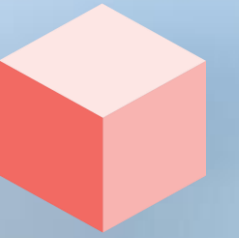




# Navigating the GenAI Frontier in Insurance: Revolutionising Data Strategies for Business Success

*Charles Southwood – Regional VP and GM  
Northern Europe & Africa  
Denodo Technologies*

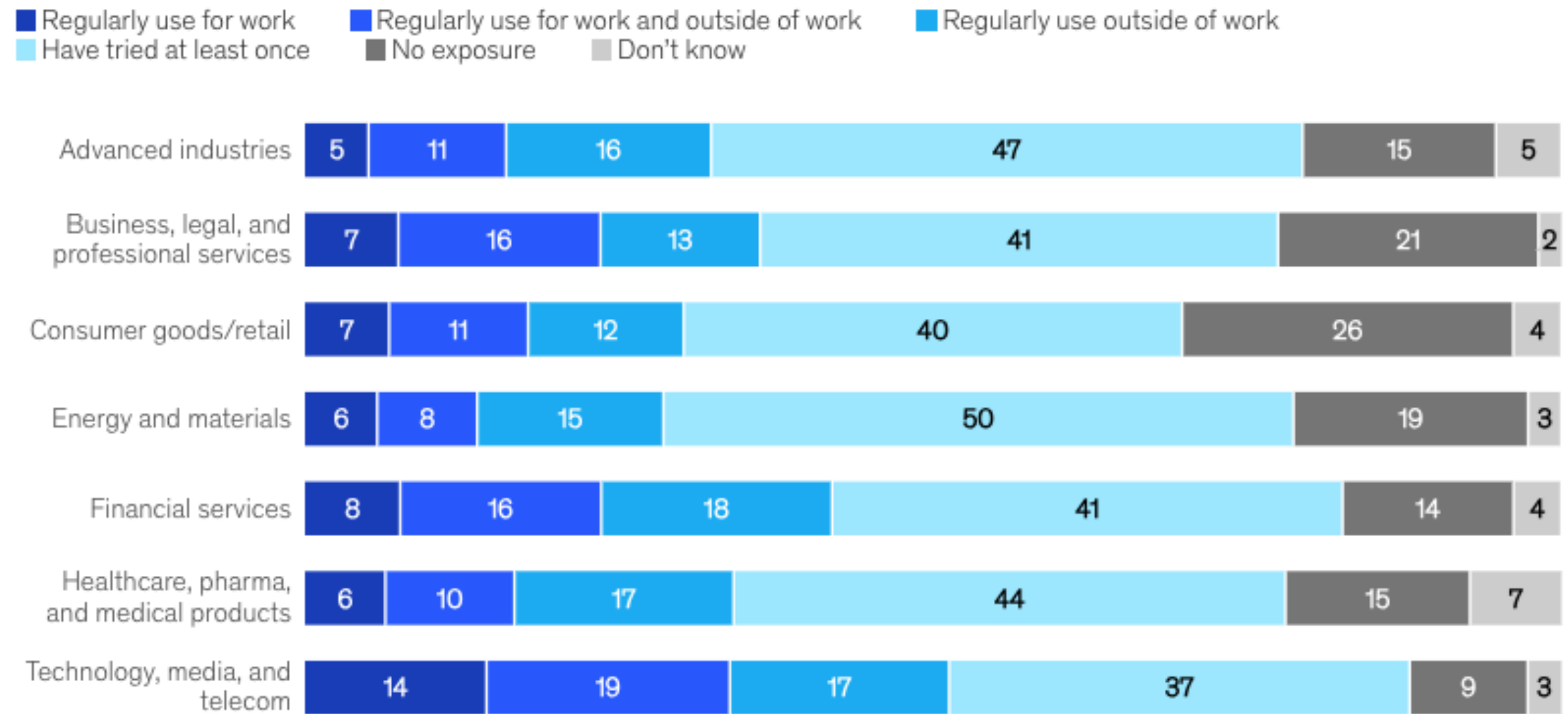


# GenAI Landscape

## GenAI Adoption

- OpenAI and ChatGPT
- Exec Leaders GenAI survey\*
  - April/May 2023
    - 70% of organisations investigating GenAI
    - 4% live
  - Sept 2023
    - 45% piloting or experimenting
    - 10% live

\* Source: Gartner Survey 1400 participants



Source: McKinsey Global Survey on AI, 1,684 participants at all levels of the organisation, April 11–21, 2023

# The Potential of Generative AI

\$15.7 trillion

Game changer

*Sizing the prize: What is the real value of AI to your business?, PwC*

89%

rank AI and GenAI as a **top-three tech priority for 2024**, and 51% put it at the top of their list (cybersecurity and cloud computing are the other two top priorities)

*From Potential to Profit with GenAI, BCG, January 2024*

“Generative AI technology will substantially disrupt our industry over the next five years.”

62% 

of poll respondents agree

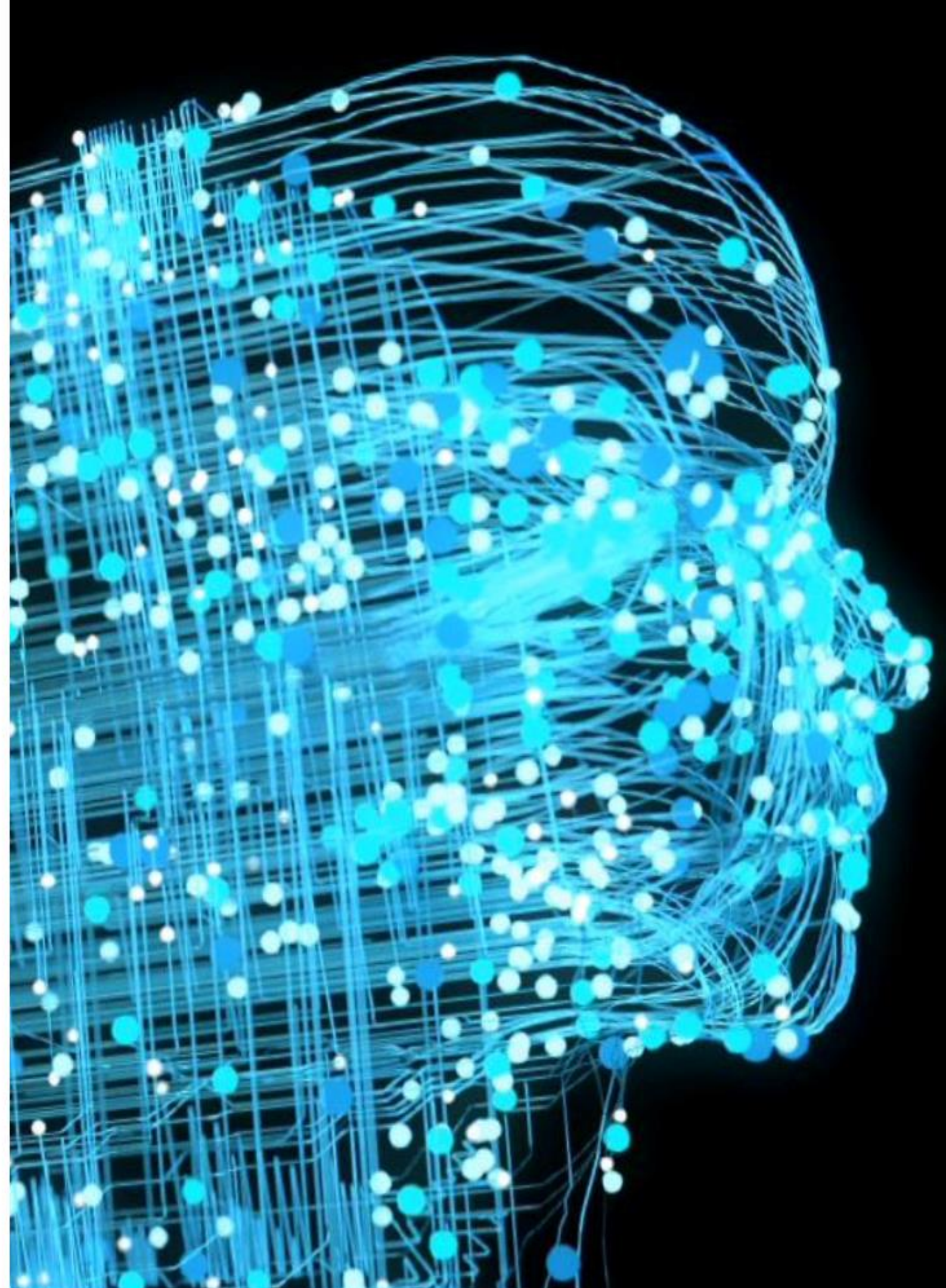
Source: Compiled by MIT Technology Review Insights survey, 2024

**Calling generative AI revolutionary is no hyperbole. Business leaders should view it as a general-purpose technology akin to electricity, the steam engine, and the internet.**

*How to Capitalize on Generative AI, Harvard Business Review, Nov-Dec 2023*

**“the most important advance in technology since the graphical user interface . . . as fundamental as the creation of the microprocessor, the personal computer, the internet, and the mobile phone.”**

*Bill Gates, March 2023*



# By 2026, 80% of businesses will adopt Gen AI (Gartner).

Some use case examples from within the Insurance industry:



## Next Best Offer Prediction

- Analysing customer data can help insurance companies upsell
- AI can be used to help predict the next best offer and estimate when a transaction will take place.



## Pricing Prediction

- Price prediction with AI more accurately determines the insurance price based on the customers' information



## Churn Reduction

- Using AI models, insurance companies can better assess when a customer could be at risk of reducing or leaving and why



## Fraud Prediction

- Fraudulent behaviour is dynamic and cannot be relied upon to identify fixed characteristics
- AI is being used to enable more effective fraud prediction.

# The Dark Side of GenAI: So what could possibly go wrong?

## 5 SIGNIFICANT RISKS OF GENERATIVE AI FOR ENTERPRISES

- 1. Hallucinations & Fabrications**  
Some of the most pervasive problems already emerging with generative AI chatbot solutions.
- 2. Deepfakes**  
Fake images, videos and voice recordings.
- 3. Data Privacy**  
Employees can easily expose sensitive and proprietary enterprise data when interacting with generative AI chatbot solutions.
- 4. Copyright Issues**  
Some outputs may violate copyright or intellectual property (IP) protections.
- 5. Cybersecurity Concerns**  
Attackers could use these tools for easier malicious code generation.

Gartner

## Generative AI — Risks and Benefits

Risks	Benefits
<ul style="list-style-type: none"><li>• Loss of Confidential Data</li><li>• Hallucination</li><li>• Blackbox</li><li>• Copyright Issues</li><li>• Potential for Misuse</li></ul>	<ul style="list-style-type: none"><li>• Workforce Productivity</li><li>• Multidomain Applications</li><li>• Democratization of Information and Skills</li><li>• Talent Retention</li></ul>

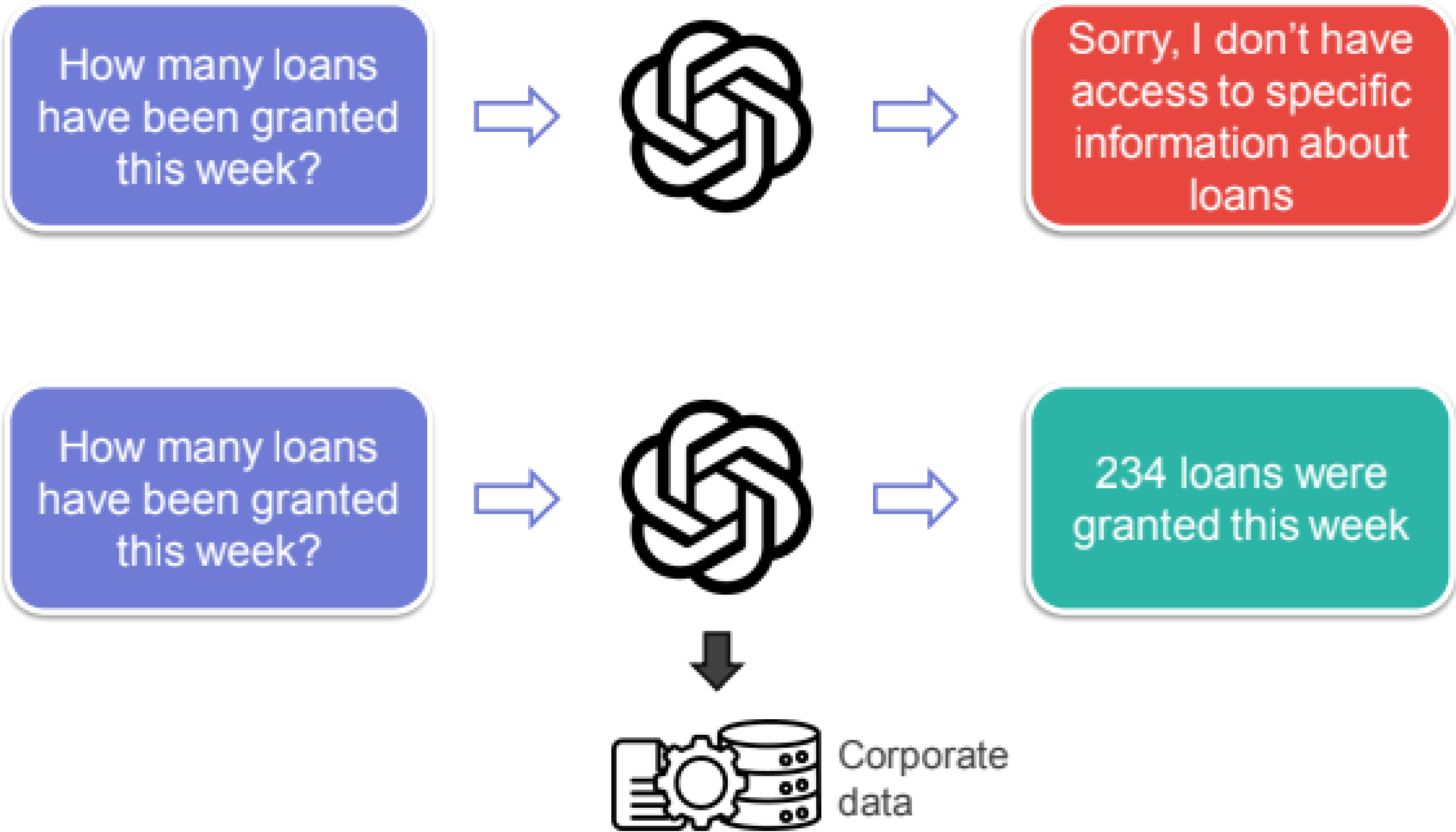
# Adapting to a New Era - Status

- GenAI models like ChatGPT are stuck at a point in time
  - Trained on data from months/years ago
- Lack business context
  - “Knows” who Henry VIII is, but how about Policy Reference BCF-672876?
- Hard to include complex and real-time data into GenAI applications
  - What’s is the latest update from the Loss Adjustor’s report on Claim 21676 made against Policy BCF-672876?



*Mid-journey Prompt: “GenAI robot scratching his head and struggling to answer difficult questions”*

# GenAI LLMs Need Context



# Retrieval Augmented Generation (RAG)

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RAG integrates searching into the LLM

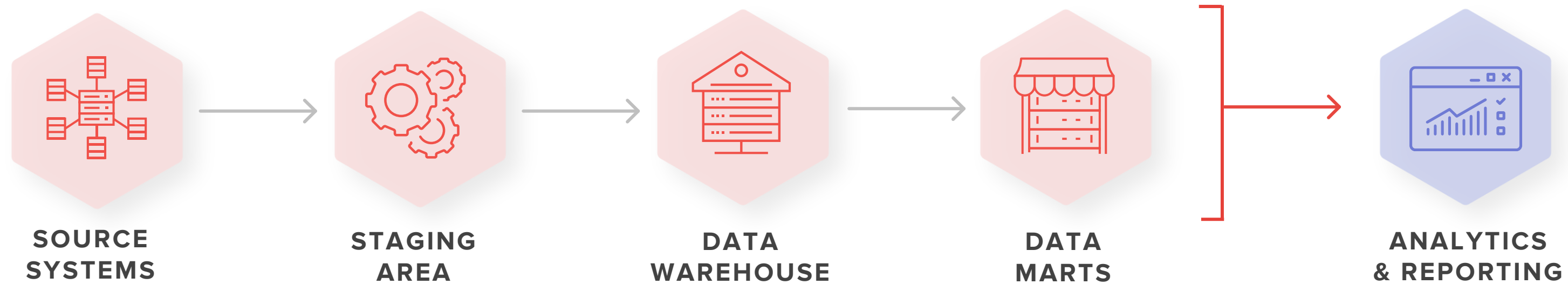
Some examples of context information used by RAG include:

- user-specific information (customer orders placed, user actions taken on the website, the user's status, etc.)
- real-time data (your location, the weather etc.)
- relevant private or newly updated data
- any 'high velocity' data that may be relevant





# Traditional methods of data delivery not fit-for-purpose in an AI world



- ✗ Challenges with slow processing of integration logic – slow deployments
- ✗ Semantic models held in existing reports and hard to share with GenAI Applications
- ✗ Inconsistencies in reports
- ✗ Growing data volumes making ‘move and copy’ model slow / costly / unrealistic
- ✗ Source database data structure determines all the data structures – one size fits all

# Adapting to a New Era - Considerations

## Adoption of GenAI in the business

- Real-time needs of GenAI applications?
- Self-learning AI requires vast amounts of varied data sources to increase the accuracy of AI algorithms
- Accuracy of data used
- Copyright and IPR?
- Data Provenance, Privacy and Legitimate Purpose
- Democratisation of data access across more of the organisation?
- Opportunity to increase productivity
  - Data Engineers/IT?
  - Business Users?

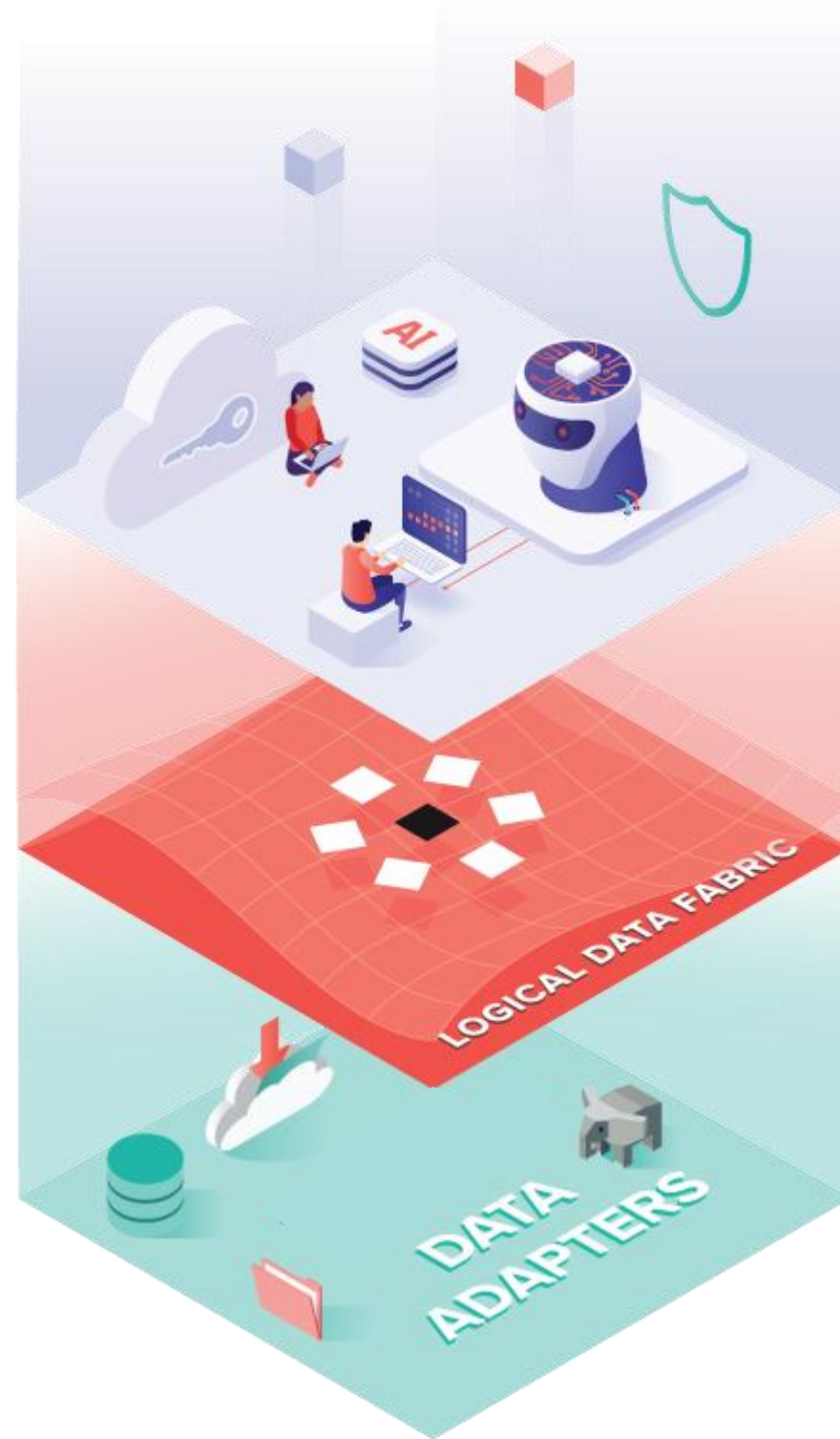
### Data delivery challenges:



- Large volumes
- Disparate data sources
- Diverse locations
- Different formats/ protocols
- High performance
- Real-time
- Data streaming

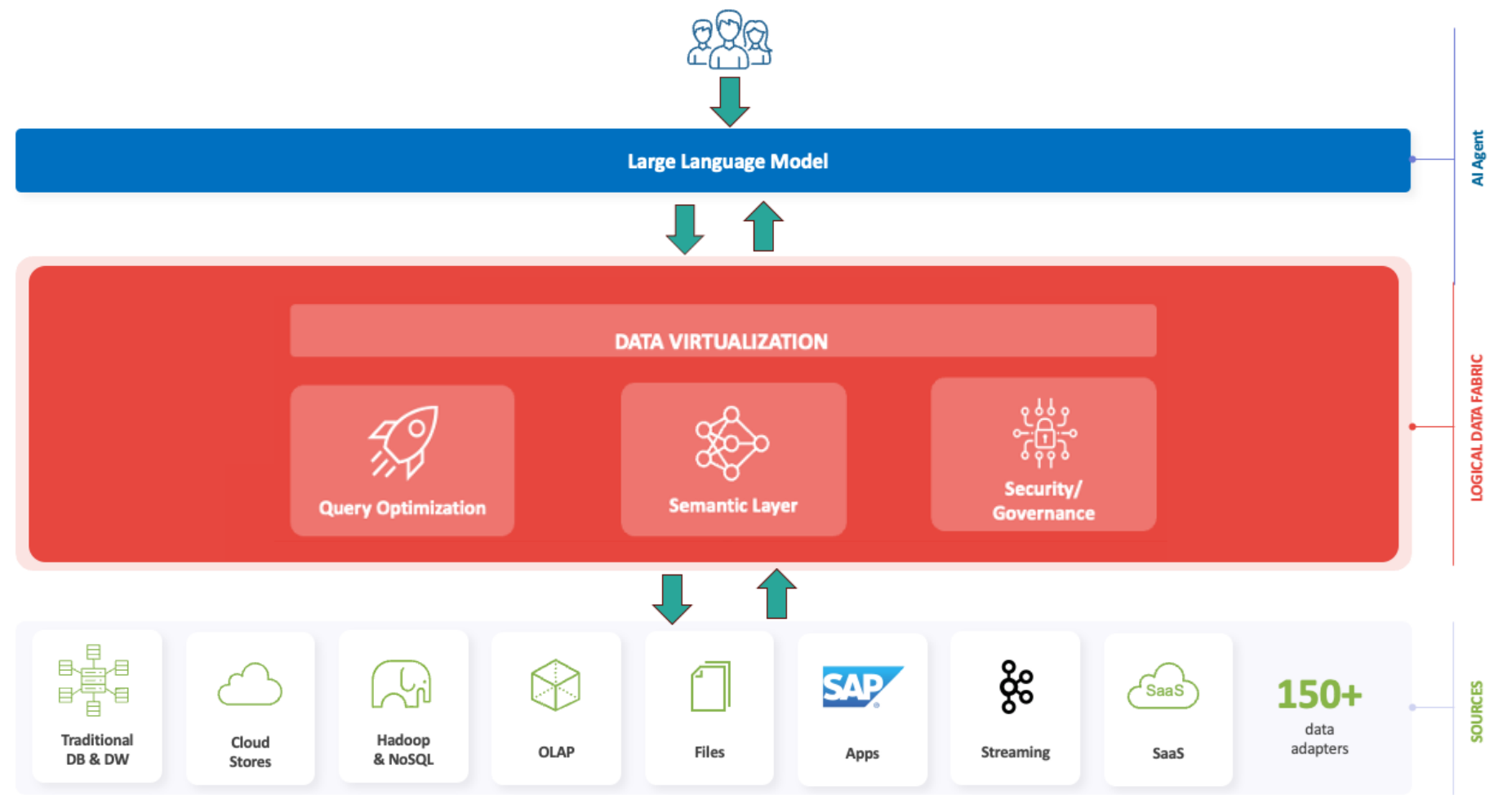


# The Logical Data Fabric powered by Data Virtualization



- Access to all data via **ONE** consistent and secure interface for **GenAI Applications**
- Provides the metadata necessary to make GenAI Apps smarter
  - Data schemas
  - Field descriptions with contextual information
  - Business-friendly field names
- Enables the exposure of “AI-friendly” data views to the GenAI Apps
  - Basic LLMs struggle with complex queries involving many JOINS
  - It simplifies automatic generation of SQL by LLMs
- Empowers business users and the adoption of a data-driven culture and “Data Democratisation”

# Provides a Trusted Data Foundation for GenAI



- A unified, secure access point for LLMs to interact with and query all enterprise data
- A rich semantic layer, providing LLMs with the needed business context and knowledge
- Quick delivery of LLM-friendly data views that are de-coupled and abstracted from the underlying technical complexity
- Built-in query optimisation for LLM workloads

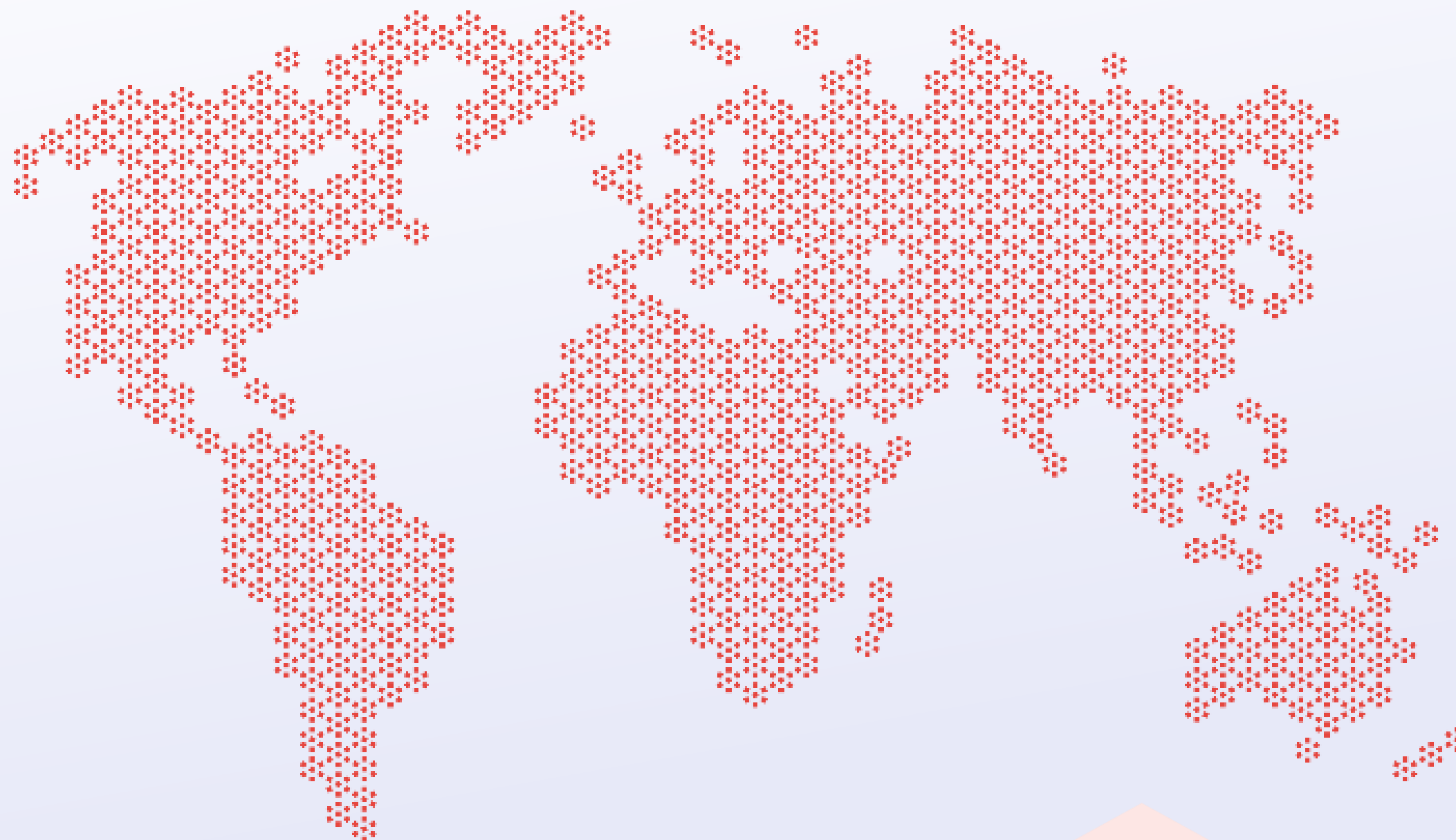
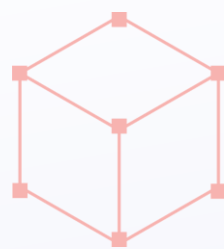
## Key take-aways for our discussion . . .

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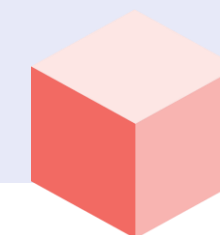
- By 2026, 80% of businesses will adopt Gen AI (Gartner). There are hundreds of possible use cases
- Generative AI enables the use of Natural Language for data management, and will automate data preparation and enrichment
- A logical data fabric powered by data virtualization technology provides the Foundation of Trusted Data to unleash the full potential of Gen AI applications.



DALL-E response to the prompt:  
“Draw a visual representation of key take-aways”



# Thanks!



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