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FabCon Barcelona 2026: what we had, what shipped, what's still missing



dr Estera Kot

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Friday, October 23, 2026

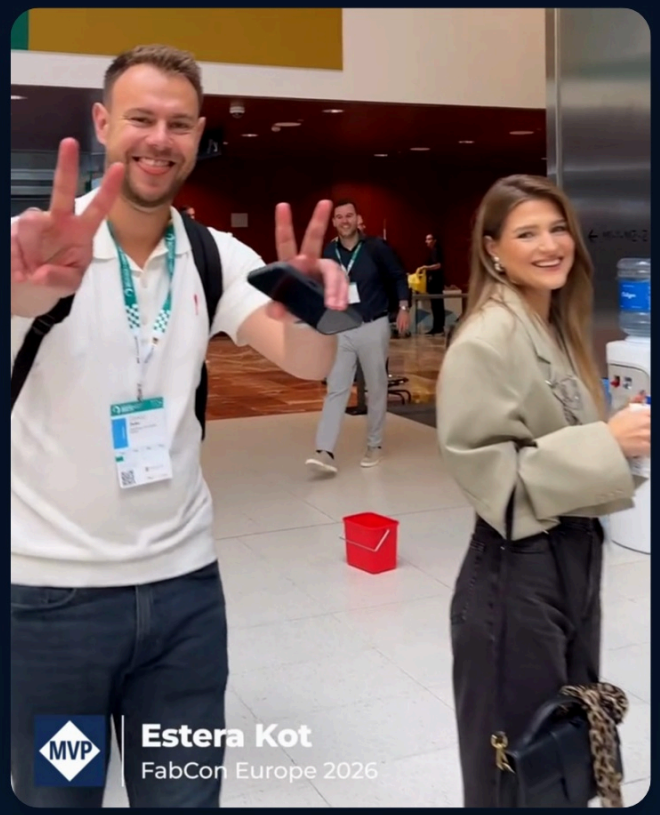
Online session

[TBC event name and start time]

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FABCON EUROPE 2026 · BARCELONA

Straight from the keynote. Four of these topics get their own slides today.





Keynote opening, 8:47 a.m.



Main hall, 9:57 a.m.



Microsoft IQ · slide 10



Database Hub in Fabric · slide 14



Microsoft acquires Osmos · slide 13



On-Demand Billing and F0 · slide 20

The third European FabCon and the first SQLCon. Arun Ulag, who leads Azure Data at Microsoft, opened the keynote.

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FABCON EUROPE 2026

One question for seven people at Microsoft: you're a data engineer who has never used AI. What now?

> “What [matters] even today in the AI world is the experience you bring with you. AI can do the code, but it cannot build the ecosystem you want for your customers.”
>
> Ajith Shetty, Fabric Spark Engineering

> “I would use them as an assistant, not as a replacement for me to do the critical thinking.”
>
> Amanjeet Singh, Fabric Customer Advisory Team



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Fabric has become a platform for agents.
Have our settings kept up?

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Four questions and four labels: GA, PREVIEW, ROADMAP, TBC.

01
What we had
Fabric before Barcelona

02
What shipped
New features labeled GA or preview

03
What's still missing
The roadmap, no spin

04
What it means for us
Where to start

WHAT THE LABELS MEAN

GA generally available

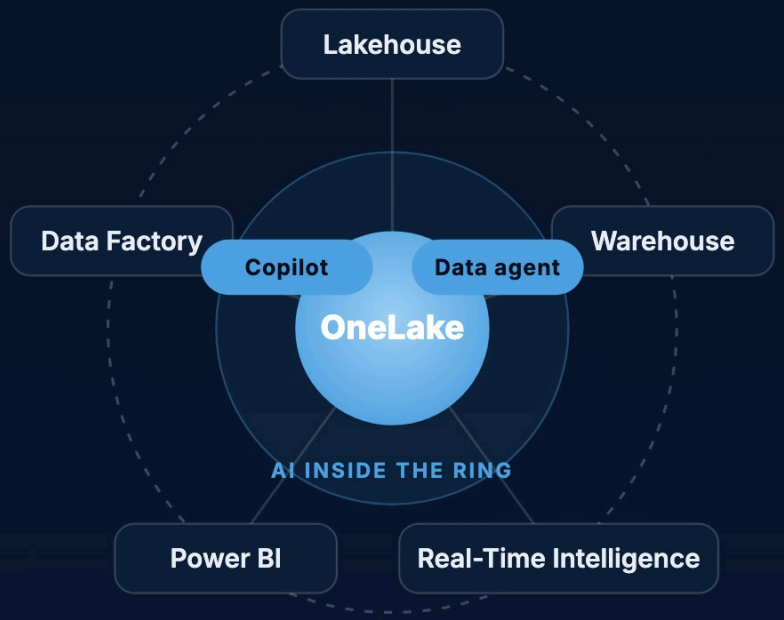
PREVIEW public preview

ROADMAP announced, no date

TBC status to be confirmed

PART 1 · WHAT WE HAD

Before Barcelona, Copilot and the data agent worked inside Fabric. The answer never left the platform.



1. **OneLake in the center.** The workloads sit around it: Lakehouse, Warehouse, Real-Time Intelligence, Power BI, Data Factory.

2. **Copilot and the data agent lived inside the ring.** We asked in Fabric, and the answer stayed in Fabric.

PART 1 · WHAT WE HAD

After Barcelona, Fabric also answers questions from outside the platform: from Copilot Chat, MCP clients, and Foundry.

BEFORE

We ask Copilot in a Power BI report

- The answer stays in Fabric.
- The data goes to a person looking at the report.

AFTER

Agents query Fabric from the outside

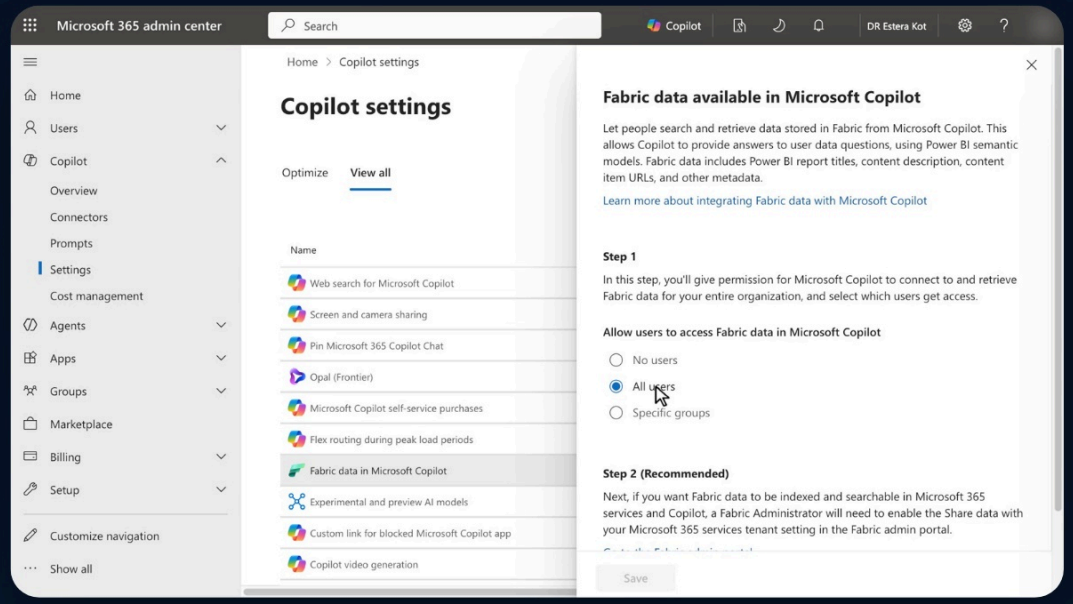
- Questions come from Microsoft 365 Copilot Chat, MCP clients, and Foundry.
- The main consumer of the data is now an agent.

Fabric is no longer just the place where we ask questions. It is now a source agents pull answers from.

PART 1 · WHAT WE HAD

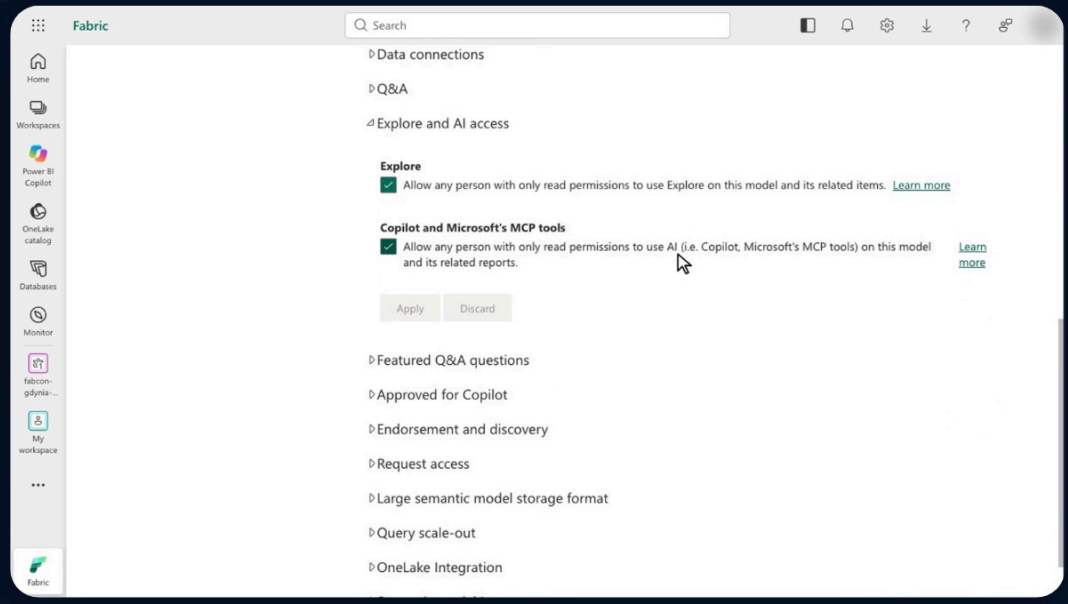
Two settings are on by default in every tenant. Who here has checked them?

GA Microsoft 365 Copilot access to Power BI data



The “Fabric data in Microsoft Copilot” setting in the Microsoft 365 admin center, **on by default for everyone**.

GA The AI setting on a semantic model



Anyone with read-only access can use Copilot, Copilot Chat, Cowork, the data agent, and MCP tools. **On by default.**

> The setting doesn't carry over to chained models, the ones built on top of this model.

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PART 2 · WHAT SHIPPED

Barcelona opened three doors for data to leave Fabric and reach agents.

1

Microsoft 365 Copilot Chat and Cowork

A user asks in the chat, and Fabric IQ answers from a semantic model we control.

GA

2

MCP servers

An MCP client queries Fabric IQ. Core MCP creates workspaces and items on the user's behalf.

GA TBC

3

Copilot Studio and the OneLake Table Read API

A data agent works as a tool for another agent. An app reads Delta and Iceberg tables over REST, and OneLake security filters the result.

TBC PREVIEW

Each door enforces the user's permissions. The question is who set those permissions.

PART 2 · DOOR 1 OF 3

Door 1: Copilot Chat queries a semantic model through Fabric IQ on the user's behalf.

GA **Fabric IQ in Copilot Chat and Cowork**



We ask a business question in Copilot Chat, and the answer comes from a semantic model we control. **No extra charge for AI tokens.**

> **In practice:** queries from the chat still use our capacity. There's just no separate bill for tokens.

> Limit: the answer is only as good as the descriptions and synonyms in the model. The "code experience" version goes to the Frontier program first.

PART 2 · DOOR 2 OF 3

Door 2: Fabric IQ MCP only reads data. Core MCP can change your tenant: 15 of its 27 tools write changes.

GA **Fabric IQ MCP**

Fabric IQ MCP · fabriciq.svc.cloud.microsoft/v1/mcp/FabricIQ

```
# read-only server, the user's own permissions and RLS
$ python3 fabric_iq_mcp.py tools
6 tools, read-only server: ValueSearch, ResolveFabricItem, DiscoverArtifacts,
GetReportMetadata, ExecuteQuery, GetSemanticModelSchema
$ python3 fabric_iq_mcp.py discover "Oud RnD"
  Oud RnD        Semantic Model  fabcon-gdynia-demo   HighlyRelevant
$ python3 fabric_iq_mcp.py dax "Oud RnD" 'EVALUATE
SUMMARIZECOLUMNS(formulas[formula_name], "Preference %", [Avg first choice
%]) ORDER BY [Preference %] DESC'
  formula_name        Preference %
  Oud Saffron S-7     68.0
  Oud Rose            57.0
  Oud Daylight        53.0
  Oud Plantation      52.5
  Oud Amber           51.0
  Oud Classic         48.0
```

Reads. Six tools, all read-only: search, model schema, DAX query. The answer comes from the data and respects the user's permissions.

TBC **Core MCP**

Fabric Core MCP · api.fabric.microsoft.com/v1/mcp/core

```
# remote MCP server, token from Entra ID
$ python3 fabric_mcp.py init
FabricMCPServer 13.0.28519.813  protocol 2025-11-25
$ python3 fabric_mcp.py tools
27 tools: 12 read-only, 15 write
write: create_workspace, update_workspace, delete_workspace,
add_workspace_role, update_workspace_role, delete_workspace_role,
create_item, update_item, delete_item, update_item_definition,
bulk_move_items, create_folder, update_folder, delete_folder, move_folder
$ python3 fabric_mcp.py call list_workspaces
  My workspace         Personal
  prod                 Workspace
  fabcon-gdynia-demo   Workspace
  RequestId: aa71ca68-d4e5-4c4b-8259-2f5cdd1bc387
```

Changes. 27 tools, and 15 of them write changes to workspaces, items, and permissions. Sign-in uses OAuth 2.0 with Entra ID, and **Fabric logs supported operations in the audit log**.

> Learn: "Autonomous or misconfigured clients may perform destructive actions." Safeguards against destructive operations aren't standardized in MCP, and a client can process data outside Fabric's compliance boundaries.

PART 2 · DOOR 3 OF 3

Door 3: the data agent as a tool in Copilot Studio, and Delta tables read over REST.

TBC **Data agents in Copilot Studio**

NOT RECORDED

Data agent in Copilot Studio

Add the Fabric data agent as a tool · Ask one question · The answer shows a visualization

The demo tenant has no Copilot Studio license. Walkthrough on Learn: learn.microsoft.com/fabric/data-science/data-agent-microsoft-copilot-studio

A Fabric data agent works as a tool for an agent in Copilot Studio and shows a visualization in its answer.

> Keynote: GA. The Learn walkthrough still says preview on October 21, 2026. Topics in data agents are in preview too.

PREVIEW **OneLake Table Read API**

OneLake table read API (preview) · onelake.table.fabric.microsoft.com

```
# an app reads a Delta table over REST, no cluster, OneLake security applies
$ python3 table_read.py preference_trials
formula_id,panel_segment,n_testers,first_choice_pct
POST /read -> 1 stream(s), Apache Arrow, 7 rows, columns: formula_id,
panel_segment, n_testers, first_choice_pct
  OB-101            gulf              36              48.0
  OB-102            gulf              36              57.0
  OB-103            export            40              51.0
  OB-104            export            40              68.0
  OB-105            gulf              32              44.0
  OB-105            gulf              32              61.0
  OB-106            gulf              30              53.0
```

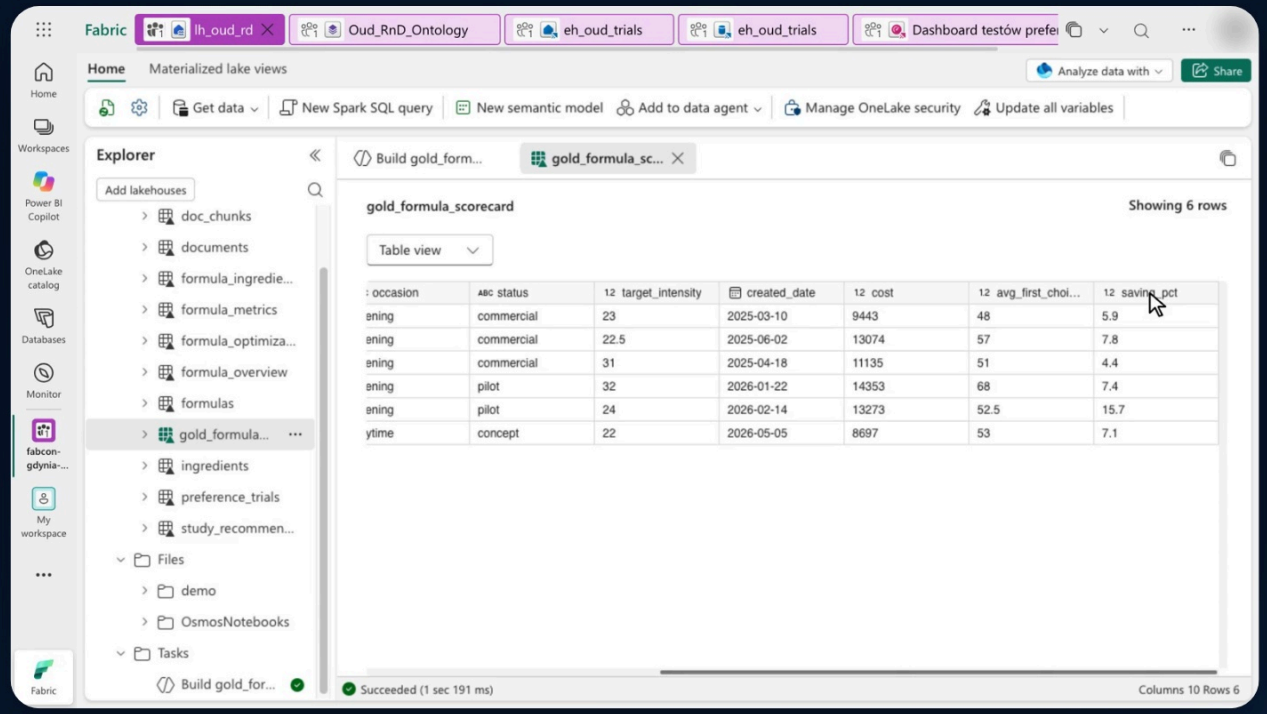
An app reads a Delta or Iceberg table over REST, and **OneLake security filters rows and columns on every request**.

> **In practice:** any app that sends an HTTP request with an Entra ID token can read the table. No Spark cluster, no SQL endpoint, no copy of the data. OneLake security permissions are the only guard.

PART 2 · WHAT SHIPPED

Osmos plans the task, runs it on SparkCore, and checks the result. OneLake permissions remain the boundary.

PREVIEW **Project Osmos**



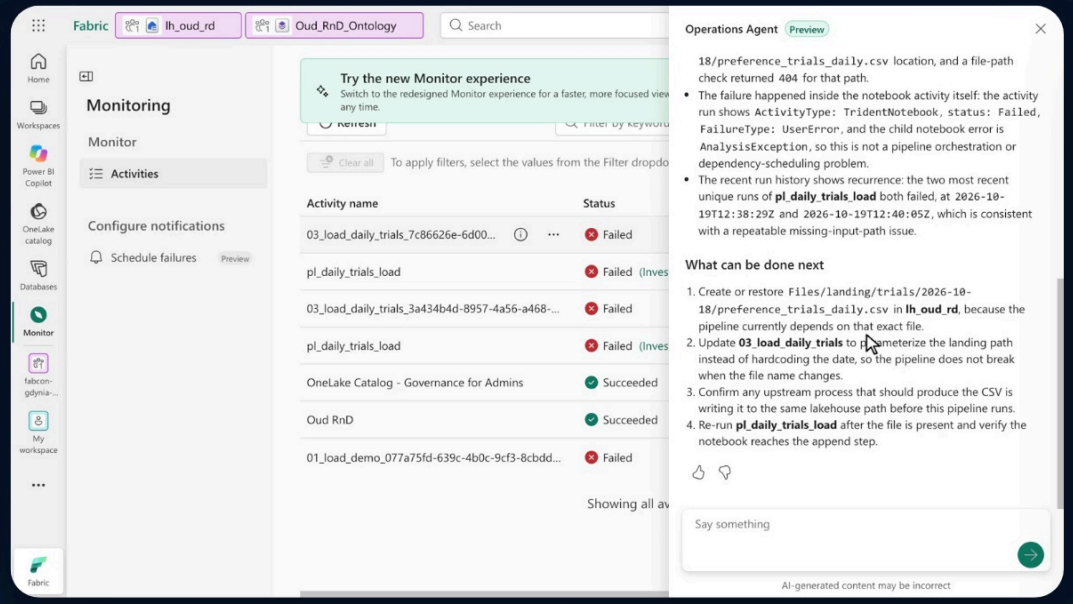
The agent plans, runs, and validates a data engineering task in Fabric on SparkCore. We start it from GitHub Copilot CLI, Claude Code, or Codex. **Tasks persist, so we can come back to them.**

> Guardrails: a permission boundary, a write pattern, rerun rules, schema evolution. Fabric and OneLake permissions decide what the agent can do.

PART 2 · WHAT SHIPPED

The operations agent only reads data from Monitor hub. Database agents aren't here yet.

PREVIEW



The agent works out why a pipeline run failed, straight from Monitor hub.

> Read-only, on behalf of the signed-in user. Needs the Contributor role and workspace monitoring turned on.

ROADMAP **Database agents**



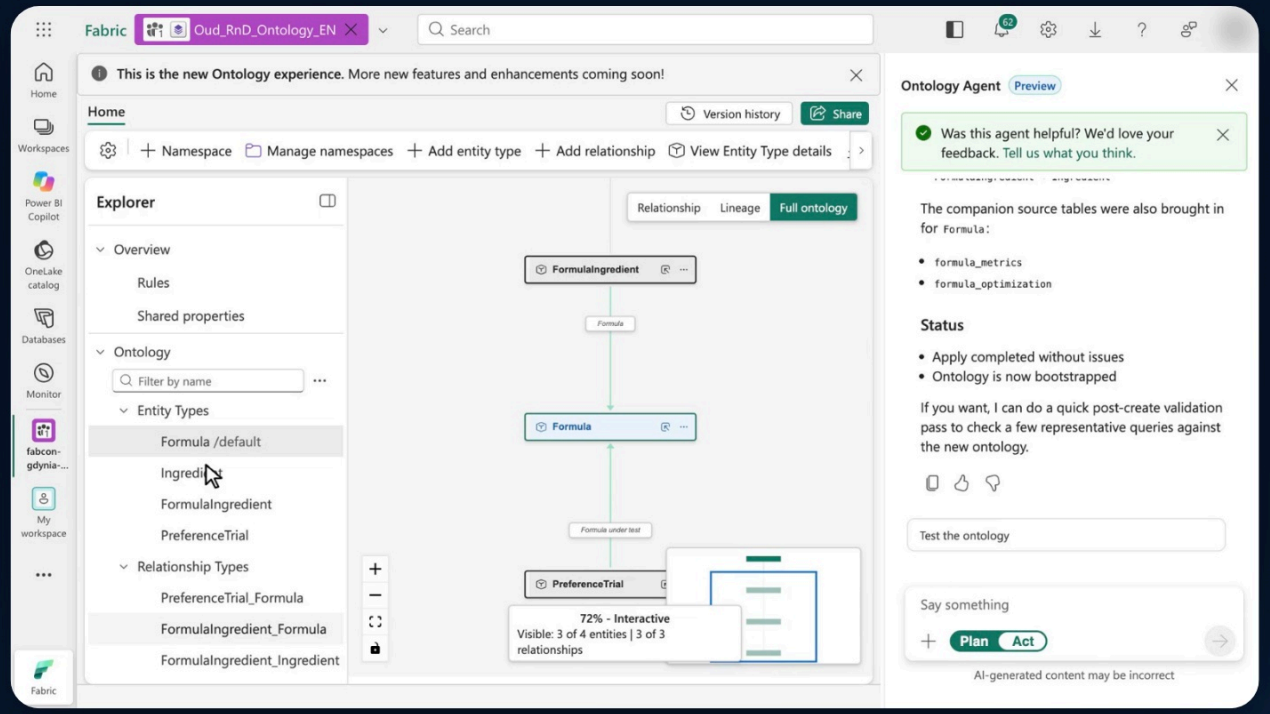
For SQL and PostgreSQL, in Database Hub and in VS Code. Announced at the keynote, not available yet.

> Database Hub itself is in preview too.

PART 2 · WHAT SHIPPED

The new ontology in Fabric IQ: entities from the semantic model, rules in natural language, export to a knowledge graph.

PREVIEW Ontology in Fabric IQ



We build the ontology from a semantic model, data in OneLake, and documents. **We write rules in natural language.** DAX measures come in as metrics. The ontology agent acts on our behalf and respects OneLake security, RLS, OLS, and CLS.

> **In practice:** we export to RDF and Turtle, the W3C standards for knowledge graphs, and we can import from OWL. Another graph tool can open an ontology from Fabric.

> The previous ontology version goes away on January 31, 2027, and the new one replaces it. An independent review flagged entities without an identifying key and no automatic health check for the ontology.

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PART 2 · WHAT SHIPPED

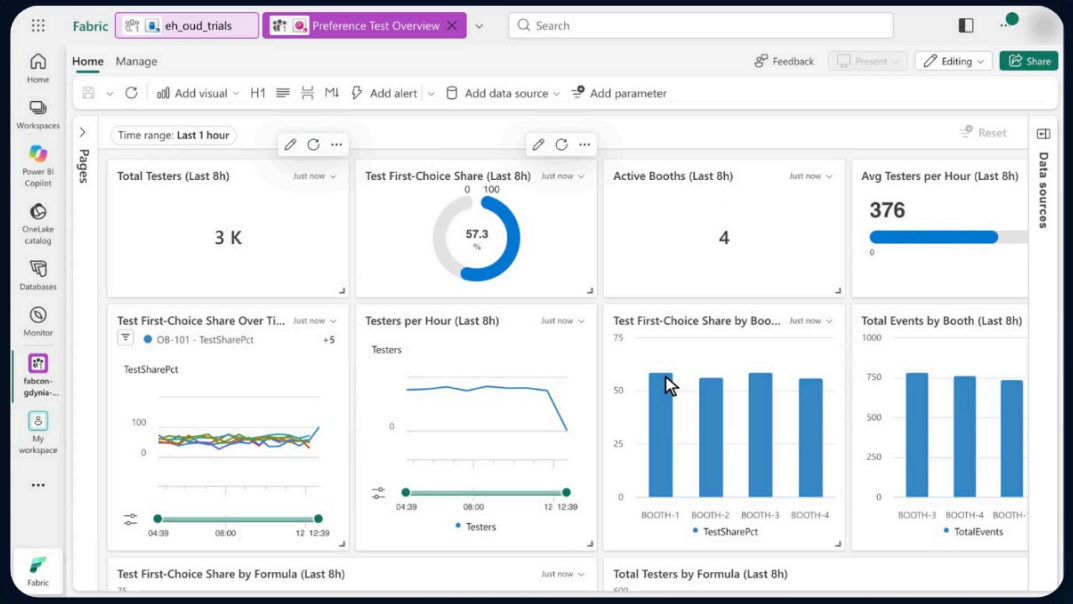
Power BI: agentic apps coming to preview soon, Copilot for RTI already in preview.

PREVIEW **Agentic apps in Power BI Desktop**



We describe the app, and Power BI Desktop generates it, previews it, and publishes it. **Included with Pro and PPU licenses**, up to 1 GB per app, with write-back.

PREVIEW **Copilot for Real-Time Intelligence**



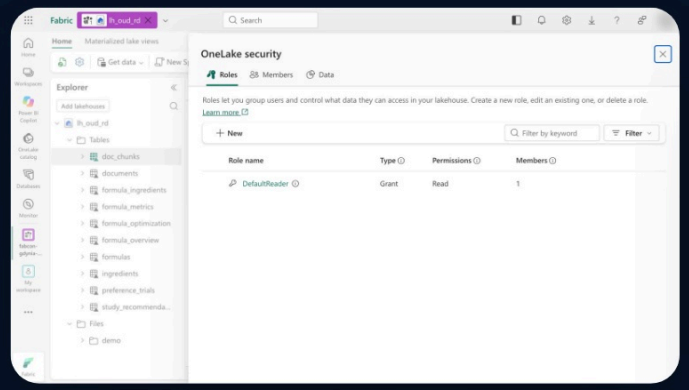
A Real-Time Dashboard from one sentence, and we manage the eventhouse in natural language.

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PART 2 · WHAT SHIPPED

OneLake security: we define roles, RLS, and CLS once, and they also apply through shortcuts.

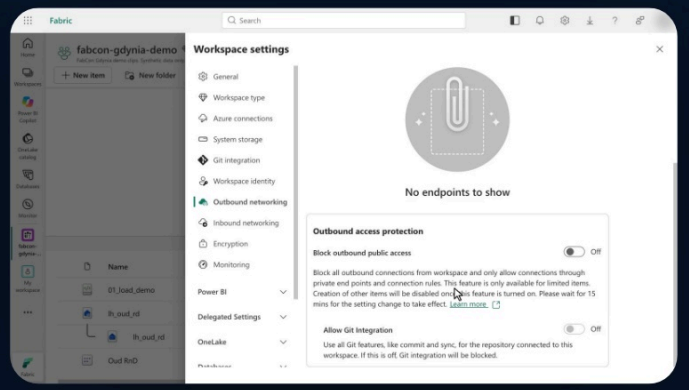
GA **OneLake security**



Roles, RLS, and CLS in one place, **also through shortcuts**. Every lakehouse gets a DefaultReader role. GA announced for the coming weeks, with no specific date.

GA shortcuts PREVIEW data agents

Outbound access protection



The workspace won't let data out, either through an outbound shortcut or through a data agent.

GA **Purview DLP: restrict access**

Blocks access for everyone, or just for guests, when it finds sensitive data in a Fabric item.

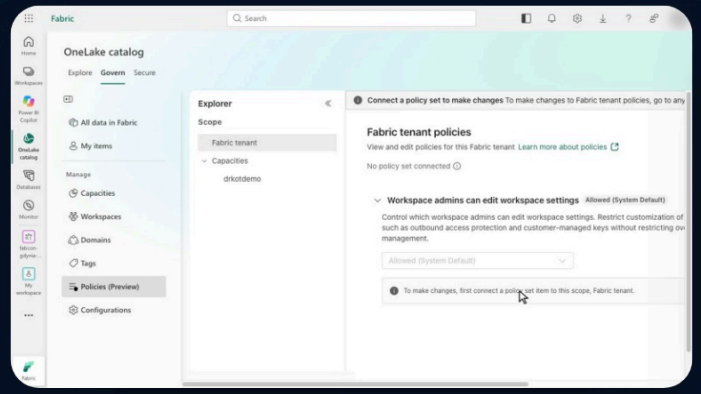
FabCon keynote, September 29, 2026: GA.

Learn, October 7, 2026: access restriction still in preview.

PART 2 · WHAT SHIPPED

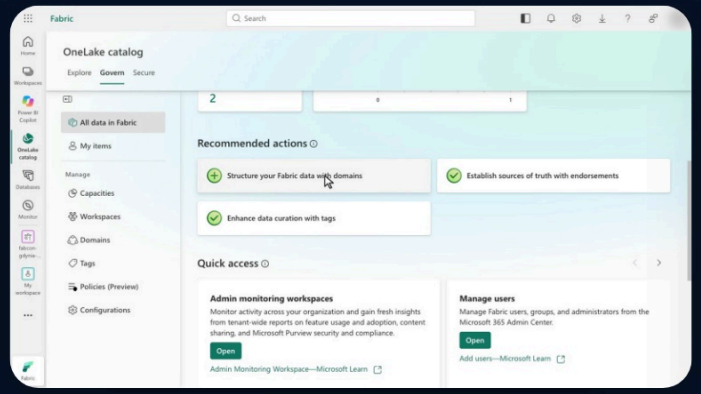
Policies (allow only), catalog Govern, and observability: three admin screens.

PREVIEW Policies in Fabric



Scope: tenant or capacity. **It's an allow list only**: the only effect is Allow, and there's no Deny. Conditions: workspace, groups, sensitivity labels, recipient domain, item type.

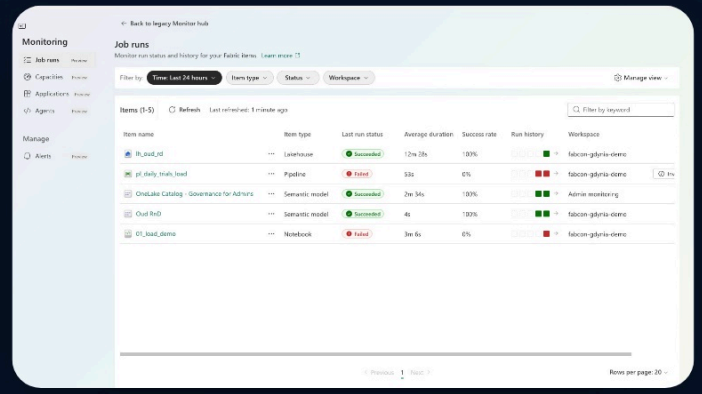
GA OneLake catalog Govern



One screen for the admin: label coverage, DLP results, tenant settings, recommended actions.

> The data refreshes once a day. The view doesn't cover tables inside items.

PREVIEW Observability



The new Monitor hub: run history and success rate for every job. Plus workspace monitoring in an eventhouse and Activator alerts.

Is our tenant ready for an agent that reads data on our behalf?

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PART 3

What's still missing, and where to start

PART 3 · WHAT'S MISSING AND WHERE TO START

Five announcements with no date and one hard date: the previous ontology goes away on January 31, 2027.

WHAT		STATUS
ROADMAP	On-demand billing and F0 capacity	Soon, no pricing yet
ROADMAP	Database agents for SQL and PostgreSQL	Soon
ROADMAP	Native support for ontologies and semantic models in IQ sharing	On the roadmap
ROADMAP	Apache Ossie, a vendor-neutral ontology standard, together with Snowflake	Announced
ROADMAP	GA date for OneLake security	Not given
ROADMAP	Previous ontology version	Retired January 31, 2027

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PART 3 · WHAT'S MISSING AND WHERE TO START

What to turn on, what to pilot, what to put off. The label decides, not an opinion.

Turn on

- GA — Fabric IQ in Microsoft 365 Copilot Chat
- GA — OneLake catalog Govern
- GA — OneLake security, once it's GA

Pilot first

- PREVIEW — Ontology on one model
- PREVIEW — Operations agent in Monitor hub
- PREVIEW — Policies on one capacity
- GA — Fabric IQ MCP on one workspace

Put off for now

- PREVIEW — Osmos in production
- TBC — Core MCP for autonomous clients
- ROADMAP — Database agents

A pilot covers one workspace, one model, or one capacity, so we can switch it off in one move.

PART 3 · WHAT'S MISSING AND WHERE TO START

Four tenant settings to check, each with a QR code to Learn.

1. Microsoft 365 admin center, Copilot settings, “Fabric data in Microsoft Copilot”. Let's check who has access.



learn.microsoft.com/microsoft-365/copilot/copilot-powerbi-copilot-chat

2. Let's check the AI setting on semantic models with HR and finance data. It doesn't carry over to chained models.



learn.microsoft.com/power-bi/create-reports/copilot-semantic-models

3. Let's check the tenant settings that let AI process data outside the capacity's region and geography.



learn.microsoft.com/fabric/admin/service-admin-portal-copilot

4. Let's turn on outbound access protection for workspaces with sensitive data.



learn.microsoft.com/fabric/security/workspace-outbound-access-protection-data-agent

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PART 3 · WHAT'S MISSING AND WHERE TO START

Engineer: test RLS under the data agent. CTO: ask about the agent's identity.

</> Engineer

1. Let's test RLS under the data agent on our own model. Learn says the agent respects RLS and CLS. But there's an unconfirmed report on Microsoft Q&A that the agent returned unfiltered rows. Let's check for ourselves.

   - learn.microsoft.com/fabric/data-science/concept-data-agent
   - learn.microsoft.com/answers/questions/5556598, the report

2. Let's tag preview items before someone puts them into production.

CTO

3. The agent acts on the user's behalf, with least privilege, and read-only. It respects Purview DLP. The agent can't see more than the user.

   - learn.microsoft.com/fabric/data-science/concept-data-agent

4. Let's ask Microsoft whether the agent can run under its own Entra Agent ID instead of as the user. No answer yet.

   - learn.microsoft.com/entra/agent-id/whats-new-agent-id

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Fabric has become a platform for agents.
Have our settings kept up?

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Questions

dr Estera Kot
linkedin.com/in/esterakot

Slides, PDF, and recordings
github.com/ekote/fabcon-barcelona-2026-recap

CLOUDS ON MARS **is hiring**

Projects: data platforms and lakehouses, data modeling and reporting, AI and automation. Microsoft Fabric, Azure, Databricks, Power BI.

We don't do body leasing. We run projects, and staff augmentation happens very, very rarely.

cloudsonmars.com/careers · estera.kot@cloudsonmars.com

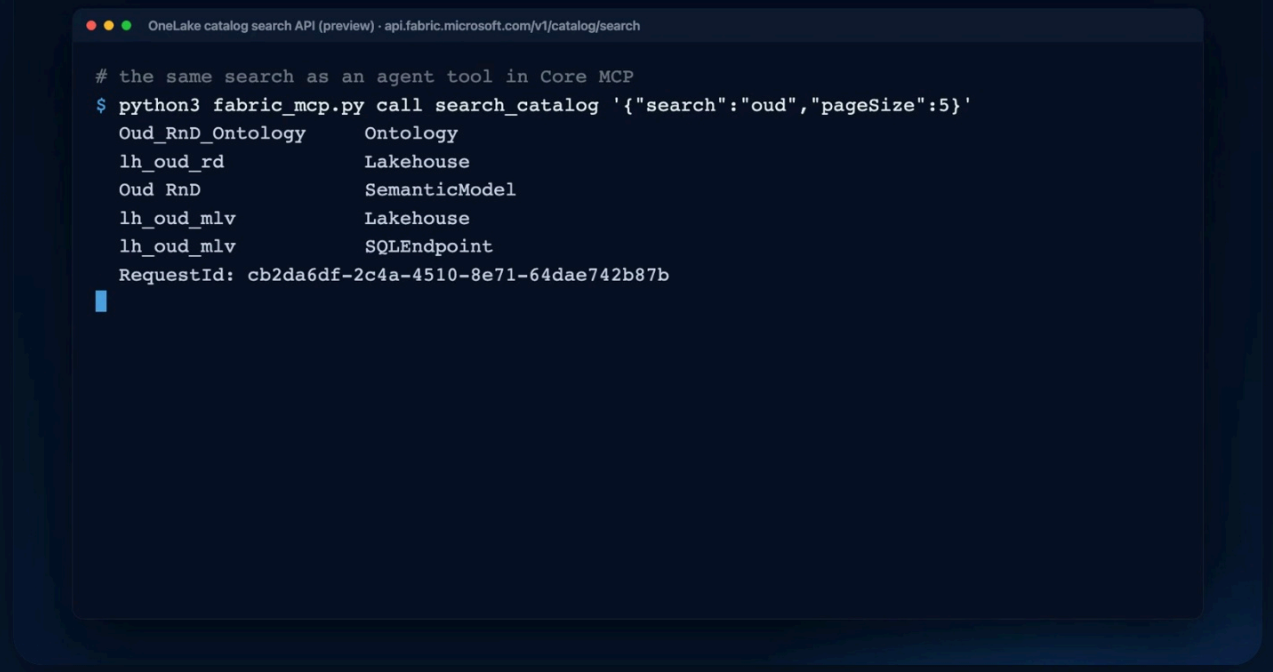
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APPENDIX · NEW FEATURES IN ACTION

Searching the OneLake catalog from code: one query, the whole tenant.

PREVIEW OneLake catalog search API



`POST /v1/catalog/search` searches by name, description, and workspace name, with a type filter. It returns only what we have permission to see. **The search_catalog tool in Core MCP runs the same search.**

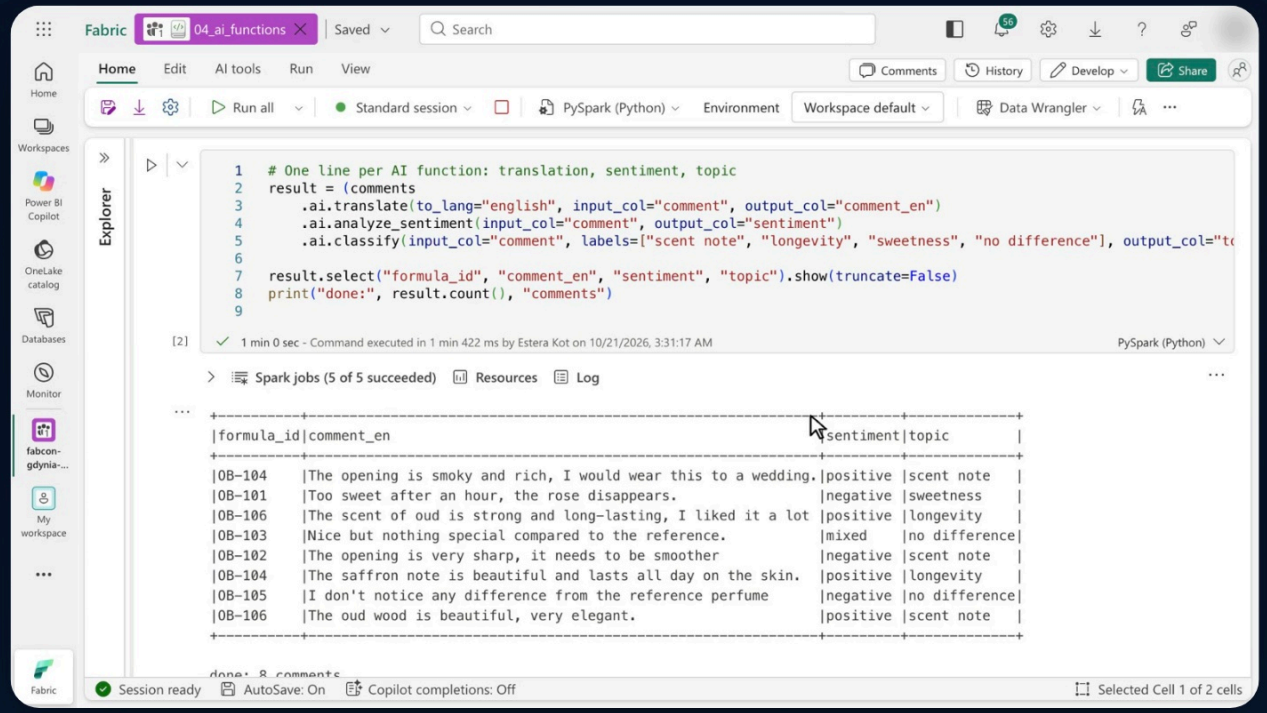
> **In practice:** an agent first checks whether a model or table already exists, before it builds another copy.

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APPENDIX · NEW FEATURES IN ACTION

AI functions in Spark: translation, sentiment, and classification in one line per column.

GA **AI functions in a PySpark notebook**



`ai.translate`, `ai.analyze_sentiment`, and `ai.classify` on tester comments written in English, Arabic, and French. **Built-in Fabric endpoint, no API key.**

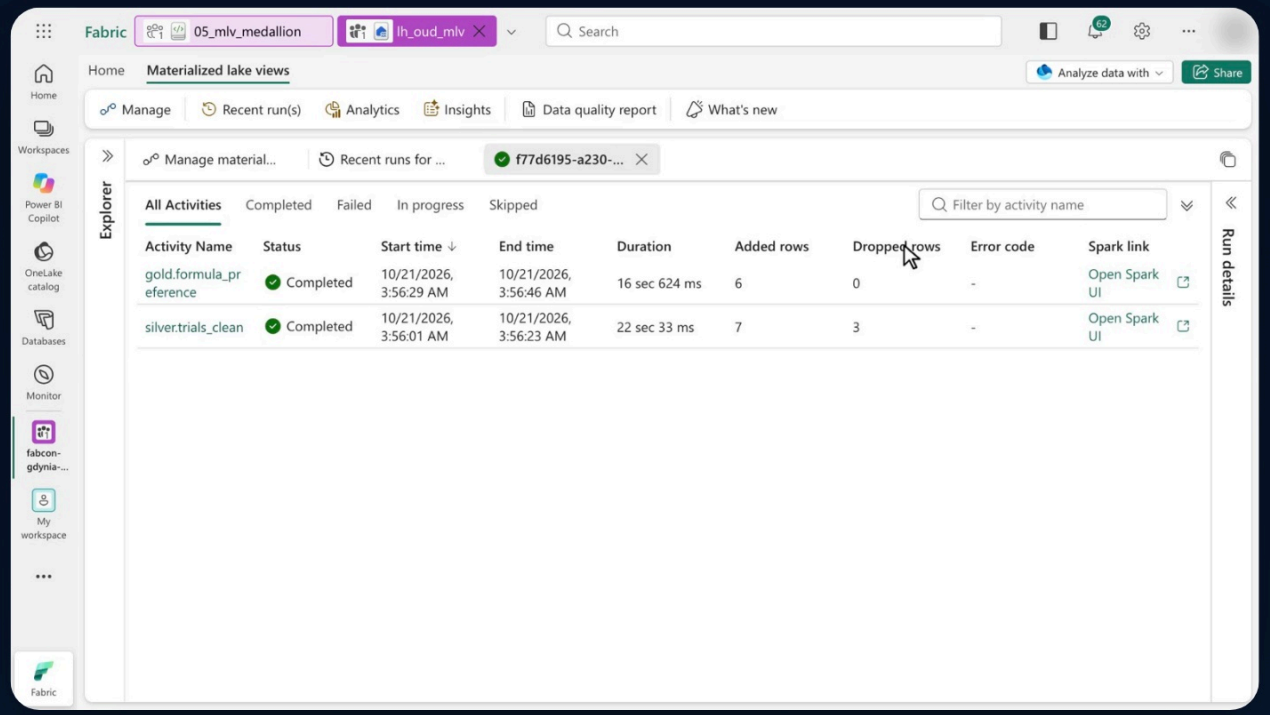
> **In practice:** we process text where the data lives, with no separate service and no copying.

> On Runtime 2.0 you have to name the model explicitly for now. Learn documents this as a temporary workaround.

APPENDIX · NEW FEATURES IN ACTION

Materialized lake views: a medallion architecture in SQL, with quality rules in the view definition.

GA **Materialized lake views**



We create the silver and gold layers with `CREATE MATERIALIZED LAKE VIEW`. Fabric builds the lineage and refreshes views in dependency order. `CONSTRAINT … ON MISMATCH DROP` **rejects bad rows.**

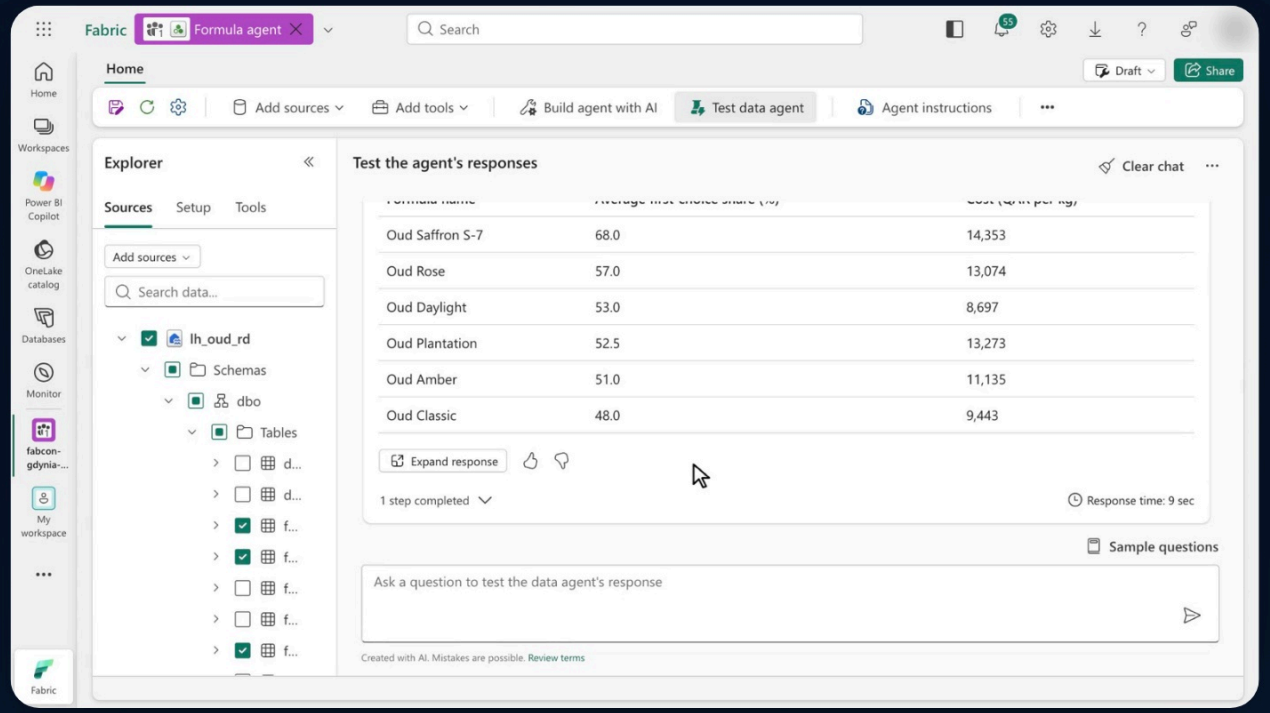
> **In practice:** three bad rows from the panel never reached the gold layer. The run report shows Dropped rows: 3.

> Views created from PySpark are in preview and only do full refreshes.

APPENDIX · NEW FEATURES IN ACTION

The data agent: a question, SQL on the lakehouse, a one-line answer and a table.

GA **Fabric data agent**



An agent on lh_oud_rd with instructions in English. **Both answers match the data:** OB-104 Oud Saffron S-7, 68%, 14,353 QAR per kilogram.

> **In practice:** we test the agent with questions we already know the answer to.

> With the vaguer question "Which formula beats the reference most often?", the agent counted winning trials and named the wrong formula. Each formula has only about one trial.

APPENDIX · NEW FEATURES IN ACTION

We see the same Delta tables through the Unity Catalog API and the Iceberg REST Catalog.

GA **OneLake table APIs**

OneLake table APIs · Unity Catalog API and Iceberg REST Catalog · onelake.table.fabric.microsoft.com

```
GET /iceberg/v1/config -> prefix ce0f1ddb-f1c4-44...
GET .../namespaces -> [['dbo']]
GET .../namespaces/dbo/tables -> ['doc_chunks', 'documents', 'formula_ingredients',
'formula_metrics', 'formula_optimization', 'formula_overview', 'formulas',
'gold_formula_scorecard', 'ingredients', 'preference_trials', 'study_recommendations']
$ python3 onelake_catalogs.py irc preference_trials
GET /iceberg/v1/config -> prefix ce0f1ddb-f1c4-44...
GET .../tables/preference_trials -> Iceberg format-version 2, 9 fields, snapshots 1
   1 trial_id            string
   2 formula_id          string
   3 study_id            string
   4 panel_segment       string
   5 n_testers           int
   6 first_choice_pct    double
   7 dwell_ratio         double
   8 trial_date          date
   9 panel_site          string
  metadata-location: abfss://ce0f1ddb-f1c4-44e9-b62e-
1dea2e8890a8@onelake.dfs.fabric.microsoft.com/
```

The `onelake.table.fabric.microsoft.com` endpoint: Delta through a Unity Catalog compatible API, Iceberg through the Iceberg REST Catalog. **A Delta table from the lakehouse shows up as Iceberg format-version 2.**

> **In practice:** any engine that speaks Iceberg REST or Unity Catalog sees our tables with no copy and no export.