

Case Study | 12 March | 11:20

Using AI and automation to increase procurement efficiency and reduce bottlenecks

Mohsen Mousavi
Faculty of Science & Engineering - Applied AI Centre |
Macquarie University

What this session covers



Problems

Where councils lose time and consistency



Solution

What the AI assistant actually does



Results

What improved in practice



Guardrails

How we keep people, policy and audit in control

Why this matters to councils

These are operational pain points first. AI is only relevant if it fixes them.



Manual triage

Requests arrive through emails, quotes, specs and attachments, so staff spend time just understanding what is there.



Repeated rework

The same information gets searched, clarified, reformatted and re-read multiple times.



Hidden compliance risk

Missing items or unclear requirements may be detected late, when the process is already under pressure.



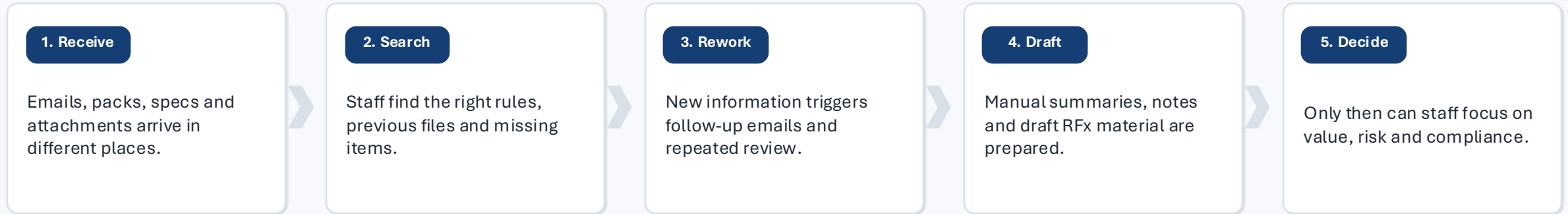
Low-value admin load

Skilled procurement officers spend too much time on document handling instead of judgement and supplier strategy.

The opportunity was not to automate procurement judgement. It was to remove repetitive document work so officers could make better decisions faster.

Where the current process slowed down

Too many handoffs, too much searching, too much avoidable delay.



What this created in practice

Long first-draft turnaround

Different note quality between officers

Late detection of missing items

Procurement time spent on administration rather than judgement

The same work kept happening again and again, especially when urgent requests or higher volumes arrived.

The design brief was simple

Fix the boring, risky and repetitive work first.



Speed up the first pass

Help staff understand a request pack quickly instead of starting from zero every time.



Make outputs more consistent

Generate a cleaner first draft so summaries and evaluation inputs follow a repeatable structure.



Surface issues earlier

Flag missing information, ambiguous requirements and obvious compliance gaps sooner.



Keep officers in control

Use AI to assist with preparation, not to approve, award or replace accountability.

In other words: make procurement staff faster on preparation, stronger on consistency, and safer on compliance.

What we built

The automation workflow was built on existing procurement best-practice processes — not replacing them — including standard RfX drafting, evaluation frameworks, and compliance checks used in NSW local government.

In plain English, it helped staff do four things faster:



Read

Pull key facts from long or messy packs.



Summarise

Create a cleaner first draft instead of starting from a blank page.



Flag

Highlight missing items, ambiguities and obvious issues early.



Guide

Suggest sensible next steps for the officer to review.

AI assistant

Procurement pack

emails
quotes
specs



Extract key info

Draft summary

Flag issues

Suggest next step

Officer reviews and decides

How it works in a real workflow

Simple enough for a non-technical audience: input, AI first pass, human review, approved output.



Important: the AI handles the first pass on information, but the council officer still owns the decision.

Where we used it in procurement

The tool was most useful where work was repetitive, document-heavy and time-sensitive.



RFX drafting

Turn messy inputs into cleaner first drafts for RFQs, RFIs and RFT material.



Supplier scoring support

Structure evaluation inputs and make policy-supported scoring more repeatable.



Clarifications & reporting

Prepare summaries, identify missing items and reduce avoidable back-and-forth.



Contract management support

Surface obligations, evidence and status information faster for follow-up and reporting.

The pattern was simple: use AI where staff were spending time on preparation and structuring, not where formal accountability must sit with people.

What changed (sample of 8 tenders)

Headline results reported in the wider NSW local-government deployment and case studies.

Preparation time

72% ↓

Average tender preparation time reduced from 6.8 hours to 1.9 hours.

Policy evidence

171% ↑

Average policy references increased from 14.2 to 38.5 per project.

Evaluator consensus

0.64 → 0.91

Agreement improved markedly, making rankings more stable.

Compliance issues

4.2 → 0

Average compliance violations were eliminated in the reported dataset.

At a glance: before vs after



What matters most here

This was not just about being faster. The reported data also showed stronger evidence coverage, cleaner compliance, and more stable evaluation outcomes.

A concrete case example: fleet procurement

This case is useful because it is easy for a general audience to understand.

Project snapshot

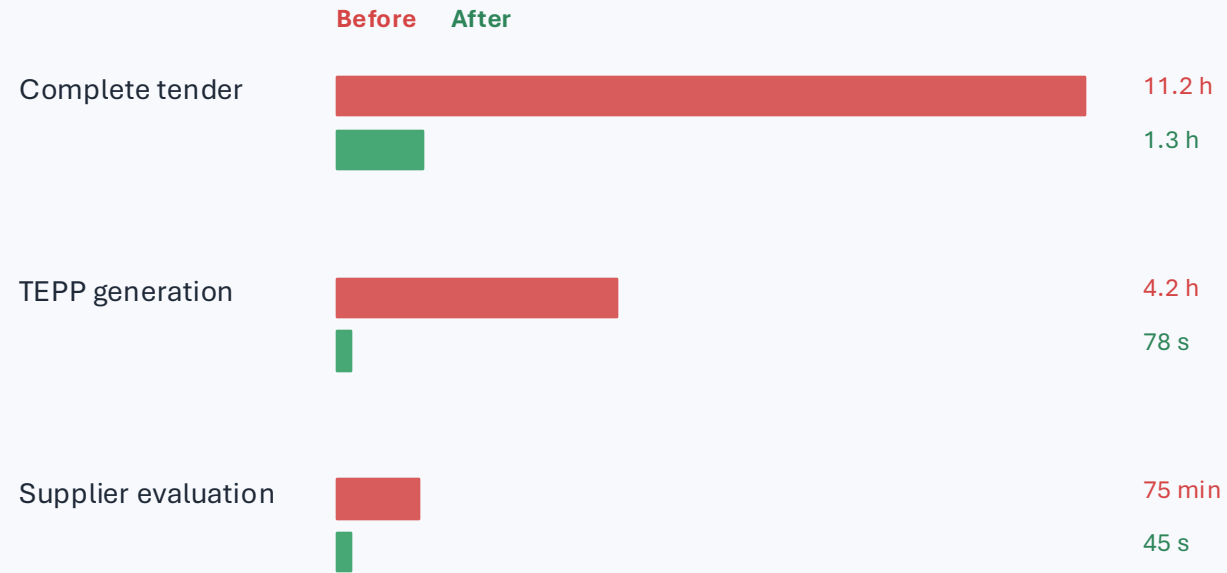
Project type
Fleet procurement

Scope
11 vehicles

Reported value
About A\$4.5M

Key outcome
Faster preparation with stronger control

Timeline improvement



Overall reduction: 11.2 hours to 1.3 hours
More than eightfold faster on the reported fleet case.

What improved in that fleet case

The process became more complete and more defensible, not just quicker.

Draft speed

252 → 78 min

Time to first draft reduced by about 69%.

Compliance

3 → 0

Reported compliance violations fell to zero.

Policy references

12 → 28

More policy evidence was surfaced in the workflow.

Evaluation criteria

6 → 8

The evaluation became more complete.

What this means :

- The work became faster without weakening control.
- The evaluation became more complete, not just quicker.
- Compliance evidence became more visible and easier to explain.
- The officer still reviewed and approved the output.

What changed for staff and managers

The benefits were operational, managerial and governance-related.



For procurement officers

- Less re-reading
- Cleaner first drafts
- Earlier issue detection
- More time for judgement



For leaders

- Shorter cycle times
- More consistent outputs
- Stronger evidence trails
- Better visibility on bottlenecks



For governance

- Clearer policy linkage
- Fewer compliance misses
- Human approval retained
- Auditability stays visible

Why this did not become “AI making procurement decisions”

Human oversight remained central.

Human-in-the-loop in practice

- 1 AI suggests** The system prepares a draft or recommendation.
- 2 Human reviews** An officer inspects the output and can edit it.
- 3 Human approves** Formal decisions still require human approval.
- 4 AI explains** Outputs can be linked back to the evidence used.

Reported trust signal from the manuscript

95%

AI suggestions accepted

The platform also reports that only 5% of recommendations were modified and every decision still required officer approval.

Guardrails for government use

This only works in public sector if trust, control and auditability stay in place.



Human decision stays in place

The tool prepares information. It does not approve or award.



Use approved data only

Only the right documents and process should feed the tool.



Keep an audit trail

Outputs should be reviewable so staff can explain what they used.



Start narrow and controlled

Use it on well-defined tasks first rather than trying to transform everything at once.

The lesson is not “buy AI”. The lesson is “design control around the tasks where AI is allowed to help”.

Conclusions

What this case suggests for government procurement more broadly.

1 Start with the bottleneck, not the technology.

The strongest use cases are repetitive, document-heavy tasks that slow down staff.

2 Measure quality as well as speed.

Faster work alone is not enough; evidence, consistency and compliance must improve too.

3 Keep accountability human.

AI can support preparation and analysis, but formal procurement decisions still need human ownership.

4 Scale from controlled wins.

Start with narrow use cases, prove the value, then expand carefully.

AI did not replace procurement judgement. It removed avoidable admin.

What that means for council

- Faster first response
- Cleaner and more consistent summaries
- More time for risk, value and compliance
- Better flow from procurement work to public outcomes

Thank you

Mohsen Mousavi
Faculty of Science & Engineering
Macquarie University

Session: Using AI and automation to increase procurement efficiency and reduce bottlenecks

Questions