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databricks

WEBINAR

Is your commercial data infrastructure ready for AI?

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Meet Our Speakers

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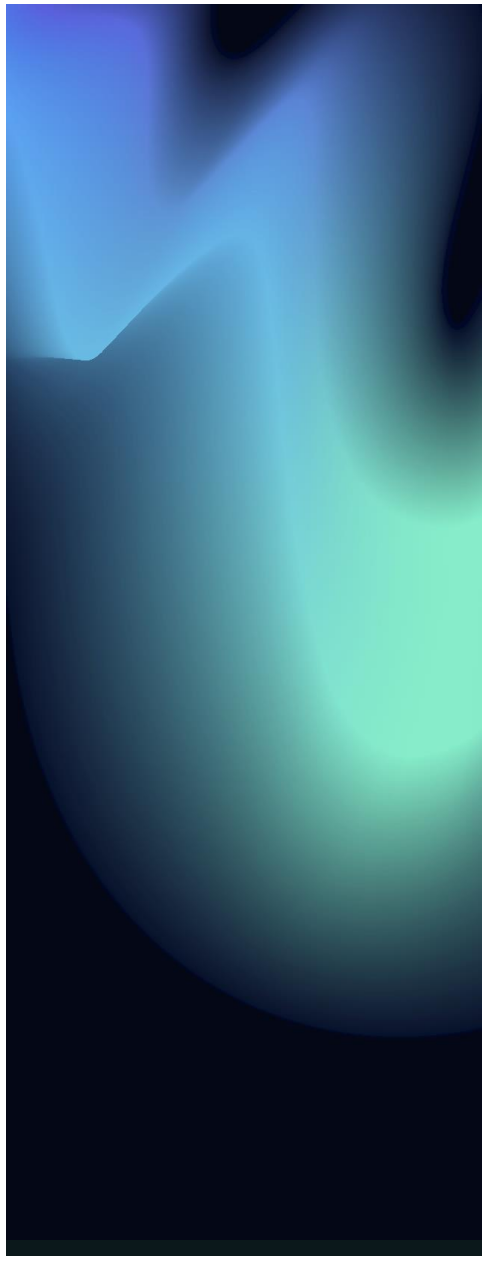

Agenda

→ Your data foundation –

- What's changing?
- Why work faster?
- How can AI help?

→ Introduction to the Complexity-Impact framework

→ Real-life use cases

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Data Foundation

LIVE SURVEY

Q1 Does your organization currently have any AI solutions ready/in production, or are you still in the experimentation phase?

- ❑ We have AI solutions ready/in production
- ❑ We are still in the experimentation phase
- ❑ It varies across the organization -- some departments/teams are more advanced than others

Data Foundation

LIVE SURVEY

Q2 What is your comfort level with the current use of AI in your organization?

- High confidence – *“they/we know what we are doing”*
- Medium confidence - *“it might or might not work”*
- No confidence at all – *“too complicated with little to no chances of being successful”*

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Data Foundation

LIVE SURVEY

Q3 How do you perceive the importance of your data foundation (data structure, type(s), refresh cycles etc.) to the successful implementation of AI?

- ❑ Not at all important
- ❑ Somewhat important
- ❑ Mission critical

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DATA FOUNDATION: What's Changing?

Higher Volumes of Data

- **Higher volumes of data** put additional pressure on increased workload
- **Multiple data sources** will add extra layer of complexity

New Data Dimensions

- LLM inferencing is driving a **shift toward unstructured data**.
- Increased need for **deriving qualitative insights** from unstructured sources.

Real Time Data Feeds

- Data available in real time requiring **agile ingestion pipelines**
- **Reduced time for quality checks** and stewardship
- Integration of **digital data sources**

Interoperability and Integration

- Organizations pushing the needle towards **unifying EHRs, RWE and genomic data**, creating a vast opportunity to uncover qualitative insights

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DATA FOUNDATION: Why Work Faster?

Compressed Launch Cycles

- **Market pressure for quicker Go To Market** for new therapies driven by competition, regulatory demands and patient needs

Data Explosion

- **Data expected to double in volume every other year**, with increased growth in unstructured dimension
- Data unification expected to **improve precision of insights**

Fewer Resources

- **Budget, talent and time will become increasingly constrained**, demanding the need for efficiency and optimization

Competition

- **AI / tech-enabled competitors** setting higher benchmarks for speed and efficiency by agile adoption of new technologies

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DATA FOUNDATION: How AI can help

IMMEDIATE

AI as an Optimizer

Doing what's done, with speed, accuracy and repeatability

SHORT TERM

AI as an Enabler

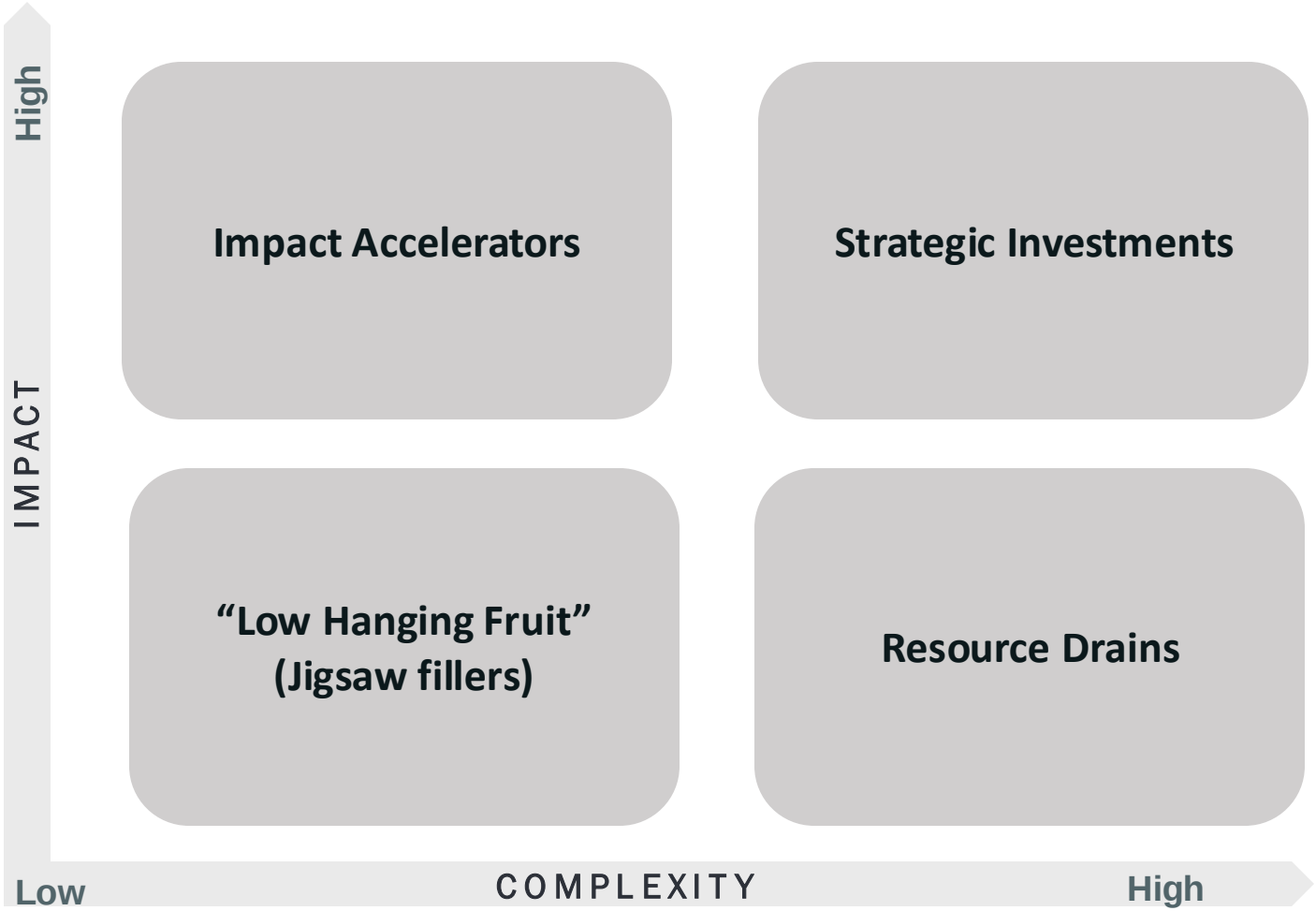
Doing what's never been done

LONG TERM

AI as a Strategist

Augmenting human decision making

How to plan for change – Complexity-Impact Framework



For “**Complexity**“, consider factors like:

- Data / integrability
- Feasibility ($, resources)
- Familiarity (tech needs, workflow)

For "**Impact**“, consider factors like:

- Long term value
- Business urgency
- Broader business goals
- Efficiency gains
- Enabling new capabilities

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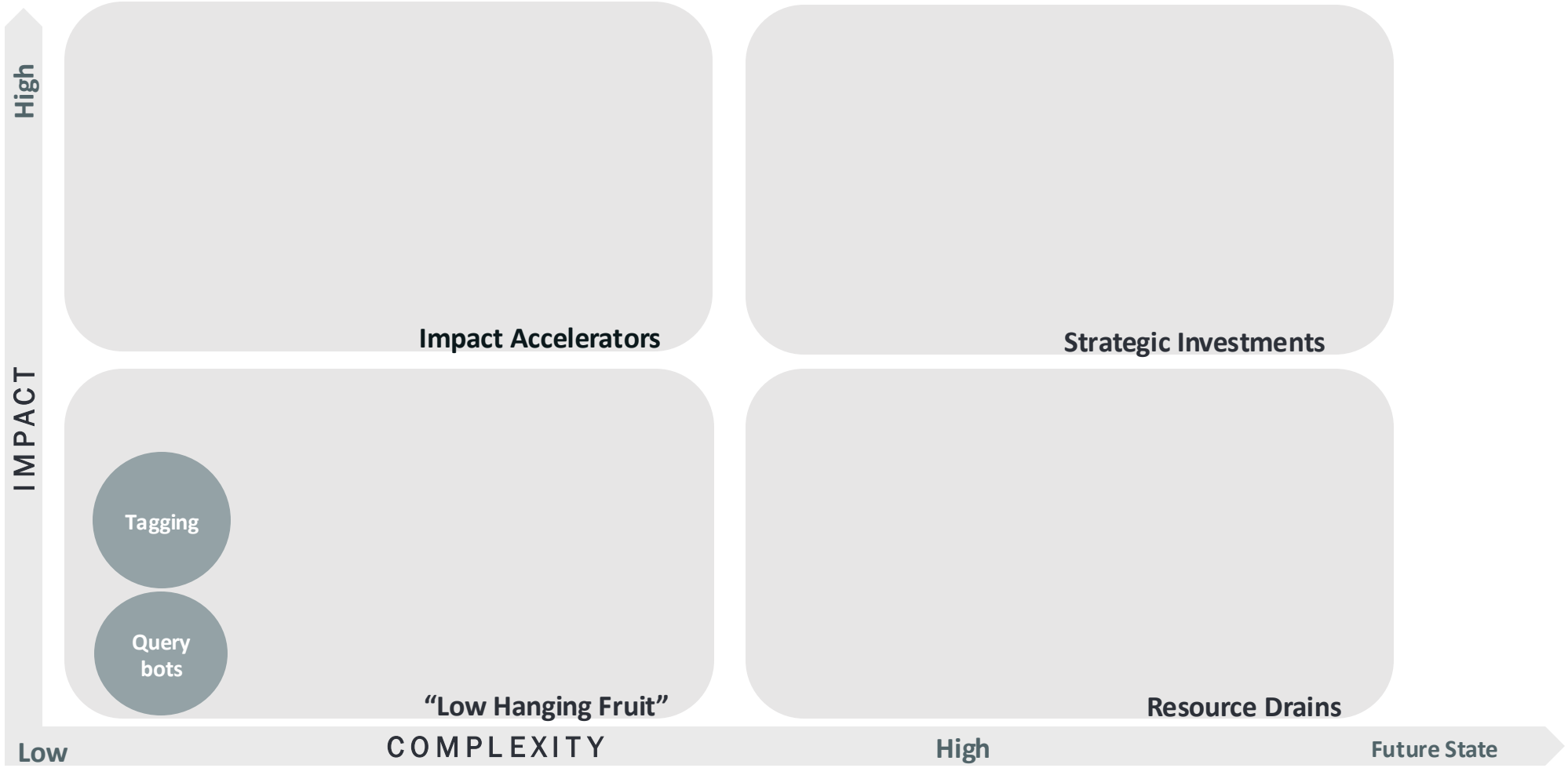
Development doesn't happen in a vacuum, and is not a straight line



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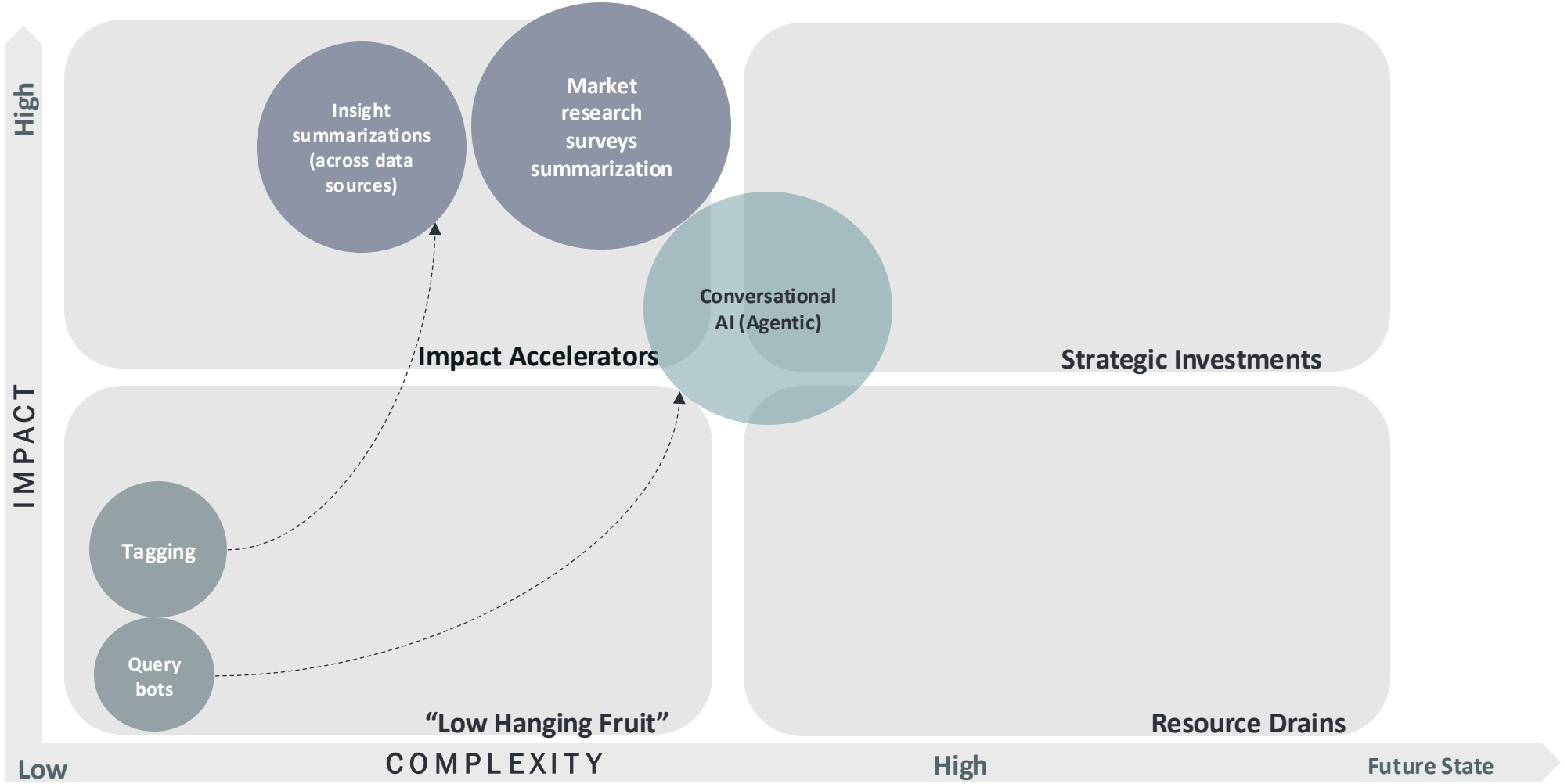

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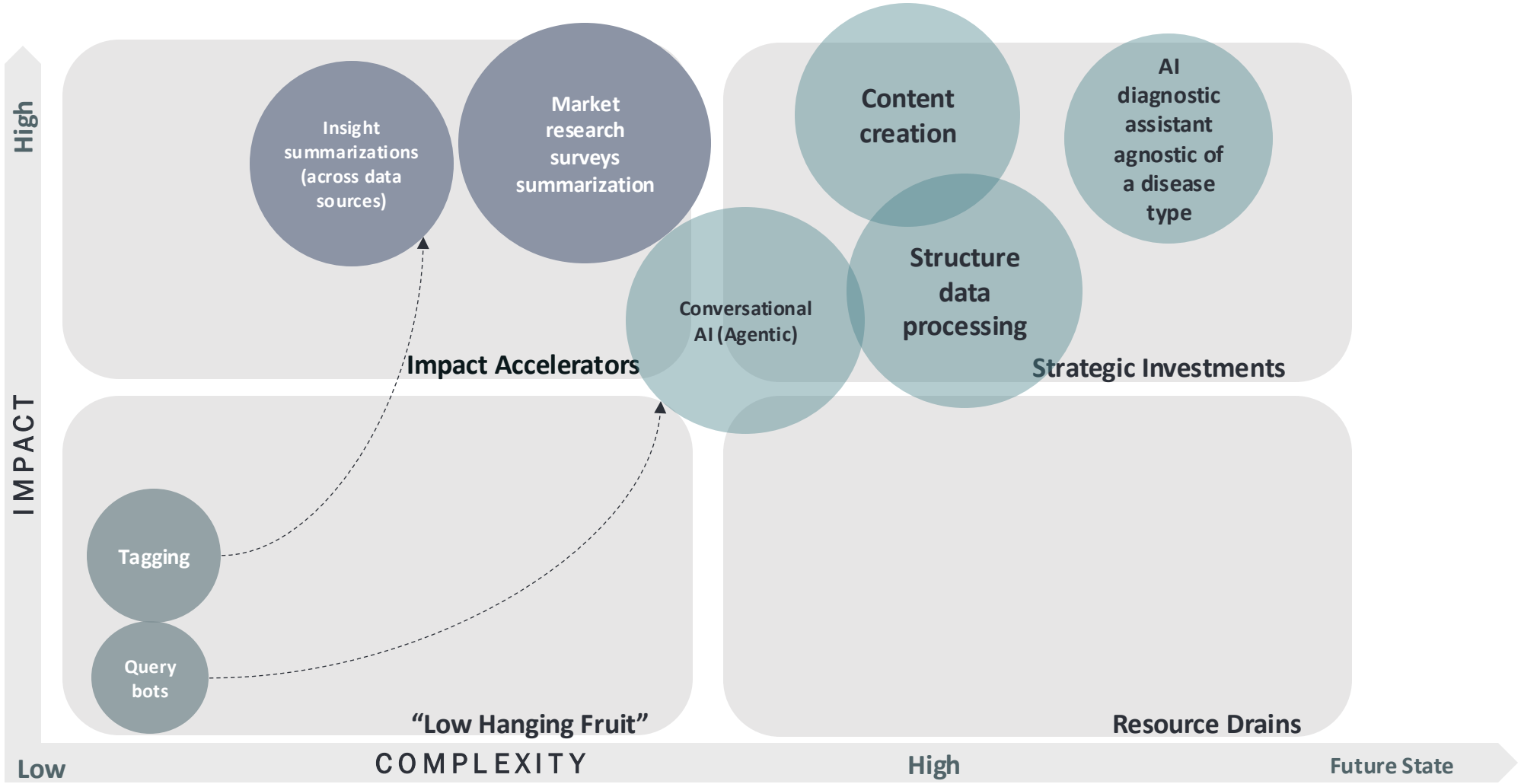

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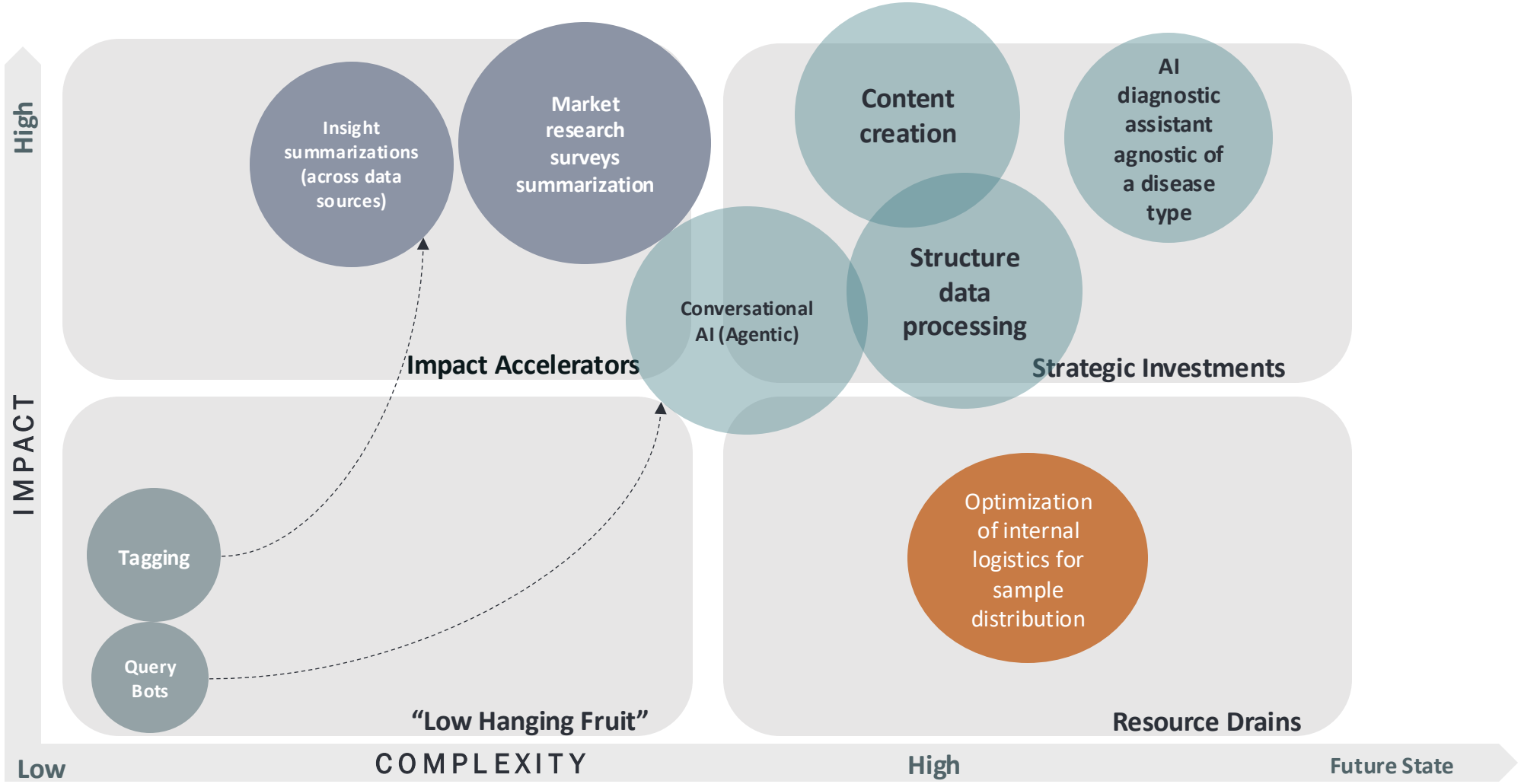

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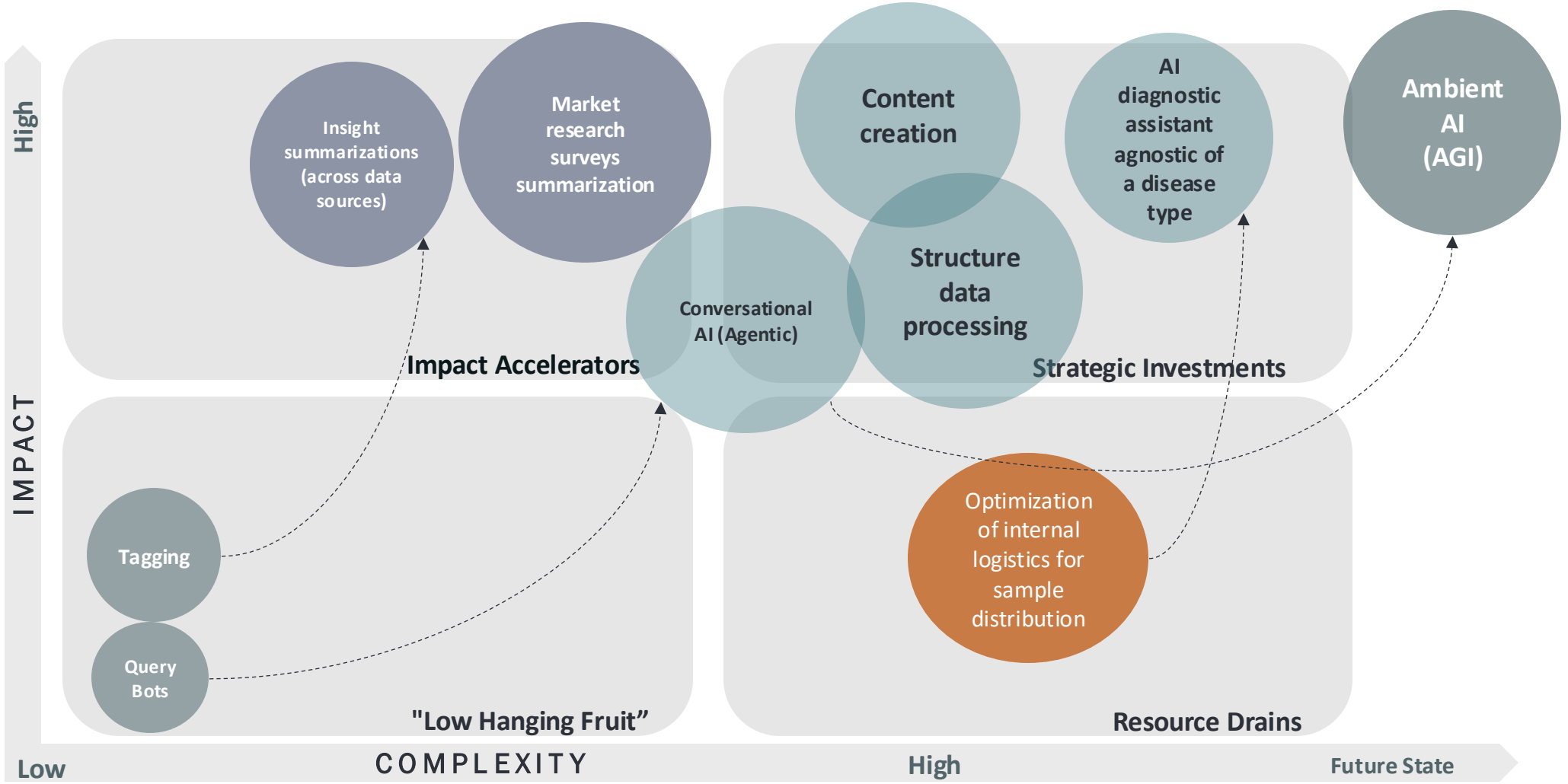

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Fewer Resources	New Data Dimensions
Competition	Compressed Launch Cycles

LOW COMPLEXITY LOW IMPACT

Tagging Medical Insights

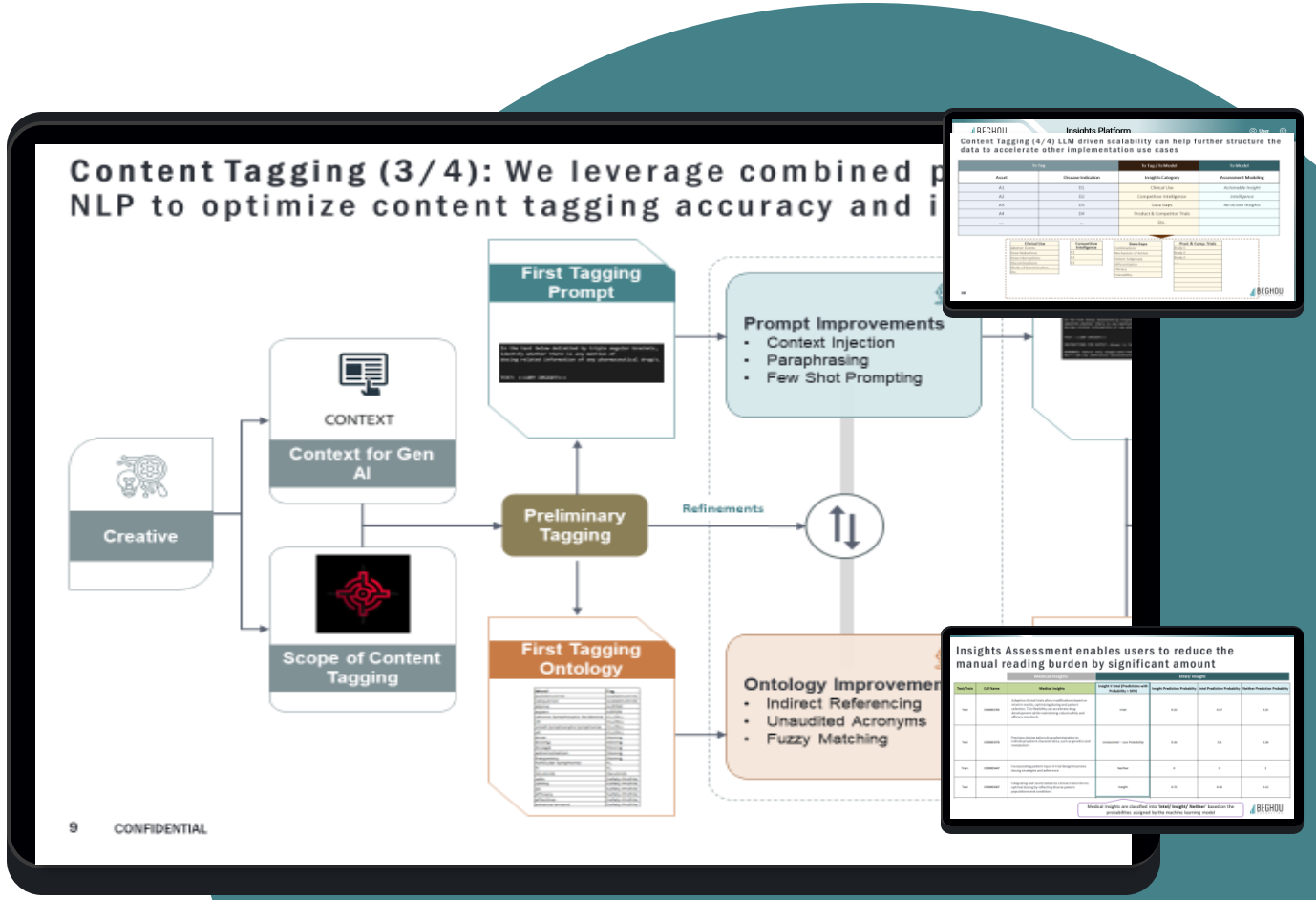
CHALLENGE: MSL notes tagging is **time consuming** and **sensitive to interpretation**

AI APPROACH:

- Leverage Gen AI to identify trends in notes for clinical review
- Facilitate therapy area contextualization to make LLMs context aware

IMPACT:

- Structured data for downstream analytics
- Improved efficiency, accuracy and speed
- Human effort swapping to critical work



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Competition	Real time data feeds
AI as an optimizer	Compressed Launch Cycles

LOW COMPLEXITY HIGH IMPACT

Summarizing Medical Insights

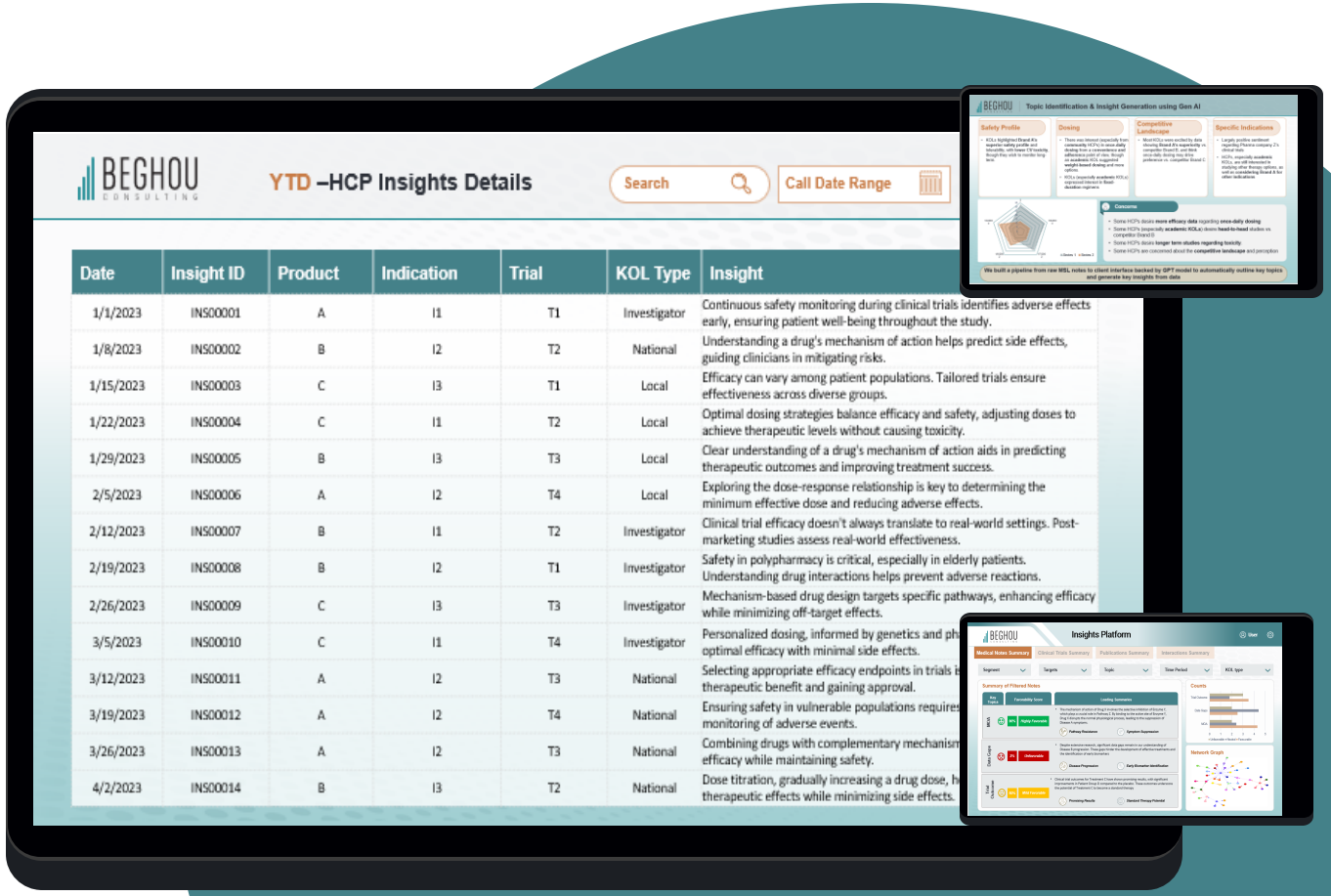
CHALLENGE: Medical affairs insights analysis is **time consuming** and **prone to human biases** and **difficult to reiterate** with subsets of information

AI APPROACH:

- Instruct the LLM to retrieve relevant information and summarize findings in a format similar to an analyst.
- Facilitate therapy area contextualization to make LLMs context aware

IMPACT:

- More time to focus on actioning insights
- Increased accuracy and consistency
- Reduced lead time
- Daily automated processing



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HIGH COMPLEXITY HIGH IMPACT

Conversational AI on Medical Insights (Agentic AI)

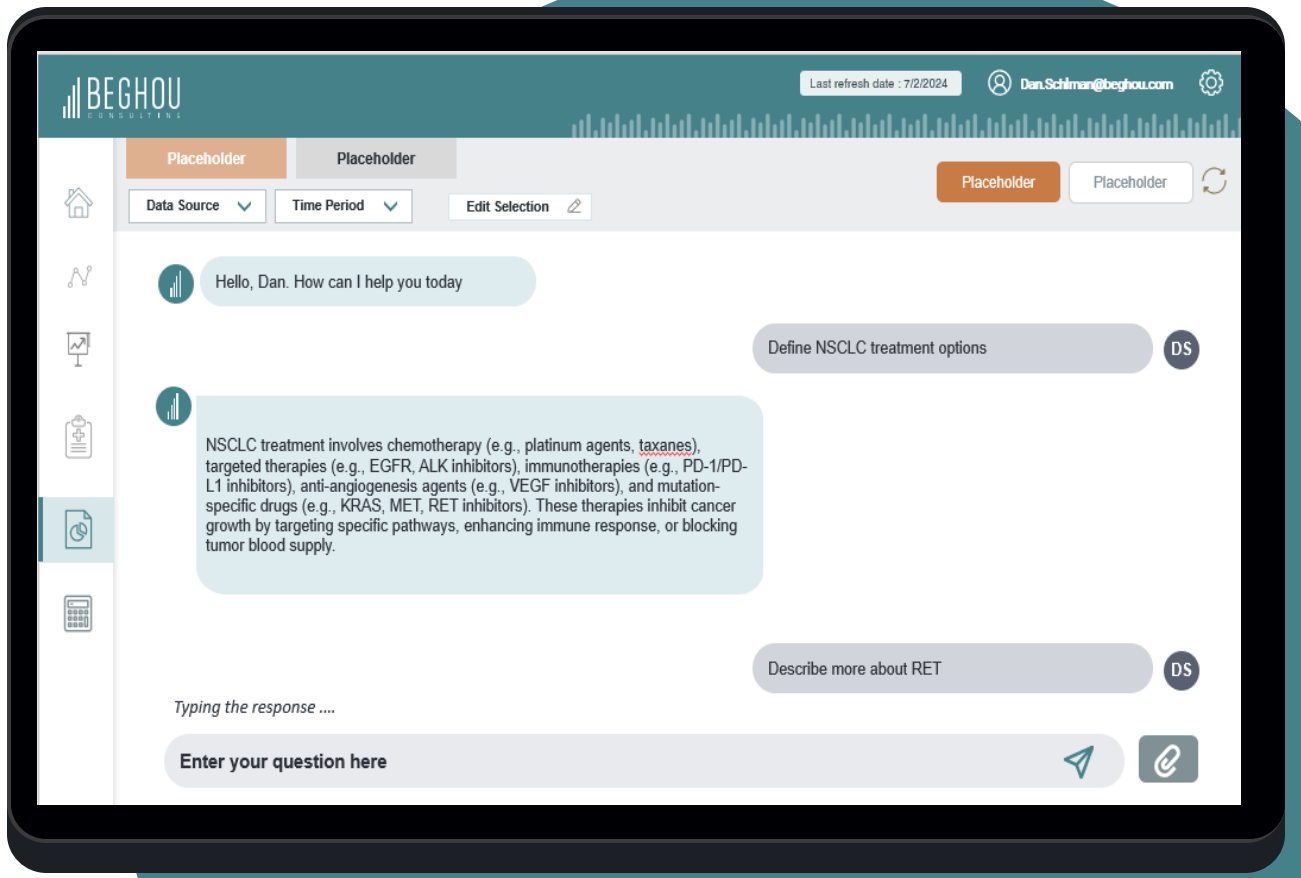
CHALLENGE: Revisiting medical notes to answer any question holistically is cumbersome, time consuming and prone to human errors and biases

AI APPROACH:

- Creating AI agents that answers with higher accuracy, comprehensiveness
- Incorporate persona driven responses
- Carryforward user history and context

IMPACT:

- Real time on demand response for queries
- Enabled reasoning capabilities
- Multimodal data ingestion (pubmed, clintrial etc.)
- Near zero hallucinations



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HIGH COMPLEXITY LOW IMPACT

Optimization of internal logistics for sample distribution

Perspective on when to pursue HCLI use cases

AI APPROACH:

1. High Complexity:

- Requires the **integration of advanced machine learning algorithms** with existing inventory and logistics management systems.
- Involves analyzing extensive datasets, such as warehouse locations, sales trends, and physician request patterns, to predict optimal sample allocation and distribution routes.
- System must **adapt dynamically to varying demands**, compliance requirements, and regional regulations.

2. Low Impact:

- While optimizing sample distribution might **lead to some cost savings and efficiency improvements**, its **overall impact** on the company's core objectives—such as improving patient health outcomes or accelerating drug development—**is minimal**. Sample distribution is a peripheral activity compared to more strategic focuses like clinical trials or drug pipeline advancements.

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Embracing the optimal technology (AI and Tech enablement)

Remove Data Silos

Choose the right tech platforms (upwards compatible)

Iterative Development

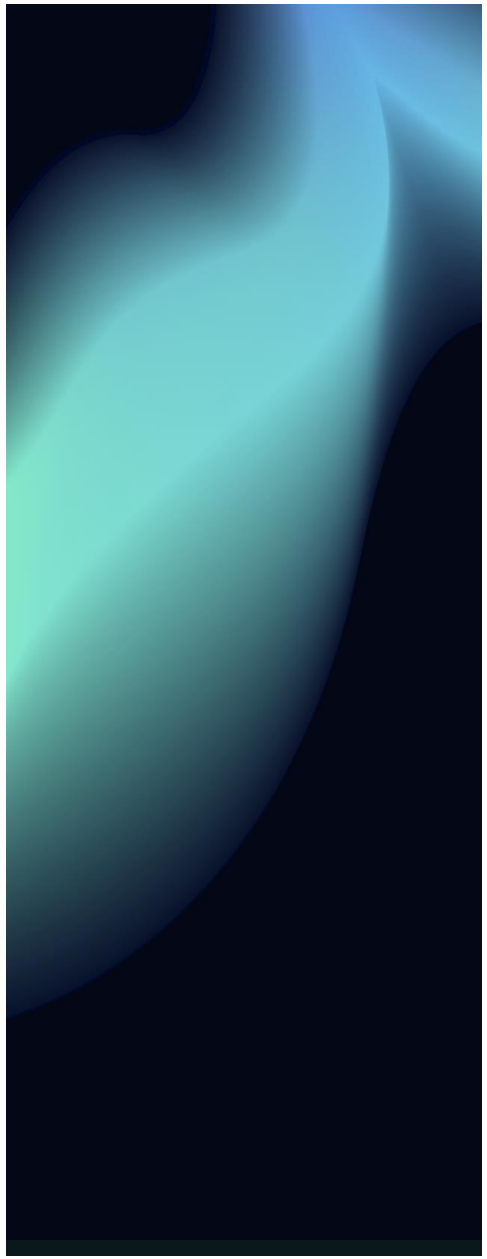
Choose the right AI development framework

Cost-Effective Investments

Choose the right LLM/LRM for the use case

Effective Data Curation

Associate appropriate context for each AI



In Summary…

- → Data foundation and data management have a significant impact on the AI roadmap and capabilities
  - A lot is changing – from data volumes to data frequency and recency
  - The need to work faster is enhanced due to competition and faster launch cycles
- → Complexity/impact framework can help prioritizing AI use cases, responding to faster turnaround times and fewer resources
- → Embracing the right technology will be important
- → Organizational trust is key, and lack-thereof can lead to lower success and “AI productivity”

Questions?
Here's what we're hearing...

→ What platforms or tools are needed to support AI in data infrastructure?

→ How are other companies leveraging AI across launches and operations?

→ What are the best practices for adopting AI while managing organizational change?

Thank you!

Want to learn more?

Visit: BeghouConsulting.com/AI

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