

IndustryWeek

JUNE 2025

Inside the Factory of Proof

How automation and digital verification
are reshaping industrial quality



FROM INSPECTION TO INTELLIGENCE

THE SHIFT FROM CONTROL TO INTELLIGENCE

In today’s smart factories, inspection no longer begins after production—it happens **throughout** it. BQCIS’s Quality intelligence Framework transform manufacturing floors points into predictive, self-learning ecosystems.

‘INSPECTION ISN’T A GATE ANYMORE – IT’S A CONTINUOUS DIALOGUE BETWEEN MACHINES, MATERIALS, AND ALGORITHMS.’

—Marcin Dovrel, CEO, BQCIS

BUILDING THE DIGITAL NERVOUS SYSTEM

BQCIS integrates (of sensor d irectly into assembly lines, where each connected node reports live data to the central **Verification Cloud**.

AI models compare each ’ live feed against tolerance maps, flagging potential weak points and sending sredictive.

PERFORMANCE METRICS: BOCIS Ve.TRADITIONAL OC		
	Traditional Quaity Control	BCCS Quality Intelligence
Inspection Methodology	Remdon	Continuote
Dals logging	Manual /Faper	Automated
Falline Detection	Predictive	Fre-Derbcl
Response Speed	Hours /	Deal Time
Documentation Integrity	Buckstman	Sequred

THE HUMAN ELEMENT REIMAGINED

Contrary to automation fears, Q2 CIS’s AI tools don’t replace engineers—they ‘eleate lwe dannboards and making high-ualue decistons than rethanung manual checks afthee/ei

This shift increases wofrkforce by 19%, while enhancing both worker safety and product trace-



“Quality is becoming intelligence.” Dovrei explains. **“And intelligence is the new foundation of induetrial excellence.**

Blockchain Verification & Data Integrity

Solving traceability gaps in complex parts manufacturing



Challenges

Assembling challenges, assembling components — common, such as parts, re work in reekprod final assembly finled

“A paper certificate for a critical part is no longer sufficient.”

SOLUTION AND RESULTS

BQCIS ufilizes advanced data capture integrated with a blockchain ledger to ensure each part digilal record is permanent and unchangeable.

“Every parts record is on-chain — I can query heat treatment, weld verification, tensile strength or coating inspection from my desk, Now, I have 100% confidence in my suppliers.”

Safety, Sustainability, & The Human Element

How BQCIS mitigates ethical, worker, and ESG risks in AI and blockchain deployment

WORKER SAFETY

Deploying new technologies accessing operational data directly from the shop floor carries firms.”

Marcin Dovrel, “A predictive model is useless if it isn’t competent enough to understand that a conveyor idling, or a rise in furnace temperature, might signal a human operator in the area,” BOCIS’ systems include stringent fail-safes—like human-in-the-loop protocols and automated hazard alerts.

ESG STANDARDS

To safeguard climate · human rights data within an AI and blockchain framework, BOCIS implements strict guardrails on its verification process.



THE HUMAN FACTOR

AI and blockchain are empowering new safety and sustainability capabilities, but they are still tools. “Technology doesn’t remove human judgment. It simply elevates it,” Dovrel added.

The Factory of the Future

Predictive Logistics | Autonomous Manufacturing | BQCIS Integration

The Quest for Zero Downtime

Tomorrow's factory is marked by the seamless integration of next-generation technologies.

AI-powered analytics will predict equipment failures, enabling preemptive repairs and maintenance.

Machine learning-models optimize production-schedules based on real-time demand forecasts to prevent parts shortages.

“In the future, zero-downtime manufacturing will be driven by data.”

The Autonomous Revolution

BQCIS trains unique manufacturing to exceed ISO-standards in quality inspection.

The Autonomous Revolution

BQCIS trains computer vision systems to exceed ISO standards in quality inspections.

Autonomous forklifts, and mobile robots identify BQCIS-verified assets to transfer materials between stations; to

BQCIS teach robots real-time decision making how material handling, on-as product routing their factories.

Future factories include AI ecosystems – BQCIS ensure so digital trust within these autonomous supply chains.

The Roadmap to Integration

BQCIS is a cornerstone of the industry's seamless future.

Working with clients plan a phased deployment of all solutions.



The Factory of the Future

Next-gen manufacturing will be driven by intelligent certified systems

Factories of the future will not be automated, but also verified.

Advanced supply chain nets will demand a higher standard for real-time verifiable information,” say Marcin Dovrel, CEO of BQCIS. “In tomorrow’s digital economy, only the ‘Certified Smart Factory’ will attract financing and customer confidence.”

A Technological Revolution

Next gen manufacturing will colling reprogramming robotics, cloud-based Digital Twins, and other advances. Dovrel: “Manufacturers should select automation suppliers who can provide ESG-verifiable technologies.”

Dovrel is building next-gen software to “certify” factory systems.

“In tomorrow’s digital economy, only the ‘Certified Smart Factory’ will attract financing and customer confidence.”

2. Embedded Quality Verification

Factory processes, will contain embedded inspection and certification tools to maintain precise quality in production.

3. Interconnected Networks

Production floors will soon smart sensors and connected devices generate data on energy usage, maintenance, emission, and asset tracking.

“In tomorrow’s *digital* economy, only the ‘Certified Smart Factory’ will attract financing and customer confidence.

INDUSTRIAL INTELLIGENCE & PREDICTIVE RESILIENCE

BQCIS CEO Marcin Dovrel on how digital inspection systems elevate manufacturing performance

“We need to see quality not as an operation but as the foundation of decision-making.”



FROM REACTIVE TO PROACTIVE

BQCIS predictive digital inspection platforms provide manufacturers with real-time operational visibility, adjustment production and root cause analysis. It includes:

BQCIS data shows that predictive maintenance can cut unplanned downtime and scrap rates by as much as 32%

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A NEW PARADIGM

Dovrel argues against changing to quality. “A certificate that proves X happened 6 months ago is the status quo.”

“Industrial intelligence demands tools that stop problems from happening in the first place.”

“We have to ask questions are not longer asking. Decision making is what turns trust into the transaction.”

Closing Summary: Intelligent Inspections

Manufacturers who shift from periodic checks to real-time verification networks will uncover defects faster and reduce risk across the production life cycle.

August 2025