

Radically Accelerate Drug Discovery & Development Using Agentic AI

Enterprise Intelligence for Drug Discovery & Development

My Background

15+ years of Pharma experience building data and AI infrastructure

Worked at:



Worked with or consulted for:



Dhaval Patel
Global AI Leader – Life Sciences

Our industry is at a crossroads: we've hit a "productivity wall"

\$2.6 Billion

The R&D Crisis

It currently costs between \$1.3-2.6 billion to bring a single drug to market

90%

High Failure Rates

Approximately 90% of drug candidates fail due to fragmented knowledge

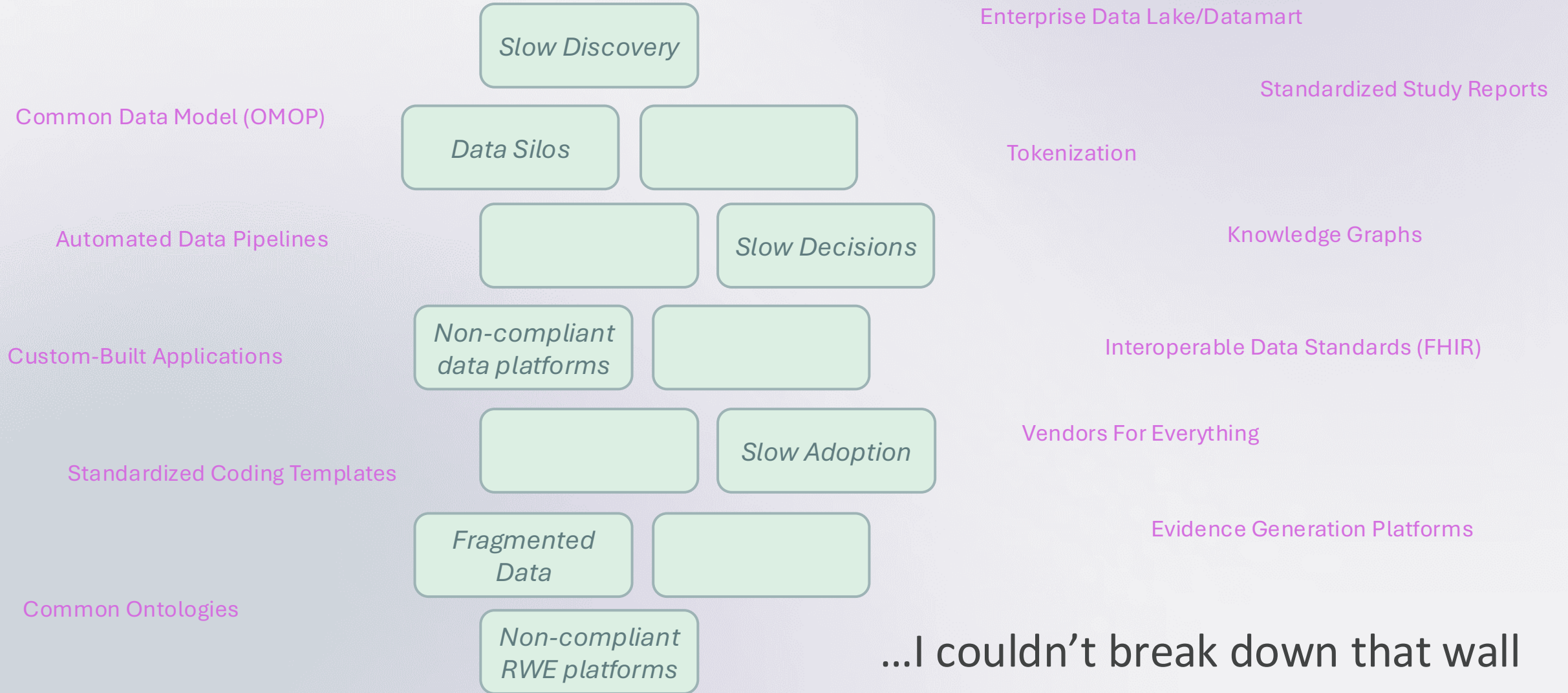
10-15 Years

Extended Timelines

The average journey from discovery to approval takes 10-15 years

Life sciences has reached a breaking point | Agentic AI is now imperative

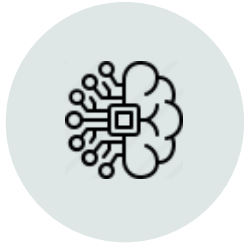
I've lived this pain....



...I couldn't break down that wall

From AI Assistants to Scientific Decision Agents: Transforming Pharma R&D

UNIFIED SCIENTIFIC DATA & AI ASSISTANTS



Scientific Knowledge Assistant



Therapeutic Area AI Expert

ASSISTANTS

Unlock the full value of fragmented scientific and clinical data

- Trusted knowledge retrieval from literature, clinical trials, omics, and internal reports
- Identify relevant targets, and biomarkers
- Unified patient & evidence view
- Automated classification

Drive deep scientific insights across multi-modal data

- Summarization of clinical and scientific evidence
- Identification of inconsistencies across trials and datasets
- Extraction of biomarkers, endpoints, and patient characteristics

COLLABORATIVE R&D INTELLIGENCE WORKFLOWS

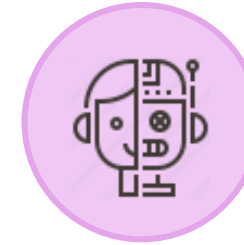


R&D Decision Support Workflows

Enable faster, evidence-based R&D decisions

- Generate trial design recommendations
- Suggest patient stratification strategies
- Compare protocol designs and outcomes across studies

INDICATIVE EVOLUTION TO AGENTIC R&D

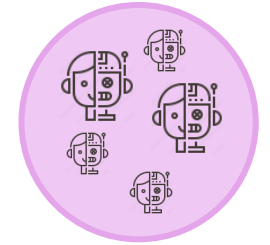


Autonomous Scientific Agents

AGENTS

Autonomous reasoning to accelerate discovery and development

- Predict trial outcomes based on historical and real-world data
- Identify drivers of success and failure across studies
- Recommend optimal combination therapies and target strategies



End-to-End R&D Decision Systems

Orchestrated intelligence across the full R&D lifecycle

- Proactive identification of risks in trial execution
- Continuous optimization of trial design and enrollment
- Real-time adaptation to emerging scientific and regulatory insights

Strategic Use Cases Across the Life Sciences Lifecycle



Drug Discovery & Early Research

Accelerate target identification, hypothesis generation, and compress the knowledge-to-insight cycle.



Clinical & Real-World Evidence Intelligence

Enable real-time clinical trial insights and high-quality RWE generation to support evidence-based decisions.



Pharmacovigilance & Safety Intelligence

Continuously enhance safety monitoring with AI-driven detection and analysis.



Medical Affairs

Transforming the department into a strategic growth engine with measurable enterprise value.

A 60-Year Paradigm Shift in Drug Development Is on the Way

FDA Announces Major Steps to Implement Real-Time Clinical Trials

Agency unveils real-time trial proofs-of-concept and upcoming pilot program

For Immediate Release: April 28, 2026

“With **improvements in AI and data science**, sponsors and trial sites have the opportunity to conduct real-time trials in a way that enhances safety monitoring and radically increases efficiency.”

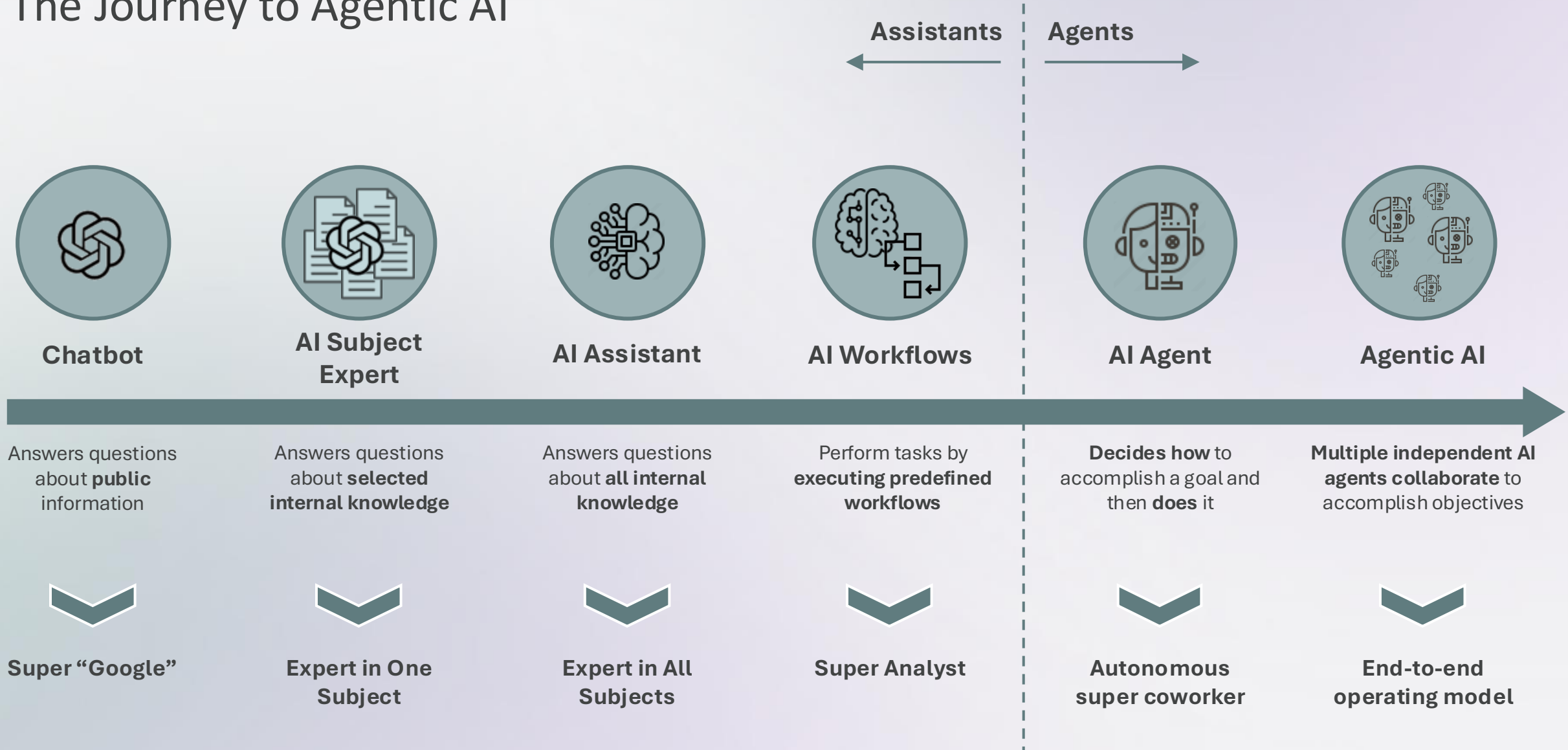
My Background

Over 30 years of data analytics and AI software and services supporting various life sciences and biotech companies



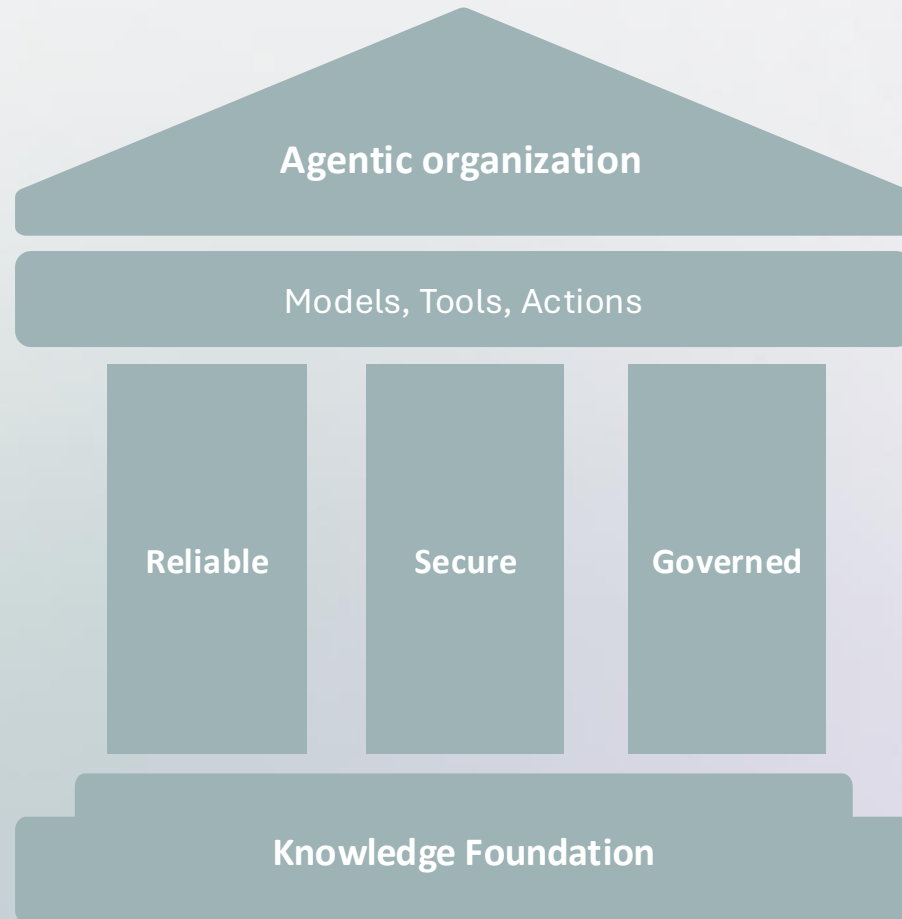
Jeff Evernham
Head of Innovation

The Journey to Agentic AI



The OpenAI logo is a trademark of OpenAI

Successful organizations aren't distracted by the market hype



Capability

What can you do?

Trust

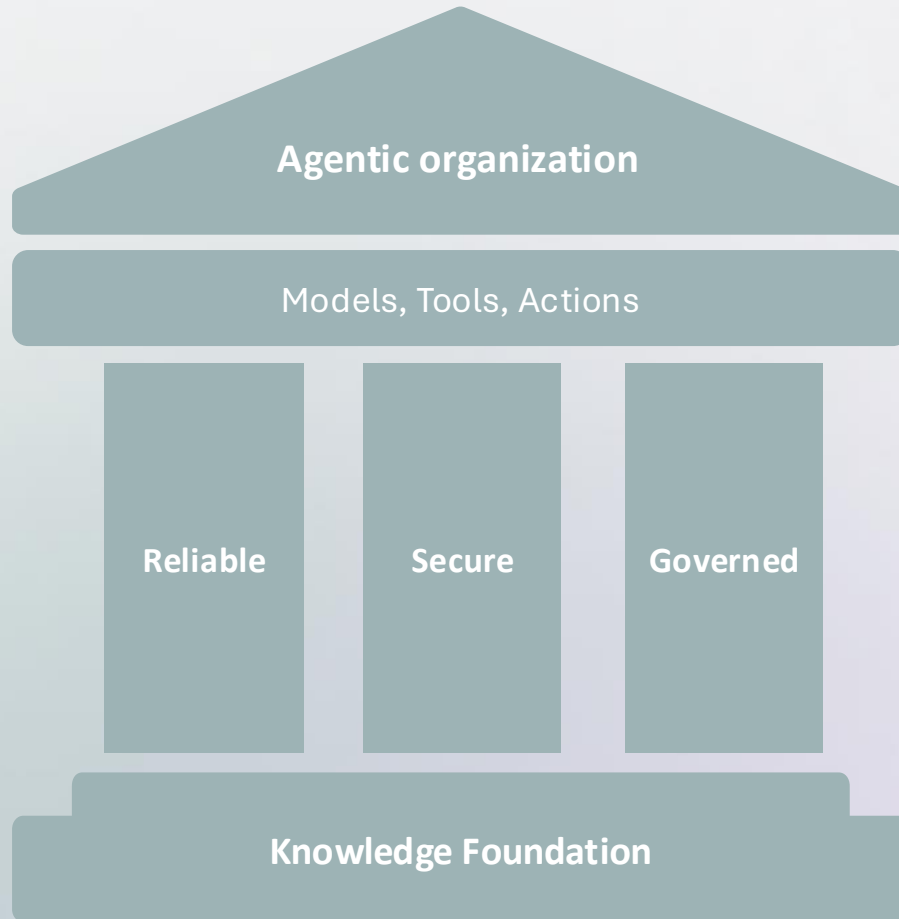
Can I trust you?

Knowledge

What do you know?

ChapsVision provides the tools for trustworthy agentic success

Successful organizations aren't distracted by the market hype



Capability

Agentic workflows and job execution
Multi-agent collaboration
Multiple tool use and multi-model

Trust

Reliable

Enterprise agentic AI must deliver accurate results and ensure agents act on verified information every time.

Secure

Data protection through access controls, encryption, secrets management, and audit trails is non-negotiable.

Governed

Effective governance through controls, guardrails, and monitoring is essential to manage agentic risk

Knowledge

The success of agentic AI rests on grounding in a comprehensive, secure, and accurate retrieval of your organizational knowledge

ChapsVision provides the tools for trustworthy agentic success

ChapsVision enables agentic success

Without access to your organization's data, LLMs are limited to common knowledge and internet search...and hallucinations



Enterprise Knowledge

Grounding agentic AI in **comprehensive, secure, and accurate retrieval (RAG)** of internal knowledge

With it, LLMs can speak intelligently about anything in your enterprise. But that requires intelligent RAG at scale:

Context Engineering

Connected

Secure

Scalable

Domain-Specific

Accurate

Governed

Enterprise AI *agents*

Intelligence	LLMs/FMs
Goal	Prompt
Tools	Tools management
Knowledge	Advanced RAG
Memory	Short- and Long-term

running in a *harness*

Orchestration	Usage Tracking
Execution	Lifecycle Mgt
Error Handling	Traceability
Validation	etc...

that must be *managed*

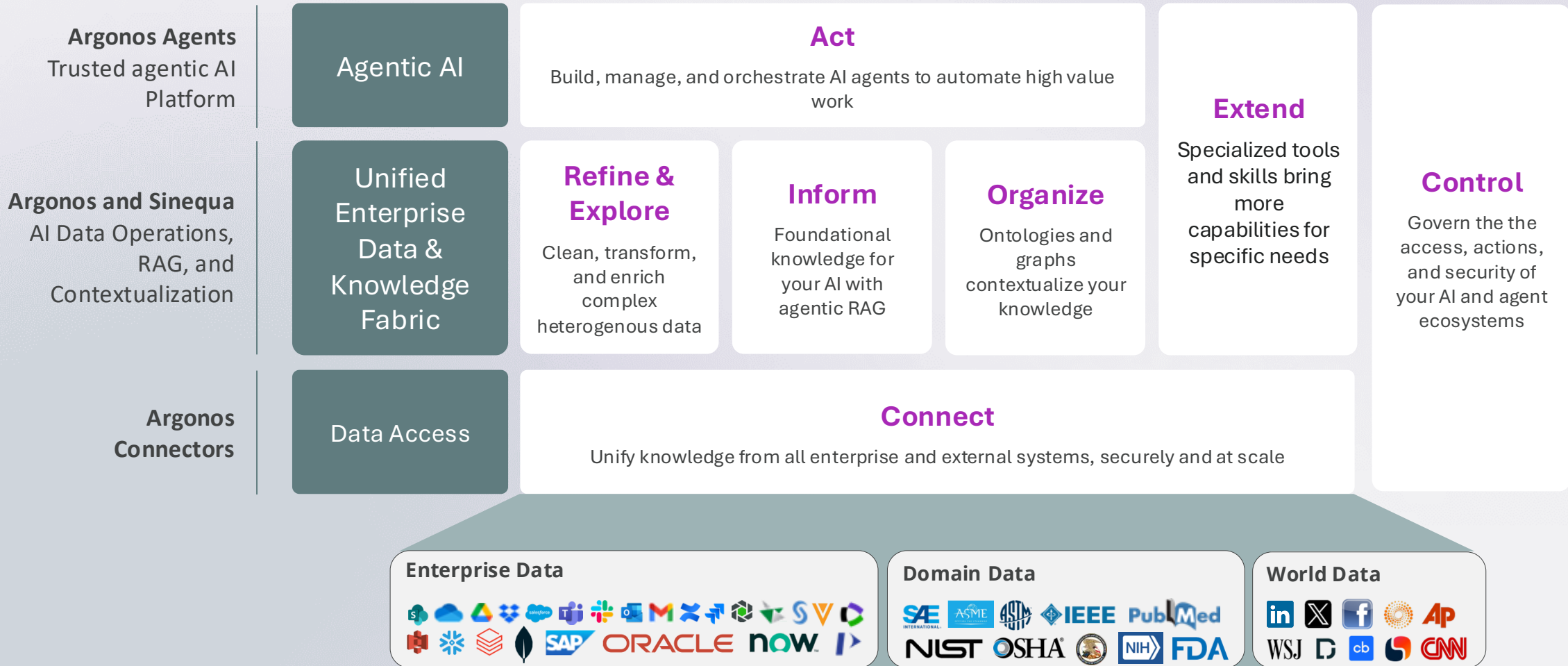
Creation	Specification
Access	AI Agent Library
Publishing	Workflow & approvals
Versioning	Updates
Evaluation	Testing updates

that is fully *governed*

Data security	Authentication
Guardrails	Authorization
HITL/HOTL	Policies
Cost Control	Misuse Mgt
Observability	etc...

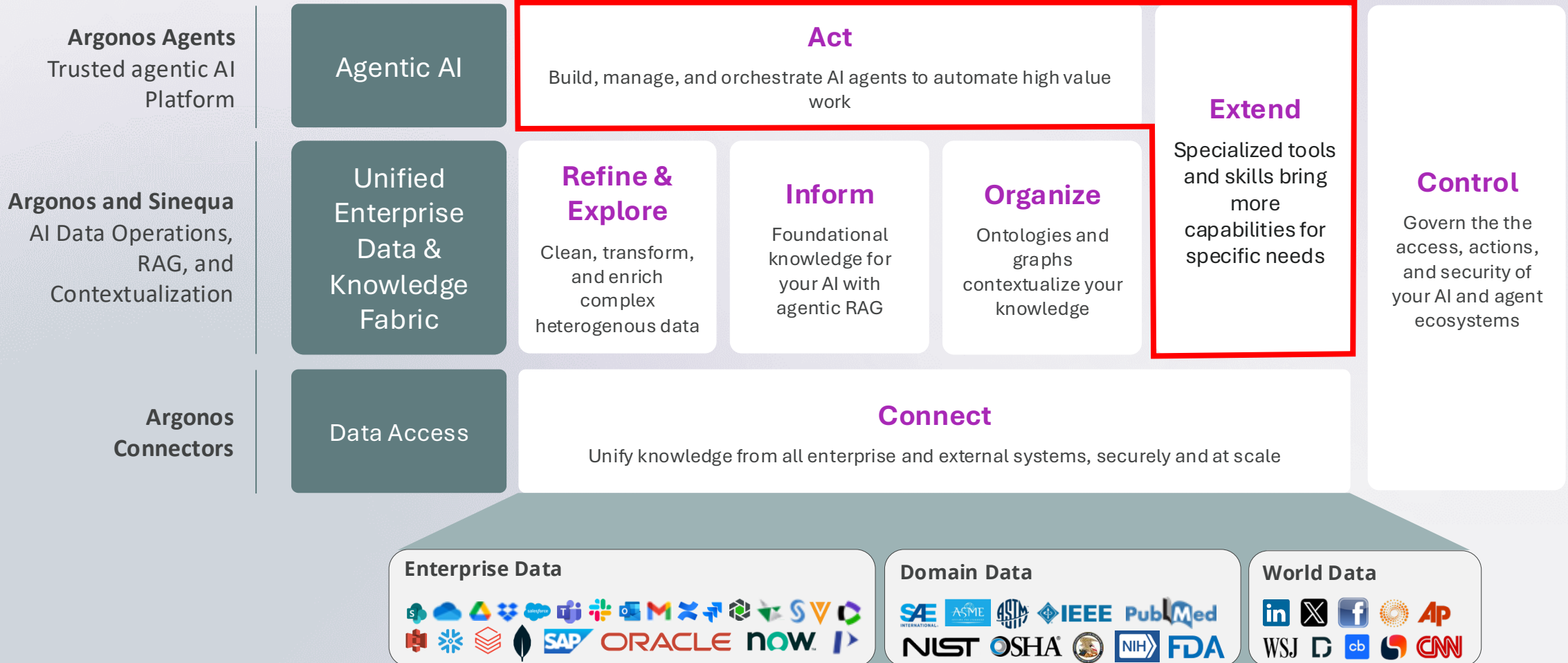


ChapsVision Powers Agentic AI You Can Trust



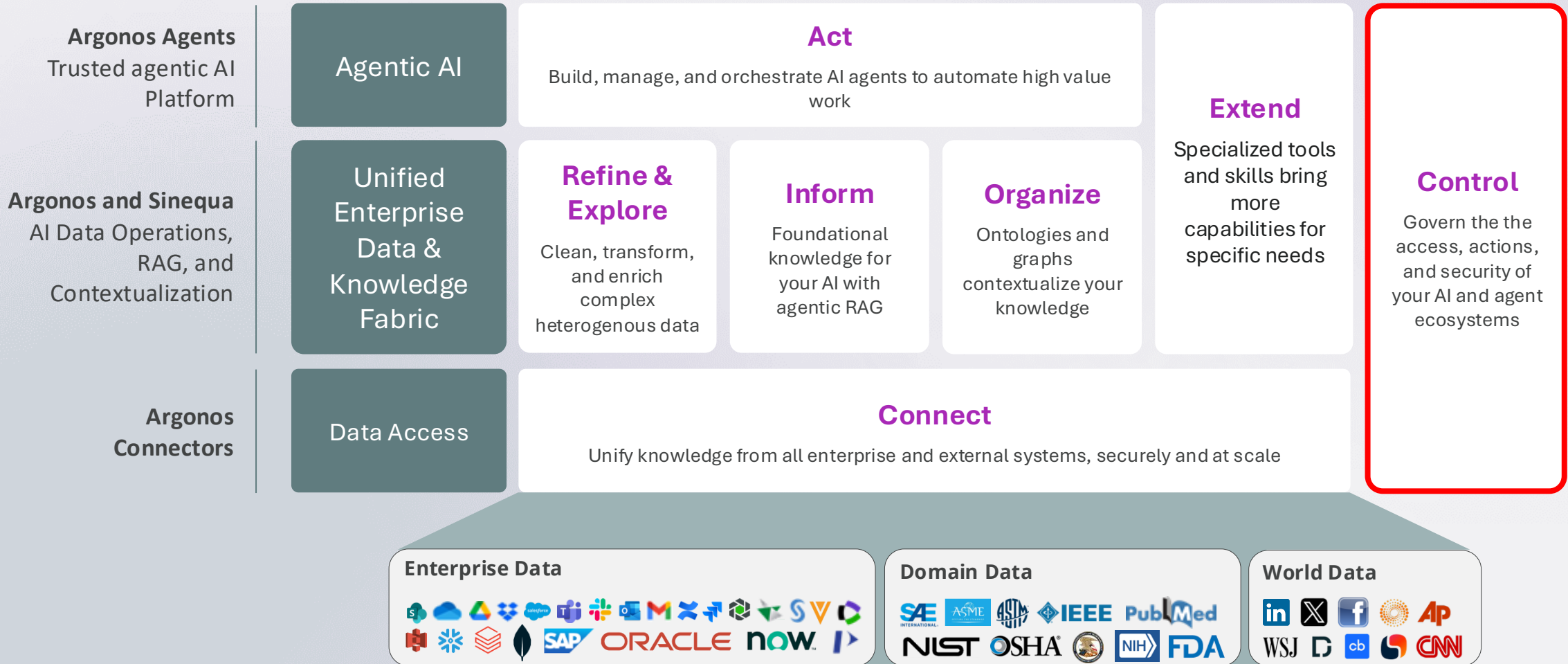


What can you do?



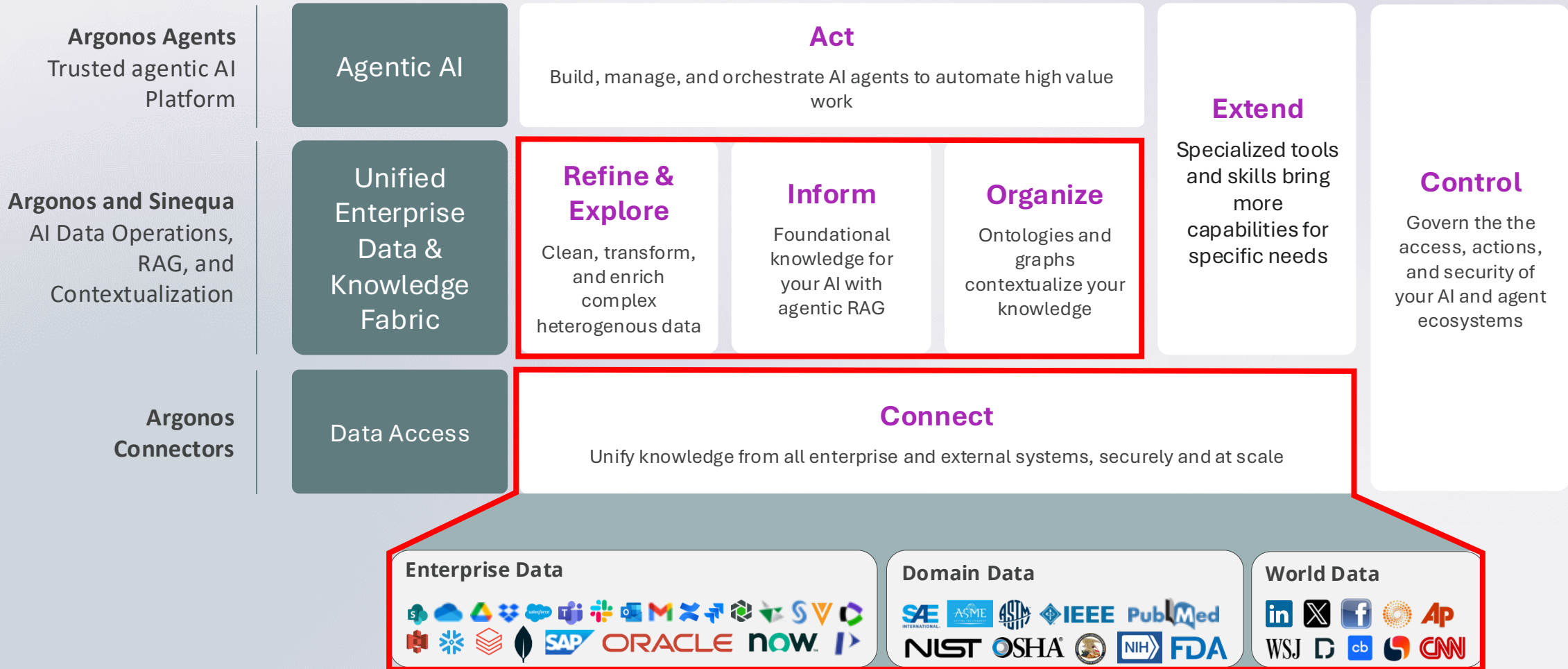


Can I trust you?





What do you know?





Powering agentic AI and critical decisions for operators in Life Sciences

Government & Defense



Financial Services & PE



Life Sciences



Manufacturing & Energy



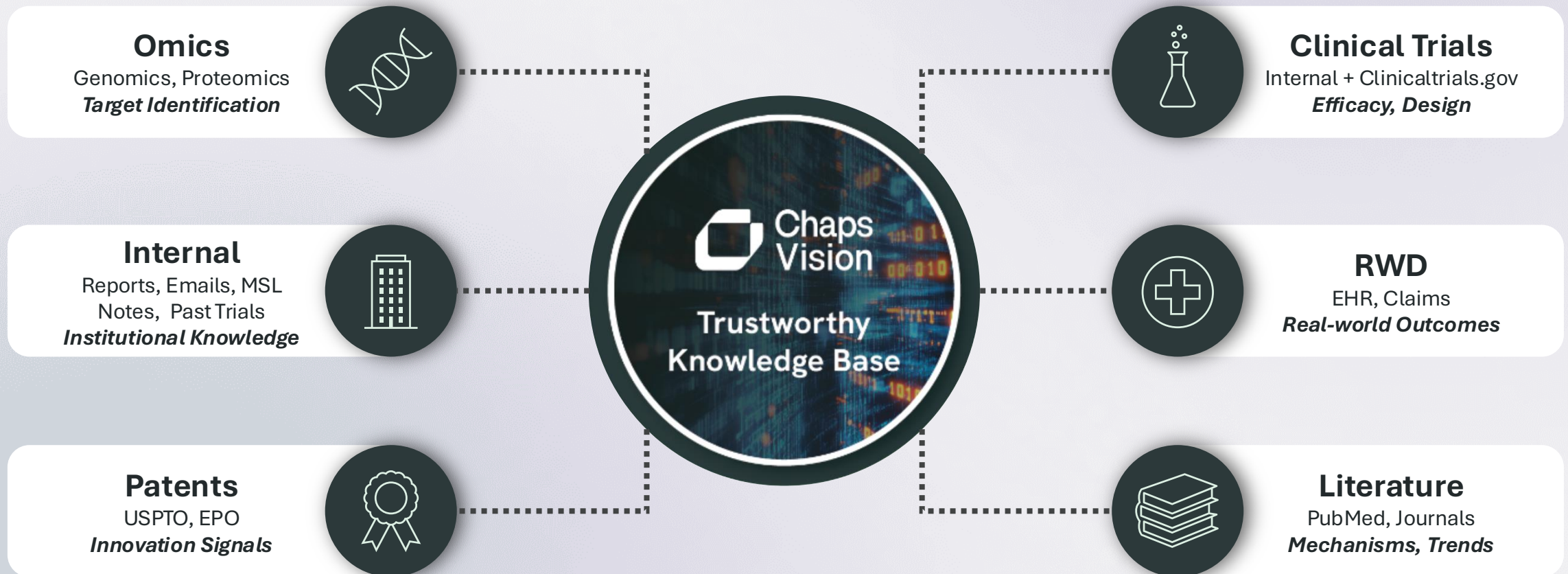
Legal Services & Consulting



Technology & Other



Unified AI Intelligence Layer



Measurable Business Impact



+3x

Discovery Speed

Achieve a 3X faster discovery cycle time



+20%

Capital Efficiency

Realize a 20% improvement in R&D capital efficiency



\$143M

Cost Savings

Save an estimated \$143 million through improved Phase 1/2 pass/fail ratios



Trust

Proven Success

Trusted by global biopharma leaders including AstraZeneca, Pfizer, GSK, Roche, and Takeda

Total Potential Value: Billions In Accelerated Pipeline Value Across The R&D Lifecycle

Guidance for R&D Leaders

1

Unify your scientific knowledge estate

Clinical, omics, RWD, literature, and competitive data must feed a single governed intelligence layer. Fragmented data means fragmented and slower decisions.

2

Compress the knowledge-to-decision cycle

Target ID, compound screening, trial monitoring, and regulatory dossiers must all become agent-augmented. Pilots at the edge deliver nothing at scale.

3

Enable real-time clinical trial intelligence

The organization that hypothesizes, tests, and iterates fastest will define the next generation of therapeutics. Agentic AI is that advantage.

Come talk to us at Booth 512, in the middle of the Exhibit Hall to win THIS:

Thanks for your attention!
Any questions?

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