C Causa

Ask why a number moved.
Get an answer you can check.

Four agents investigate revenue changes across your ERP and CRM, and cite the SQL behind every claim.

Zetaris · Meterless H-MEM · Nightshift · NVIDIA Nemotron

Open Agent Hackathon 2026 · Track 2

THE PROBLEM

“Why did this number move?” costs a day

35%

of FP&A time goes on insights. The rest is mostly collecting and validating data.

FP&A Trends Survey 2024 · 2,400+ finance practitioners

2 systems

hold the answer. The ERP knows *what* moved. The CRM knows *why*: the lost tender, the new discount, the contract won.

WHO ASKS, AND WHAT IT TAKES TODAY

- **FP&A analysts, sales and revenue ops**, before the monthly review
- Pull orders, slice by segment, product and customer, and spot the slice that moved
- Search the CRM for what happened to those accounts
- Write it up, and hope nobody asks **"how do you know?"**

Dashboards show *what* changed. The *why* is a day of manual work, or a guess.

THE SOLUTION

A question in. A cited answer out.

QUESTION

Why did revenue in Germany drop in Q3 1996 compared with Q3 1995?

CAUSA'S ANSWER, FROM A REAL RUN

Revenue fell **15.1% ($3.73M)** Q1, almost all lost volume in the **Automobile** segment Q4. Three accounts went to zero Q3. The CRM shows they **lost their annual fleet-parts tender to a cheaper competitor on 28 June**, after escalating late deliveries in March Q6.

confidence 95% · 9 queries on Zetaris · 2 revisions · Nemotron

ANSWER

Germany's revenue fell 15.1% ($3.73M) from $24.70M to $20.97M in Q3 1996 versus Q3 1995, driven by the loss of three major automobile fleet-parts customers (Customer#000001502, #000001501, #000001503) that together lost $5.19M (139% of the total change) after losing their annual tenders to a lower-cost competitor in June 1996 Q1 Q3 Q6.

What drove it

The AUTOMOBILE segment dropped $5.56M (149% of the total change) Q4. Within it, three accounts went to zero: Customer#000001502 (-$1.92M, 51%), Customer#000001501 (-$1.85M, 50%), Customer#000001503 (-$1.42M, 38%) Q3 Q7. These three alone account for $5.19M of lost revenue (139% of the net change).

Why: what the CRM says

CRM records show all three customers had a "contract_ended" event on 1996-06-28, each noting loss of the annual fleet-parts tender to a lower-cost competitor, with final deliveries ending June and no orders expected from July Q6. Earlier, in March 1996, each had escalated complaints about repeated late deliveries, prompting supplier reviews Q6.

Price or volume

The decline was volume-driven: units sold fell from 23,613 to 20,088 (-3,525 units) while revenue per unit was nearly flat ($1,045.97 to $1,044.02). Volume effect -$3.69M versus price effect -$39.2K Q1.

HOW IT WORKS

Four agents, and the critic has a veto

01 · PLANNER

Plan

Recalls past findings from H-MEM. Sets the periods and focus. Ranks hypotheses: what explained earlier changes goes first.

02 · ANALYST

Test

SQL in Zetaris: totals and a price/volume split, a company baseline, breakdowns scored against the trend, a drill-down, CRM events.

03 · CRITIC

Challenge

Recomputes every figure from its query. 8 checks plus a Nemotron challenge. Sends the Analyst back with new queries, or approves.

04 · REPORTER

Answer

A cited answer with a confidence score and its reasons. Stores what explained the change in H-MEM.

LOOP

Critic ⇄ Analyst, up to 2 revisions with new SQL. Invalid model JSON retries; an unreachable model falls back to computed claims.

GUARDRAILS

The report may only quote figures from approved claims and their queries. No CRM cause? Confidence drops, and the report says why.

EVIDENCE

A JSONL trace of every step, handoff, query and model call. The UI streams it live, and every [Qn] opens its SQL and rows.

STACK

Where Zetaris, Meterless and NVIDIA do the work

Zetaris
DATA LAYER

ERP and CRM Postgres databases registered as `causa_erp` and `causa_crm` by one SQL script. Every query goes to `POST /sql-editor/sqls/run`. The CRM step joins account events to ERP customers **in one federated query**.

H-MEM
METERLESS ENGINE

Investigation memory. Findings are stored with `driver:` and `weak:` tags. The next plan recalls them and reorders its hypotheses, and Helpful/Wrong feedback updates the trust ledger. Conformance 13/13, plus feature tests.

Nightshift
AI PROVIDER

The only model endpoint: `/v1/chat/completions` with `meterless-app: causa` and `meterless-scope: user`. The token is read from the runtime itself.

Nemotron
NVIDIA MODELS

3.5 Lightning 30B-A3B plans, drafts and critiques. **3 Ultra 550B-A55B** writes the report. Every trace event records the model that answered.

Node.js 22 · TypeScript · no framework · web UI + POST /run + CLI

SAMPLE_MODE runs with no services

EVIDENCE

Real runs on Zetaris and Nemotron

QUESTION	WHAT CAUSA FOUND	CONFIDENCE	QUERIES
Germany, Q3 1996 vs Q3 1995	−15.1%: three Automobile accounts lost a fleet-parts tender to a cheaper competitor (CRM, 28 June)	95%	9
France, Q1 1997 vs Q1 1996	Revenue per unit −9% after a winter volume-discount programme; more units, less revenue each (CRM: price renegotiated)	85%	11
United States, 1997 vs 1996	+6.5%: two Machinery customers won in December 1996 added $15.6M while the rest of the business slipped	95%	8
Japan, Q2 1996 (control)	−16.1% across many accounts, with no contract, tender or pricing event in the CRM, so the cause is reported as not established	70%	10

9 passing tests: totals equal independent SQL · different questions, different answers · H-MEM recall changes the plan

WHAT'S DIFFERENT

Built to be checked, not just believed

1

Every number survives a recount

The Critic re-derives each figure from its cited query and blocks the answer until it matches. The Reporter can't introduce a new number.

2

What and why, from two systems

Zetaris federation takes the agent from an ERP revenue drop to the CRM events of the same accounts in one query.

3

It learns how to investigate

H-MEM turns each answer into a prior for the next plan. User feedback raises or lowers how much it trusts that prior.

4

Honest when it doesn’t know

No CRM evidence behind a driver? The confidence drops and the report says the cause is not established, instead of inventing a story.

WHAT'S NEXT

From revenue to every number in the review

- **More metrics:** margin, churn, pipeline, inventory, as SQL templates the planner can choose
- **Real sources:** SAP, Salesforce and HubSpot through Zetaris connectors, with no copies
- **Faster:** a local Nemotron lane for the critic, and parallel breakdown queries
- **Scheduled:** investigate every material variance before the monthly review starts

C Causa

Ask why a number moved. Get an answer you can check.

`github.com/ParasAdlakha/causa`