

Governed AI for Engineering PMO

From Project Data to Accountable Decisions

Deepak Vijaykumar | 18 October 2026 | Version 1.0

Framework status. A proposed, anonymised operating model for pilot evaluation. No completed AI deployment, measured improvement or named-project result is claimed. Expected benefits remain hypotheses until validated.

01 / DELIVERY PROBLEM

Connect fragmented reports to a decision queue.

Schedules, deliverable registers, vendor inputs, interface logs and resource plans can each be accurate while the combined delivery picture remains unclear. The proposed PMO model brings exceptions into a controlled queue so an authorised leader can resolve dependencies before the next review cycle.

02 / EVIDENCE FOUNDATION

Make every recommendation inspectable.

Use approved schedules, engineering registers, vendor-data trackers, resource forecasts and risk, change and decision logs. Retain each record ID, owner, revision and timestamp. Distinguish the frozen baseline from the latest forecast. Show stale inputs, conflicting records and missing evidence; pause recommendations that cannot be substantiated.

03 / DECISION WORKFLOW

Keep human authority attached to the action.

1 AI signal	Surface an exception; draft options.
2 Evidence	Link dated records, assumptions and gaps.
3 Human approval	Qualified reviewers check; the authorised owner decides.
4 Action	Assign an accountable person and due date.
5 Audit trail	Retain rationale, approvals and closure evidence.

AI prepares the brief. Discipline leads verify technical meaning; project controls checks exposure. The delegated decision owner accepts, revises or rejects it. Existing engineering assurance and contractual approval routes continue.

04 / ILLUSTRATIVE SCENARIO

Turn a late vendor input into accountable action.

A missing equipment drawing is linked to a dependent engineering deliverable, a structural interface and affected schedule activities. AI drafts options: vendor escalation, resequencing unaffected work or a controlled assumption. The technical lead checks feasibility, project controls assesses exposure, and the authorised manager decides. This illustrates the intended process; no recovered time or cost saving is asserted.

05 / PILOT MEASUREMENT PLAN

Agree definitions and a baseline before setting targets.

Measure	Definition and evidence
Decision ageing	Calendar days since formal decision logging. Report median, oldest item and overdue count. Evidence: log date, owner, required-by date and approval timestamp.
Milestone adherence	On-time milestone completions divided by milestones due against a frozen baseline. Evidence: approved dates, actual completion and change history.
Resource-forecast accuracy	Absolute error between forecast and actual discipline hours for an agreed horizon. Evidence: time-stamped forecasts, actual hours and scope changes.
Issue-closure time	Calendar days from issue registration to accepted closure. Report median, tail and reopen rate. Evidence: issue log, closure acceptance and reopen history.

Proposed benefits: less decision ageing, steadier milestone delivery, better forecasts and faster issue closure. Numeric targets follow a checked baseline. Track false alerts, rejected recommendations, reviewer effort and reopened issues alongside benefit measures. No achieved results are reported.

06 / PILOT AND GOVERNANCE

Prove one recurring workflow, then review the evidence.

Select one discipline or interface; name the sponsor, data owners and decision authority. Begin in shadow mode alongside current reviews. Log errors and disagreements. Compare equivalent observation periods while keeping scope, discipline mix and workload visible. Expand only when source reliability, review effort, traceability and decision quality are acceptable.

Confidentiality and responsible AI. No employer, client or confidential project data is reproduced. Use approved systems and access-controlled inputs. Safety, technical assurance, regulatory and contractual decisions remain with authorised professionals.

Read the complete framework: deepak-vijaykumar-leadership.com/insights/governed-ai-engineering-pmo