



Implementing AI in quotation workflows

Improving quotation preparation, scope clarity, evidence gathering, and review without allowing generated output to replace commercial accountability.

WORKS WITH THE ASSISTANTS TEAMS ALREADY USE



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AT A GLANCE

Improving quotation preparation, scope clarity, evidence gathering, and review without allowing generated output to replace commercial accountability.

Quoting is a race between speed and accuracy. Estimators and sales engineers read messy RFQs, chase missing information, assemble costs and write proposals, often for bids they will lose. AI can compress the reading, extraction and drafting steps and make scope and assumptions clearer. It cannot own a price, a margin or a commitment. This playbook shows how to use AI at each stage of the quote, with templates, approval thresholds and a method to learn from wins and losses.

WHO IT IS FOR

Estimators, sales engineers, bid managers and commercial leads who prepare and approve quotations in manufacturing, engineering, construction, services and distribution.

TIME TO USE

60 minutes to read; one team session to apply

What you will have at the end

- A map of the quotation workflow showing where AI helps and where a person must decide
- Request templates for RFQ intake, specification extraction, quote drafting and assumptions
- Approval thresholds that keep price and risk decisions with accountable people
- A baseline method and a win/loss routine that turns every bid into learning

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EXECUTIVE BRIEF

Faster quotes without loosening commercial control

01



AI should shorten the time from RFQ to a reviewed, well-scoped quote. It should never decide the price.

Most quotation delay is not calculation. It is reading a customer pack, working out what is actually being asked, finding what is missing, gathering supplier input and writing it all up in the house format. Those steps are heavy on text and light on judgment, so they are good candidates for AI support. The judgment steps, such as how much risk to carry, what margin to hold and which customer to prioritize, belong to people with commercial authority.



A quote is also a commitment. Once sent, it can become a contract term, and a mis-stated scope or a missed exclusion can cost far more than the hours saved. The goal here is therefore twofold: reduce turnaround, and raise the clarity of scope, assumptions and exclusions that protect the business.

- Use AI to read RFQs and produce structured scope lists and clarification questions.
- Use AI to draft the narrative parts of a proposal from verified facts and your own standard wording.
- Use AI to prepare assumptions and exclusions for human edit, not to finalize them.
- Use AI to analyze past bids for patterns, with a person interpreting the result.
- Do not let AI set prices, discounts, delivery commitments or contract terms.

**ACCOUNTABILITY RULE**

Every quote has a named owner who can explain each number, assumption and exclusion. If you cannot explain a line the AI drafted, it does not go out.



WORKING QUESTION

How many hours does a typical quote spend waiting on reading and clarifying rather than on costing and judgment?

THE WORK MAP

Where AI fits in the quotation cycle

02

Break the quote into stages, then decide for each stage what AI may draft and what a person must confirm.

Write out your real quotation process from enquiry to follow-up, including the parts that live in email and spreadsheets. Then mark each stage by how much of it is reading and writing and how much is decision. The table below is a starting point for a manufacturing or project-based business; adapt it to your own flow.

QUOTE STAGE	GOOD FIT FOR AI	HUMAN CHECKPOINT
RFQ intake and triage	Summarize the request, classify type, flag deadlines and missing documents	Bid manager decides whether and how to bid
Specification extraction	Pull requirements, quantities, standards, delivery terms into a table	Estimator reconciles table to source documents
Clarification questions	Draft questions for gaps and conflicts	Sales engineer approves what is sent to the customer
Costing support	Structure cost breakdowns, compare to similar past jobs, check arithmetic	Estimator owns rates, quantities and allowances
Quote drafting	Write scope, approach and summary from verified facts and house wording	Quote owner edits and approves the final text

QUOTE STAGE	GOOD FIT FOR AI	HUMAN CHECKPOINT
Assumptions and exclusions	Propose a list from the scope and past quotes	Commercial lead decides what is accepted, excluded or priced
Approval and pricing	Prepare a one-page approval summary	Authorized approver sets price, margin and terms
Follow-up and learning	Summarize outcomes and feedback, find themes	Sales lead interprets and acts

DECISION BOUNDARY

If a stage changes what you are legally or financially committed to, AI may prepare it but a person with the right authority must make it.

WORKING QUESTION

At which stage does your team currently lose the most time to rework caused by unclear scope?

SETTING UP SAFELY

Information rules, approved tools and pricing data

03

Quotes contain customer confidences, your costs and your margins. Decide what may be processed and where before the first pilot.

Two kinds of information need special care. The first is the customer's: their drawings, specifications and commercial terms, often under an NDA. The second is yours: cost rates, supplier prices, margin targets and win/loss history. Leaking either is a commercial problem. Write a short rule that classifies them and names the tools allowed for each.

INFORMATION	SENSITIVITY	RULE
Public product and capability descriptions	Low	Any approved tool
Standard terms, house wording, templates	Medium	Approved company tools only
Customer RFQ documents and drawings	High	Only where NDA and tool terms allow; otherwise redact or summarize by hand
Cost rates, supplier prices, margin targets	High	Keep out of general tools; use approved environments or placeholders
Win/loss data with customer names	High	Use aggregated or anonymized versions for analysis

Setup checks

- Check customer NDAs and tool terms for limits on third-party processing.
- Confirm whether your inputs are retained or used for model training under your plan.
- Replace customer names and your cost rates with labels in any early experiments.
- Decide where drafts are stored so they are not mistaken for issued quotes.
- Name an owner for the approved tool list and the quote template library.

Add one more rule that is easy to forget: a generated draft is never sent from the tool. It is copied into your quoting system or document template, reviewed, and issued under your normal process, so the issued record is always yours.

WORKING QUESTION

Where do your cost rates and supplier prices currently live, and who can paste them into an unapproved tool?

TASK PLAYBOOKS: INTAKE AND EXTRACTION

RFQ intake and specification extraction

04



Get the scope right in the first hour, and everything downstream gets cheaper.

Playbook 1: RFQ intake and triage

01 Collect the pack

Gather the RFQ email, attachments and any referenced standards. Remove or label confidential details if the tool is not cleared for them.



02 Summarize and classify

Ask for a short summary: what is requested, quantities, deadline, documents provided, documents referenced but missing.

03 Flag risks

Ask for unusual terms, tight deadlines, penalty clauses and conflicting statements, quoted exactly.

04 Decide to bid

The bid manager reads the summary against the source and decides go, no-go or clarify first.



REQUEST TEMPLATE: RFQ TRIAGE

You are assisting a bid manager. Below is a customer RFQ. Produce: 1) a five-line summary of what is requested; 2) quantities, delivery dates and the response deadline; 3) documents that are referenced but not included; 4) clauses that create unusual commercial risk, quoted exactly with location; 5) five questions we should ask before pricing. Do not guess missing information. RFQ text: [paste]



Playbook 2: Specification extraction

01 Extract to a table

Ask for each requirement as a row: item, quantity, specification or standard, tolerance or grade, delivery, source location.

02 Separate fact from inference

Instruct the tool to mark anything it inferred, and to list Not stated where information is absent.

03 Reconcile

The estimator checks the table against the source, especially quantities, units, materials and finishes.

04 Produce the clarification list

Turn gaps and conflicts into questions, then edit tone and content before anything goes to the customer.

REQUEST TEMPLATE: SPEC EXTRACTION

Extract every line item from the text below into a table with columns: item, quantity and unit, material or grade, standard referenced, finish or treatment, delivery requirement, source page. Write Not stated for missing fields. Do not convert units or fill gaps. After the table, list conflicts between sections.

The commonest failure is a quietly dropped line in a long schedule. Count rows against the source, and spot-check the lines with the largest value. Do not rely on a statement from the tool that it found everything.

Customer communication around the quote deserves the same discipline. Use AI to tidy clarification emails, to translate technical points into plain language and to draft polite follow-ups after the validity date approaches. A person decides what is said about price, delivery, risk and negotiating position, and sends the message from a normal channel. Keep a record of what the customer was told, because it often matters when a project later disputes scope.

REQUEST TEMPLATE: CLARIFICATION EMAIL

Draft a short, courteous email to a customer from the list of open questions below. Group questions by topic, number them, explain in one line why each matters for the price, and ask for answers by a stated date. Do not mention our costs or margins. Questions: [paste]

WORKING QUESTION

What was the last RFQ where a missing or misread line item cost you margin?


TASK PLAYBOOKS: COSTING, DRAFTING AND APPROVAL

Costing support, quote drafting,
assumptions and approvals

05



AI helps structure and write. Prices, risk allowances and exclusions are set by people with the authority to carry them.

Playbook 3: Costing support

Use AI to build the skeleton of the cost estimate, such as work packages, material lists and the questions suppliers need to answer, and to compare the new job with similar past jobs you provide. Do not ask it to produce rates or to estimate prices from general knowledge. Its figures will be unsupported. Keep quantities, rates and risk allowances in your own costing tool, and use AI to check arithmetic consistency and to notice items that look absent compared with similar jobs.


REQUEST TEMPLATE: COST STRUCTURE CHECK

Here is a cost breakdown for a new job and the breakdown for two similar past jobs, with rates replaced by labels. List cost elements present in the past jobs but absent in the new one, ask questions about any element whose quantity differs by more than the scope explains, and check that subtotals add up. Do not suggest prices.


Playbook 4: Quote drafting
01 Build a fact sheet

List the verified scope, quantities, price, lead time, validity and terms you intend to offer.

02 Draft from facts and house wording

Provide your standard sections and ask for the narrative to be written only from the fact sheet.

03 Check against the fact sheet

Confirm every number, date and commitment. Delete any sentence that promises something not in the facts.

04 Issue through your system

Copy into the controlled template, apply approvals, and send from your own channel.

Playbook 5: Assumptions and exclusions

Clear assumptions and exclusions prevent disputes later. Ask the tool to propose them from the scope and from the wording in past quotes, then have the commercial lead decide each one. Check with legal or contract specialists on how your terms should be worded; AI drafts are not legal advice.

REQUEST TEMPLATE: ASSUMPTIONS

From the scope below, list assumptions we are making and items that are not included, in plain language. For each, state what would change if the assumption is wrong. Mark any that depend on information the customer has not provided.
Scope: [paste]

Approval thresholds

QUOTE CONDITION	WHO APPROVES	AI ROLE
Below standard value, standard terms	Estimator and peer check	Draft and checks
Above set value or non-standard terms	Commercial manager	Prepare approval summary
Penalties, uncapped liability, performance guarantees	Director and legal review	Highlight clauses only
New customer, product or region	Bid review meeting	Brief preparation

WORKING QUESTION

Which quotes last quarter went out with an assumption nobody explicitly approved?



VERIFICATION

Verification and review habits

06



A quote check must catch the errors that cost money: wrong numbers, wrong scope and promises nobody agreed to.

Build a pre-issue checklist that is the same for every quote, whether or not AI was used. Add a short set of AI-specific checks on top. The aim is that anyone reviewing can see quickly what was drafted by a tool, what was verified and what was decided by whom.

Before a quote is issued

- Every price, quantity, date and unit matches the costing and the source document.
- Scope statements are traceable to the RFQ or to an agreed clarification.
- Assumptions and exclusions have been reviewed by the commercial owner.
- No sentence promises performance, delivery or compliance beyond what has been confirmed.
- Customer-confidential or internal cost data was not exposed to an unapproved tool.
- Approval is recorded at the correct threshold.



Common failure modes

- A fluent paragraph that adds a capability or warranty you never agreed to.
- Specification tables that drop or merge lines in long schedules.
- Numbers that shift slightly between the table and the narrative.
- Copying wording from an old quote that carries obsolete terms or the wrong customer's name.



- Overconfident tone that sounds like a guarantee.

READ IT AS THE CUSTOMER

Before issue, ask a colleague to read the quote cold and list what they believe they are being promised. Any difference from your intent is a defect.

WORKING QUESTION

If a customer quoted one sentence from your proposal back to you, would you be glad to honor it?

MEASURING

Measuring time saved and quality,
and learning from win/loss

07

Track turnaround, accuracy and win learning, so the gains are visible and the risks are caught early.

Record a baseline from the last ten to twenty quotes you can reconstruct: hours from RFQ to issue, number of clarification rounds, post-issue corrections and outcome. Then run AI-assisted quotes on one product line for a defined period and compare. Include time spent checking; a drafting step that saves an hour but adds forty minutes of review saves twenty.

METRIC	HOW TO CAPTURE	WHAT TO WATCH
Hours from RFQ to issue	Quoting system timestamps or estimator log	Fall without quality loss
Clarification rounds	Count per quote	Better first-round questions
Post-issue corrections	Log amendments and credit notes tied to quote errors	Should not rise
Missed line items	Sample check against source	Extraction reliability

METRIC	HOW TO CAPTURE	WHAT TO WATCH
Hit rate	Wins divided by quotes, by segment	Slow-moving; do not over-read small samples
Margin variance	Quoted versus delivered margin	Reveals scope and assumption gaps



Win/loss learning

01 Record outcomes consistently

Capture result, reason given, competitor if known, price position and any scope disputes in a fixed form.

02 Summarize quarterly

Give anonymized records to an assistant and ask for themes, such as lost on lead time or won where assumptions were clearest.



03 Test the themes

A sales lead checks each theme against what they know. Small samples mislead, so treat patterns as hypotheses.

04 Change one thing

Adjust a template, a question list or a threshold, and watch the metric.

ILLUSTRATIVE NUMBERS

A team that cuts average drafting time from 5 hours to 3 but sees amendments rise from 1 in 20 quotes to 1 in 8 has not improved. These figures are illustrative; the point is to track both.



WORKING QUESTION

Do you know your current rate of post-issue quote corrections, or only your hit rate?



TEAM ROUTINES

Team routines and sharing what works

08

A shared library and a weekly habit turn individual tricks into team capability.

Estimators develop personal shortcuts, and the best ones rarely spread. Create a small shared library: one entry for each task, with the request template, required inputs, the check to run and an example of a good result. Add a note of what went wrong the last time. Review it briefly at a regular meeting so it stays alive.

- Keep a library of house wording for scope, assumptions and exclusions that AI drafts are allowed to draw on.
- Hold a fifteen-minute weekly huddle: one quote where AI helped, one where it misled.
- Pair new estimators with an experienced reviewer for their first AI-assisted quotes.
- Tag AI-assisted quotes in your system so outcomes can be compared later.
- Agree who can change templates, and keep a version history.

DO NOT TRAIN PEOPLE TO HURRY

Faster drafting must not become pressure to skip review. Set turnaround targets that include the check, and say so openly.

Customer communication deserves the same care. Use AI to tidy and structure emails and to draft responses to common questions, but a person decides what is said about price, delivery and risk, and sends it.

WORKING QUESTION

Who owns your quote template library today, and when was it last updated?

PITFALLS

Pitfalls and a worked scenario

09



The expensive mistakes come from unchecked scope, unapproved promises and invisible assumptions.

- Letting a draft carry a guarantee nobody approved.
- Pricing from AI-suggested figures rather than from your own rates and supplier quotes.
- Skipping clarification because the tool produced a neat summary.
- Using old-quote wording that includes obsolete terms.
- Measuring speed only, and missing the rise in amendments.
- Exposing customer or cost data to unapproved tools.



ILLUSTRATIVE SCENARIO (HYPOTHETICAL)

An estimator uses an assistant to draft a proposal for a fabricated frame. The draft says all welds will be inspected to the customer standard, a phrase lifted from a template. The RFQ asked for visual inspection only, and the price did not include extra inspection. A reviewer, reading the quote cold, spots the sentence and removes it. The control that worked was a cold read against the fact sheet.



The scenario is invented, but the mechanism is real: fluent text carries commitments. Make the fact sheet the single source of what is promised and require that every sentence be traceable to it.

Halden & Company offers free assessments at halden.company/assessments to help teams find where AI can safely support commercial work, and you can contact us at halden.company/contact. Check contract and legal wording with qualified advisers.



WORKING QUESTION

What single sentence in your standard quote could create a commitment you did not mean to make?

30 / 60 / 90

A first quarter that produces evidence

10

Pilot on one product line, keep price and risk decisions human, and measure corrections as well as speed.

First 30 days: ground it

- Map your quotation stages and mark green, amber and red tasks.
- Write information rules covering customer documents, cost rates and margins.
- Collect a baseline from 10 to 20 recent quotes: hours, clarification rounds, corrections.
- Draft the RFQ triage and spec extraction templates.

Days 31 to 60: test it

- Run a pilot on one product line with the pre-issue checklist.
- Add assumptions and exclusions drafting and the approval summary template.
- Hold weekly huddles and log wins and misses.
- Write down approval thresholds and confirm who holds each.

Days 61 to 90: decide

- Compare pilot and baseline on turnaround, corrections and margin variance.
- Run the first win/loss summary on anonymized outcomes.
- Decide where to extend, adjust or stop.
- Publish the template library with a named owner and review date.

GLOSSARY

Terms used in this publication

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TERM	MEANING
RFQ	Request for quotation: a customer's invitation to price a defined need.
Scope of work	The defined deliverables, activities and boundaries covered by a quote.
Assumption	A condition taken as true when pricing, which changes cost or risk if wrong.
Exclusion	An item explicitly stated as not included in the quoted price.
Fact sheet	A verified list of the scope, price and terms from which a quote narrative is drafted.
Approval threshold	A defined value or risk level above which a higher authority must approve a quote.
Clarification round	An exchange of questions and answers with the customer to resolve gaps before pricing.
Margin variance	The difference between margin quoted and margin actually delivered.
Win/loss review	A structured look at why bids were won or lost, used to improve future quotes.
Hallucination	A fluent but false or unsupported output from an AI system.
Request template	A tested, reusable prompt with defined inputs and a matching check.
Redaction	Removing or masking confidential details before text is shared with a tool.

A note on use

General guidance only. It is not legal, contractual or financial advice. Have qualified advisers review terms, liability and pricing policy.



TAKE THE NEXT STEP

Take the free Halden assessment at halden.company/assessments, or talk to us at halden.company/contact about turning this into a plan for your organization.

