Fixed monitoring combined with scheduled mobile missions, expert review and traceable action.

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CAPABILITY BOUNDARY

Delivered now. Productised over time.

AVAILABLE TODAY		QUANTEON PRODUCT ROADMAP
✓ Mission and requirements engineering	→	Quanteon living-twin core
✓ Failure logic and acceptance definition	→	Reusable mission and failure libraries
✓ Fixed and mobile sensing integration	→	Native multi-vendor connectors
✓ Robot and payload integration	→	Bidirectional mission orchestration
✓ Customer and partner twin platforms	→	Automated evidence and confidence ledger
✓ Hybrid analysis using proven tools	→	Cross-site learning and portfolio intelligence
✓ Assurance, cyber and readiness	→	Qualified Quanteon field-system variants
✓ Bounded pilots and managed delivery	→	Supervised closed-loop intervention

No claim of a finished universal operating system. No autonomous safety sign-off.

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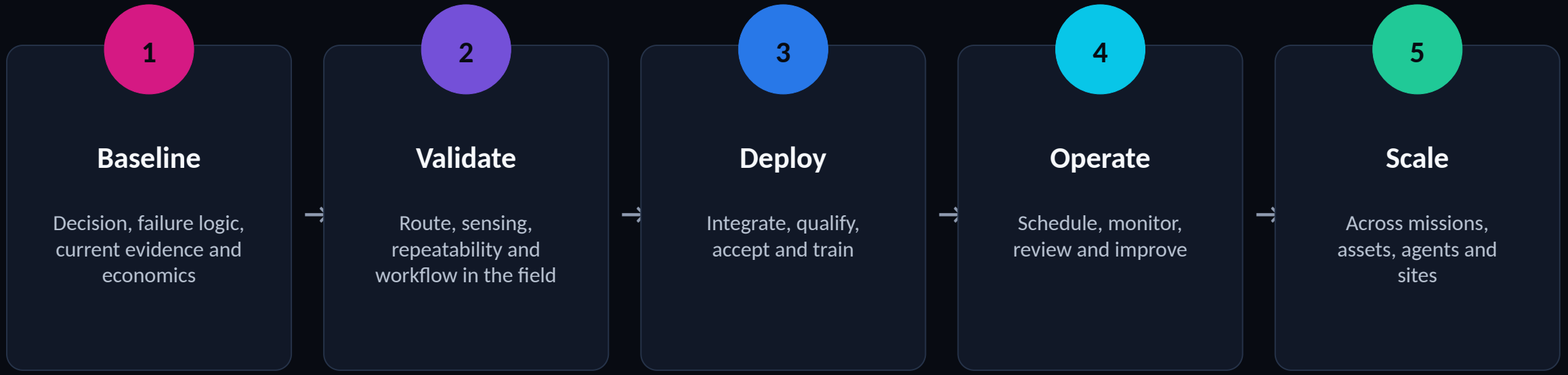
DELIVERY MODEL

Start bounded. Prove it. Scale only what works.



Every stage has acceptance criteria—and a stop decision.

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PAID ENTRY OFFER

Assured Mission Baseline

One asset group. One recurring route or mission. One operational decision.

YOU RECEIVE

- → Current route, cost and evidence baseline
- → Failure modes and critical-signal map
- → Fixed and mobile sensing concept
- → Living-twin and data architecture
- → Safety, cyber and authority constraints
- → Acceptance criteria and business case
- → Fixed-price operational-validation proposal

10 WORKING DAYS

CHF 25,000

FIXED FEE · 60% UPFRONT

No hardware purchase

Proceed, reshape or stop—even without a follow-on engagement.

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OPERATIONAL VALIDATION

Value is proven at mission level—not promised in a generic ROI claim

Coverage

Route and checkpoint completion

Evidence

Completeness, quality and repeatability

Exceptions

Detection, escalation and human review

Exposure

Human time and hazardous access

Workflow

Lead time from evidence to action

Economics

Lifecycle cost and credible payback

We baseline before promising ROI. Production follows only if evidence and economics hold.

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WHY QUANTEON

Built from critical-plant reality

Operator-native
Asset decisions viewed from the owner and operator side

Requirements-led
Mission, failure logic and evidence before technology

System-capable
Physical assets, robotics, distributed software, OT and data

Assurance-first
Qualification, traceability, human authority and lifecycle control

One accountable mission lead. A curated specialist and technology network. No dependence on a single robot, sensor or cloud.

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START HERE

Bring us one mission that matters

One asset question. One bounded route. One decision that currently lacks sufficient evidence. Start with the Assured Mission Baseline.

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