AI Cost Monitoring Tracker

Track every token, user and workflow in one sheet, then use the numbers to cut your GenAI spend without losing quality

Why You Need an AI Cost Tracker

Most teams only notice AI costs when the monthly invoice arrives. By then, the expensive workflow has been running for weeks. A prompt that grew from 800 to 2,500 tokens, a chatbot that started answering in essays, or a classification job quietly running on an advanced model can each double a bill without anyone noticing.

This tracker fixes that. It turns raw usage numbers into a clear picture of where money goes, which workflows are getting more expensive, and whether your optimization work is actually paying off. It is built for:

- **GenAI developers** who want to see the cost impact of prompt and model changes
- **Team leads and product owners** who own an AI budget and need early warnings
- **Finance and operations teams** who need cost per user, per team or per application
- **Anyone running a pilot** who must prove ROI before scaling

How the tracker is organised

The workbook has 7 tabs that follow one flow: set up prices → log usage → review the dashboard → act on alerts → optimize → measure savings.

Blue cells are inputs you fill in. **Grey cells** contain formulas and should not be edited.

Tab	Purpose	How often you use it
1. Start Here	Instructions and colour legend	Once, at setup
2. Model Pricing	Price list for every model you use	When prices or models change
3. Usage Log	Raw usage data and cost formulas	Daily or weekly
4. Dashboard	KPIs, charts and top-cost workflows	Weekly review
5. Alerts & Limits	Thresholds that flag problems early	Weekly review

6. Optimization Checklist	Track the 7 cost-saving techniques	Monthly
7. Savings Tracker	Before vs after comparison	After each optimization

Tab 1: Start Here

The first tab is the user manual for the workbook. Anyone who opens the file, even someone who never read this guide, should understand what to do in under two minutes.

What this tab contains

- **Title and purpose:** one line that explains the goal, for example "Track token spend, find costly workflows, prove your savings."
- **Five setup steps:** the order in which to fill in the workbook.
- **Colour legend:** which cells are inputs and which are formulas.
- **Owner and last-updated date:** so everyone knows who maintains the sheet.

The five setup steps

1. **Enter model prices** in the Model Pricing tab, using your provider's current pricing page.
2. **Log usage** in the Usage Log tab, daily for high-volume apps or weekly for smaller ones.
3. **Review the Dashboard** to see total spend, top workflows and trends.
4. **Work through the Optimization Checklist** to apply the cost-saving techniques.
5. **Compare results** in the Savings Tracker to confirm the savings are real.

> **Example**
>
> A support team of five shares the tracker. The Start Here tab lists "Owner: Priya (AI Ops)" and "Last updated: every Monday." New team members read this tab first and know exactly where to log data and who to ask.

Tab 2: Model Pricing

Every cost formula in the workbook looks up prices from this tab. Keeping prices in one place means that when a provider changes its rates, you update a single row and every calculation updates automatically.

Columns

Column	What to enter	Example
Provider	The AI vendor	Provider A
Model Name	Exact model name as used in your app	model-small-v2
Model Tier	Small / Mid / Advanced (dropdown)	Small
Input Price (per 1M tokens)	Price for prompt tokens	$0.50
Output Price (per 1M tokens)	Price for generated tokens	$1.50
Cached Input Price (per 1M)	Discounted price for cached prompt tokens, if offered	$0.05

Best Used For	Tasks this model handles well	Classification, tagging

Example price list

The prices below are placeholders to show how the tab works. They are not real vendor prices. Always copy current rates from your provider's pricing page.

Model	Tier	Input / 1M	Output / 1M	Best used for
model-small-v2	Small	$0.50	$1.50	Classification, routing
model-mid-v3	Mid	$3.00	$15.00	Summaries, support replies
model-pro-v1	Advanced	$15.00	$75.00	Complex reasoning, analysis

> **Tip: watch the output price**

> Output tokens usually cost several times more than input tokens. In the example above, the mid-tier model charges 5× more for output. That is why controlling response length (Technique #5 in the blog) often saves more money than shortening prompts.

> **Tip: use the Model Tier column**
>
> The Tier column powers the "advanced model used for a simple task" alert in Tab 5. Tag every model honestly, even if your team likes using the advanced one.

Tab 3: Usage Log

This is the engine of the tracker. Each row records one workflow's usage for one day (or one week). You enter a few numbers from your provider dashboard or application logs, and the grey formula columns calculate tokens, costs and efficiency metrics.

Input columns (blue)

- **Date:** the day or week the usage covers.
- **Application / Workflow:** dropdown list such as Support Bot, Report Generator, RAG Search or Email Drafts.
- **Team / User:** who owns or triggers the workflow, for cost-per-team reporting.
- **Model Used:** dropdown linked to the Model Pricing tab.
- **Requests:** number of model calls in the period.
- **Avg Input Tokens and Avg Output Tokens per request:** from your API logs or provider usage export.
- **Cached Requests:** how many requests were served from a cache.
- **Successful Tasks:** requests that achieved their goal, for example a ticket resolved without escalation.

Formula columns (grey)

The formulas below assume Requests is in column E, Avg Input in F, Avg Output in G, Cached Requests in H, Successful Tasks in I, and that the Model

Pricing tab holds model names in column B with input price in D and output price in E.

Column	Excel / Google Sheets formula
Total Input Tokens (J)	=E2*F2
Total Output Tokens (K)	=E2*G2
Input Cost (L)	=J2/1000000*VLOOKUP(D2,'Model Pricing'!B:E,3,FALSE)
Output Cost (M)	=K2/1000000*VLOOKUP(D2,'Model Pricing'!B:E,4,FALSE)
Total Cost (N)	=L2+M2
Cost per Request (O)	=IFERROR(N2/E2,0)
Cost per Successful Task (P)	=IFERROR(N2/I2,0)
Cache Hit Rate (Q)	=IFERROR(H2/E2,0)

Worked example

Your Support Bot handled 2,000 requests on Monday using model-mid-v3 (placeholder prices of $3 input and $15 output per 1M tokens). Each request averaged 1,500 input tokens and 400 output tokens. 600 requests were served from cache, and 1,800 tickets were resolved.

Metric	Calculation	Result
Total input tokens	2,000 × 1,500	3,000,000
Total output tokens	2,000 × 400	800,000
Input cost	3,000,000 ÷ 1M × $3	$9.00
Output cost	800,000 ÷ 1M × $15	$12.00
Total cost	$9.00 + $12.00	**$21.00**
Cost per request	$21.00 ÷ 2,000	$0.0105
Cost per successful task	$21.00 ÷ 1,800	$0.0117
Cache hit rate	600 ÷ 2,000	30%

What this example tells you

Output tokens made up only 21% of the tokens but 57% of the cost. Trimming the average answer from 400 to 250 tokens would save about $4.50 a day on this one workflow, which adds up to roughly $1,600 a year.

Why "cost per successful task" matters most

A cheaper model that resolves fewer tickets can look like a saving but cost more per solved problem. If a small model costs $0.004 per request but resolves only 60% of tickets, its cost per successful task is $0.0067, plus the cost of human escalations. Always compare models on this metric, not price alone.

Tab 4: Dashboard

The Dashboard turns hundreds of log rows into a one-screen summary. It needs no input except your monthly budget. Everything else updates from the Usage Log.

KPI tiles

KPI	What it shows	What to look for
Total Monthly Cost	Sum of Total Cost for the month	Trend vs last month and vs budget
Total Tokens	Input + output tokens processed	Growth faster than user growth
Avg Cost per Request	Total cost ÷ total requests	Sudden jumps after a release
Avg Cost per Successful Task	Total cost ÷ successful tasks	Your true efficiency metric
Cache Hit Rate	Cached ÷ total requests	Low rates on FAQ-style workflows
Output-to-Input Ratio	Output tokens ÷ input tokens	High ratios mean long answers

Charts

- **Cost by Workflow (bar):** shows which applications use most of the budget. In most teams, one or two workflows account for over half the spend.
- **Cost by Model (bar):** shows whether expensive models are being used more than they need to be.
- **Daily Cost Trend (line):** shows spikes linked to releases, campaigns or bugs such as retry loops.
- **Input vs Output Token Share:** shows whether prompts or responses are driving the bill.

Top 5 Most Expensive Workflows

A ranked table built with a SORT or LARGE formula on monthly cost by workflow. It tells you where to start optimizing. Fixing the top workflow by 30% usually saves more than fixing the bottom three by 100%.

Budget status

Enter your monthly budget once. The dashboard then shows spend to date, % of budget used and a coloured status cell: green under 70%, amber between 70% and 90%, red above 90%.

Example: reading the dashboard

Halfway through the month, the dashboard shows $310 spent against a $500 budget (62%, green). But the Cost by Workflow chart shows Report Generator at $140, more than the Support Bot even though it serves 10× fewer users. Its Output-to-Input Ratio is 2.8, so reports are far longer than they need to be. That becomes this month's optimization target.

Tab 5: Alerts & Limits

Dashboards only help if someone looks at them. The Alerts tab makes problems obvious by comparing current numbers with thresholds you set, and colouring each rule green, amber or red with conditional formatting.

Alert rule	Example threshold	Why it matters
Monthly spend vs budget	Amber at 80%, red at 95%	Prevents end-of-month surprises

Cost per request spike	+25% vs last week	Catches prompt bloat or a model change
Avg input tokens above target	1,500 tokens	Flags oversized prompts or RAG context
Avg output tokens above target	500 tokens	Flags overly long responses
Cache hit rate below target	Below 30%	Caching may be broken or misconfigured
Advanced model on simple tasks	Any Small-tier task on an Advanced model	Catches missing model routing

How to set thresholds

- Start with your current averages and set the threshold 20–25% above them.
- Tighten thresholds after each optimization so improvements are protected.

- Set different token targets per workflow if they vary a lot, for example 300 output tokens for the chatbot and 1,200 for reports.

> **Example scenario**
>
> On Thursday the Cost per Request alert turns red: +41% vs last week. The team checks the Usage Log and sees average input tokens on RAG Search jumped from 1,100 to 2,300. A config change had raised the number of retrieved documents from 4 to 10. Reverting it brings costs back down the same day, instead of after the monthly invoice.

Tab 6: Optimization Checklist

This tab connects the numbers to action. It lists the seven cost-saving techniques from the blog, with columns for Status (Not started / In progress / Done), Owner, Target Date and Notes. A progress bar at the top shows % complete.

#	Technique	What "Done" looks like

1	Prompts trimmed of repeated instructions	Each prompt states task, inputs, format and limits, with no duplicated instructions
2	Model routing by task complexity	Simple tasks go to small models, complex ones to advanced models, tested on quality
3	Prompt caching for static context	System prompts and policy text are cached where the provider supports it
4	RAG retrieval limited to relevant chunks	Only top relevant sections are sent, with duplicates removed
5	Response length limits and formats	Short answers by default, detail on request, JSON for machine outputs
6	Semantic caching with safeguards	Similar FAQs reuse answers; personal or sensitive queries never hit shared cache
7	Weekly monitoring and alerts	Tracker reviewed every week, alerts acted on and owners assigned

How to use the checklist with your data

- **Link each item to a metric.** Technique 1 should lower Avg Input Tokens. Technique 5 should lower the Output-to-Input Ratio. Technique 6 should raise the Cache Hit Rate.
- **Change one thing at a time.** If you apply three changes in one week, you will not know which one saved money or which one hurt quality.
- **Record the date of each change** in the Notes column so you can match it to the Daily Cost Trend chart.

Example

The team marks “Response length limits” as Done on 10 March after adding “Answer in under 120 words unless the user asks for detail” to the Support Bot prompt. Over the next week, average output tokens fall from 400 to 210 and the resolution rate stays at 90%. The note reads: “10 Mar: length cap added. Output −48%, quality unchanged.”

Tab 7: Savings Tracker

The final tab proves the value of your work. It compares a baseline period (before optimization) with a later period (after) and calculates the change for each metric. This is the tab you show your manager or finance team.

Example: the blog's optimization scenario

The figures below use the hypothetical example from the blog: 10,000 monthly requests, with average tokens per request falling from 2,000 to 1,200. Cost assumes an illustrative blended rate of $5 per 1M tokens.

Metric	Before	After	Change	% Change
Avg tokens per request	2,000	1,200	−800	−40%
Monthly requests	10,000	10,000	0	0%
Monthly token usage	20 million	12 million	−8 million	−40%
Monthly cost (illustrative)	$100	$60	−$40	−40%
Cost per successful task	$0.0111	$0.0067	−$0.0044	−40%
Quality score (your evaluation)	4.3 / 5	4.3 / 5	0	0%

Hypothetical figures for explanation, not measured industry results. Cost per successful task assumes 9,000 successful tasks in both periods.

Why the quality score row is essential

Cutting tokens is easy. Cutting tokens without making answers worse is the real goal. Before and after each change, run the same set of test questions and score the answers on accuracy, completeness and tone. If the quality score drops, the saving is not real, because you will pay for it in escalations, rework or lost users.

Use 20–50 representative test questions per workflow, score them on a simple 1–5 rubric (or use resolution rate for support bots), and only mark an optimization as successful if quality holds or improves.

> **Turning savings into a business case**
>
> A 40% saving on a $100 pilot is $40 a month. The same change on a production workload of 500,000 requests a month is $2,000 a month, or $24,000 a year. Use the Savings Tracker to project results at scale before asking for budget to roll out further.

Your 15-Minute Weekly Routine

AI cost optimization is not a one-time project. Usage grows, prompts drift and new models arrive, so review the tracker every week:

1. **Update the Usage Log** (5 min): paste or enter last week's numbers from your provider dashboard.
2. **Check the Alerts tab** (2 min): investigate anything amber or red.
3. **Scan the Dashboard** (3 min): note the top workflow and any trend changes.
4. **Pick one action** (3 min): choose one checklist item and assign an owner.
5. **Log results** (2 min): update the Savings Tracker for any change made last week.

NEXT STEP

Build GenAI applications that are powerful and cost-efficient

Tracking costs is the first step. Designing efficient prompts, choosing the right models, building RAG pipelines and managing AI workflows responsibly is what turns savings into a skill.

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