TALASTRON KINETIC AI

How governed, sovereign enterprise software is delivered at machine speed

METHODOLOGY REFERENCE	AUGUST 2026	OPEN DISTRIBUTION

Executive Summary

Enterprise software delivery has a structural problem that neither consulting firms nor AI coding tools have solved. Consulting firms deliver roadmaps, not production systems. AI coding tools generate unverified output that creates technical debt faster than it creates value. Neither model produces what an enterprise buyer actually needs: a finished, auditable, sovereign application with a clear owner and a defensible compliance record.

The Five-Gate Manufacturing Model is Talastron's answer. It applies the discipline of industrial manufacturing — defined inputs, governed stages, quality gates, and a traceable output — to enterprise software delivery. A single requirement, spoken into Microsoft Teams, becomes a deployed, WAF-assessed, compliance-audited application inside your own Azure tenant, without your engineering team writing a line of code.

This paper describes the model: its five gates, its eight specialist agents, its grounding philosophy, and its commercial implications.

88%	~80%	40%+
of enterprise AI pilots never reach production	of enterprise AI projects fail to deliver measurable value	of agentic AI projects forecast to be abandoned by 2027
Gartner, 2024	McKinsey, 2024	Gartner Hype Cycle, 2025

These are not fringe failures. They are the norm. Organisations are paying a failure tax — time, money, and political capital spent on projects that never land — while their Azure MACC commitments run down and their competitors ship.

The Manufacturing Philosophy

The model is grounded in three principles borrowed from industrial manufacturing and applied to software delivery:

01

Specification before fabrication

No material is cut before the blueprint is locked. No code is written before the requirement is fully specified, governance constraints are surfaced, and a human has approved the design. This single discipline eliminates the largest source of enterprise software failure — ambiguous requirements that expand mid-build.

02

Quality gates, not quality reviews

A quality gate is binary: pass or block. A quality review produces recommendations that may or may not be acted on. The Five-Gate Model uses gates. An output that fails a gate does not advance. There is no override path for a failing gate — the defect is resolved before progression.

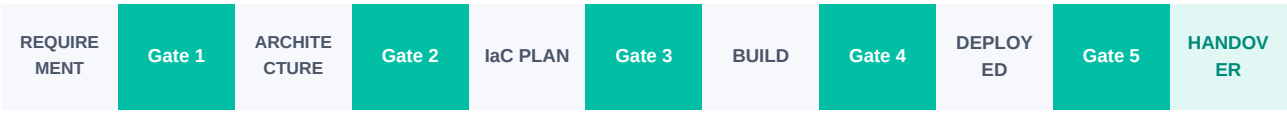
03

The factory disconnects at handover

At Gate 5, intellectual property is transferred in full. Source code, deployment history, model lineage, compliance documentation, and as-built records all transfer to the client. Talastron disconnects. The client owns 100% of what was built, with no vendor lock-in and no ongoing dependency.

The Five Gates

Each gate is a defined checkpoint requiring a human decision before the pipeline advances. Agents manufacture the work between gates. Humans govern the transitions.



Gate 1 — Specification Sign-Off

Approver	Client stakeholder — business or IT lead
What is reviewed	Readiness Passport: scored specification covering data residency, regulatory classification, data source integrity, connectivity, and business impact. Scored out of 100.
What blocks	Any unresolved BLOCKED item. CONDITIONAL items allow progression with logged obligations.
Artefacts	`northbridge-requirements.md — engagement ID, gate-by-gate RAG assessment, score, condition log, authorisation.`

> *"Minerva runs four Logic Gates and asks exactly three clarifying questions. She refuses to issue a Readiness Passport until every ambiguity is resolved. A vague requirement is a technical risk."*

Gate 2 — Architecture and Cost Sign-Off

Approver	Solution architect or IT director
What is reviewed	Architecture Decision Record, High-Level Design, WAF pillar scores (min 6, target 8), and live-priced SKU manifest confirming UK South availability and run cost against budget cap.
What blocks	Any WAF pillar below 6. Any Global AI model SKU (auto-reject — breaks sovereignty). Any resource unavailable in UK South. The Sovereign Gate auto-rejects any design below 7 in Security or Reliability.
Artefacts	`northbridge-adr.md, northbridge-hld.md, northbridge-cost-estimate.md, sku-manifest.json`

Gate 3 IaC Plan and Compliance Sign-Off

Approver	Security architect or compliance lead
What is reviewed	Nemesis's live Azure Policy discovery (Deny, Modify, Append classified as hard constraints), Themis's pre-flight compliance report (ISO 27001, ISO 42001, FCA SYSC, GDPR, NCSC CAF), and Fabricius's AVM-pinned implementation plan.
What blocks	Any BLOCKED finding in Themis's compliance report. Any Nemesis hard constraint not reflected in Fabricius's plan. Any AVM module that cannot be verified at the pinned version.
Artefacts	`northbridge-governance-constraints.md, northbridge-audit-preflight.md, northbridge-implementation-plan.md`

"Gate 3 is where most enterprise projects hide their debt. The Five-Gate Model makes governance constraints, compliance review, and build contracts all hard before Vulcan writes a single line of Bicep."

Gate 4 Deployment Authorisation

Approver	IT operations lead or platform team
What is reviewed	Vulcan's AVM-first Bicep artefacts (zero hardcoded secrets, private endpoints enforced) and Cassandra's deployment what-if (every predicted change classified Create/Modify/Delete/NoChange, cross-checked against governance constraints).
What blocks	Any policy violation in Cassandra's what-if. Any unexpected Delete. Any public endpoint on a data or AI service. Any hardcoded secret in the generated IaC.
Artefacts	`Bicep module set, northbridge-prebuild-assessment.md, whatif-preview.md, Azure DevOps backlog CSV (138 work items with acceptance criteria)`

Gate 5 Final Acceptance and Handover

Approver	Client executive or programme sponsor
What is reviewed	Themis's final adversarial review of the live deployed system (not the design — the running infrastructure), WAF scorecard, as-built report, and IP transfer confirmation.
What blocks	A critical finding at Gate 5 triggers a rollback. The client never inherits a critical security gap.
Artefacts	`northbridge-gate5-handover.md, northbridge-waf-scorecard.md — WAF composite, findings by severity, IP transfer confirmation.`

"Gate 5 is the only gate that can trigger a rollback. A critical finding at final adversarial review means the deployment does not proceed to production."

The Eight Specialist Agents

Primary agents — user-invocable

Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Agent' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Agent', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph	Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Step' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Step', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph	Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Role' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Role', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph	Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Gate' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Gate', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph
Minerva	1	Discovery & Requirements	Gate 1 owner
Vitruvius	2	Architecture & Blueprint	Gate 2 owner
Nemesis	4a	Governance Discovery (Azure Policy)	Gate 3 prerequisite
Fabricius	4b	IaC Planning	Gate 3 owner
Vulcan	5	IaC Build (Bicep)	Gate 4 owner
Themis	1c, 2c, 4c, Final	Dual-Judge Challenger & QA	All gates

Specialist sub-agents — auto-called, not user-invocable

Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Agent' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Agent', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph	Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Step' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Step', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph	Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Role' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Role', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph	Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Called by' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Called by', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph
Plutus	3	Cost Estimation & SKU Manifest	Vitruvius
Cassandra	6	Deployment Preview (What-If)	Vulcan

The Dual-Judge Pattern

Themis operates as a recurring adversarial challenger at three pipeline steps before any human gate is opened:

Step 1c Challenges Minerva's requirements: Primary Judge scores accuracy and completeness; Formatting Judge checks template conformance (only if Primary passes).

Step 2c Challenges Vitruvius's architecture and Plutus's cost manifest.

Step 4c Challenges Nemesis's governance constraints and Fabricius's implementation plan.

Final Executes definitive adversarial review of the live deployed system. Produces as-built report and WAF scorecard.

The NorthBridge Bank Reference Engagement

NorthBridge Bank is a fictional UK retail mortgage lender built to give the pipeline a realistic, FCA-regulated brief. The engagement, the pipeline run, and the artefacts are real. The client is not. Every figure shown is from the factory run itself.

Engagement ID	`TKA-NB-20260702-001`	**Readiness Score**	84 / 100 · Conditional
WAF Readiness	76% · Conditional handover	**Gates Passed**	5 of 5
Critical Findings	0	**Compliance Frameworks**	FCA SYSC · ISO 27001 · ISO 42001 · UK GDPR · NCSC CAF

Gate 1	**84/100 · Conditional**	Two conditions logged: AISP FCA authorisation verification (client obligation, pre-production) and false positive tolerance definition (risk function, pre-training). Architecture not blocked.
Gate 2	**Approved**	Sovereign Gate passed (Security 8/10, Reliability 7/10). Azure OpenAI switched from Global to Standard regional to enforce data residency. Plutus confirmed UK South availability for all seven services.
Gate 3	**3 Blocked — all resolved**	Global AI SKU replaced with Standard regional. Public endpoint on AML workspace disabled. OAuth token moved from app config to Key Vault reference. All three resolved before Gate 3 opened.
Gate 4	**Authorised**	Seven Bicep modules generated. 138 Azure DevOps work items generated and imported. Cassandra what-if: 0 deletes, 0 out-of-scope changes.
Gate 5	**WAF 76% · Conditional**	0 critical findings. 2 high, 4 medium — documented, accepted, tracked. IP transferred. Factory disconnected.

All nine video chapters and all artefacts are available ungated at **talastron.ai/evidence/**

Commercial Implications

Fixed-price, outcome-based delivery

The Five-Gate Model enables fixed-price delivery because scope is locked at Gate 1 before any build activity begins. A conditional Readiness Passport documents every open item with an owner and resolution point. Cost surprises are a function of scope uncertainty — Gate 1 eliminates scope uncertainty.

The MACC advantage

Because the factory delivers entirely inside the client's Microsoft Azure tenant using native services, 100% of engagement costs are eligible to count toward the client's Azure MACC commitment burn-down. A Talastron engagement is not a consulting spend — it is an Azure infrastructure investment.

Three delivery modes

Managed delivery (Talastron holds every gate, client receives a fully assured deliverable), Self-service (client's team approves each gate in Microsoft Teams, with Talastron's agents and governance behind them), and Automated factory (no human gates, AI-scored throughput for repeatable workloads).

Governance and Compliance Coverage

Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Framework' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Framework', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph	Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Applied at' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Applied at', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph	Paragraph('caseSensitive': 1 'encoding': 'utf8' 'text': 'Scope' 'frags': [ParaFrag(__tag__='b', bold=1, fontName='Helvetica-Bold', fontSize=8, greek=0, italic=0, link=[], rise=0, text='Scope', textColor=Color(0,.537255,.482353,1), us_lines=[])] 'style': 'bulletText': None 'debug': 0) #Paragraph
ISO 27001	Gate 3	Information security controls
ISO 42001	Gate 3	AI governance — explainability, bias, model risk

FCA SYSC 6.3	Gates 1 & 3	Operational resilience — regulated financial sector
FCA Consumer Duty	Gates 1 & 5	AI decision explainability
NCSC CAF	Gates 3 & 5	Cyber resilience — CNI and defence sector
UK GDPR	Gates 1 & 3	Data minimisation, purpose limitation, lawful basis
JSP 440 / JSP 936	Gates 3 & 5	Defence information security and assurance
Azure WAF 2026	Gates 2 & 5	Five-pillar Well-Architected assessment
Azure CAF 2026	Throughout	Cloud Adoption Framework alignment

The Five-Gate Manufacturing Model is not a consulting methodology. It is a production process. Requirements enter. Governed, deployed, sovereign software exits. Five human gates ensure nothing advances without accountability. Eight specialist agents ensure nothing is built without adversarial challenge.

The factory delivers. The client owns everything it produces.

Talastron Ltd · The Long Barn, Cobham Park Road, Cobham, Surrey, KT11 3NE

Registered in England and Wales · Company No 15464691 · VAT No 463 5874 58

ISO 27001 · Cyber Essentials · JOSCAR-registered · Microsoft Solutions Partner

talastron.ai · hello@talastron.ai · talastron.ai/evidence/ · talastron.ai/case-studies/northbridge/