



How NatWest Builds AI-Driven Data Products Fast: Knowledge Graphs + GenAI

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Come Visit Us At Booth #404

Speakers



Dr. Jesús Barrasa
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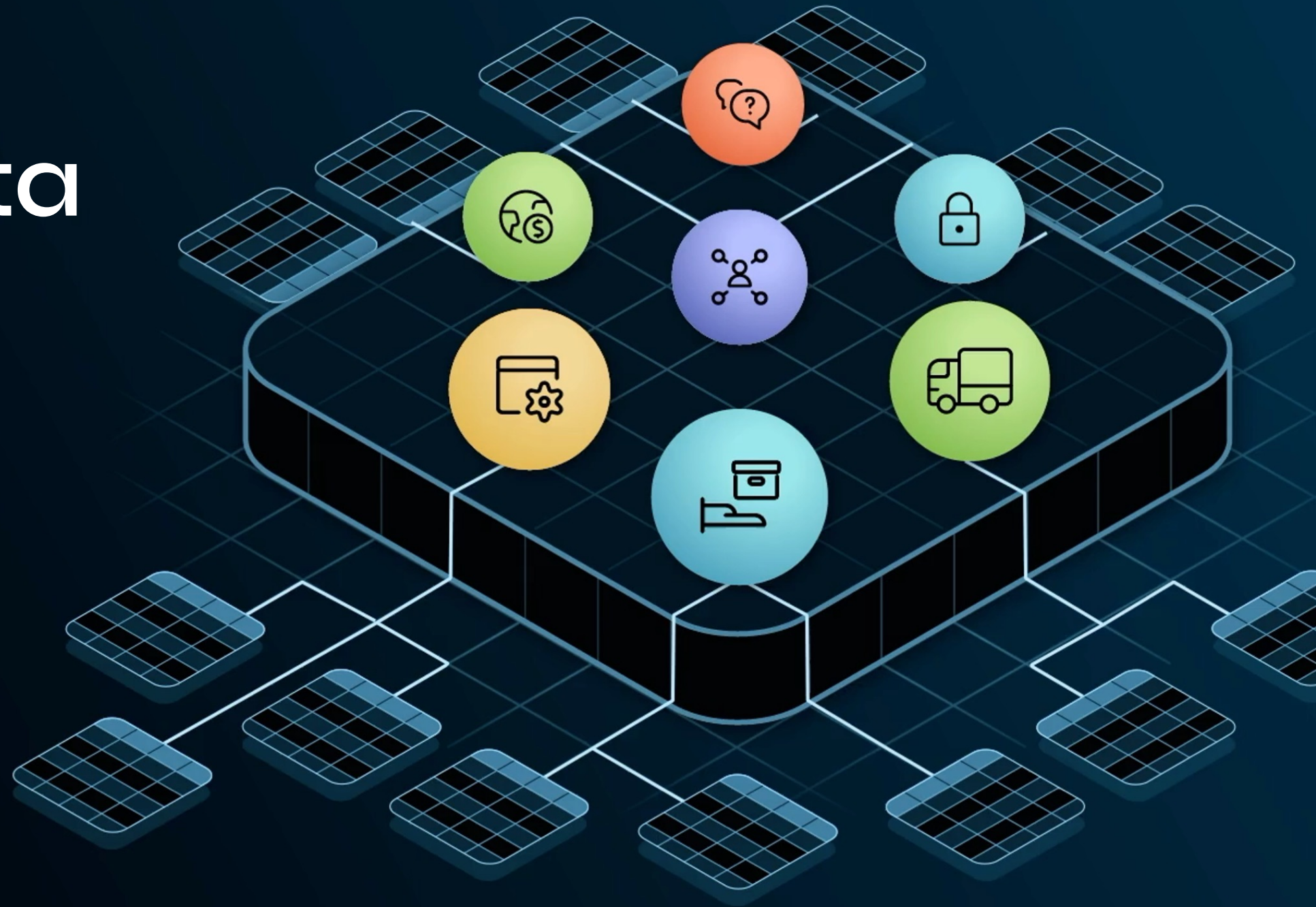


Karthick Subbaraman
Principal Data Engineer
NatWest

Your business is agile and dynamic



But your data
is locked in
rows and
columns



Valuable
patterns are
hidden in
your data



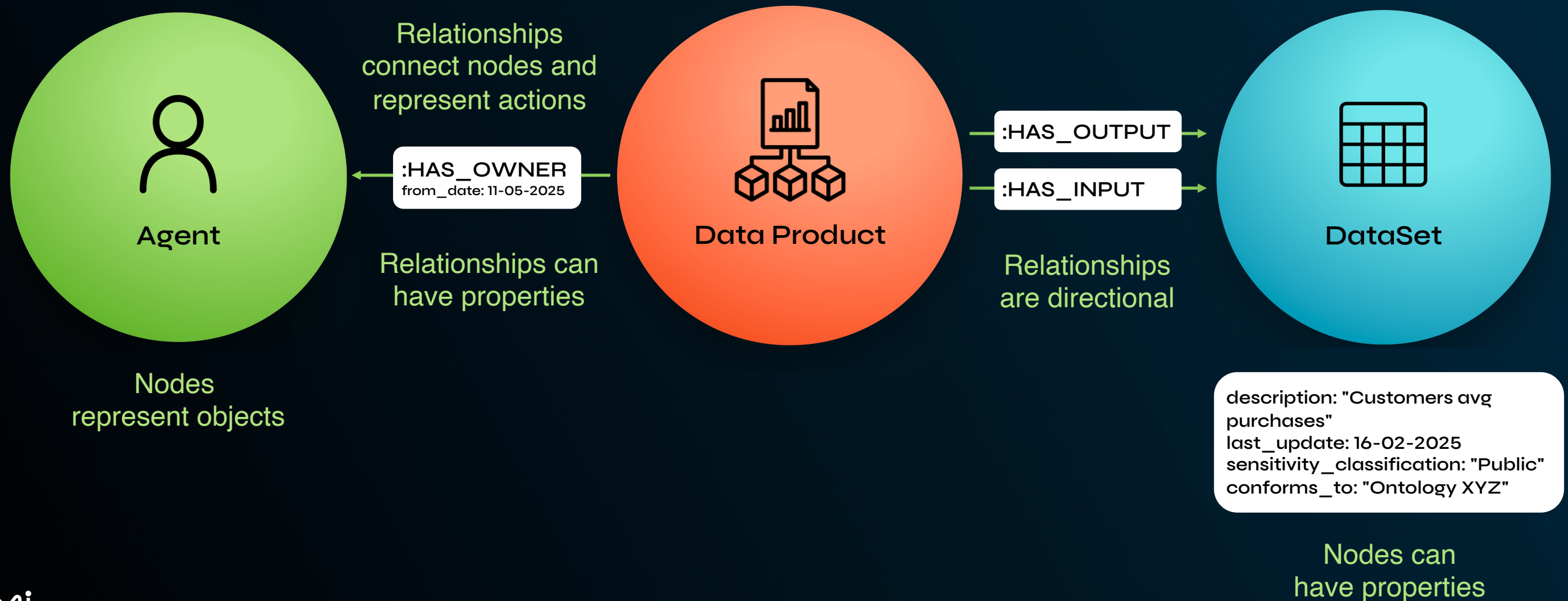
Model your data like your business



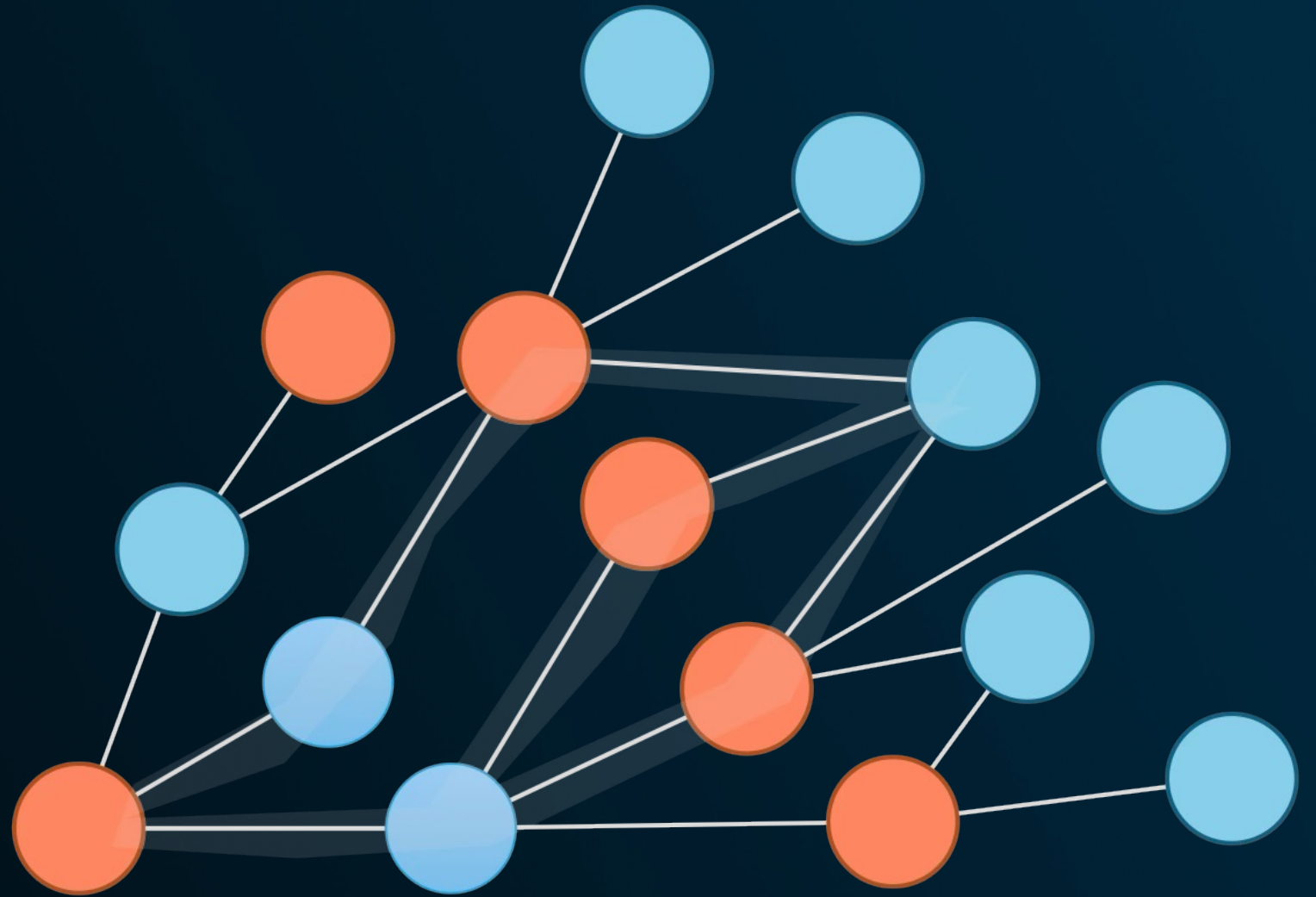
Data, meet graph



The power of the graph model

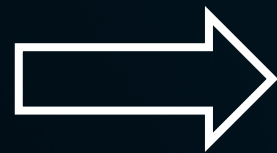


The power of the graph model



```
MATCH (dp:DataProduct)-[r:HAS_INPUT|HAS_OUTPUT*]-(:DataProduct)
RETURN dp.label as company, count(*) as dependents
ORDER BY dependents DESC
```

Graph is
fast



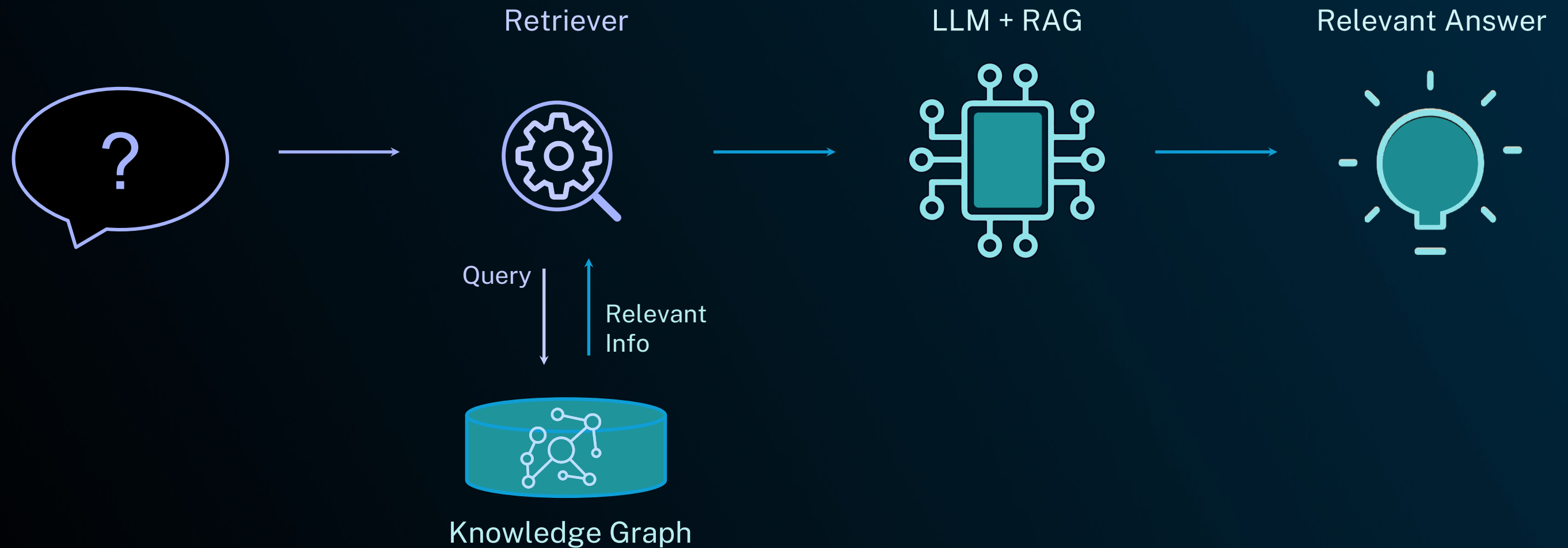
Graph is
flexible



Graph is
insightful

Graphs meet GenAI

GraphRAG



Trusted by 84 of the
FORTUNE
100



10 / 10
Top automakers



10 / 10
Top US banks



9 / 10
Top aerospace & defence



9 / 10
Top telcos



10 / 10
Top technology & software



8 / 10
Top insurance companies

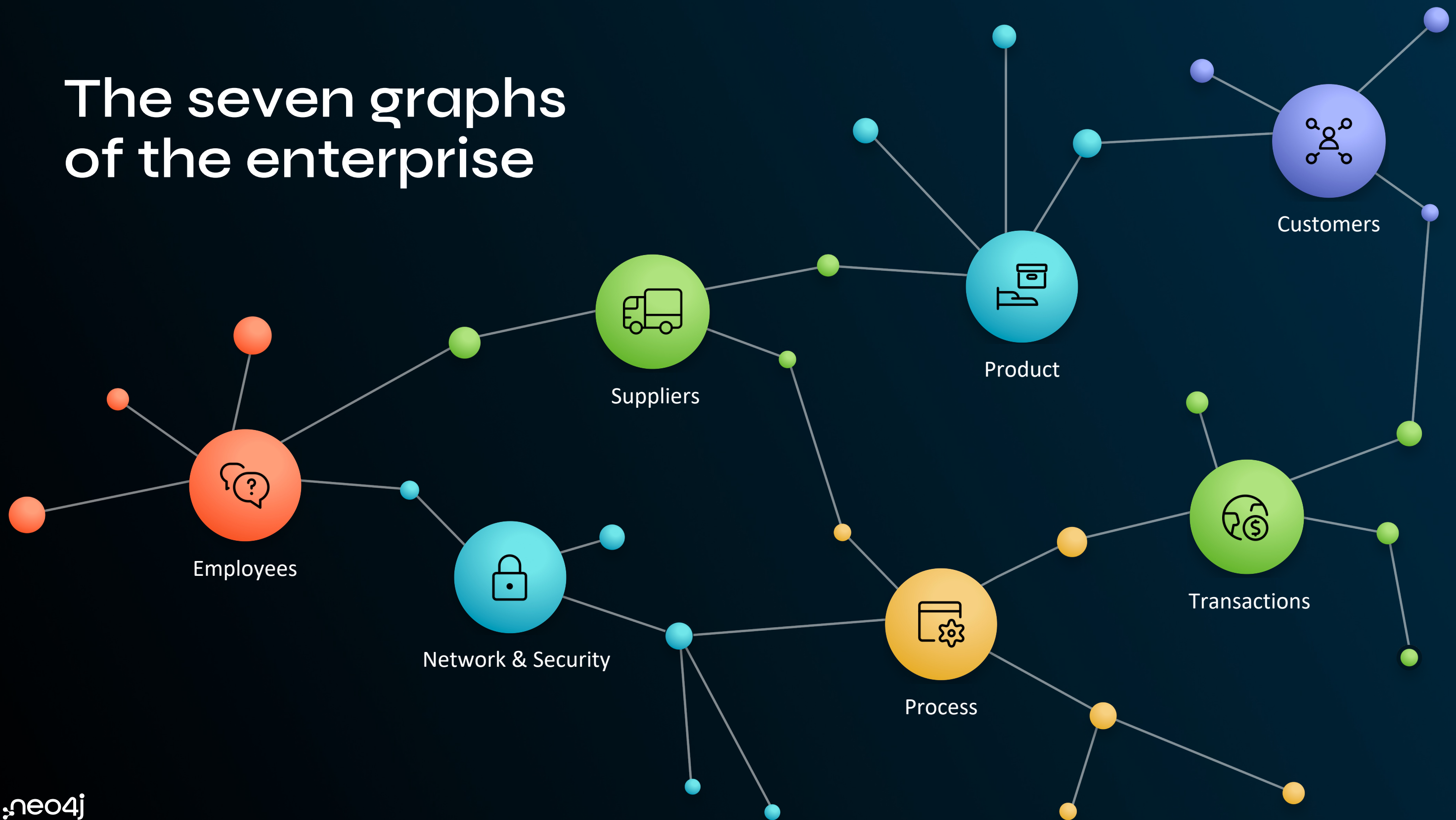


9 / 10
Top pharmaceuticals



8 / 10
Top retailers

The seven graphs of the enterprise



Accelerating Data Product Delivery

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Knowledge Graphs + GenAI



Introduction

Opportunity

Solution

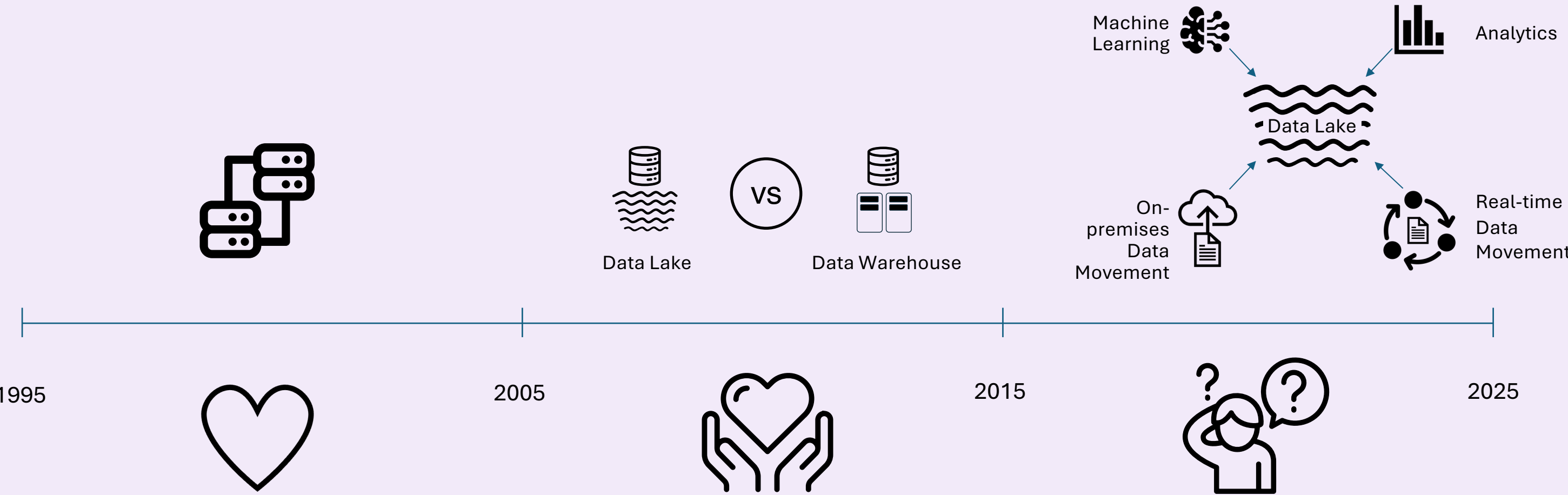
Outcome

Talking about Relationship

Surviving the Data Mid-Life Crisis



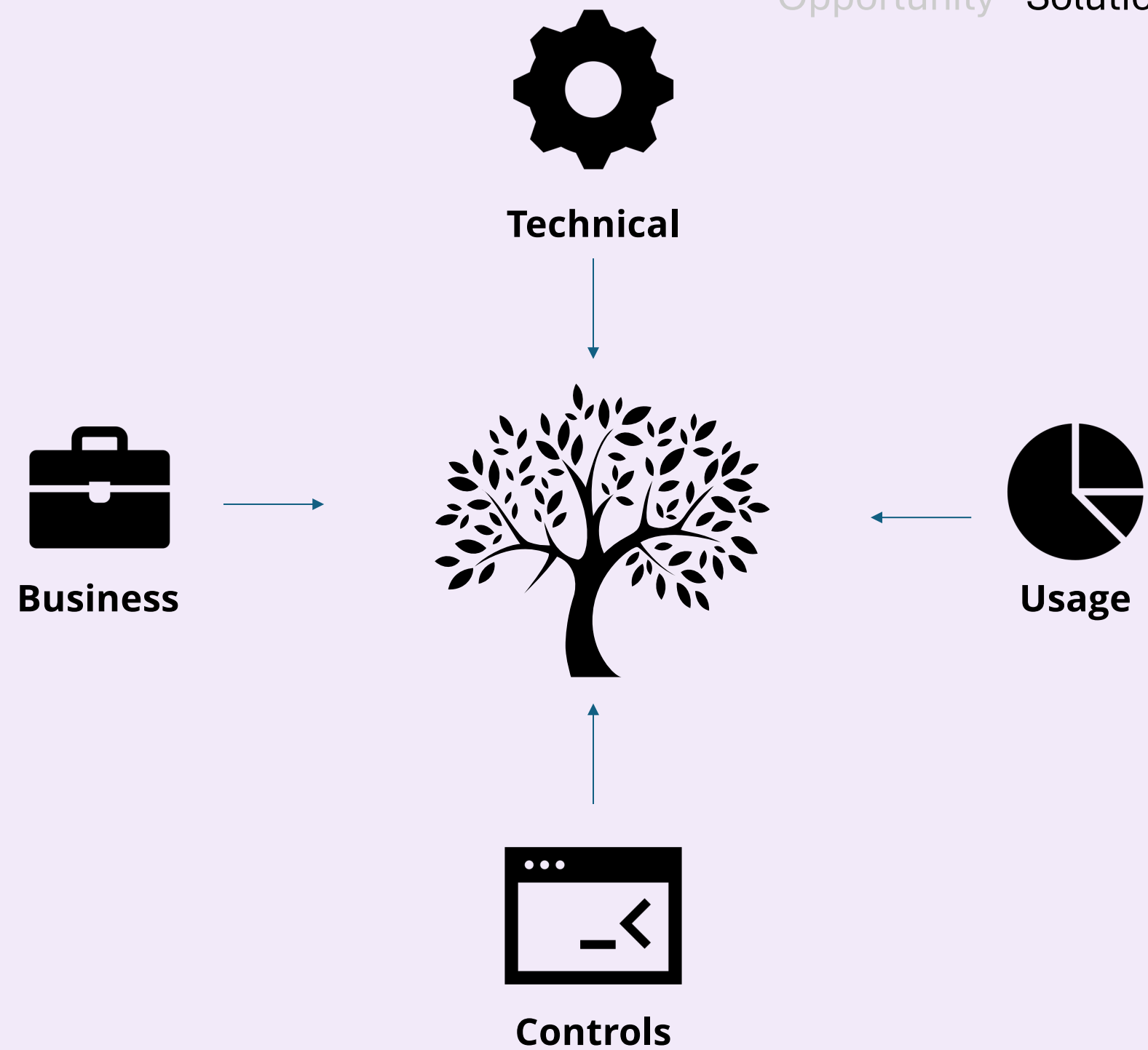
Opportunity Solution Outcome



Building the Data Consciousness



Opportunity Solution Outcome

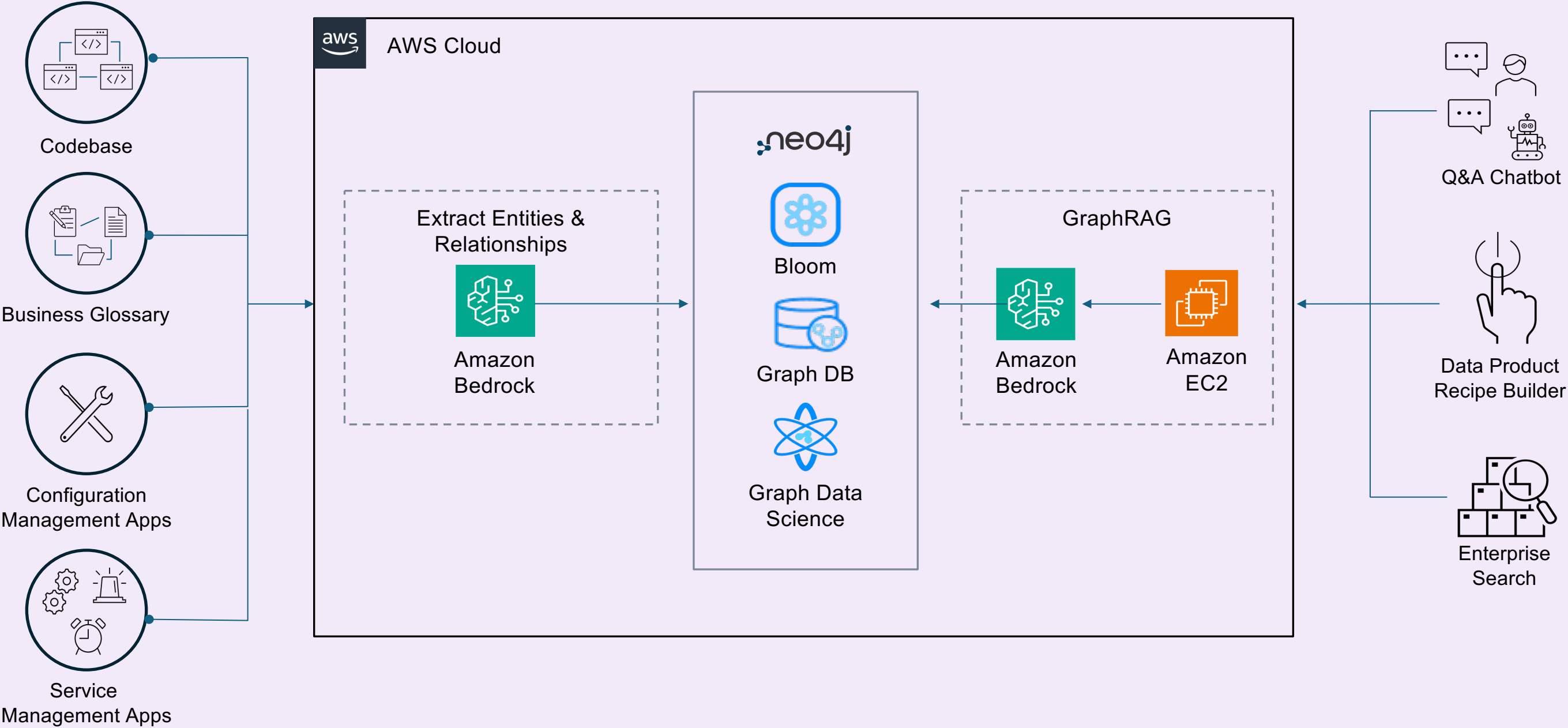


Experimentation Design

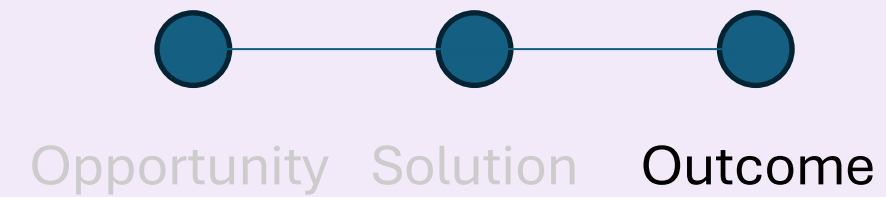
Fiction turns Reality



Opportunity Solution Outcome



Lessons Learned



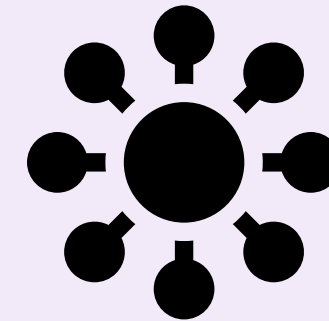
Extraction

- Entity Disambiguation
- Ontology Model Design
- Consistent Classification



Integration

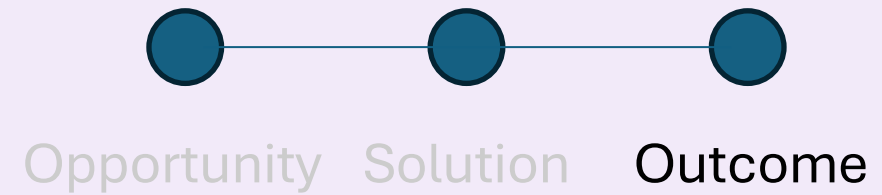
- Domain Contextualisation
- Bad Connections
- Deliberately Ignoring Obvious Connections



Dissemination

- Identifying Missing Knowledge
- Dynamic Example Selection
- Response Caching

Look Ahead



Automate Metadata Cataloguing

Accelerate Data Product builds — with quality, lineage, and context built-in

Optimise Storage, Compute & Lifecycle

Keep **Metadata alive** that grows and learns alongside your enterprise

Leverage for Agentic AI evolution

Connect systems, standardise semantics, and **orchestrate new value**

Key Takeaways: Data is Your AI Advantage

Data management best practices are industry-agnostic

Structured, connected, and governed data benefits every industry.

Investing in your data accelerates outcomes

- Enables faster GenAI adoption
- Powers scalable Agentic workloads
- Drives productivity through unified insights from structured and unstructured data

Data is a durable asset

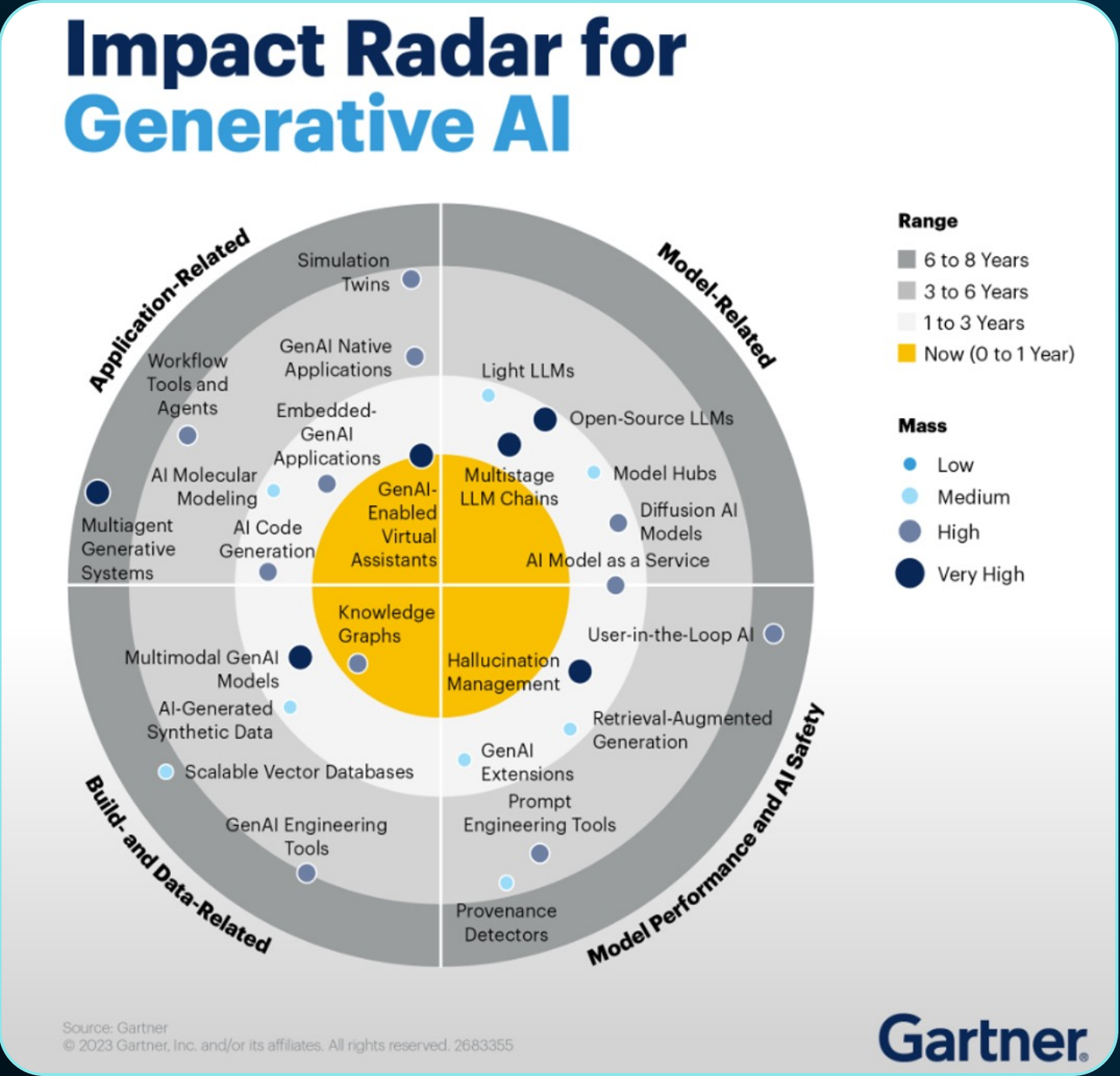
Applications evolve, but well-managed data continues to deliver value over time.

Graph brings it all together

By modeling relationships, context, and meaning, Graph unifies your data foundation for AI at scale.

Impact Radar for Generative AI

Scan the below QR code to get access to the full Gartner article.





Thank you!

Come talk to us at the Neo4j Booth #404 for Q&A.

