Artificial Intelligence Proof of Concept Project Prestart Checklist

IBRS
ibrs.com.au

Address Economics and Scaling Costs Early

- [ ] Conduct a Total Cost of Ownership (TCO) analysis during the PoC phase, explicitly estimating costs for compute, data, infrastructure, and maintenance at production scale. Given that AI is generally run as a consumption-based service, consider TCO over a specific lifetime.
- [ ] Secure provisional budget commitment for potential scaling and operationalisation before concluding the PoC.
- [ ] Evaluate the financial viability and compare the costs against the expected business value rigorously.

Integrate Governance from the Start

- [ ] Involve legal, compliance, security, and ethics stakeholders during the PoC planning and execution phases.
- [ ] Define and embed key governance requirements (e.g., data privacy, security protocols, bias detection, and explainability standards) into the PoC design and success criteria.
- [ ] Establish clear data lineage and model documentation practices during the PoC.

Plan for Real-World Data Dynamics

- [ ] Utilise data in the PoC that is representative of the variety, volume, and velocity of production data, even if using a sample.
- [ ] Prototype and test data pipelines required for ingesting, cleaning, and monitoring live data streams as part of the PoC scope.
- [ ] Plan strategies for handling data drift and model degradation from the outset.

Prioritise Real-World Safety and Quality

- [ ] Define and test for model robustness, reliability, and safety beyond standard accuracy metrics during the PoC (e.g., stress tests, testing on edge cases, fairness assessments).
- [ ] Consider potential adversarial vulnerabilities and plan mitigation strategies.
- [ ] Adopt a production-focused quality assurance mindset early, addressing error handling and resilience.

Design for Integration

- [ ] Develop the PoC with a clear understanding of how it will integrate into existing business processes and technical infrastructure.
- [ ] Identify and map the necessary integration points (APIs, data flows) with core systems during the PoC.
- [ ] Prototype key integration components where feasible to de-risk the productionisation phase.
- [ ] Minimise technical debt during the PoC that would complicate later integration efforts.

Assess and Bridge Skills Gaps

- [ ] Identify the full range of skills (DevOps, LLMOps, MLOps, data engineering, software engineering, operations) required for production deployment and ongoing management early in the process.
- [ ] Perform a skills gap analysis within the organisation and plan for necessary training, hiring, or external partnerships.
- [ ] Introduce DevOps, LLMOps, and MLOps principles, and consider tooling requirements during the PoC stage.
- [ ] Implement change management strategies to prepare the organisation and relevant teams.

Establish and Validate the Business Case

- [ ] Define clear, measurable business objectives and Key Performance Indicators (KPIs) for the AI initiative before starting the PoC.
- [ ] Develop a preliminary ROI calculation that incorporates realistic cost estimates identified during the PoC.
- [ ] Ensure the PoC outcome validates not just technical feasibility but also the potential to deliver tangible business value aligned with strategic goals.
- [ ] Secure and maintain strong executive sponsorship based on the validated business case.