

# The Intelligence Gap

The defining battleground for business is no longer about who has the most data.  
It's about how fast you can turn it into intelligent, automated action.



# Your Data and Your Business Speak Different Languages

## DATA SYSTEMS THINK IN...



- Tables & Schemas
- Data Domains & Silos
- Joins & Queries

## YOUR BUSINESS THINKS IN...



- Customers & Products
- Planes, Passengers, & Routes
- Real-world relationships and actions

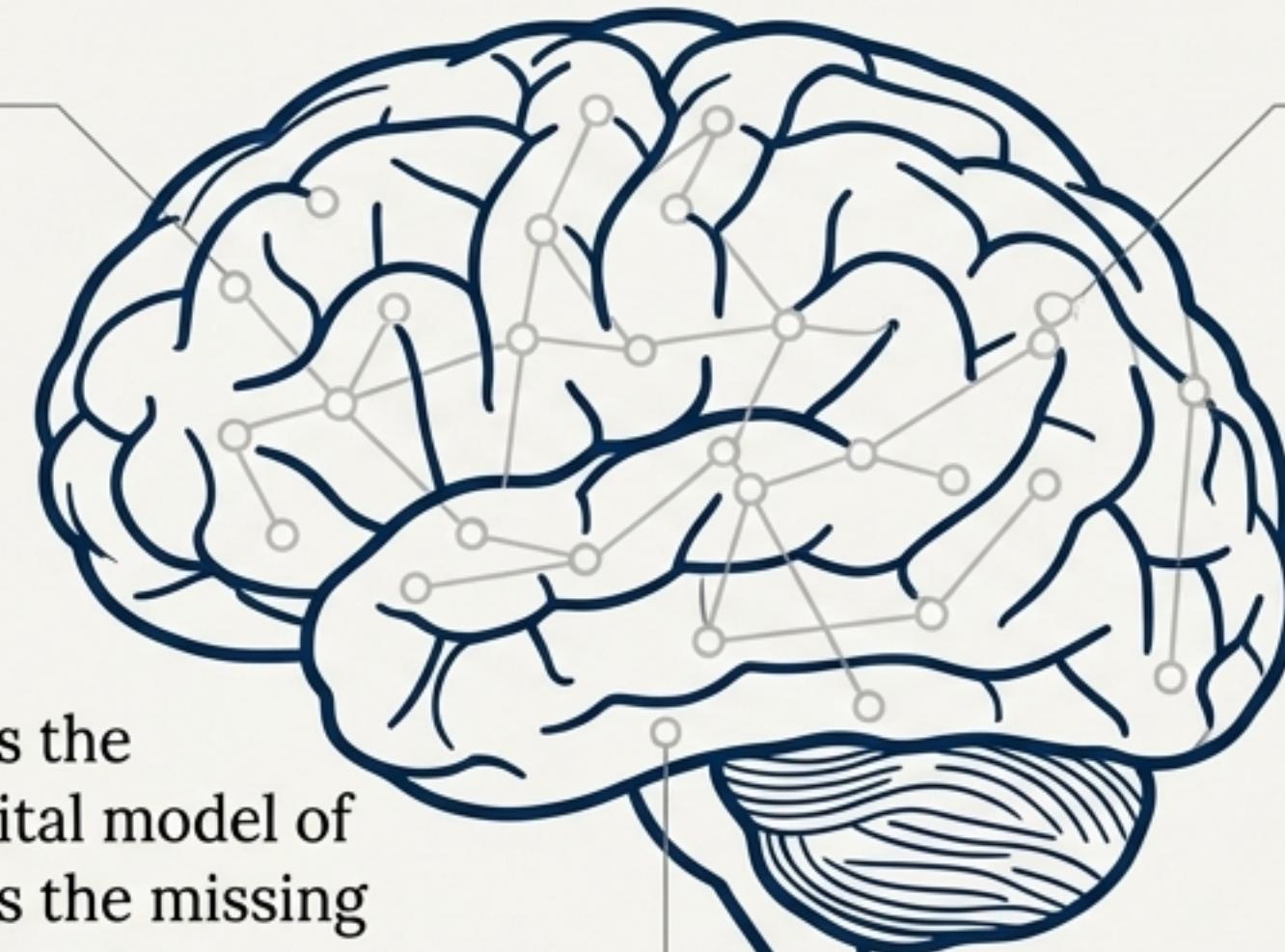
This disconnect is a massive roadblock to agility, trusted AI, and intelligent automation. The company that creates a common language for both people and AI to understand wins.

# The Solution is an Ontology: The Semantic Brain of Your Enterprise

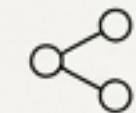


## 1. Defines Key Concepts

Describes your business objects (e.g., 'Customer', 'Product', 'Store').



At the heart of Fabric IQ is the **Ontology**: a live, structured, digital model of how your business operates. It is the missing piece for building truly smart systems because it provides real business context.



## 2. Maps Real-World Relationships

Understands how they interact using verbs (e.g., a 'Customer' \*places\* an 'Order').



## 3. Creates a Shared Language

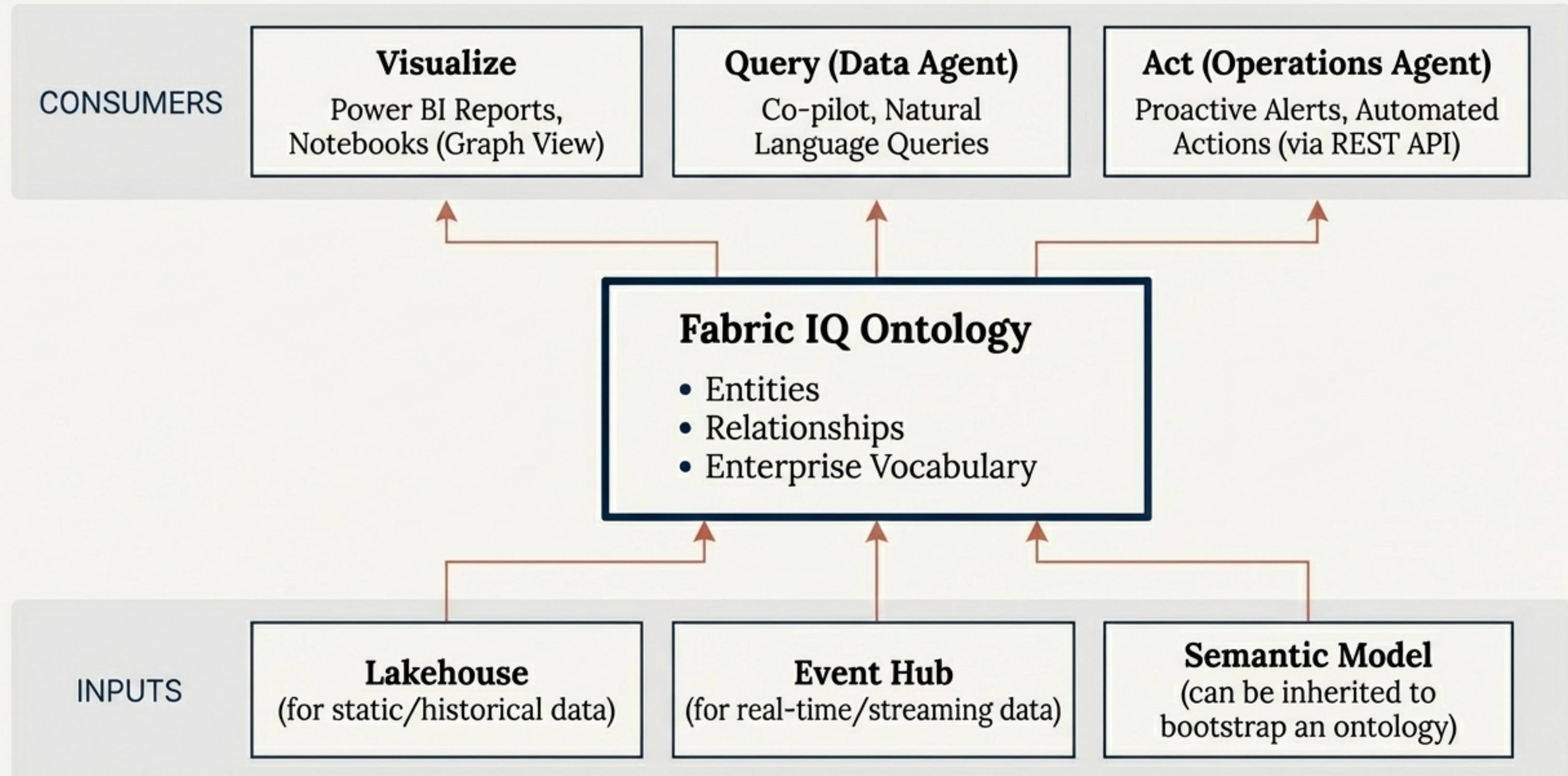
A formal model that both humans and AI agents can finally understand and use.

# The Anatomy of an Ontology

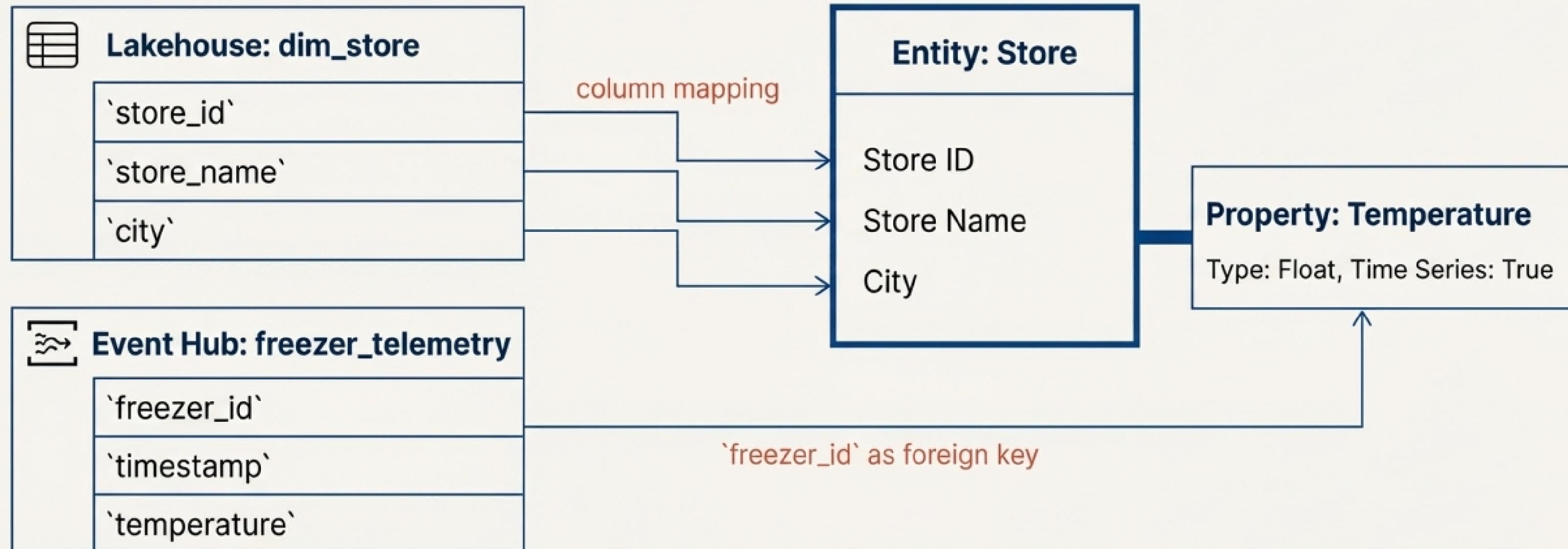


Relationships are defined with **verbs**, not just cardinality. This gives large language models the rich context they need to understand what's really going on.

# Architecture: How Fabric IQ Unifies Your Data Ecosystem

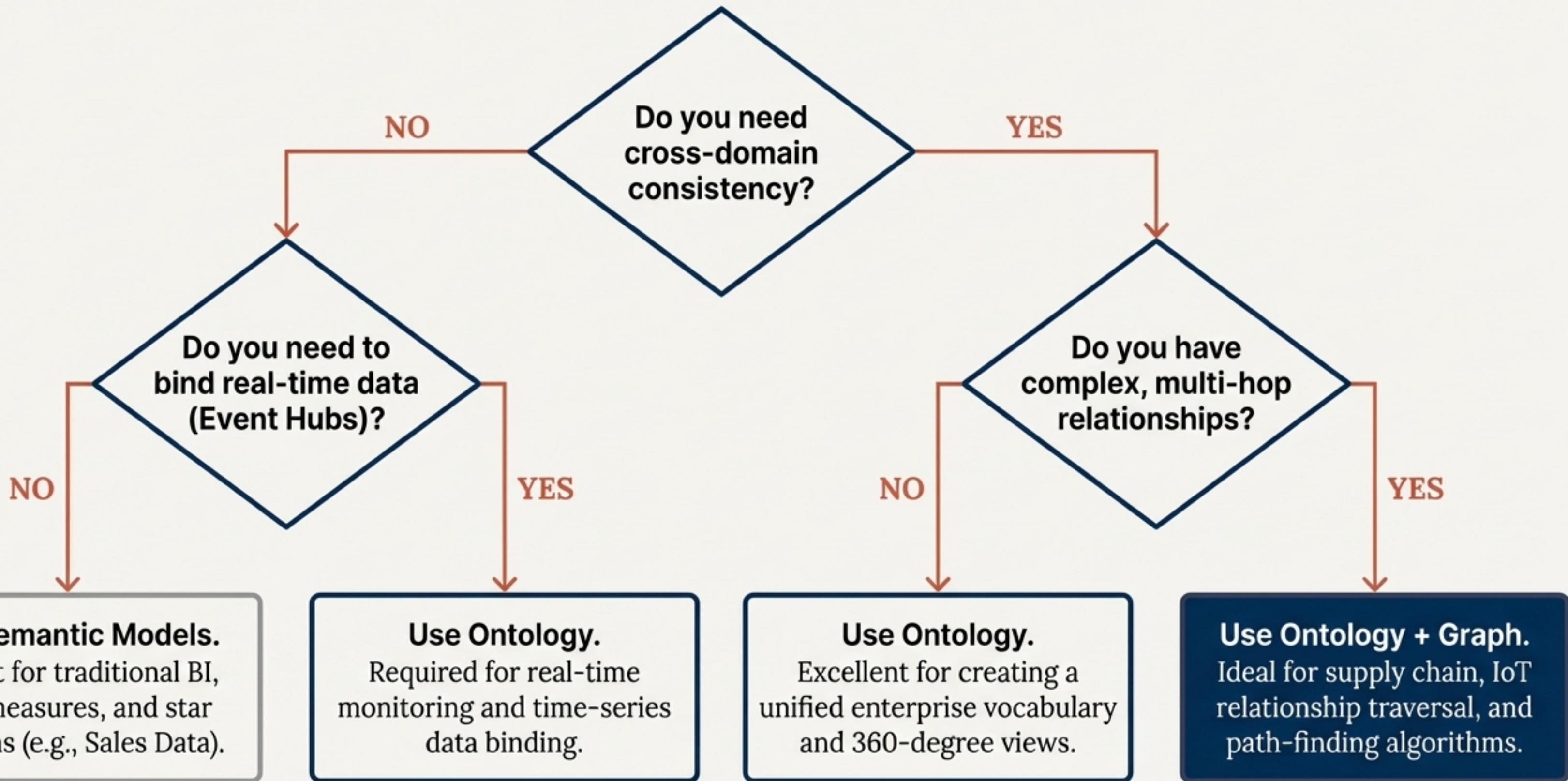


# Data Binding: Connecting Raw Data to Business Meaning



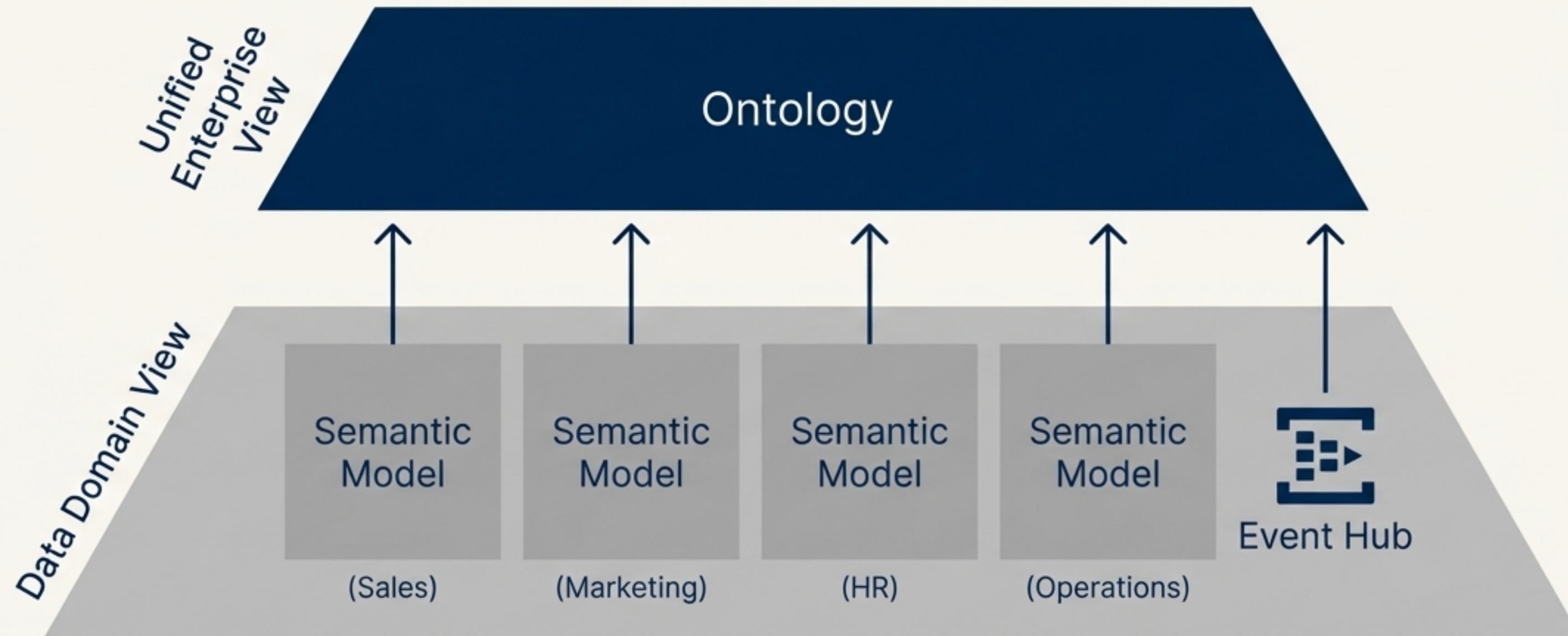
The binding process maps columns from Lakehouse tables and Event Hub streams to your predefined business entities and properties. This is how the ontology gets populated with live data.

# Ontology vs. Semantic Model: A Decision Framework



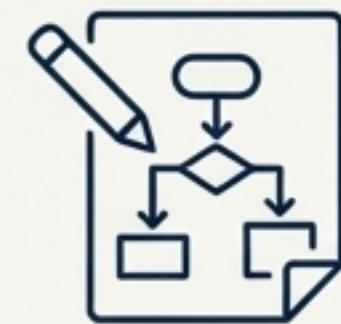
An ontology is not a replacement for semantic models; it's a unifying layer above them. You can and should use both together.

# The Best of Both Worlds: Stacking Ontologies on Semantic Models



Maintain semantic models for domain-specific BI and analytics. Use the ontology to create a consistent, cross-domain view that integrates real-time data and enables advanced AI agents.

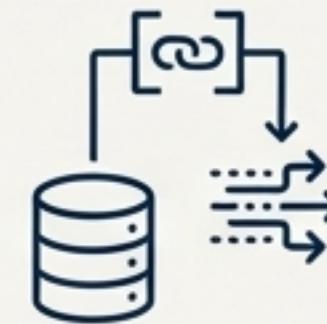
# The 5-Phase Path to Implementation



## 1 DESIGN

Define your ontology, properties, and relationships on paper or in a flowchart first.

*Know what you're building before you click.*



## 2 BIND

Connect your ontology model to your data sources. Bind static data (Lakehouse), then time-series data (Event Hubs), then relationships (foreign keys).



## 3 GENERATE & VALIDATE

Create the graph, nodes, and edges. Critically, validate the output: check entity counts, relationship counts, and general data quality.



## 4 QUERY

Test the model. Use GraphQL, KQL, or natural language to ask questions, find patterns, and test paths.



## 5 INTEGRATE

Consume the intelligent data in Power BI reports, notebooks, external apps, or through the Data Agent for conversational UI.

# Reality Check: Key Considerations for Early Adopters

## 1. Preview Status

Fabric IQ is in Preview. This means the feature set can change and support is limited. You are an early adopter.

## 2. Direct Lake is Required

To get full data binding and querying from a semantic model, it *must* be in Direct Lake mode. Import and Direct Query modes will only generate schema definitions without data.

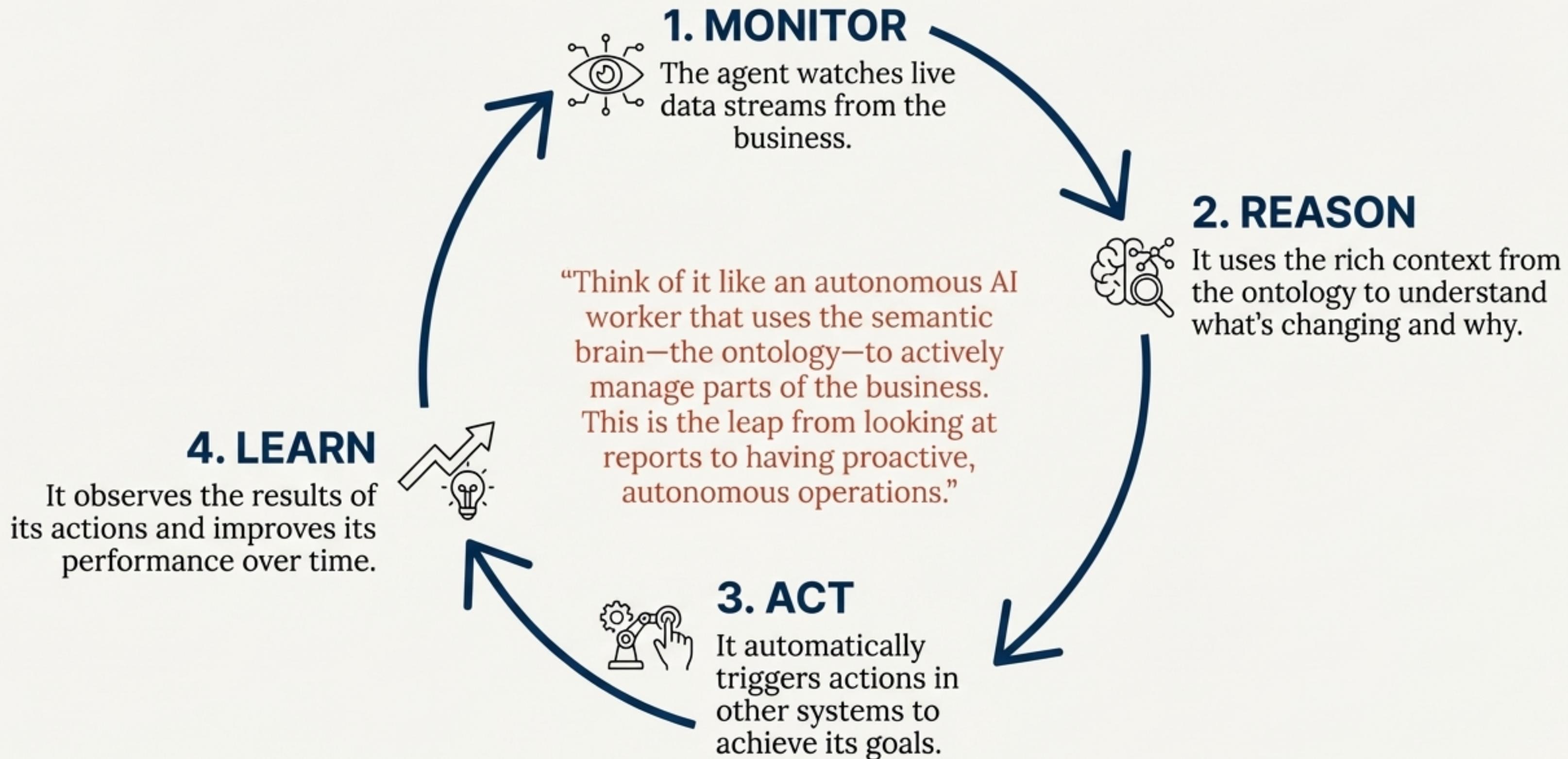
## 3. No Native Versioning (Yet)

There is no built-in versioning for ontologies. The current workaround is to export the ontology to JSON for manual versioning in source control.

## 4. Natural Language Can be 'Hit or Miss'

If complex questions fail, investigate ambiguous naming (e.g., 'Store' entity and 'store' verb), missing relationship context, or unclear prompts. Prompt engineering is often required.

# The Payoff: From Insight to Autonomous Action



# Built on a Proven Foundation, Not a Risky Experiment



# 20 million

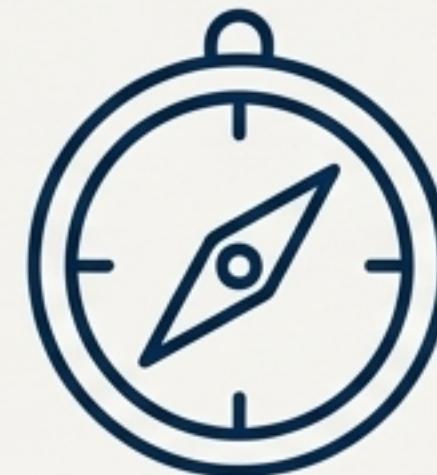
“Power BI semantic models in the wild. Each one is a potential on-ramp for Fabric IQ, creating a massive captive audience and a powerful flywheel for adoption.”

# The New Plane of Competitive Advantage



## From Static to Self-Optimizing

Your operations start to continuously optimize themselves based on real-time data.



## From Reactive to Predictive

Your decisions go from looking in the rearview mirror to being real-time and predictive.



## From Data Volume to Actionable Intelligence

Durable competitive advantage no longer comes from having the most data. It comes from being the best at combining that data with intelligence to drive action.

# The Microsoft Thesis: Why This Ecosystem is Positioned to Win



## FOUNDATION

Built on platforms (Power BI, Fabric) that millions of enterprises already use and trust.



## ADOPTION

No-code tools allow business experts, not just developers, to build and refine the ontology, accelerating time-to-value.



## COMMERCIALS

Baked directly into Fabric, removing friction to get started and experiment.



## ECOSYSTEM

Connects across the entire Microsoft Cloud, providing a depth of context that standalone solutions cannot match.

For years, the mantra was ‘collect more data.’ That era is over. The defining question for the next decade of business is this: Will the next market leaders be the companies with the biggest data lakes, or will they be the ones **with the most intelligent operations?**