XpertRule

The Responsible AI Company

XpertAgents for high stake, consequential decisions

IndustryX Talk

XpertAgents in Manufacturing: AI You Can Trust

21st November 2025

Darren Falconer

Who we are

- Decades of AI innovation
- Regulated & mission critical businesses
- Glassbox by design
- Composite AI Agent Builder

We enable organisations to harness the power of their two most valuable assets…

The expertise of their people.

And the insight in their data.

What we do

We enable you to create AI Agents that you can trust. XpertAgents deliver outcomes that enterprises can trust, verify and act on by combining:

- Symbolic AI / Machine Learning
- Knowledge Blueprints
- LLMs
- Expert validation

We are not a black box, we are reliable, explainable and auditable – built for critical decisions that you can trust.

Why you can’t trust an AI (LLM only) Agent

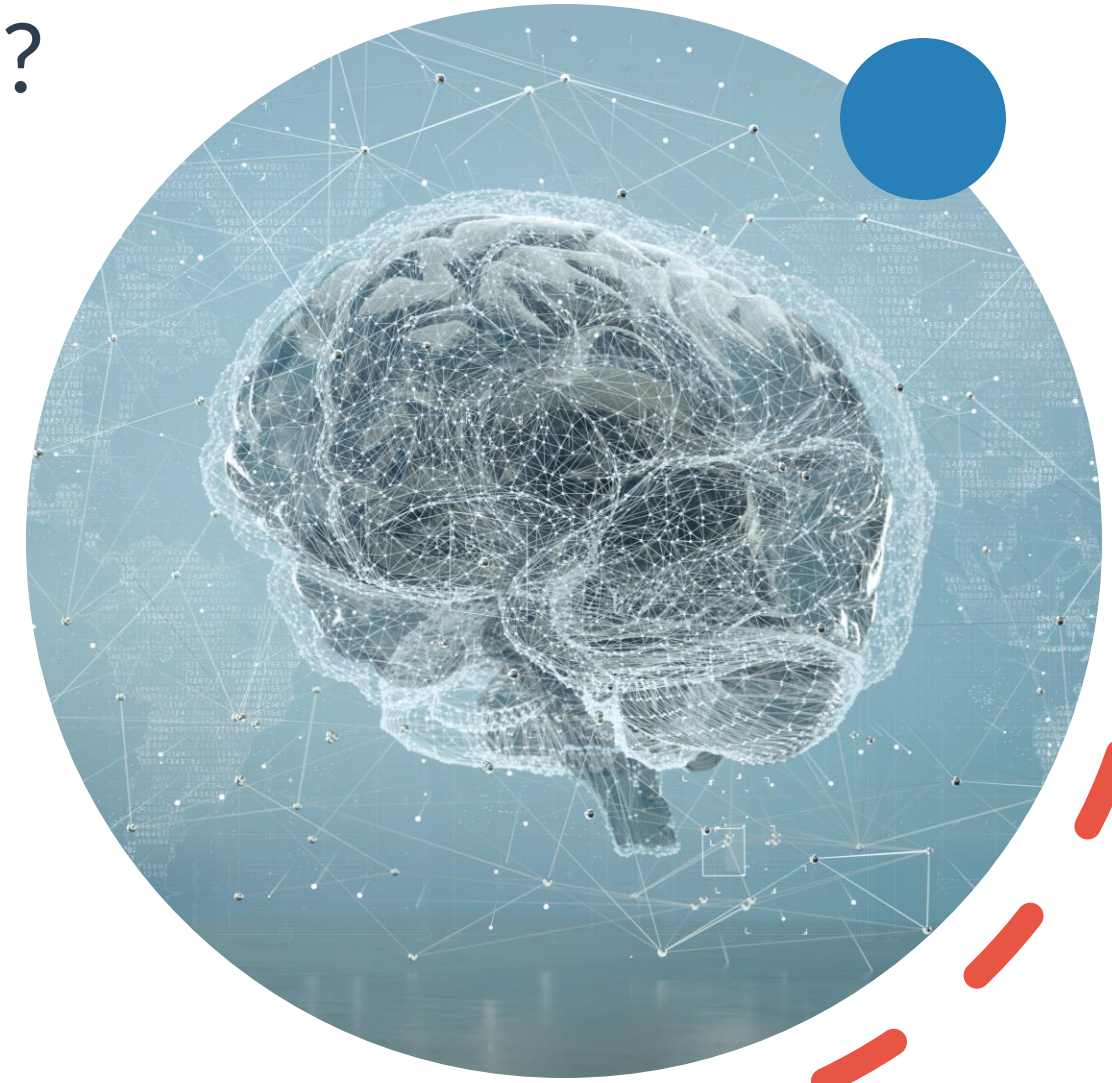
Great for 90% of simple tasks, but used alone cannot be trusted for high stakes, mission critical problems

- ☒ Not Repeatable with risk of Hallucination
- ☒ Not Truly Explainable (post-hoc explanations)
- ☒ Not Traceable within Black Box Model
- ☒ Security vulnerabilities (LLM Prompt-Injections)
- ☒ Oversight of decisions without true explanations

What is neuro-symbolic AI?

“It combines the strengths of Gen AI in pattern recognition, and symbolic AI in logical reasoning to deliver deterministic and explainable AI that can be trusted”

Dr Akeel Al-Attar



Why you can trust an XpertAgent

Focused only on complex, high stakes, consequential problems delivering reliable, explainable + auditable AI

- ✓ Repeatable Logical Reasoning
- ✓ Truly Explainable (Critical for human oversight)
- ✓ Traceable within Transparent Decision Model
- ✓ Pre-secured Transparent Decision Model
- ✓ Oversight of decisions aided by true explanations

How we create XpertAgents

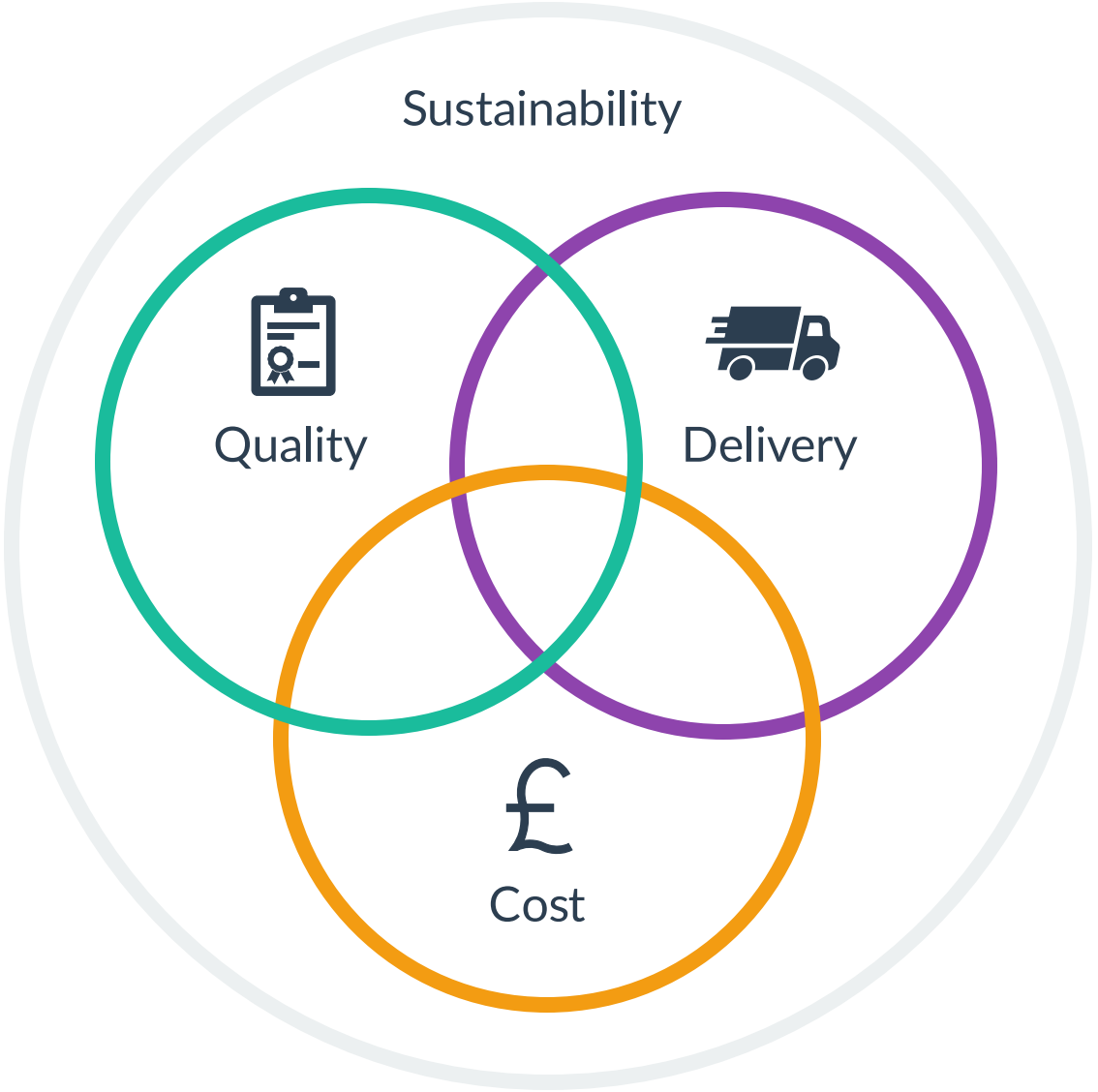
Compliance Demo

Using our XpertAgent Studio, what would once have taken an indeterminate amount of time, now takes a matter of minutes.

Please contact XpertRule for access to the demo.

Manufacturing challenges we solve

- Product Quality
- Microbial Contamination
- Fault Detection & Diagnostics
- Process Optimisation
- Cycle Time Reduction
- Energy Monitoring
- Just-in-Time Deliveries



Use Case: Microbial Status Agent

Global FMCG

Return on Investment

- Reduced downtime to 1 day planned downtime
- Potential saving of $1m annually per plant
- Saving reputational damage

By using the digital data, we know when we can target cleaning and sanitisation, that will lead to better savings, better predictive ability, more throughput and better efficiency in our manufacturing processes.

Senior Director

Use Case: Cycle Time Agent & Inventory Agent

LIBRA SPECIALITY CHEMICALS

Return on Investment

- 25% reduction in cycle time
- Reduced energy consumption
- Improved throughput
- Improved stability
- Reduced delays
- 3 weeks saved per year
- Optimised stock levels
- Improved throughput

Being data-driven changes everything. How you operate. How you plan. And how you grow. It means fewer delays, better planning, stronger compliance and, ultimately, better outcomes for our customers.

Sahd Hussain, Engineering and Process Safety Manager

Use Case: Product Quality Agent & Troubleshooting Agent

HOSOKAWA MICRON

Return on Investment

- 20% reduction in energy use
- 10-12% increase in production capacity
- 5% reduction in raw material usage
- 15% improvement in equipment uptime
- Faster issue resolution

We use XpertFactory on our own machines based on our sites in Runcorn, and we make sure that we're optimizing the yield, minimizing the energy consumption and keeping that consistency.

James Moore, Managing Director

Also trusted by…

ALEXANDER DENNIS	NMIS National Manufacturing Institute Scotland	SFR	GVW GLOBAL VALUE WEB
HOSOKAWA MICRON	PA	WÄRTSILÄ	LIBRA SPECIALITY CHEMICALS
BOOTH WELSH Integrated Engineering Services	Capita	accenture	arneg
arvato BERTELSMANN	avanade	Nestlé	P&G
DIAGEO	Forensic Testing Service	cpi	University of Sheffield AMRC Advanced Manufacturing Research Centre

XpertRule

Q&A

If you'd like to know more, please visit us at our booth

Thank You

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