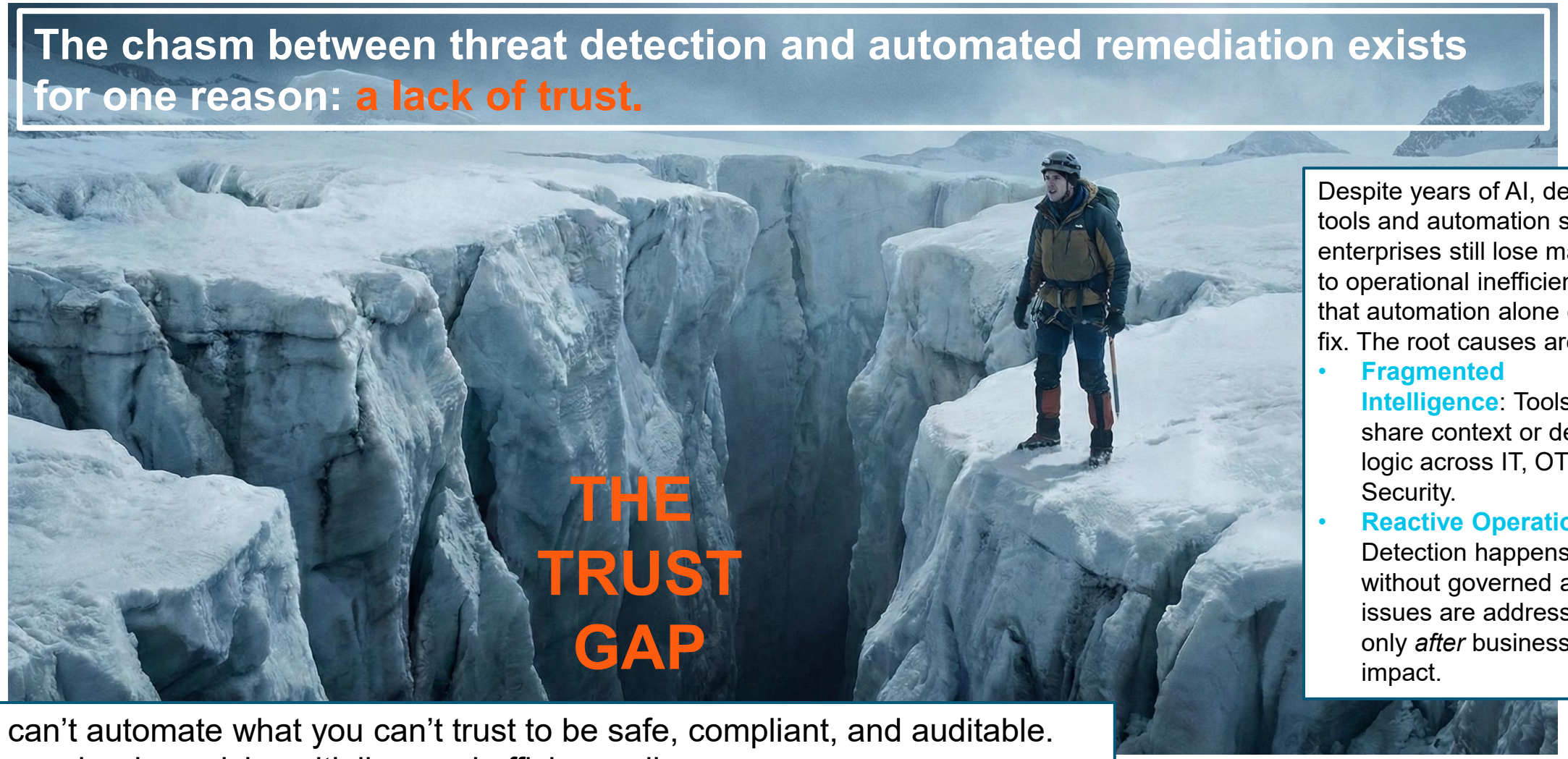
XAUTOMATA

The Operating System for Autonomous Enterprise

From Autonomation to Autonomy

Managing Resilient and Efficient Industrial Processes

Today’s Automation is Not Enough: The Trust Gap



Despite years of AI, detection tools and automation spend, enterprises still lose margin to operational inefficiencies that automation alone cannot fix. The root causes are:

- **Fragmented Intelligence**: Tools fail to share context or decision logic across IT, OT, and Security.
- **Reactive Operations**: Detection happens without governed action; issues are addressed only *after* business impact.

You can’t automate what you can’t trust to be safe, compliant, and auditable. This gap is where risk multiplies, and efficiency dies.

It Creates an “Automation Tax”

+ 15-25%

Overhead in IT/Operations tied to manual triage and «automation sprawl».

5-15%

Margin leakage from rework, downtime, and poor cross-system coordination.

3-4%

Wasted capex/energy from sub-optimal schedules and reactive fixes.

$ 4,4M

The global average cost of a data breach, in USD, a 9% decrease over last year - driven by faster identification and containment.

IBM (Report Cost of a Data Breach 2025)

$ 125,000

Outages cost typical industrial business **$125,000 per hour**

ABB survey report 2023

The Engine for Autonomous Enterprise

The Strategic Outcome: **Resilience & Efficiency through Auditable Autonomy**

Data Ingestion

(Unified Visibility)

- ❖ Ingests IT & OT data (ERP, SCADA, IoT, Cloud)
- ❖ Real-time Digital Twin
- ❖ Cross-domain context

Simulation & Reasoning

(Intelligent Simulation)

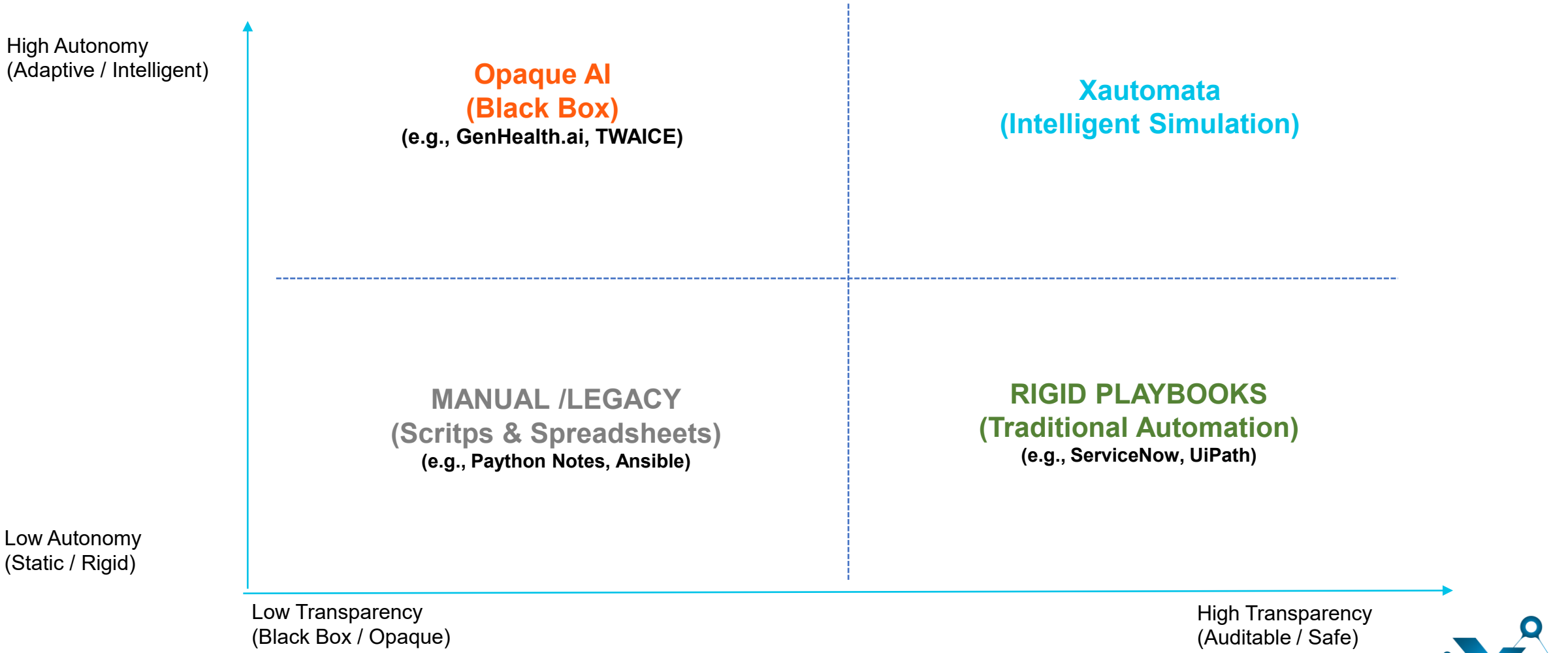
- ❖ XAL Behavioural Model: Simulate infinite scenarios
- ❖ Deterministic Governance: Safety & Compliance
- ❖ No “Hallucinations”

Actions & Remediation

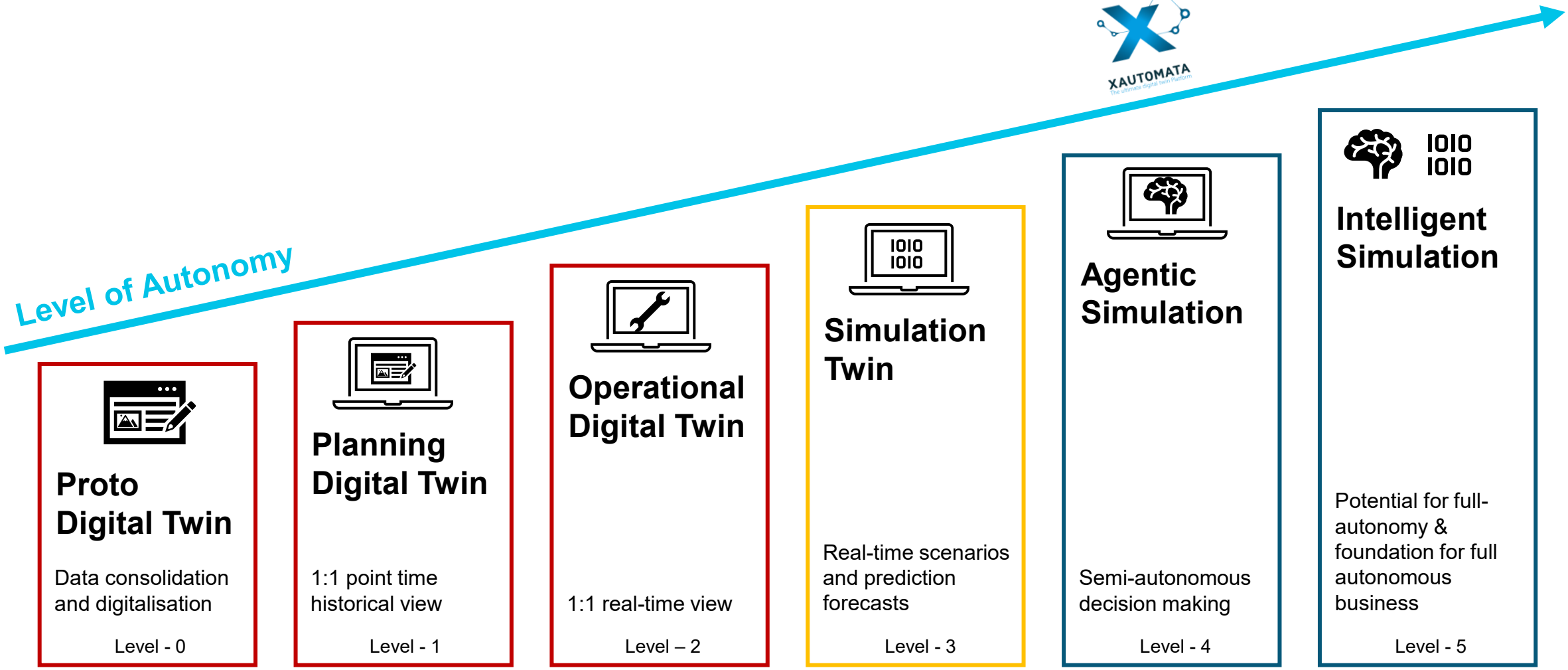
(Automated Remediation)

- ❖ Multi-Agent System: Autonomous execution
- ❖ Self-Healing: Fix before impact
- ❖ Feedback loop

Beyond the Black Box: Solving the Autonomy Paradox



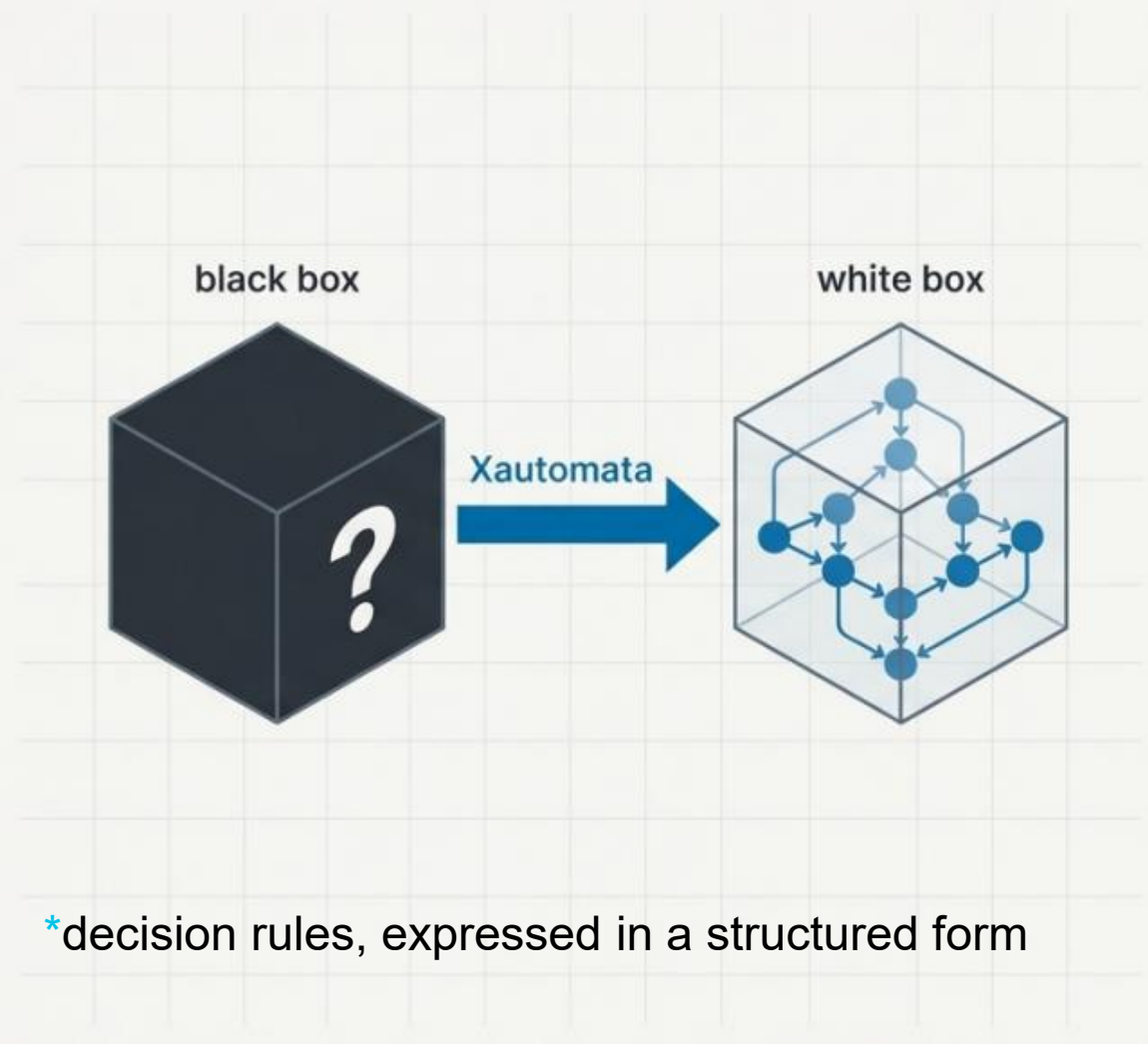
Intelligent Simulation Technical Functionality Roadmap



Source: Gartner (15 August 2025 - ID G00813153 - Emerging Tech: AI Vendor Race: Conquer Complexity, Deliver Value and Drive Revenue Using Intelligent Simulations)

The Power of Deterministic Governance

At our core is a white-box approach. Unlike opaque AI, our system's logic is transparent and based on explicit **Behavioral Models (Copyright*)**. We validate the full context of every threat *before* acting, ensuring every automated remediation is safe, compliant, and **completely auditable**.



Process optimisation leads current adoption, but the next frontier is a shift toward more autonomous, integrated solutions

Success story

Profilglass is deploying autonomous AI agents to monitor the production cycle in real-time

Time to Value 45 days

94% Reduction in cracking defects

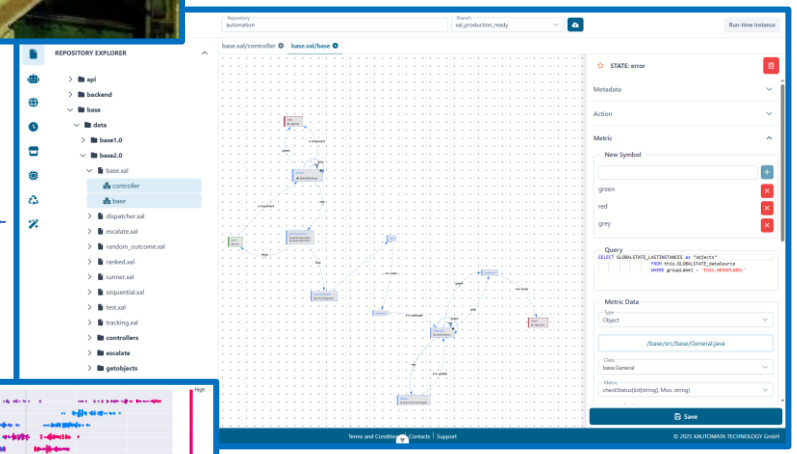
€700K Additional profit from productivity gains

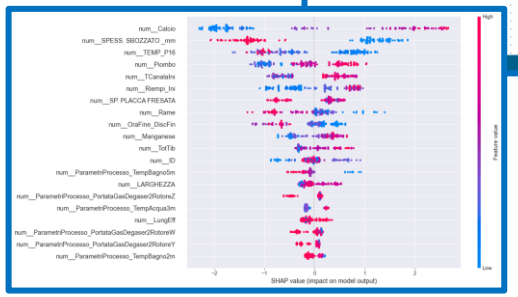
3,7% Annual energy saving (~€1M)

Profilglass ALUMINIUM

Using historical data, Xautomata's behavioural model **simulates potential scenarios** to select the next controlled action dynamically.

Approximately 90% of the time was devoted to data analysis and training the ML model. The model was continuously monitored against agreed rules, ensuring maximum **scalability** across all production transformation processes—10% coding.





SUCCESS CASE

The introduction of Xautomata has enabled a **scalable model of predictive and proactive maintenance for production machines**, resulting in tangible benefits in terms of **operational efficiency** and **service quality**.

The system employs predictive algorithms to **generate maintenance tickets** based on both anticipated anomalies and real-time conditions of the machines, automatically involving experienced technicians and end customers through a controlled and supervised process. Xautomata has made it possible to offer a **new active maintenance service without the need to increase field technical staff.**

Scalable Active and Predictive Maintenance:

A new scalable active maintenance service has been enabled without an increase in technical resources.

Automated management of **75% of tickets**, with an estimated reduction in operational costs of over **€250,000 annually.**

Prevention of critical downtimes, yielding an overall economic benefit of approximately **€650,000 per year**.

bi-rex
Big Data Innovation & Research Excellence

SUCCESS CASE

The introduction of **Xautomata** as an orchestrator for **Autonomous Mobile Robots (AMRs)** has brought tangible benefits, measurable both in terms of **logistical efficiency** and **operational savings**.

The implemented process **allows for route optimization, reducing empty trips** and monitoring **robot anomalies**, with a direct impact on the efficiency of the managed loads.

Scalable active and predictive maintenance:

For a client assembling packaging machinery, we demonstrated that it is possible to **reduce the number of empty loads by at least 2% annually.**

Estimated productivity increase of 3.15%, equating to an additional gain of €600,000 per year.

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USE CASE

Optimization of Customer Service and Maintenance

The Challenge

Ensuring operational continuity while reducing machine downtime and post-sales support costs, all while providing timely assistance.

For manufacturers of industrial systems, the ability to respond quickly to failures is a key competitive factor, directly impacting productivity and profitability.

Xautomata's Approach

XA agents **model the behavior of systems** to anticipate anomalies and enable predictive interventions.

The system **prioritizes and automates the management of assistance requests**, from diagnosis to spare parts logistics.

Operators are activated only when necessary, supported by specific instructions based on real-time context, reducing errors and reaction times.

Tangible Results

- 15%
Reduction in Machine Downtime

- 20%
Extraordinary Maintenance Costs

+ 16%
Efficiency of Customer Service Team

USE CASE

Optimization of transformation production processes

The Challenge

Reduce waste and optimize resource use in transformation processes to balance environmental sustainability and economic margins.

In production facilities, the ability to react in real-time to deviations and inefficiencies directly impacts costs, quality, and ESG results.

Xautomata's Approach

XA Agents monitor the production cycle in real-time, collecting and interpreting data directly from the line.

They automatically identify **deviations from optimal parameters**, activating corrective actions or targeted alerts.

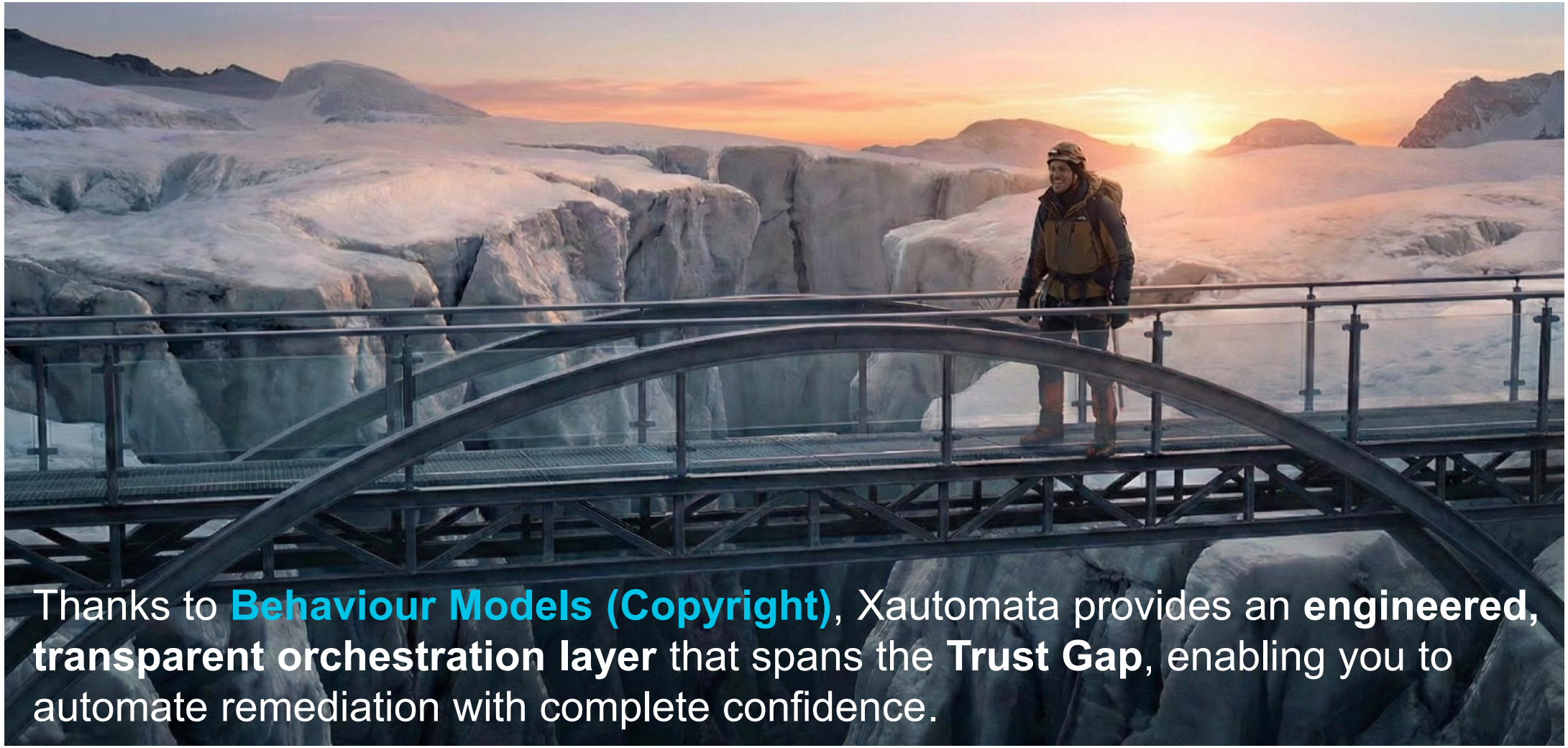
They orchestrate **quality controls** and dynamically adjust production schedules to minimize waste, rework, and energy consumption.

Tangible Results

- 3%
Reduction of energy consumption

+ 4%
Production Team Efficiency

Xautomata: Autonomy without Fear



Our Ecosystem: Integration and Shared Growth

Partners

Technologies

XAUTOMATA

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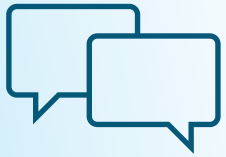

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