

Unlocking the Power of Unstructured Data for Innovation in Insurance

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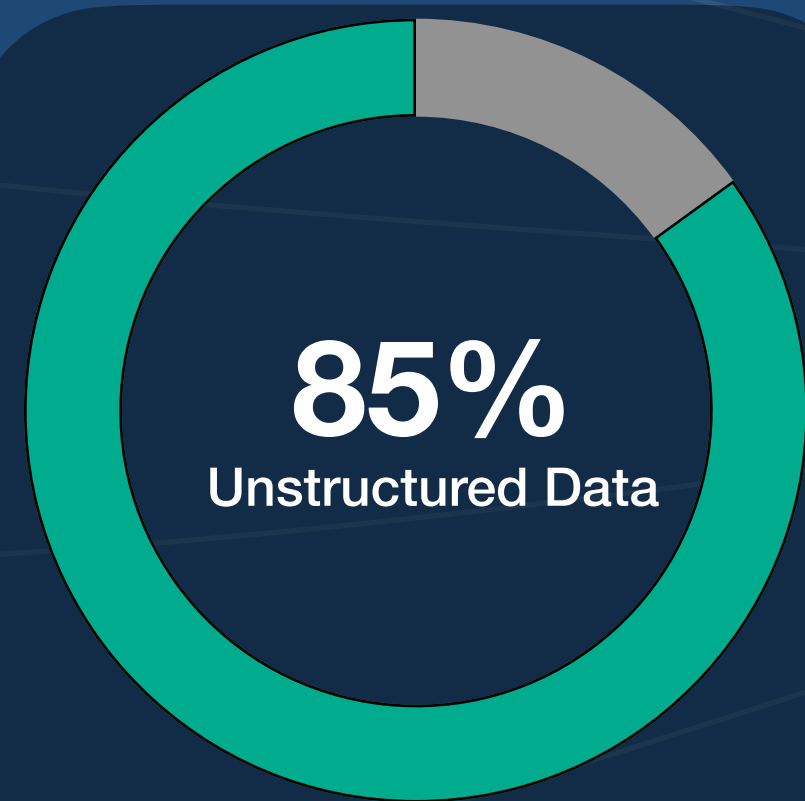


The Hidden Value of Unstructured Data in Insurance

*Every day, insurance companies generate **millions** of documents that tell stories. Stories about risks, opportunities, and customer needs. But most of these stories remain untold, locked away in what we call unstructured data.*

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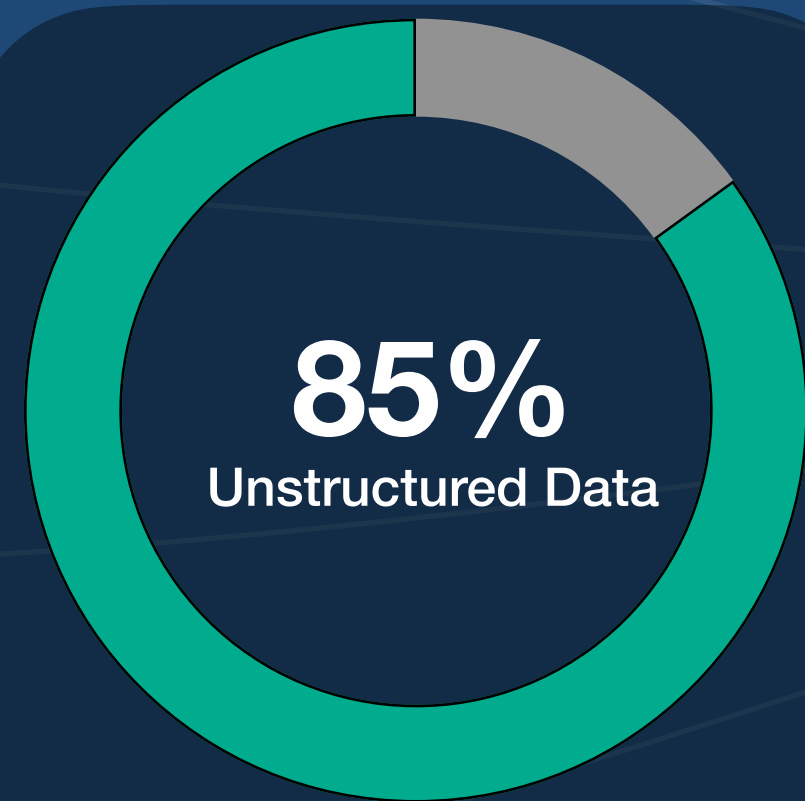


Only 15% effectively analyzed

Unstructured Data is frequently incompletely analyzed, misread or unused

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The growing market + Increasing Risks



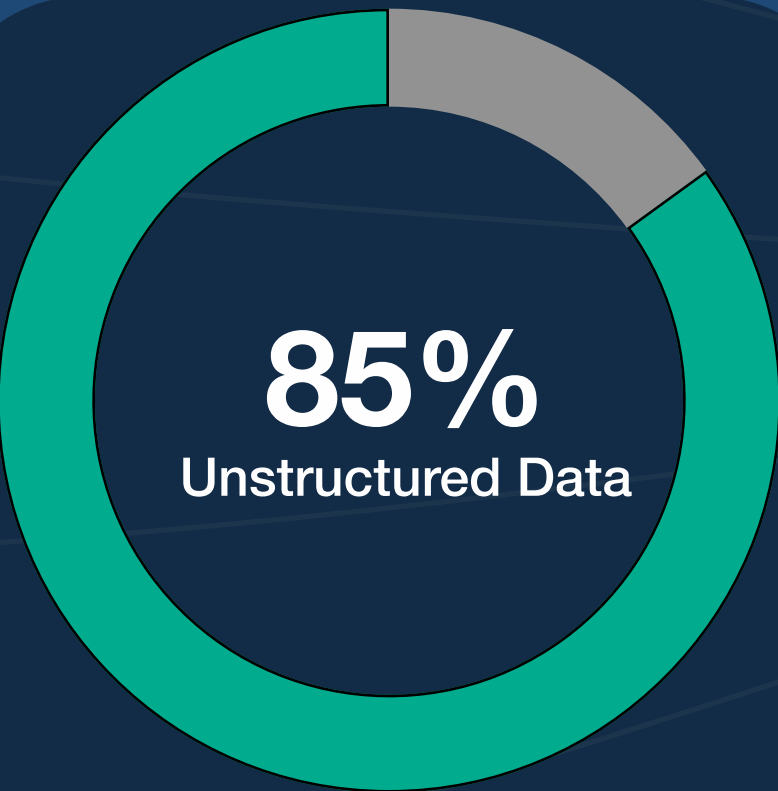
Traditional Methods Failing



Underpricing premiums, Insurance fraud, Overpaying claims

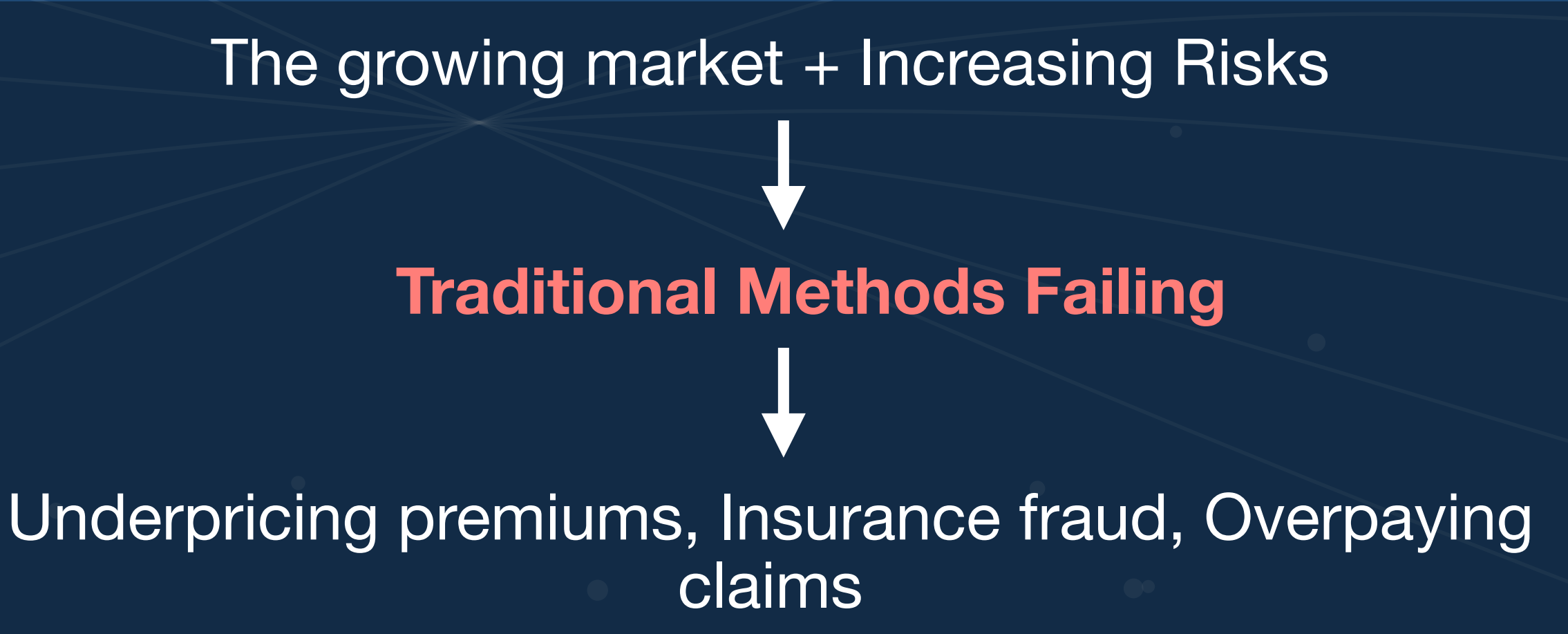
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Manual Consumption Bottlenecks



Slow and Inefficient Intake



High Error Rates



Compliance Risks



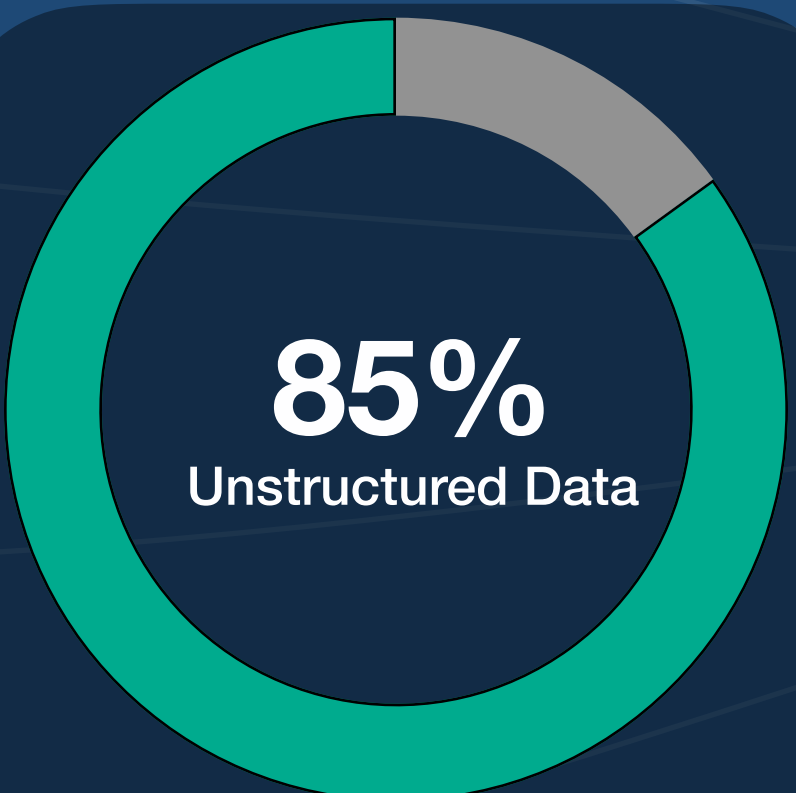
Lost Productivity



Customer Dissatisfaction

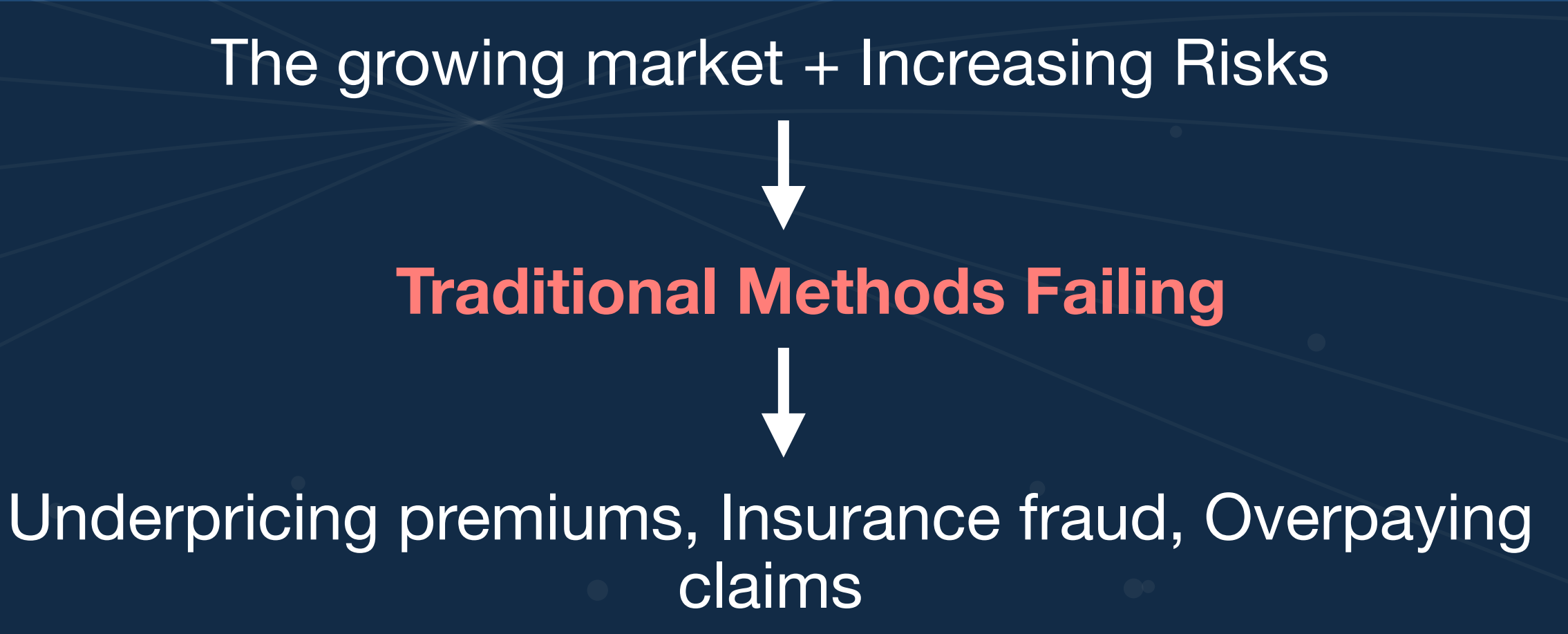
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Manual Consumption Bottlenecks

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-  High Error Rates
-  Compliance Risks
-  Lost Productivity
-  Customer Dissatisfaction

 Estimated **\$85 -160 Billion** Inefficiency Losses by 2027

Why Unstructured Matters?

Insurance companies are data-rich but insight-poor.

While we've mastered structured data, we're just beginning to tap into the wealth of information hidden in our unstructured data

Types of Unstructured Data



Social Media Interactions,
Emails



Inspections, Claim Damages,
Satellite Imagery, Drone
Footage



Calls, Adjustor recordings



Policies, Quotes, Feedback
Forms, Inspection Reports,
Medical Records, Invoices,...

AI is transforming unstructured data into a valuable resource that boosts revenue, improves efficiency, and enhances customer experience.

AI-Powered Insurance: Technologies & Business Impact

NLP

Natural Language Processing:
Text Analysis, Entity Recognition

CV

Computer Vision:
Damage and Risk
assessments, Documents
Processing

ML

Machine Learning:
Continuous Learning,
Workflow Integrations, Real
Time Processing

45% of US insurers will be offering new data-driven customer-centric experiences in the near future.

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PROGRESSIVE

AI powered Claims and Customer Service

Visual AI:
Damage Assessment from Photos

Chatbot Flo:
Personalized Chat with customer

50%

Reduction in processing time

30%

Increase in customer satisfaction

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Lemonade

End-to-End AI Implementation

AI Jim:
Quick Claims processing

AI Maya:
Policy creation with real-time risk
assessment

3s

Fastest claim processing

96%

Customer satisfaction rate

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GEICO

AI powered Customer Service and Risk
Assessment

Virtual Assistant:
Customer service with automated policy
queries and updates

Risk Assessment AI
Automated UW system with real time
analysis

75%

Reduction in response time

40%

Improvement in risk assessment

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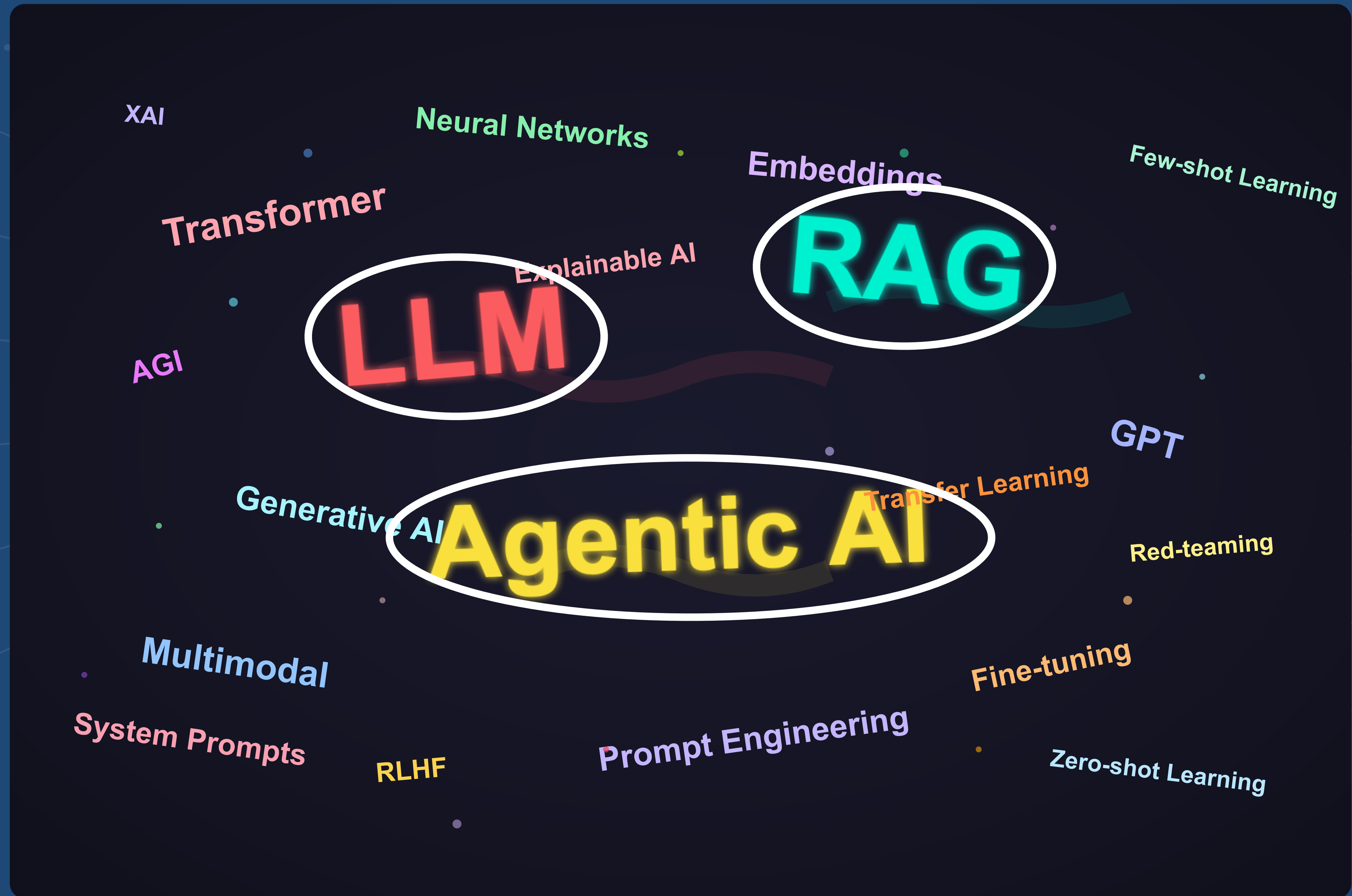
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Reduction in response time

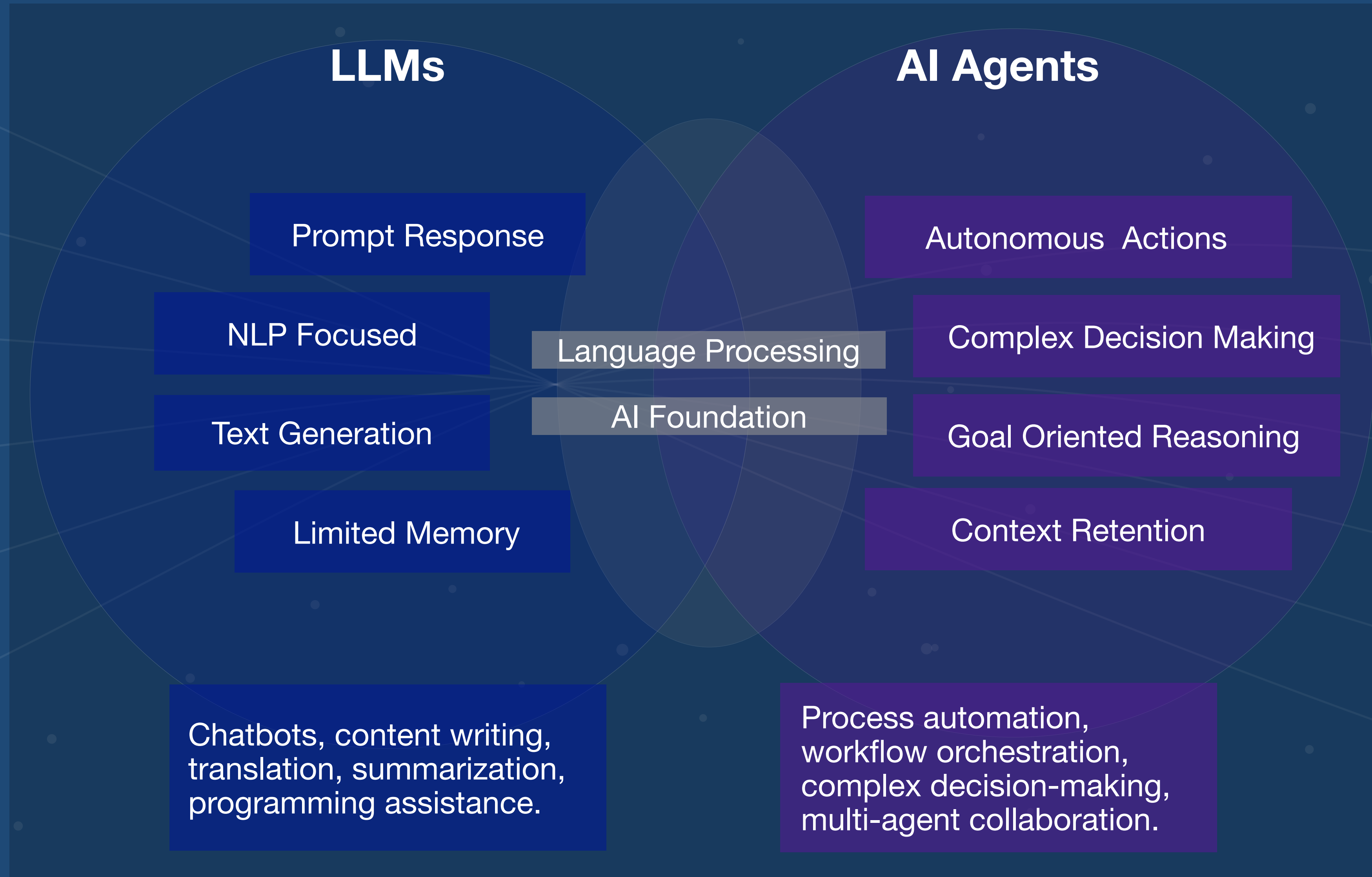
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Improvement in risk assessment

AI doesn't just process unstructured data—it unlocks hidden value, transforming insurance from reactive to proactive decision-making.



Evolution from LLMs to AI Agents



LLMs function as advanced text processors, while AI Agents are autonomous systems that leverage LLMs but add memory, planning, and tool usage capabilities

Agentic AI

What is Agentic AI?

- AI with "chaining" capability
- Breaks complex tasks into manageable steps
- Acts autonomously (versus GenAI that creates)
- Goes beyond LLMs by including decision-making and memory capabilities

Key Benefits

- **Improved Accuracy:**
Reduces human error
- **Enhanced Customer Experience:**
Faster processing
- **Cost Savings:**
Automation of routine tasks
- **Enhanced Predictive Analytics:**
Precise forecasting

Insurance Use Cases

Automated Claims Processing

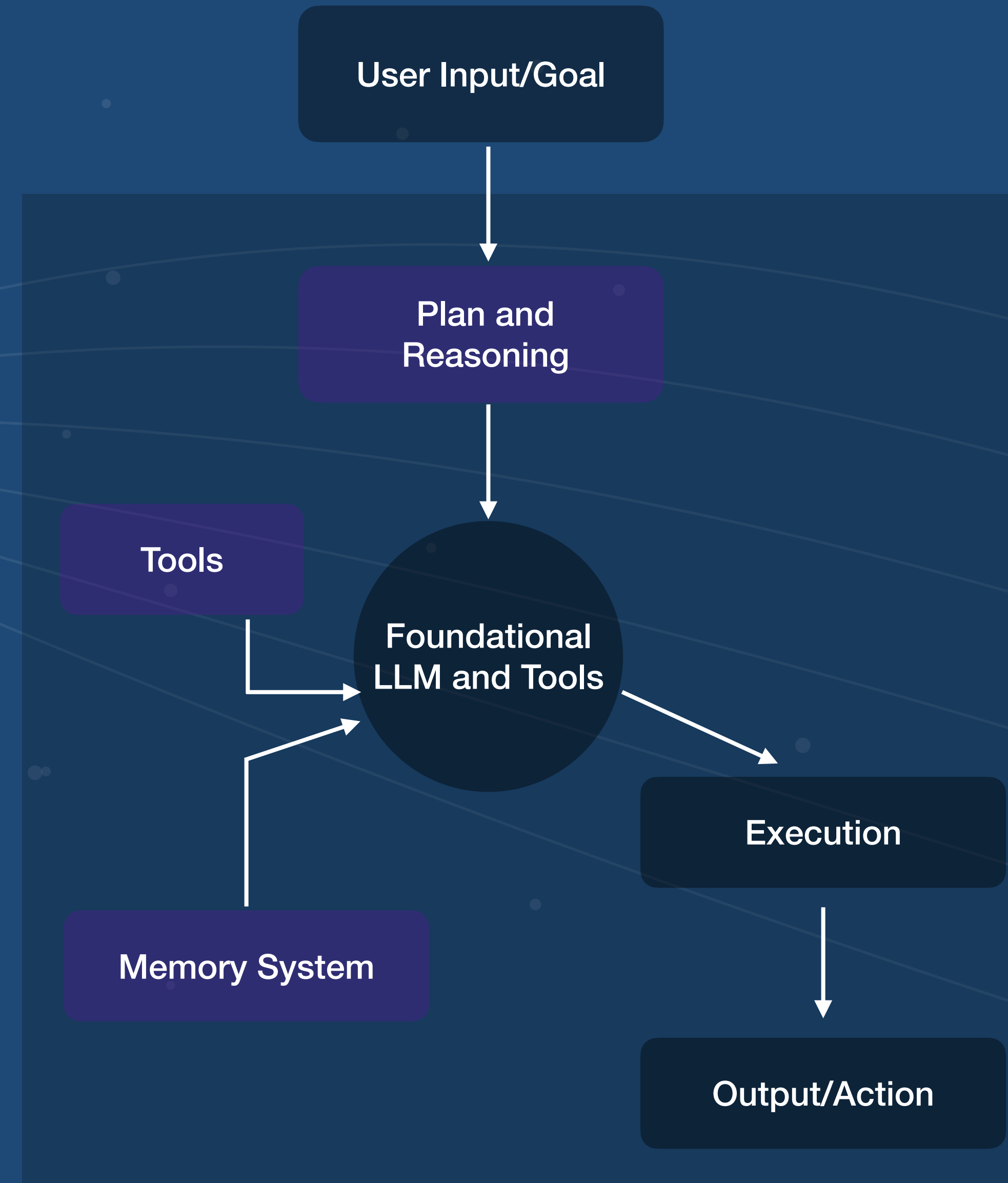
Customer Experience

Fraud Detection

Underwriting Automation

Risk Assessment

Regulatory Compliance



Agentic AI for Insurance

Agentic AI Underwriting Assistant

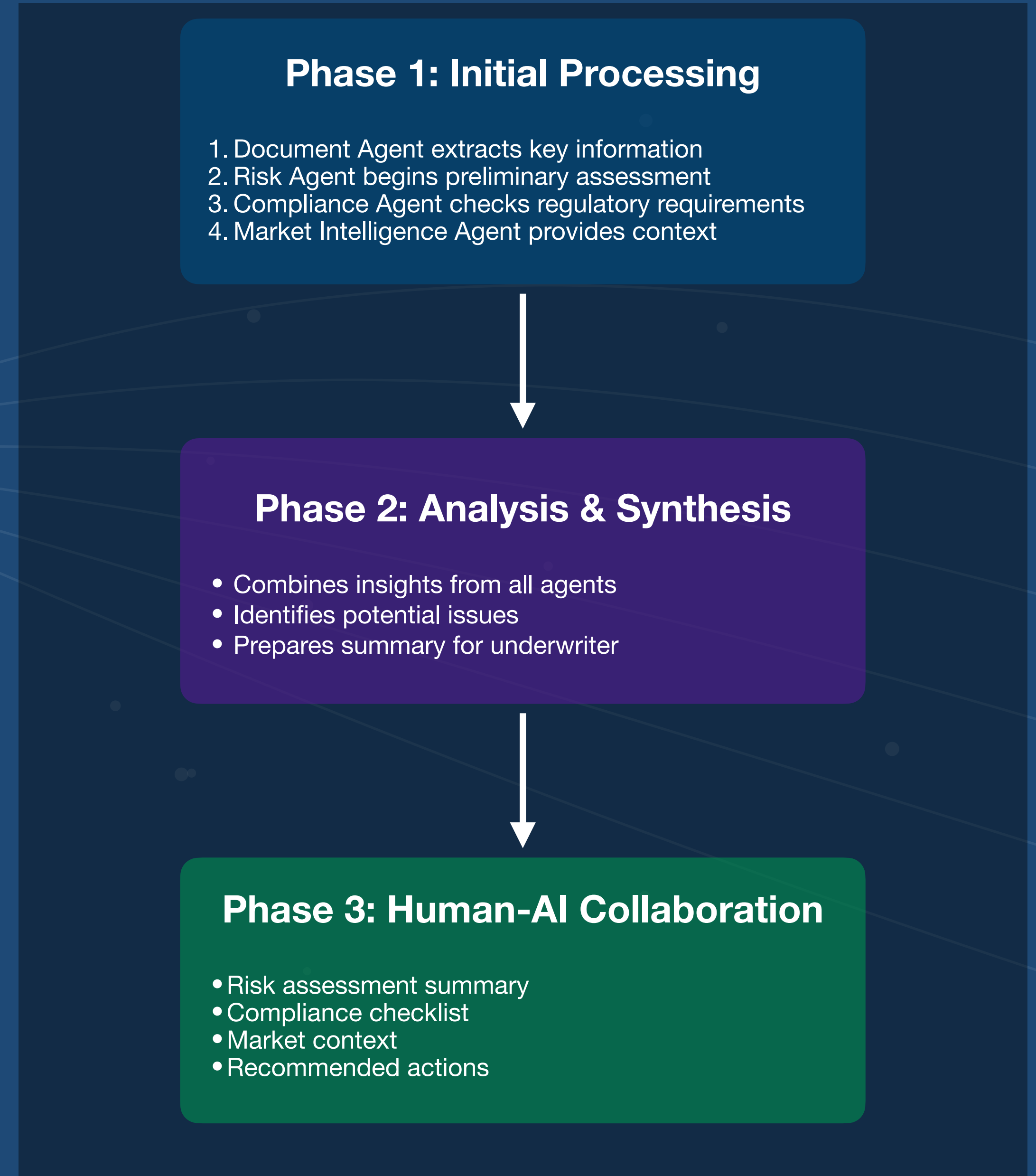
Challenges in a typical commercial property underwriting scenario:

- Underwriters receive 500+ page submissions
- Must review multiple data sources (property records, claims history, risk assessments)
- Need to check compliance across different jurisdictions
- Have to make decisions under time pressure
- Currently spend 50% of their time on data gathering and entry

Framework



Solution



Agentic AI for Insurance

Agentic AI Underwriting Assistant



Expected Impact

1. Efficiency Gains
 - Large reduction in data gathering time
 - Faster submission processing
 - 90% automation of routine tasks
2. Quality Improvements
 - Reduction in errors
 - Better risk assessment accuracy
 - Improvement in pricing precision
3. Business Benefits
 - Increased underwriting capacity
 - More consistent decisions
 - Better risk selection
 - Improved broker experience

Agentic AI for Insurance

Agentic AI Underwriting Assistant



AI-Powered Claims Intelligence System

Consider a typical complex claim scenario:

- Multiple documents (policies, reports, assessments)
 - Various communication channels (calls, emails, messages)
 - Adjuster notes from multiple touchpoints
 - Medical records and expert opinions
 - Historical similar claims data
- Result: Adjusters spend 40% of their time just gathering and synthesizing information

Framework



Solution

Phase 1: Information Gathering

Agents begin parallel processing:

- Document Agent reviews all written materials
- Communication Agent analyzes customer interactions
- Records Agent processes health records
- Visual Agent examines photos/videos



Phase 2: Analysis & Synthesis

- Combines all agent insights
- Creates structured summary
- Identifies key decision factors
- Flags potential issues
- Suggests next actions



Phase 3: Human-AI Collaboration

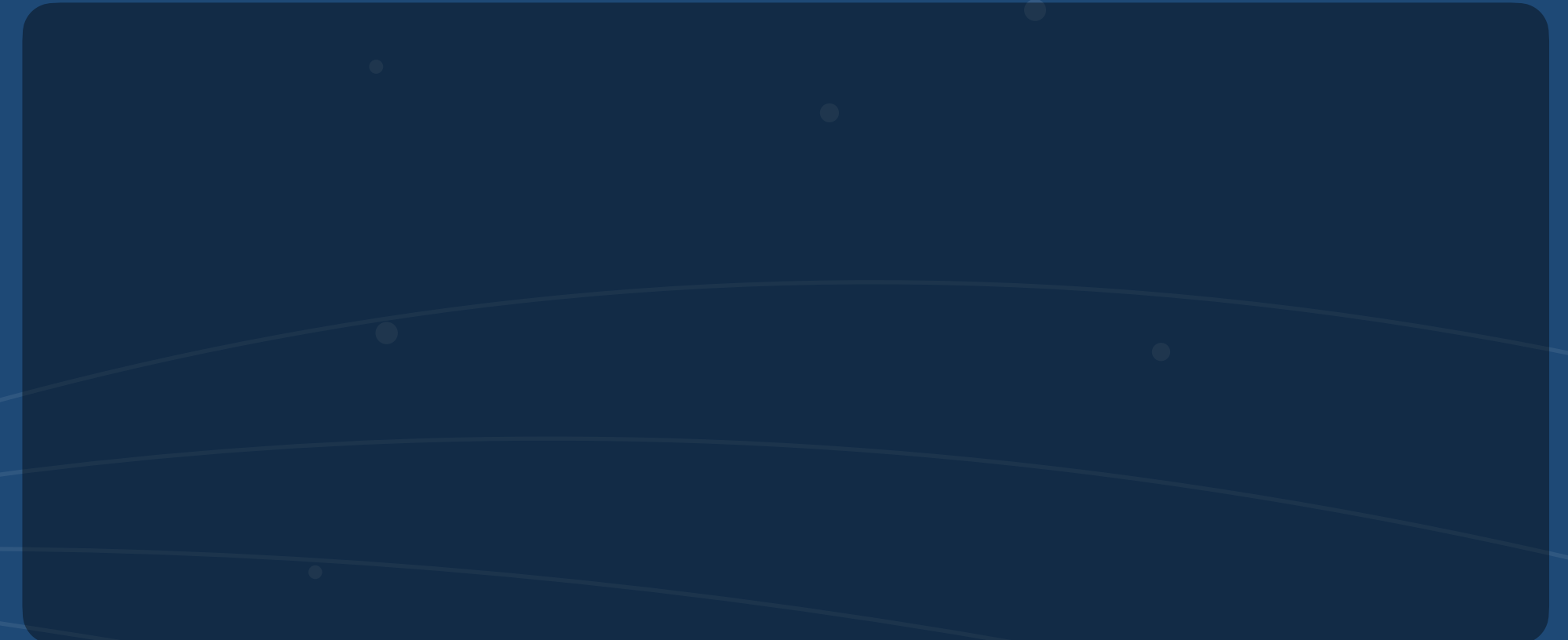
- Comprehensive claim summary
- Key findings highlighted
- Similar case references
- Recommended actions
- Potential concerns

Agentic AI for Insurance

Agentic AI Underwriting Assistant



AI-Powered Claims Intelligence System



Expected Impact

1. Efficiency Gains
 - Reduction in information gathering time
 - Faster claim resolution
 - Reduction in documentation review time
2. Quality Improvements
 - Reduction in missed information
 - Better fraud detection
 - Better consistent decisions
3. Business Benefits
 - Reduced claim processing costs
 - Improved customer satisfaction
 - Better compliance adherence
 - Enhanced fraud detection
 - Knowledge retention and sharing

Conclusion

Key Takeaways

1. Unstructured data is the next frontier in insurance innovation
2. AI technology is mature enough to deliver real value
3. Early adopters are seeing significant competitive advantages

Conclusion

Future Vision

"By 2025, AI adoption will be ubiquitous in insurance. But remember - success isn't about replacing humans with AI. It's about creating a powerful partnership between human expertise and AI capabilities."

Conclusion

Call to Action

"The question isn't whether to invest in AI and unstructured data analytics, but **how quickly you can begin**.
Every day of delay means: Lost efficiency opportunities, Missed insights , and Competitive disadvantage"



Thank You