

Centre for Enterprise AI

Workshop Summary

**From Proof of Concept to Production:
Challenges and Enablers of Successful Enterprise AI**

Workshop Date: 12-11-2025



UNCOVERING SYSTEMIC IMPEDIMENTS TO SUCCESSFUL ENTERPRISE AI

While conversations about AI often revolve around technology, our recent workshop revealed that organisational, cultural, and governance challenges constitute the primary impediments to successful implementation of enterprise AI.

This document presents a summary of the critical challenges and key enablers identified by the panel speakers and participants of round table discussions at the workshop.

CRITICAL CHALLENGES TO IMPLEMENTING ENTERPRISE AI

Data Quality, Access, and Validation

Data-related problems dominated the workshop discussions. Participants challenged the assumption that organisations can rapidly pilot AI solutions with existing data assets. The principle of ‘rubbish in, rubbish out’ was emphasised with examples such as missing or incomplete data compromising model training and outputs, lack of standardisation and conflicting data formats across organisational silos, and insufficient metadata making data discovery and validation difficult.

Trust, Transparency, Regulation, and Meaningful Governance

Participants distinguished trust at the proof-of-concept stage from trust required for production deployment. A lack of trust of AI in operational environments exists due to insufficient evaluations. In addition, both transparency and purposeful development of AI are critical in the public sector with resource and capability constraints when experimenting with AI. As such, regulation is necessary but remains contentious with innovation velocity - though the panel suggested that appropriate regulation can accelerate innovation by providing clear guidelines. Furthermore, participants warned against ‘governance theatre’ without meaningful assessment of AI systems.

“Coming from data space, we don’t have enough conversation with public on use of their data.”

State government representative

Evaluation Frameworks

Organisations tend to rely on anecdotal evidence instead of rigorous evaluation frameworks. However, the lack of appropriate evaluation challenges the implementation of enterprise AI. Recent research suggests that AI may be slowing certain processes rather than accelerating them, underscoring the importance of evaluation methodologies. Participants emphasised the need for evaluation frameworks that are robust to changes in data, personnel, and models.

“New studies are coming that show how AI may be slowing things down.” Academic expert

Integration in Business Context

Participants noted that the proof-of-concept results typically exceed production performance, causing high expectations from the stakeholders followed by inevitable disappointment. Often the issue lies in insufficient time invested in understanding business context, use case validation, and technical feasibility assessment at project inception. Fundamentally, the challenge lies in integration of business processes rather than technology deployment. For example, organisations frequently approach AI as discrete tools rather than integrated business capabilities, resulting in limited scalability and sustainability.

KEY ENABLERS FOR ADVANCING ENTERPRISE AI FROM PROOF OF CONCEPT

Executive Sponsorship and Strategic Alignment

Leadership buy-in was identified as a key enabler, encompassing executive engagement in use case prioritisation, resource allocation, and cultural change. Workshop participants however emphasised that executives often lack sufficient understanding of AI capabilities and limitations, leading to misaligned expectations. Organisations therefore must invest in AI literacy at leadership levels to ensure strategic alignment.

“The question is how to be competitive.”

Academic expert

Business Case Development

Demonstrable productivity gain and return on investment were identified by participants as necessary to obtain buy-in of AI in businesses which anticipate increasing AI adoption. However, participants highlighted that organisations struggle to effectively measure and capture value from AI initiatives. Several participants noted that productivity gains do not automatically translate into organisational value unless deliberately captured and reinvested. Places of real productivity gain may be found in in planning and compliance activities, for instance.

“Back-office return on investment can be quite high.”

Industry expert

Skills Development

Formal skills training and hands-on experimentation emerged in the workshop as critical to the success of enterprise AI systems. The panel discussion referenced government initiatives such as university driven AI executive leadership training programs, recognising that effective implementation requires capability building across all organisational levels.

- Workshop data from Business Chambers Queensland indicated that Queensland businesses have low AI familiarity, significantly below national averages. Training requirements were identified for both leaders and workers, underscoring the breadth of the skills gap facing organisations.
- Post-workshop survey responses revealed a diverse range of specific skills deficits across organisations in areas such as strategic and business alignment, risk management, and technical and data capabilities.



ENTERPRISE AI SUCCESS MEASURES

Workshop participants converged on the understanding that Enterprise AI success requires comprehensive evaluations, including:

Productivity and Efficiency Measures

Participants emphasised the importance of measuring AI's incremental value through 'with and without AI' comparisons. For example, productivity and efficiency can be measured based on time savings and process streamlining against human performance baselines. Net productivity gains should account for time spent on AI correction and oversight. Human capacity gained from AI can be recycled into value-generating activities. Downstream task performance improvements should also be measured.

Quality and Reliability Indicators

The output accuracy of AI systems should be measured relative to human performance. Reliability should account for error reduction and quality improvements in deliverables. In addition, consistency and reliability of results over time and customer and employee satisfaction should be reflected in the metrics.

Regulatory Compliance, Transparency, and Ethics

Regulatory compliance and transparency metrics are necessary. AI systems need explainability and accountability in decision-making. In addition, organisational commitment to sustaining employment levels emerged as an important ethical measure as human impact should be considered. Data privacy and security incident metrics should also be developed.

Public and Social Values

Value measures differ fundamentally between private and public contexts. While private organisations can internalise benefits through improved profitability, government organisations must measure social value creation. Health benefits, sustainability outcomes, and enhanced competitiveness represent important measures beyond financial returns.

Financial Measures and Return on Investment

Finally, financial measures should reflect a comprehensive evaluation of return on investment. This set of measures include, for example, cost reduction and operational efficiency gains, revenue impact and competitive positioning, and cost-effectiveness accounting for infrastructure investment and ongoing support.

FURTHER INFORMATION

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