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Insurance
Week 2026

Managing AI Risks

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Meet our Presenters



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Introduction



Introduction

The advancements in AI tools and their availability over the last 12 months have started to really challenge the current way of working

Gen AI Tools



 Gemini Enterprise



 Claude



 Adobe Firefly

Impact

Generative AI Technology Advances

Large-scale foundation models like LLMs and multimodal AI can generate text, images, audio, video, and code.

Agentic AI Systems

AI systems are evolving to autonomously plan, reason, and complete complex multi-step tasks. There is a use case for insurance processes e.g., underwriting, claims processing, sales and distribution etc.

Market Integration of AI Tools

Generative AI tools like *Copilot* and *Gemini* are embedded in productivity suites and enterprise software.

Broad Applications and Responsible AI

Generative AI supports content creation, cybersecurity, and finance while emphasizing responsible governance.

Emerging Risks

Impact on Stakeholders

Generative AI can drive productivity for practitioners if they pick up new skills and adopt responsible use practices.

Emerging Risks and Governance

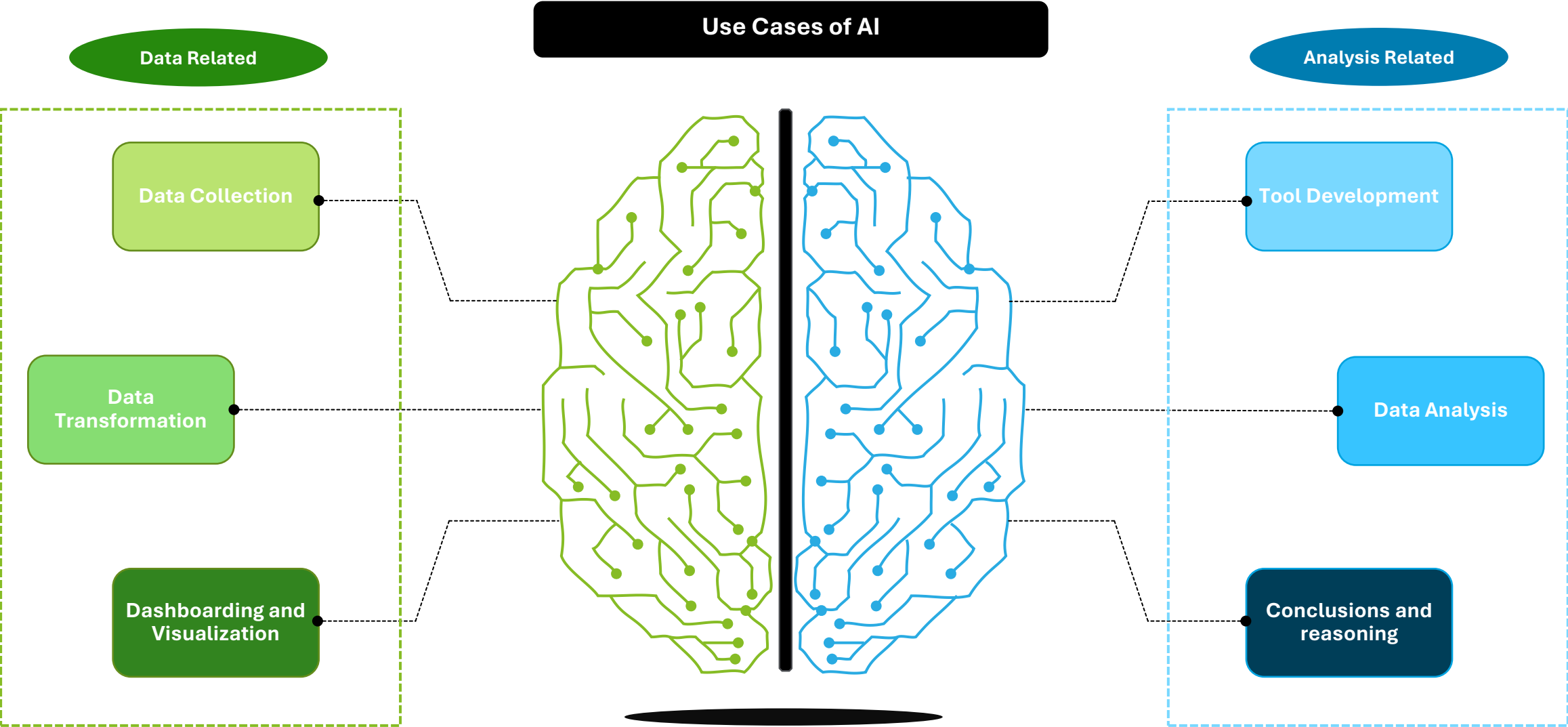
Key risks include data privacy, bias, hallucination, inaccuracies, and compliance challenges, demanding proactive management and governance frameworks.

Opportunities to integrate AI with our way of working



Opportunities to integrate AI with our way of working

Leveraging AI for our way of work

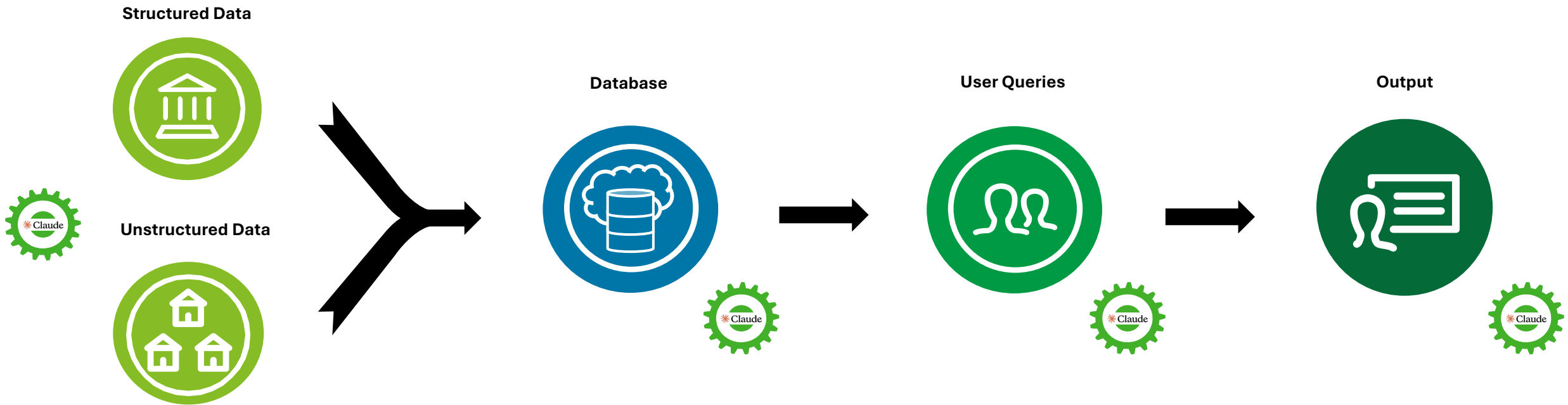


Opportunities to integrate AI with our way of working

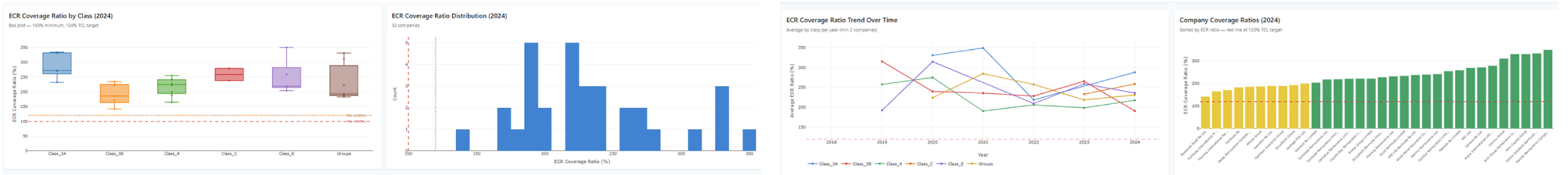
Leveraging AI for our way of work

Use Case 1: Collation of market data and insights

Collation of data from large datasets and multiple sources



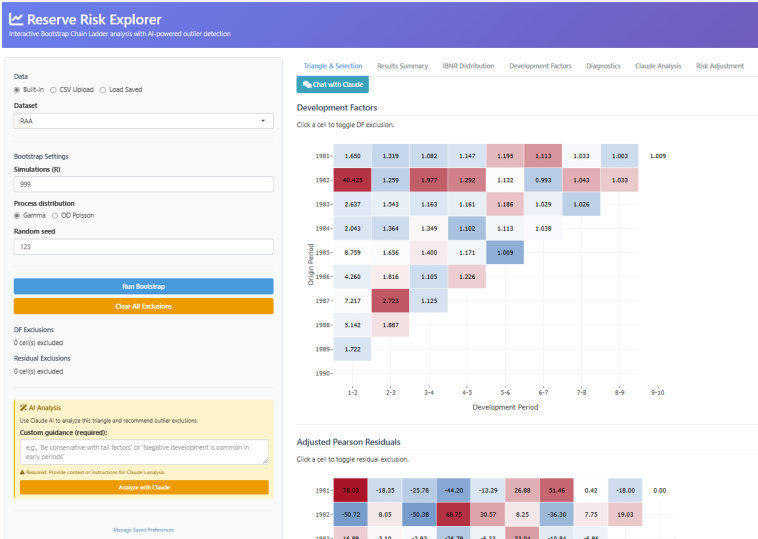
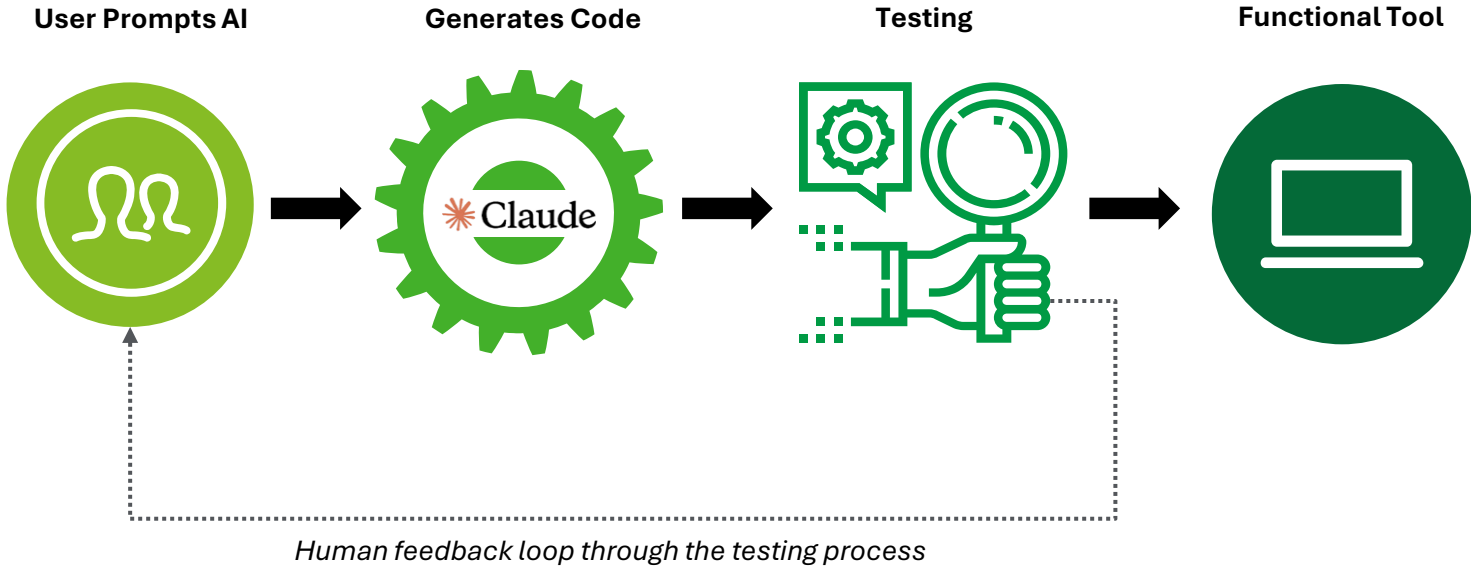
Reserving Tool Exhibit



Opportunities to integrate AI with our way of working

Leveraging AI for our way of work

Use Case 2: Tool Development
We are developing tools, with AI assisting in writing the code









Reserving Tool Exhibit

Risks associated with using AI



How will existing risk evolve with the adoption of AI?

Adoption of AI will result in a change in how organizations view risks with potential introduction of new risks

| |  Manual Error |  Processing Delays |  Human bias |  Model Risk |  Regulatory Scrutiny |  Reputational Risk |
|-----------------------------------|---|---|---|---|--|--|
| Impact of AI Use | ↓ Decrease | ↓ Decrease | ↓ / ↑ Mixed | ↑ Increase | ↑ Increase | ↑ Increase |
| How has this risk evolved? | Automation improves consistency | Faster triage, and execution of tasks. Additional review may be needed initially | Can reduce human inconsistency but encode data bias | More complex, opaque models | Higher expectations and obligations | Visible errors affect trust quickly |

Managing AI Risk



Risks associated with using AI

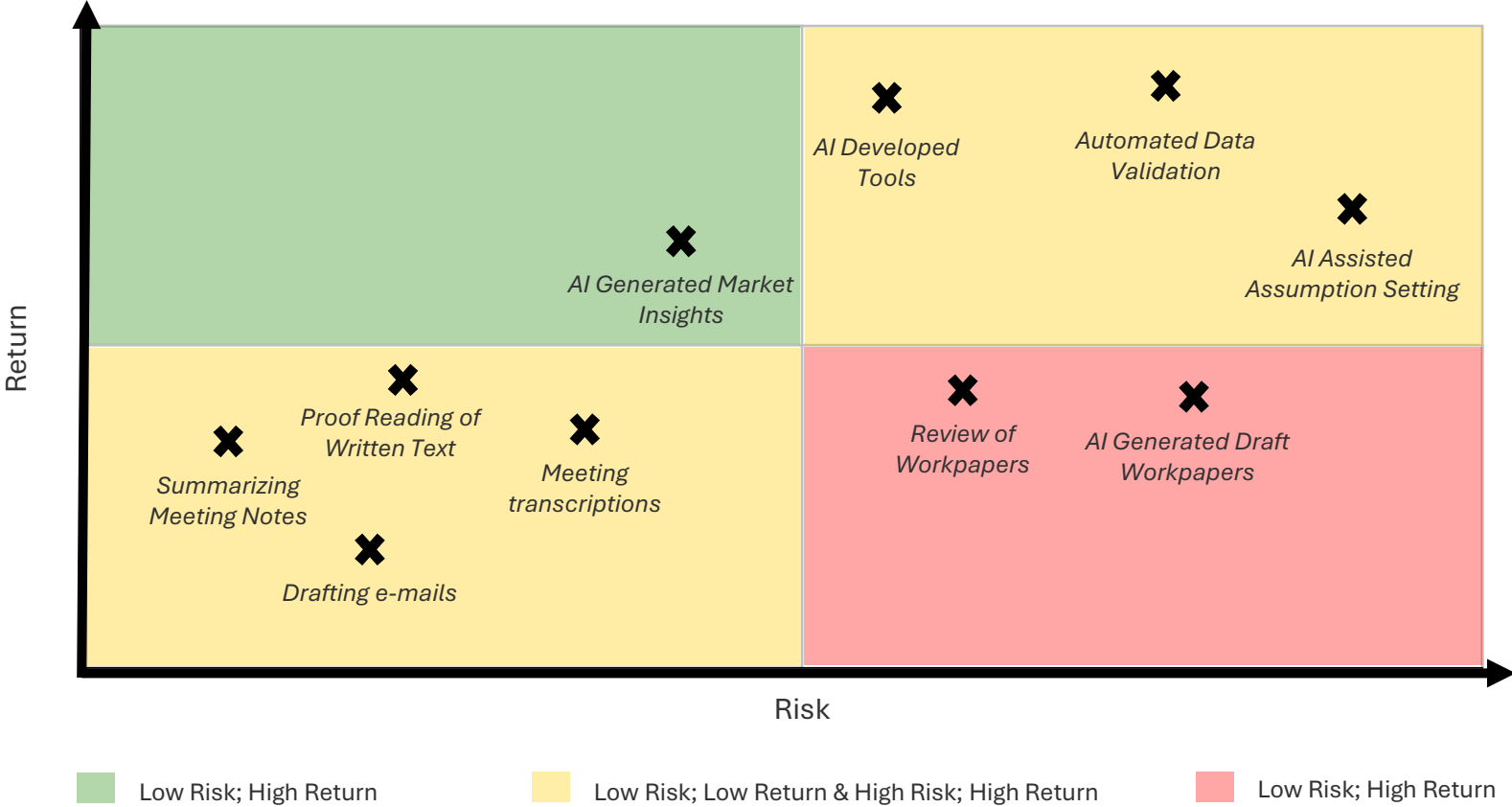
How do we manage the risks associated with embedding AI in our processes?



Taking a risk management approach to integrating AI we can look at how we can embed AI in our way of working.

We have plotted a sample set of opportunities for AI and provided a preliminary assessment of the relationship between risk and return for these opportunities.

We are going to focus on the AI Assisted Assumption Setting Risk.



Risks associated with using AI

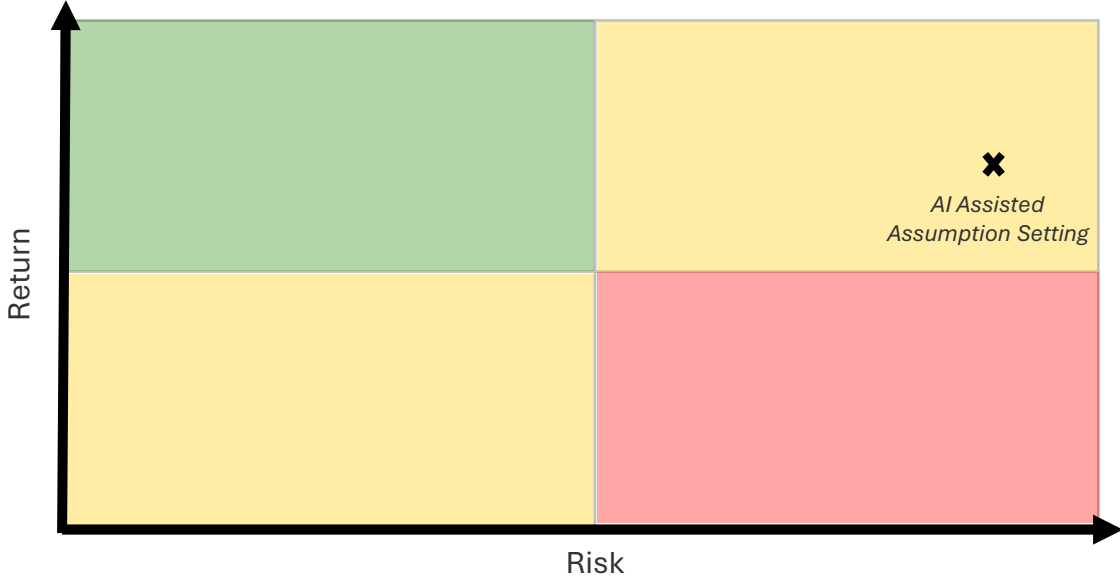
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Now that we have identified the opportunity that we want to explore our next step is to assess the risks associated.

AI Assumption Setting (Outlier selections)

- The AI may not be able to understand the datasets that are provided.
- The assumptions selected could be inappropriate
- The assumptions selected might be based on poor rationale
- The user could place too much trust in the AI selected assumptions and not validate the rationale behind the assumptions



Reserve Risk Explorer

Interactive Bootstrap Chain Ladder analysis with AI-powered outlier detection

Triangle & Selection
Results Summary
IBNR Distribution
Development Factors
Diagnostics
Claude Analysis
Risk Adjustment

Chat with Claude

Development Factors

Click a cell to toggle DF exclusion.

| | | | | | | | | | |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1981- | 1.650 | 1.319 | 1.082 | 1.147 | 1.195 | 1.113 | 1.033 | 1.003 | 1.009 |
| 1982- | 40.425 | 1.259 | 1.977 | 1.292 | 1.132 | 0.993 | 1.043 | 1.033 | |
| 1983- | 2.637 | 1.543 | 1.163 | 1.161 | 1.186 | 1.029 | 1.026 | | |
| 1984- | 2.043 | 1.364 | 1.349 | 1.102 | 1.113 | 1.038 | | | |
| 1985- | 8.759 | 1.656 | 1.400 | 1.171 | 1.009 | | | | |
| 1986- | 4.260 | 1.816 | 1.105 | 1.226 | | | | | |
| 1987- | 7.217 | 2.723 | 1.125 | | | | | | |
| 1988- | 5.142 | 1.887 | | | | | | | |
| 1989- | 1.722 | | | | | | | | |
| 1990- | | | | | | | | | |

Adjusted Pearson Residuals

Click a cell to toggle residual exclusion.

| | | | | | | | | | | |
|-------|--------|--------|--------|--------|--------|-------|--------|-------|--------|------|
| 1981- | 78.03 | -18.35 | -25.78 | -44.20 | -13.29 | 26.88 | 51.46 | 0.42 | -18.00 | 0.00 |
| 1982- | -50.72 | 8.05 | -50.38 | 68.75 | 30.57 | 8.25 | -36.30 | 7.75 | 19.03 | |
| 1983- | 14.88 | 3.10 | -3.82 | -26.78 | -6.72 | 22.84 | -10.84 | -6.86 | | |

Risks associated with using AI

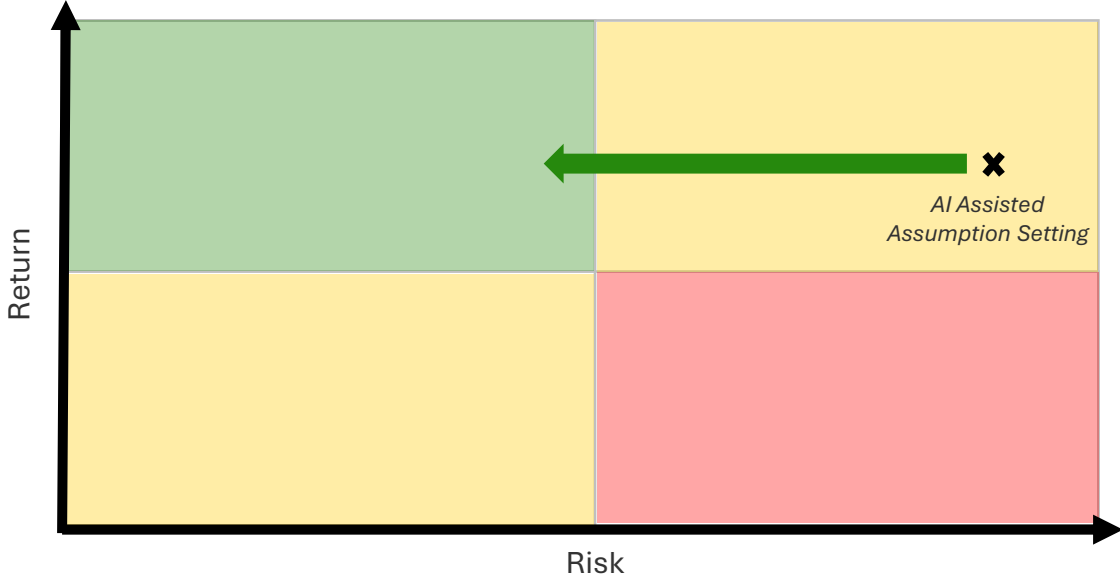
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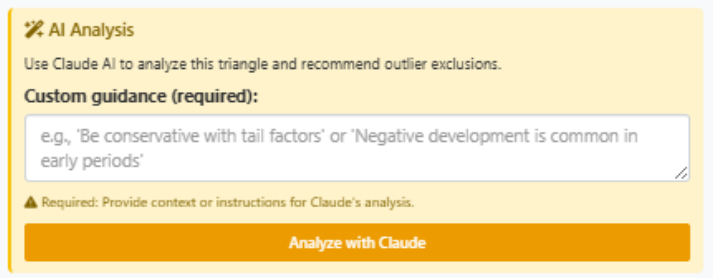
Risks associated with using AI

How do we manage the risks associated with embedding AI in our processes?



Now that we have identified the opportunity that we want to explore our next step is to address mitigation of the risks.

| Identified Risk | Mitigation | How is that implemented? |
|---|--|--|
| The AI may not be able to understand the datasets that are provided | Human team members are instructed to provide details about the dataset to the AI | The code in the tool is modified to ensure that the user provides additional context to enable the AI functionality. |
| | The AI is given instructions to request more details if it doesn't understand something rather than guess or work on the basis of other assumptions. | Initial prompts can be modified to include this instruction. |



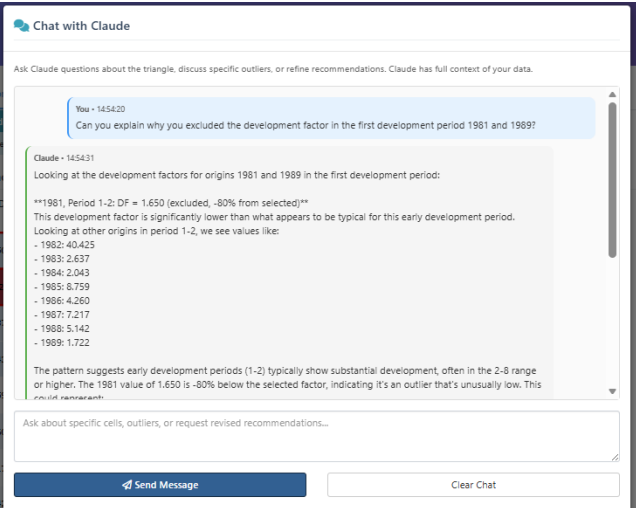
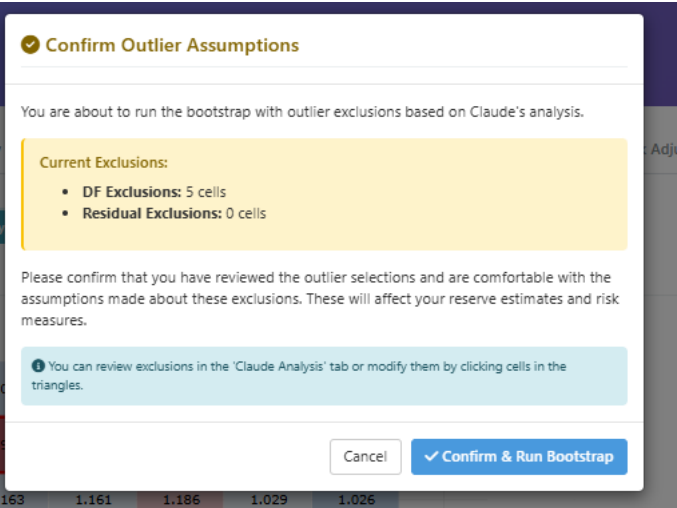
Risks associated with using AI

How do we manage the risks associated with embedding AI in our processes?



Now that we have identified the opportunity that we want to explore our next step is to address mitigation of the risks.

| Identified Risk | Mitigation | How is that implemented? |
|---|---|---|
| The assumptions selected could be inappropriate | Human team members are deemed the ultimate owner of any assumptions that are set. | The tool requests that the user confirms they are comfortable with the assumptions being used. |
| | Human feedback on selections are relayed to the AI. | Functionality is developed that allows the user to discuss with the AI and suggest any changes. |
| | Historical assumptions that have been selected could be provided. | Prior selections can be saved by the AI to rely on at a later date. |



Risks associated with using AI

How do we manage the risks associated with embedding AI in our processes?



Now that we have identified the opportunity that we want to explore our next step is to address mitigation of the risks.

| Identified Risk | Mitigation | How is that implemented? |
|--|---|---|
| The assumptions selected might be based on poor rationale | Human team members are deemed the ultimate owner of any assumptions that are set. | The code in the tool is modified to ensure that the user provides additional context to enable the AI functionality. |
| | Reasoning from the AI is requested in order for it to make assumptions. | The AI is requested to provide a rationale that the user can read and decide if they agree. The user can change the outliers as they see fit. |
| The user could place too much trust in the AI selected assumptions and not validate the rationale behind the assumptions | The human user is required to confirm that they are comfortable with the assumptions that are being selected. | |

⚠ Development Factor Exclusions

These cells showed significant deviation from average development patterns:

| Origin | Dev Period | Reasoning |
|--------|------------|--|
| 1982 | 1-2 | DF=40.42 is 392.6% above average and 4.9x the mean; extreme outlier suggesting data error, extraordinary event, or significant case reserve adjustment that would distort bootstrap sampling |
| 1981 | 1-2 | DF=1.65 is 79.9% below average; implausibly low for general liability first development period, indicating potential data quality issue or anomalous reporting pattern |
| 1989 | 1-2 | DF=1.72 is 79.0% below average; similarly implausible low development for immature accident year in general liability, likely data reporting issue |
| 1982 | 3-4 | DF=1.98 is 50.4% above average; combined with the extreme 1-2 factor, this origin shows systematic distortion that would bias bootstrap resampling |
| 1987 | 2-3 | DF=2.72 is 60.6% above average; material deviation suggesting late case reserve strengthening or large claim emergence that is not representative of typical development pattern |

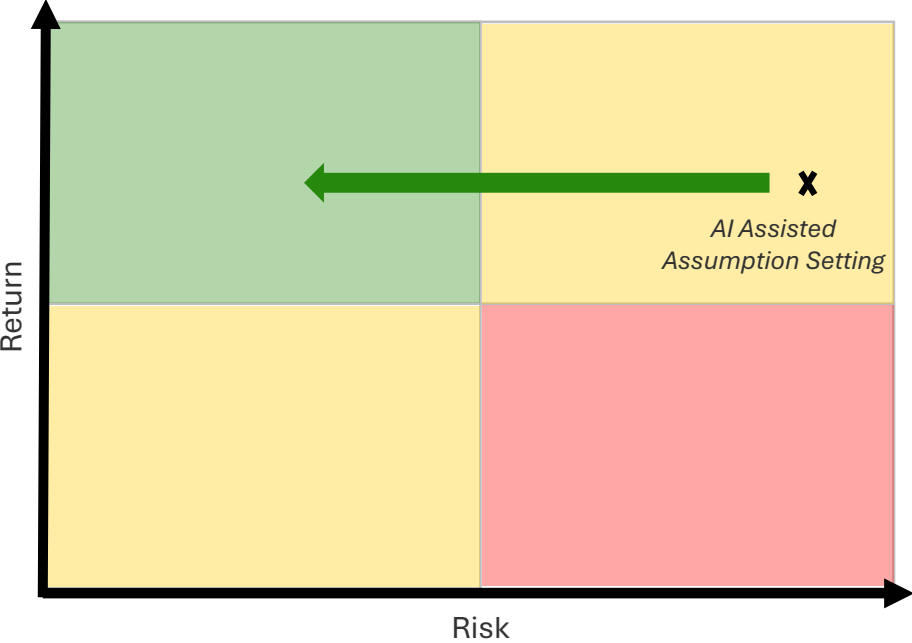
Risks associated with using AI

How do we manage the risks associated with embedding AI in our processes?



As we use the tool we will monitor how the identified risks are evolving:

| Identified Risk | Monitoring |
|--|---|
| The AI may not be able to understand the datasets that are provided | Track an <i>Interpretability Score</i> that would measure how well the AI is able to identify the context of the dataset that it is analyzing: $Interpretability\ Score\ (\%) = 1 - \frac{Count(\sum_i^n AI\ Selections_i = 0)}{n}$ Where: <i>i</i> is the <i>ith</i> instance when the tool is being used <i>n</i> total number of instances the tool has been used |
| The assumptions selected could be inappropriate | Continuous validation of AI selected assumptions against independently selected assumptions by a human expert |
| The user could place too much trust in the AI selected assumptions and not validate the rationale behind the assumptions | Track a <i>Retention Score</i> that would establish how many times the AI selected assumptions were ultimately selected by the human user responsible: $Retention\ Score\ (\%) = \frac{(AI\ Selections)}{(AI\ Selections + Human\ Override\ Selections)}$ |





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