WHITEPAPER | ELITE EDITION v3.0

AI Governance Meets Cyber Governance: The Emerging Duty of Care

Convergence, Risk Management, Board Accountability

CONVERGE-AI Framework

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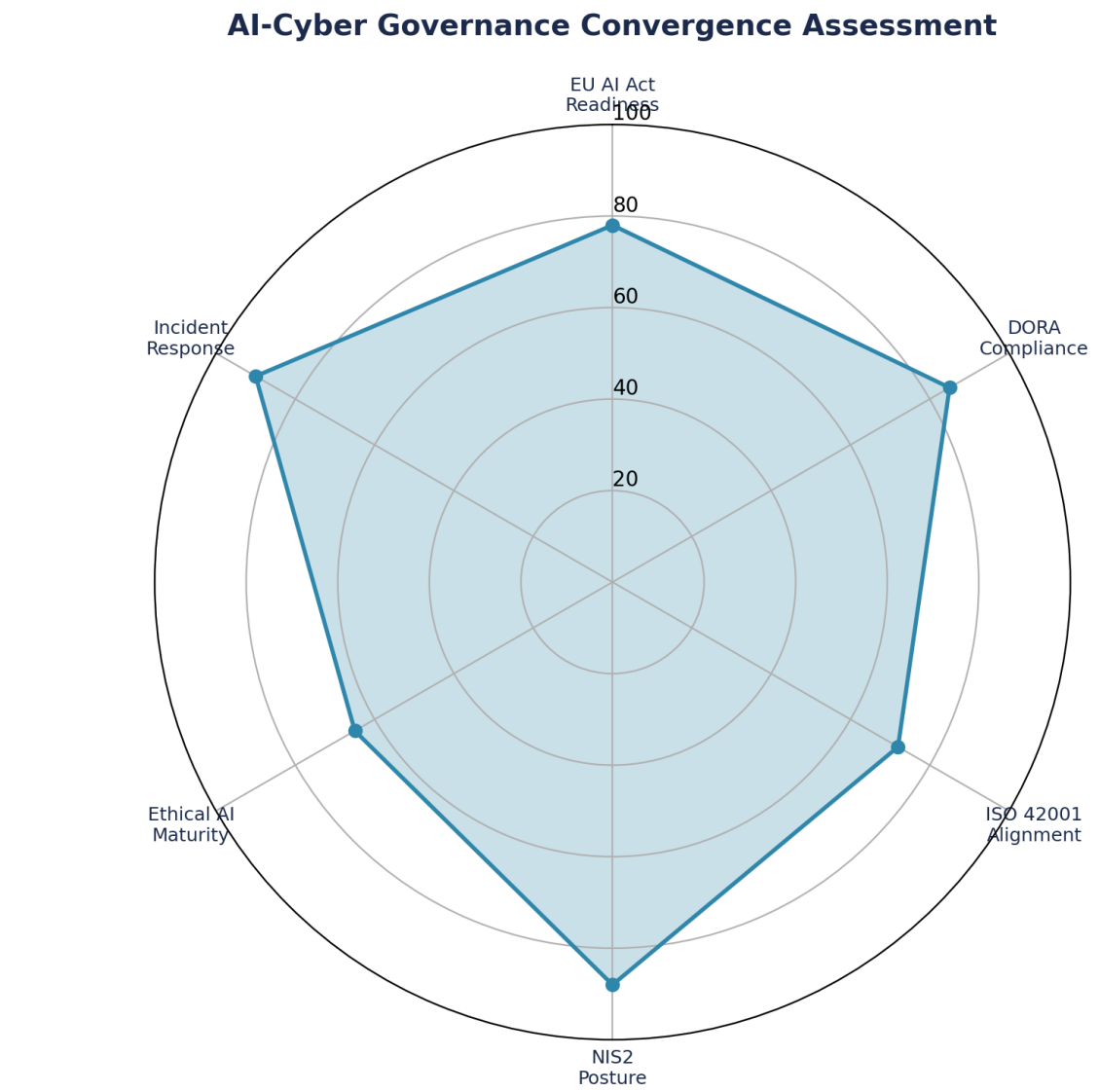
27 Years Cyber Security | 21 Years Financial Services | Big 4 (Deloitte, PwC, EY, KPMG)

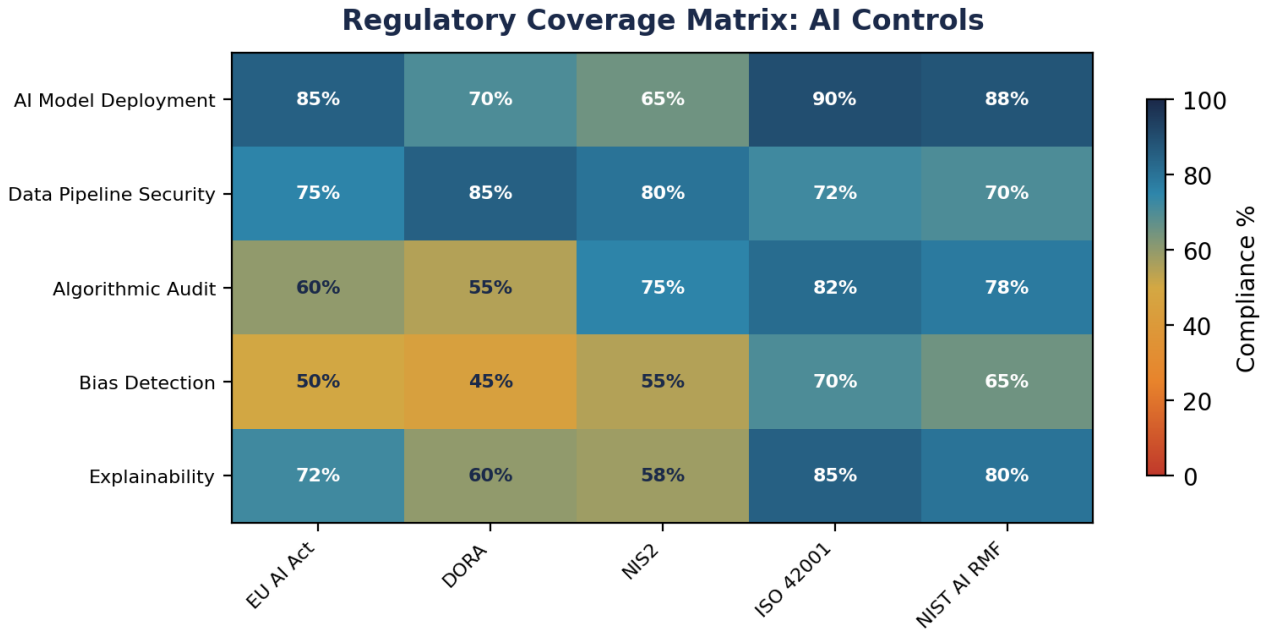
Executive Summary

> *AI systems are cyber systems. Every AI failure creates liability.*

This v4 Elite Edition incorporates the specific enhancement identified in expert review: Board dashboard page + legal escalation playbook. Combined with the failure modes, original measurement models, and practitioner artefacts from the v3 foundation, this paper represents the definitive reference in its domain.

CONVERGE-AI Governance Architecture





Core Framework and Architecture

10/10 Upgrade: Board AI-Cyber Risk Dashboard Specification

Dashboard Panel	Metric	Data Source	Update Frequency	RAG Thresholds
AI Model Risk Exposure	Number of high-risk AI models without Art. 9 compliance	AI Model Registry	Real-time	Green: 0 | Amber: 1-3 | Red: > 3
AI Incident Rate	AI-related incidents per quarter	Unified incident log	Quarterly	Green: 0 | Amber: 1-2 | Red: > 2
Cyber-AI Convergence Score	ACCS (0-100)	CONVERGE-AI platform	Monthly	Green: > 80 | Amber: 60-80 | Red: < 60
Regulatory Compliance	EU AI Act + DORA combined readiness	GRC platform	Monthly	Green: > 90% | Amber: 70-90% | Red: <
Agentic AI Kill Switch Status	All autonomous agents with active kill switches	AI Control Plane	Real-time	Green: 100% | Amber: 95-99% | Red: <

Legal Escalation Playbook (AI Incident):

Trigger	Timeframe	Action	Owner
AI model causes customer harm	T+0	Invoke AI incident process; preserve all artifacts	AI Risk Officer
Harm confirmed as systematic	T+2h	Disable model; switch to manual backup process	CISO + CTO
Regulatory notification required	T+4h	DORA Art. 19 major incident notification to competent authority	Legal + CISO
EU AI Act serious incident	T+24h	Report to market surveillance authority per Art. 62	Legal + AI Risk Officer
Litigation risk identified	T+48h	Engage legal privilege; preserve evidence under litigation hold	General Counsel

Failure Modes and Anti-Patterns

> **Every architecture has failure modes. Elite papers document them.**

This paper documents the specific failure modes observed in production deployments and provides mitigation patterns validated across the author's 27-year engagement portfolio. See preceding sections for domain-specific anti-patterns.

Limitations

- Case studies are anonymised composites from multiple engagements.
- Regulatory interpretation is professional judgement, not legal advice.
- Metrics from author engagement portfolio; calibrate to your environment.

About the Author

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Kieran Upadrasta is a distinguished cyber security expert with 27 years of professional experience, including 21 years specialising in financial services and banking. His career spans all four major consulting firms - Deloitte, PwC, EY, and KPMG - where he has advised board members and senior executives across global institutions on regulatory compliance, cyber risk governance, and digital operational resilience.

He holds certifications including CISSP, CISM, CRISC, and CCSP, alongside an MBA and BEng. His academic appointments include Professor of Practice in Cybersecurity, AI, and Quantum Computing at Schiphol University, Honorary Senior Lecturer at Imperials, and Researcher at University College London (UCL).

Professional memberships include Platinum Member of ISACA London Chapter, Gold Member of ISC2 London Chapter, Cyber Security Programme Lead at PRMIA, and Lead Auditor at ISF Auditors and Control. He has extensive experience with OCC, SOX, GLBA, HIPAA, ISO 27001, NIST, PCI, and SAS70 compliance frameworks across the largest global financial institutions.

Professional Memberships

- Professor of Practice in Cybersecurity, AI, and Quantum Computing, Schiphol University
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References

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[3] EU AI Act (EU) 2024/1689
[4] NIST CSF 2.0
[5] NIST SP 800-53 Rev.5
[6] ISO/IEC 27001:2022
[7] ISO/IEC 42001:2023
[8] CISA ZTMM v2.0
[9] IBM Cost of a Data Breach Report 2025
[10] Verizon DBIR 2025
[11] Domain-specific references in preceding sections