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The transformative potential of artificial intelligence in treasury

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Meet the presenters

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Agenda

AI overview
- Identify AI technologies driving change
- Develop foundational understanding of core technology components

Industry trends
- Identify key trends driving interest and adoption

Top use cases
- Identify top-of-mind use cases for treasurers
- Learn common pain points heard across treasury operations

Evaluation and implementation
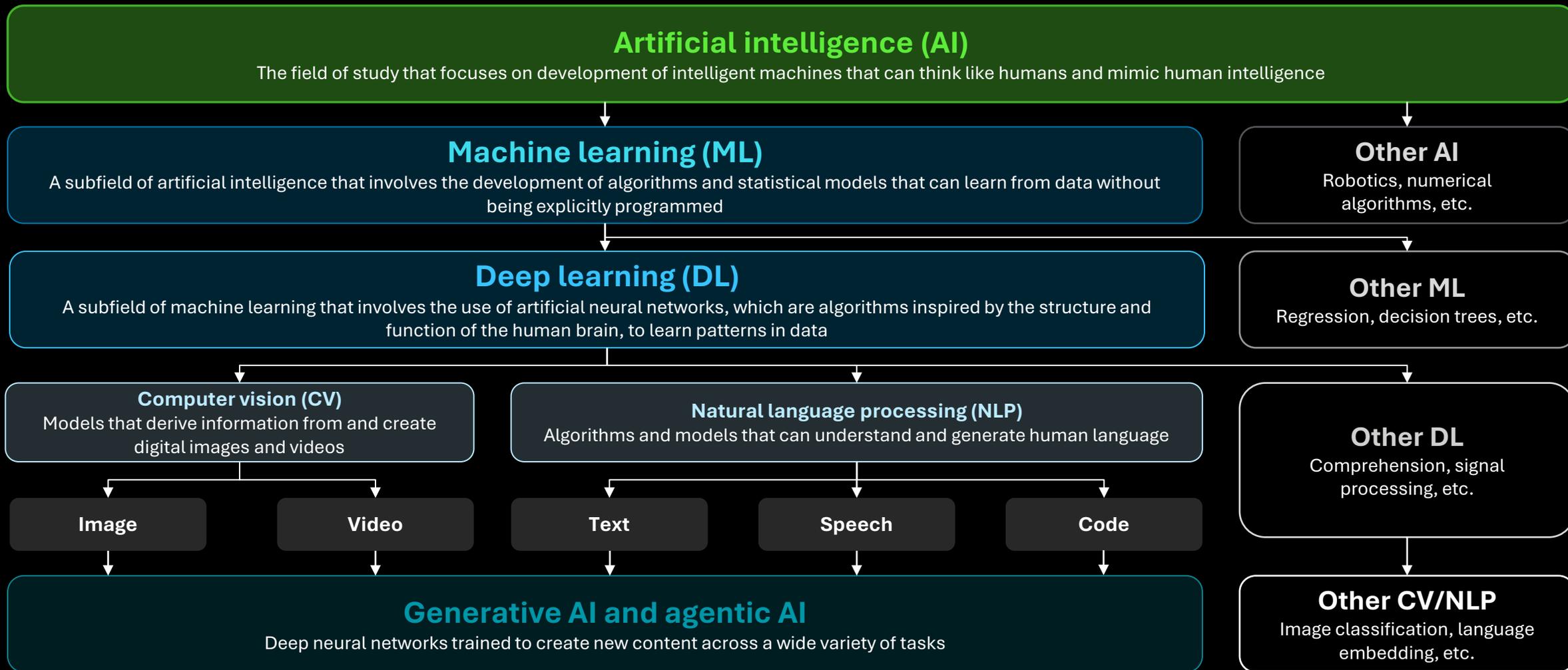- Review approaches for evaluation and implementation of AI solutions within treasury organizations

AI overview

The evolving AI landscape

AI technology is rapidly advancing—and with it the opportunity to deploy these capabilities in finance and treasury:

Artificial intelligence (AI)
The field of study that focuses on development of intelligent machines that can think like humans and mimic human intelligence

Machine learning (ML)
A subfield of artificial intelligence that involves the development of algorithms and statistical models that can learn from data without being explicitly programmed

Other AI
Robotics, numerical algorithms, etc.

Deep learning (DL)
A subfield of machine learning that involves the use of artificial neural networks, which are algorithms inspired by the structure and function of the human brain, to learn patterns in data

Other ML
Regression, decision trees, etc.

Computer vision (CV)
Models that derive information from and create digital images and videos

Natural language processing (NLP)
Algorithms and models that can understand and generate human language

Other DL
Comprehension, signal processing, etc.

Image **Video** **Text** **Speech** **Code**

Generative AI and agentic AI
Deep neural networks trained to create new content across a wide variety of tasks

Other CV/NLP
Image classification, language embedding, etc.

Facets of artificial intelligence

Classifications of artificial intelligence

AUTOMATE – *Intelligent automation*	*Having a bot execute processes that require little human judgment*	Email autocomplete — Hope ...all is well.
SIMULATE – *Agent-based simulation*	*Using large volumes of data to create a visual model or representation of predicted outcomes in the form of a digital twin*	"Try on at home" AR
INTERACT – *Virtual assistants*	*Machines engaging with humans in real-time, two-way dialog and learning human intent to provide advanced recommendations*	Smart assistants
PREDICT – *Predictive analytics*	*Using large volumes of data to enable machines to generate a series of predicted or possible outcomes*	Movie recommendations
DETECT – *Computer vision*	*Identifying objects and patterns through analysis of documents, pictures, and video streams*	Airport security using eye scanner
INTERPRET – *Natural language and speech recognition*	*Training machines to read documents, convert text and speech to data, and derive insights from data*	Auto-generated news stories
CREATE – *Generative AI*	*Algorithms that can create new content, including audio, code, images, text, simulations, and videos*	Generated art

Generative AI

AI introduces both novel and familiar risks

Novel risks

Explainability	Limited model intuition and ability to explain how outputs are generated due to complexity or lack of transparency (private/vendor tools).
Ethical use	AI lacks ethical reasoning, making it vulnerable to use that contradicts its intended purpose.
Bias	Bias in. Bias out. If the training data is biased, then the outputs could exhibit biases.
Hallucination	Models can generate confident statements that are unfounded and factually false.

Familiar risks

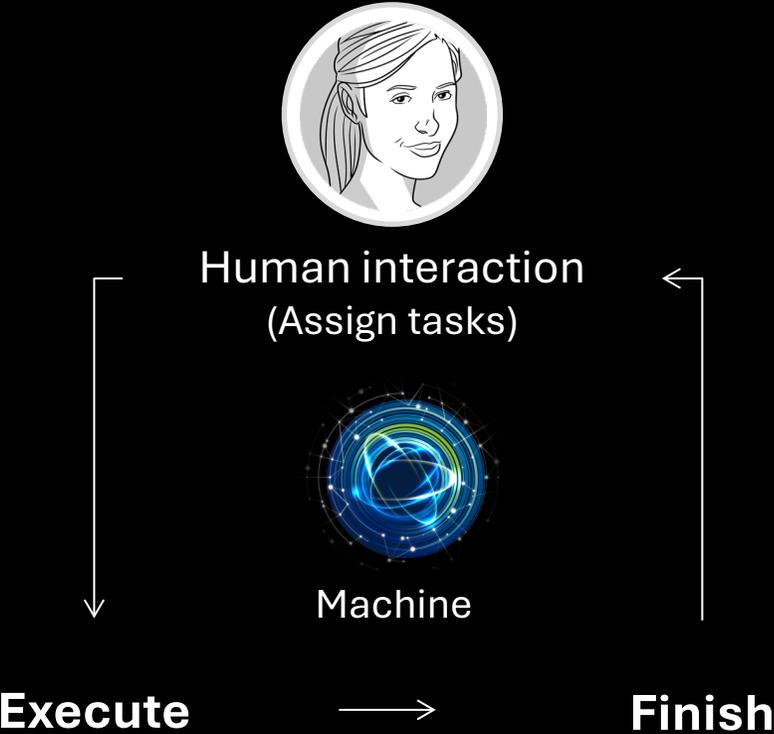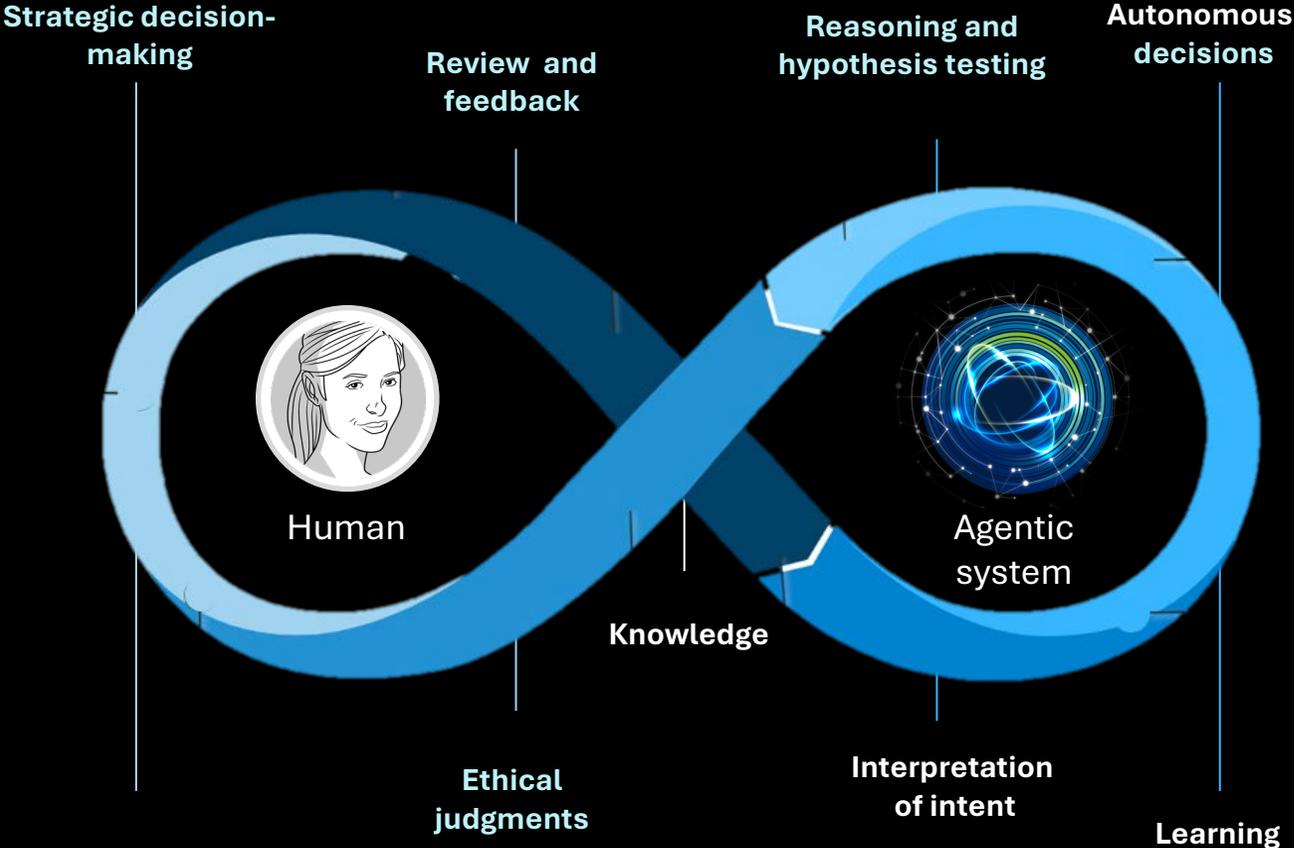|	
IP infringement	When training AI models, user inputs or prompts may include data that is confidential or protected intellectual property.
Malicious intent	Security measures, including cyber, need to be constantly updated to protect AI from malicious behaviors.
Confidentiality and privacy	Data used (e.g., confidential, personally identifiable information) may not have been sourced with consent or violates legal requirements.

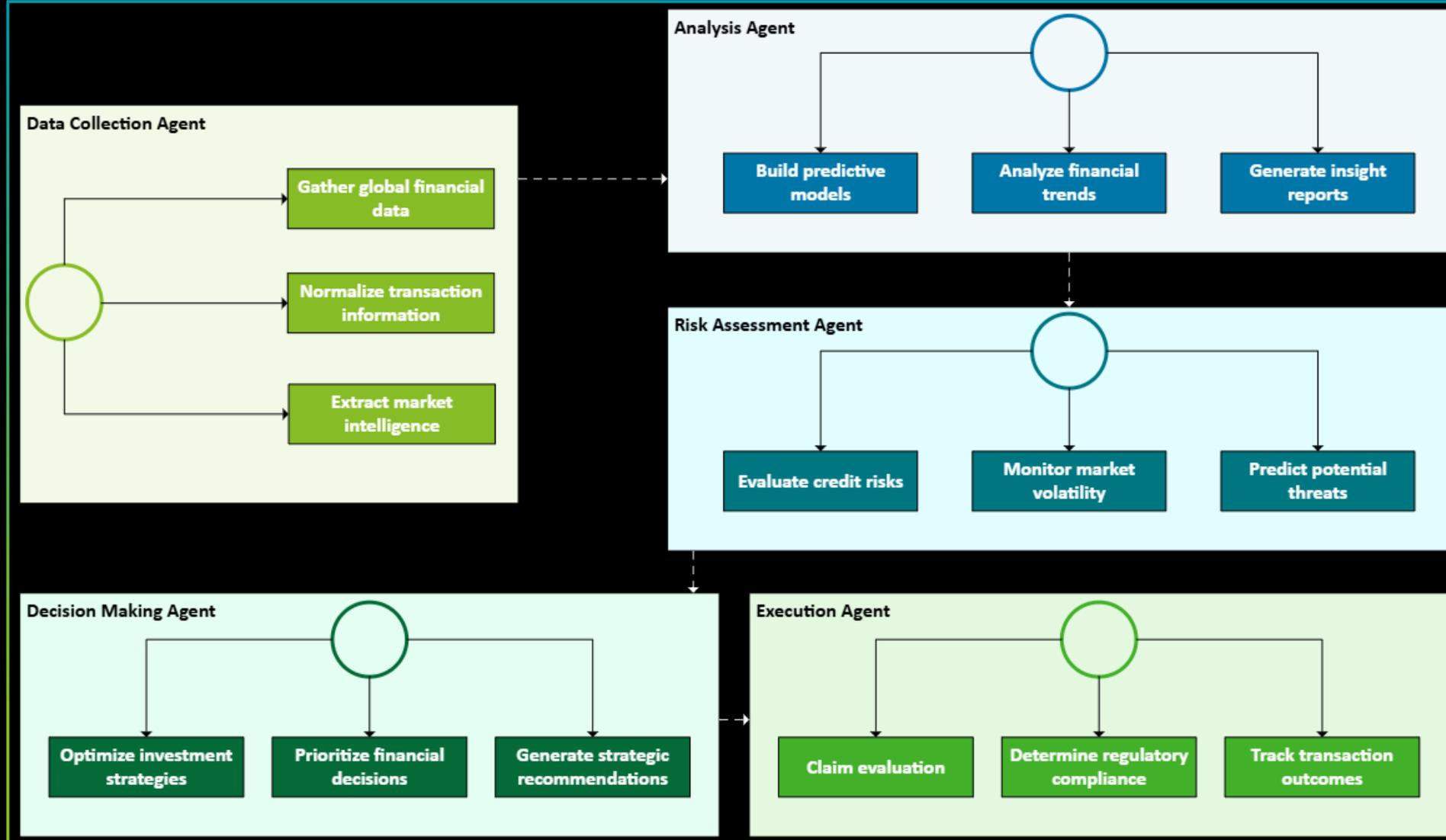# Evolving collaboration: From traditional to agentic models

Human interaction
(Assign tasks)

Machine

Execute → **Finish**

Strategic decision-making

Review and feedback

Reasoning and hypothesis testing

Autonomous decisions

Human

Knowledge

Agentic system

Ethical judgments

Interpretation of intent

Learning

What does agentic AI look like?

Polling question 1

How do you foresee the role of the treasury function being impacted most by AI technology in the next 5 years?

A.   Faster, more accurate decision-making

B.   Automation of manual tasks

C.   Elevated risk and compliance management

D.   Enhanced scenario-based modeling

E.   Not applicable/I'm not sure

Industry trends

State of AI in Finance

Deloitte's FinanceAI Nerve Center **surveyed 40 Fortune 500 leaders across 11 industries**, revealing telling insights into **how leading finance teams are embracing AI**; the findings spotlight where the industry stands—and where it's headed next.

60% of organizations are taking a cautious approach, whereas *~14%* are pioneering the advancement of FinanceAI—what's clear is all *are investing in AI*

Approximately *80%* of participants identified *cost savings and business value* are essential for AI initiatives showcasing that *measurable ROI is critically important to CFOs as they invest*

Most finance use cases focus on *AI/ML and predictive analytics, but 40% of respondents are now exploring GenAI and agentic AI*, signaling growing interest in advanced capabilities

Successful and scalable AI adoption depends on *modernizing data and technology foundations with 60% of respondents highlighting this as a barrier to entry*
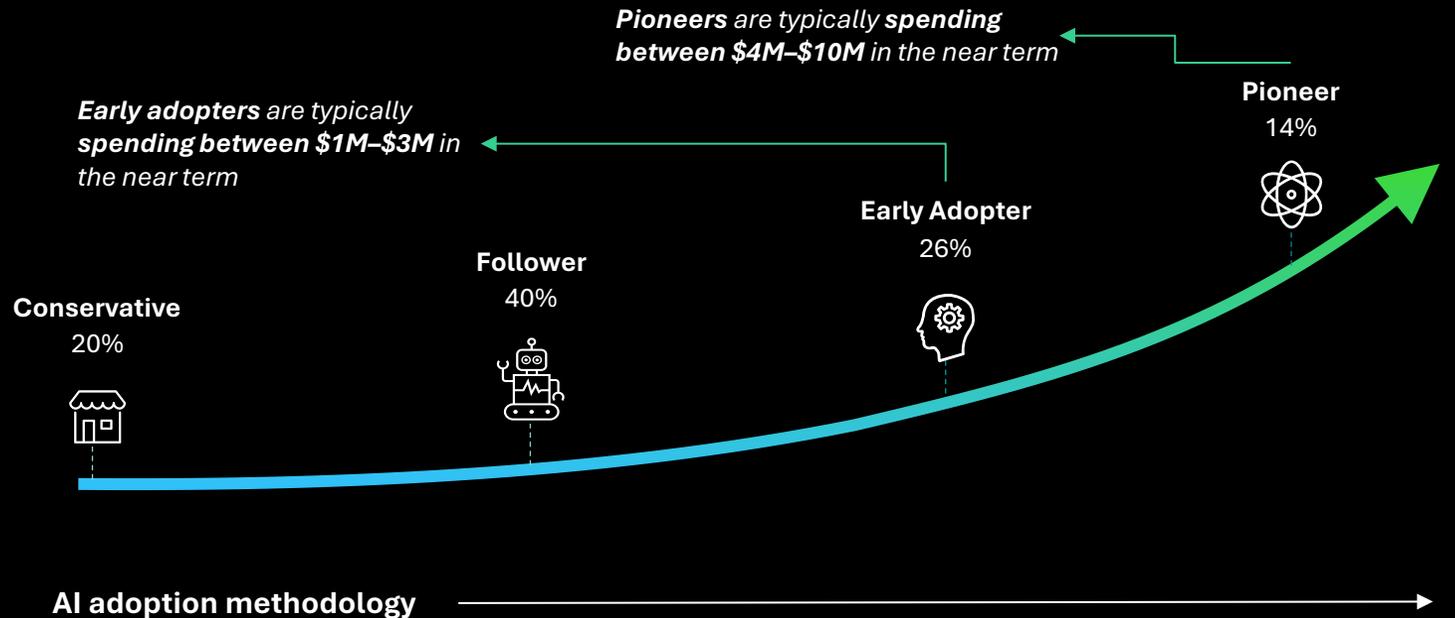
Investments in *talent and culture are just as crucial as technology advancements, with 49%* of organizations shifting investment to focus on skill development

Source: Deloitte FinanceAI Nerve Center State of AI in Finance Q4 2025 Benchmarks

AI adoption curve in finance

Many organizations remain cautiously optimistic about AI in finance. Most are taking a measured, incremental approach—choosing to "walk before they run" rather than risking early overexposure or missteps.

*Over **60% of surveyed organizations fall into "Follower" or "Conservative"** categories, prioritizing learning from peers or deploying mature tools before scaling. Only a **small vanguard (14%) is characterized as AI "Pioneers."** Despite this, AI-based productivity tools are already widely used, suggesting operational openness to low-risk, high-value interventions.*

*Pioneers** are typically **spending between $4M–$10M** in the near term*

*Early adopters** are typically **spending between $1M–$3M** in the near term*

Pioneer
14%

Early Adopter
26%

Follower
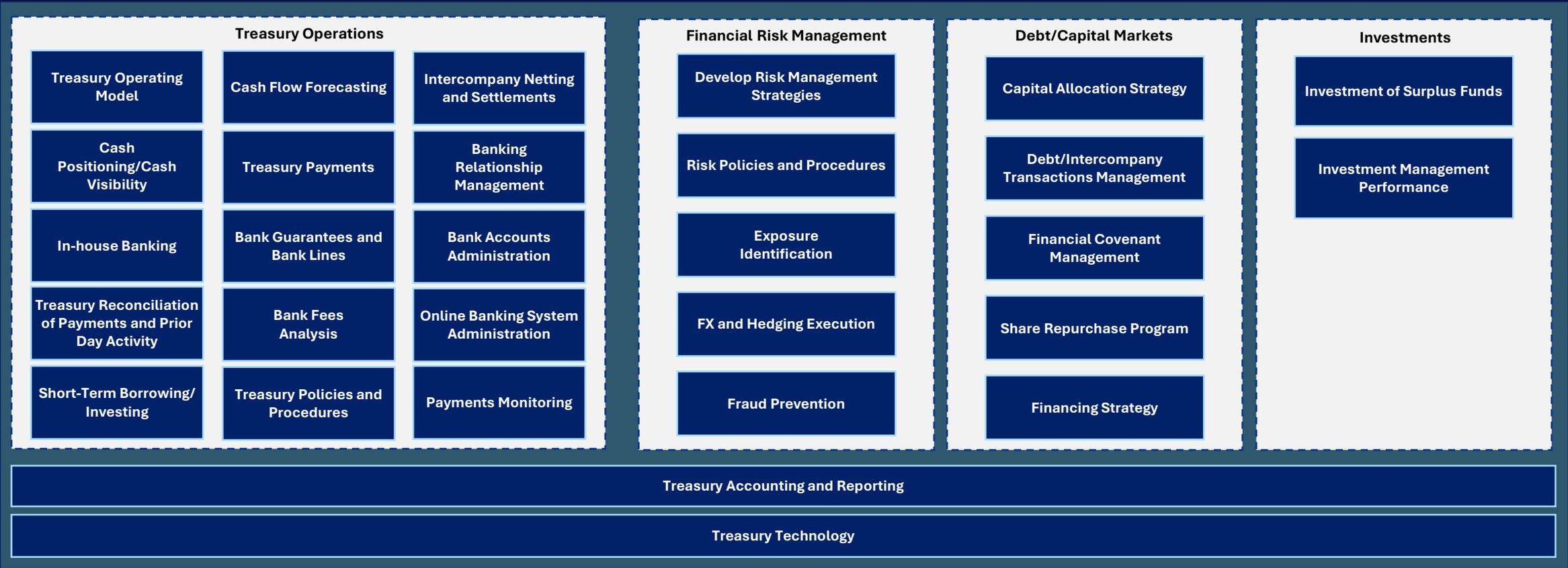40%

Conservative
20%

AI adoption methodology

Why it matters:

Organizational profiles across AI "Pioneers" and "Early Adopters" are split across industry showcasing the *wide application and ROI finance organizations are anticipating.*
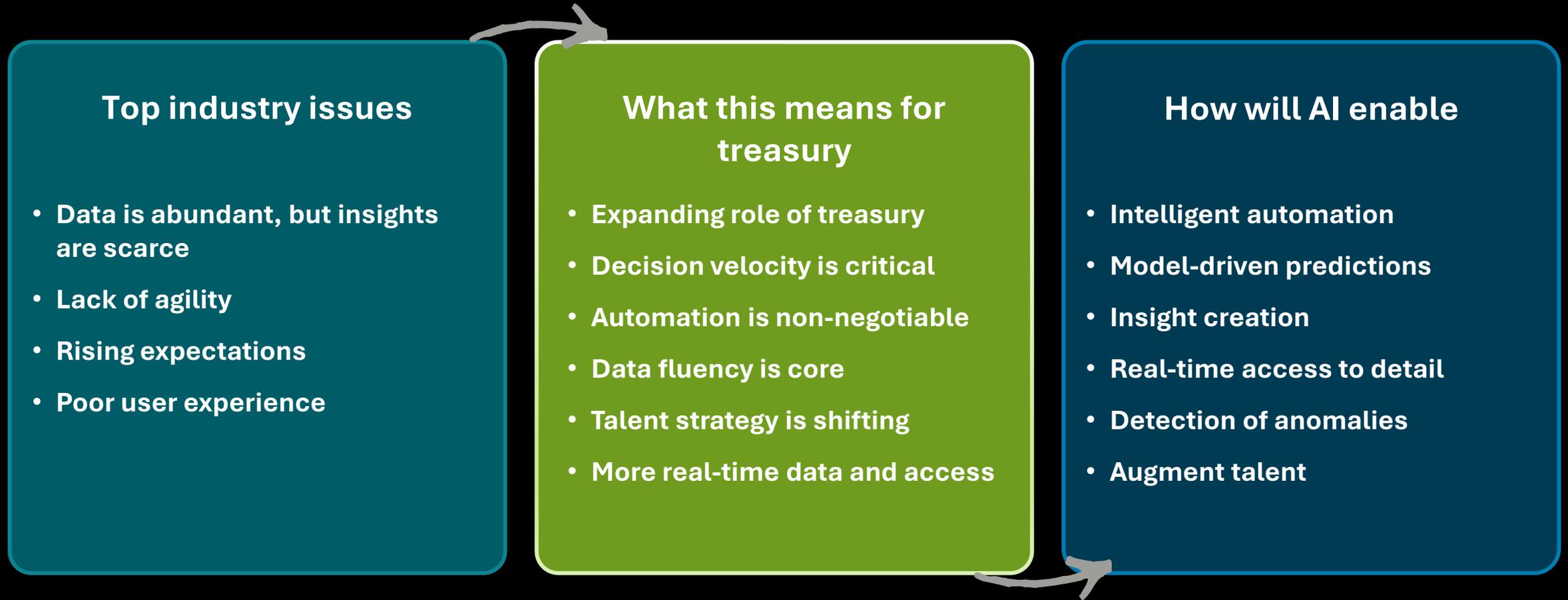
Overview of treasury function

An organization's treasury function covers a broad range of capabilities with varying degrees of automation/AI applicability:

Treasury Operations

Treasury Operating Model	Cash Flow Forecasting	Intercompany Netting and Settlements
Cash Positioning/Cash Visibility	Treasury Payments	Banking Relationship Management
In-house Banking	Bank Guarantees and Bank Lines	Bank Accounts Administration
Treasury Reconciliation of Payments and Prior Day Activity	Bank Fees Analysis	Online Banking System Administration
Short-Term Borrowing/Investing	Treasury Policies and Procedures	Payments Monitoring

Financial Risk Management

- Develop Risk Management Strategies
- Risk Policies and Procedures
- Exposure Identification
- FX and Hedging Execution
- Fraud Prevention

Debt/Capital Markets

- Capital Allocation Strategy
- Debt/Intercompany Transactions Management
- Financial Covenant Management
- Share Repurchase Program
- Financing Strategy

Investments

- Investment of Surplus Funds
- Investment Management Performance

Treasury Accounting and Reporting

Treasury Technology

The treasury world is changing with AI

AI will power the future of the enterprise disrupting and reshaping finance's role, talent, technology, and organization

Top industry issues

- **Data is abundant, but insights are scarce**
- **Lack of agility**
- **Rising expectations**
- **Poor user experience**

What this means for treasury

- **Expanding role of treasury**
- **Decision velocity is critical**
- **Automation is non-negotiable**
- **Data fluency is core**
- **Talent strategy is shifting**
- **More real-time data and access**

How will AI enable

- **Intelligent automation**
- **Model-driven predictions**
- **Insight creation**
- **Real-time access to detail**
- **Detection of anomalies**
- **Augment talent**

But what is *real* TODAY?

Setting the stage for AI in treasury

AI in treasury today and top trends

Treasury organizations are in **early adoption** of implementing AI solutions. **Forward-thinking organizations** are developing POCs focused on areas that can benefit from a value perspective within their operations (cost, time savings). **True pioneer organizations** are reviewing the treasury function as a whole and determining how to implement end-to-end agentic and autonomous workflows. Regardless of maturity, treasury organizations cross-industry are evaluating top-of-mind trends.

Data first

- Successful integration of AI solutions is highly dependent on data. Organizations are evaluating the readiness of their current data and understanding the quality, quantity, and accessibility.
- Treasury organizations are taking a closer look at their finance systems to create seamless integration via APIs or middleware to enable an automated, reliable, real-time transaction data exchange.

Encompassing AI strategy

- Strategic alignment with broader finance and leadership is paramount to ensure goals can be achieved with required software, hardware, human resources, training, and budget.
- Opportunities to implement AI-driven solutions must be prioritized based on alignment with your long-term strategic vision.

Hot use cases

- High-value use cases that have piqued the interest of treasury organizations include cash positioning, forecasting, and fraud detection. AI can enhance accuracy and efficiency by detecting trends that are not easily visible.
- Transaction and payment processing agentic workflows can analyze vast amounts of data and automate exception handling.

Treasury AI use case types

Process-focused

Treasury organizations process thousands of transactions globally daily, requiring a high level of manual effort for teams. **Process-focused AI solutions leveraging agentic technology** can automate routing tasks and reduce level of manual intervention.

Benefits delivered: *Enhanced efficiency and automation, improved governance, cost savings*

Analytics-driven

Treasury organizations handle large volumes of financial data to drive decisioning. The use of AI technology can **identify patterns, improve accuracy, and provide more timely, deeper insights through advanced analytics**.

Benefits delivered: *Strategic value creation that allows treasury to operate proactively, improved decision-making through data-driven insights*

Polling question 2

When having conversations about developing or deploying an AI strategy at your organization, which of the following issues drive the conversation (select all that apply):

A. Highly manual processes

B. Lack of data and insights

C. Poor technology landscape

D. Misalignment across business units

E. Not applicable/we are not discussing an AI strategy

Treasury AI
use cases

Capabilities and use cases across finance

The AI use case landscape in finance is pragmatic and evolving. "Shiny object" projects are rare; focus is on high-impact, proven applications.

Focus level

Low	Medium	High

DOMAIN

FP&A	Order-to-cash	Source-to-pay	Close consolidation	Management reporting	Treasury	Tax	Internal audit	Investor relations

PROCESS

Predictive analytics	Predictive analytics	Predictive analytics	Predictive analytics	Predictive analytics	Predictive analytics	Predictive analytics	Predictive analytics	Predictive analytics
AI/ML-enabled automation	AI/ML-enabled automation	AI/ML-enabled automation	AI/ML-enabled automation	AI/ML-enabled automation	AI/ML-enabled automation	AI/ML-enabled automation	AI/ML-enabled automation	AI/ML-enabled automation
Generative AI	Generative AI	Generative AI	Generative AI	Generative AI	Generative AI	Generative AI	Generative AI	Generative AI
Agentic AI	Agentic AI	Agentic AI	Agentic AI	Agentic AI	Agentic AI	Agentic AI	Agentic AI	Agentic AI

> *Predictive analytics and AI-driven automation dominate*, *especially in investor relations and financial planning and analysis (FP&A).* *Generative and agentic AI solutions are on the rise but not yet mainstream.*

Why it matters:

Leaders should focus resources where AI can *quickly augment decision-making or automate manual effort*, while keeping an eye on emerging, transformative technologies that will reshape how finance operates.

Source: Deloitte FinanceAI Nerve Center State of AI in Finance Q4 2025 Benchmarks

Identifying treasury AI business need and opportunity

PROBLEM STATEMENT

Organizations process **thousands of transactions globally everyday** and deal with a **large volume of financial data to drive decisioning**.

The treasury function is vital to ensuring that cash moves to and from the correct places, but a **high level of manual effort is involved** even with the use of a treasury management system (TMS).

By utilizing **AI models or agents to replace highly manual and repetitive work** in these key areas, treasury organizations can focus on driving strategic value for the business.

OPPORTUNITY

- TMS capabilities are effective in automating many financial processes but **still require a level of manual effort** across certain functionality that technology **vendors may be unable to address** through the existing technology alone.

- AI can help fill these gaps by **analyzing large amounts of data, identifying patterns, and making real-time decisions**.

- AI can enhance TMS capabilities by **automating routine tasks, improving forecasting accuracy, and providing deeper insights through advanced analytics**, ultimately leading to more efficient and effective treasury operations.

Treasury AI use case archetypes

Based on identified industry pain points, two broad categories of use cases have been identified:

PROCESS-FOCUSED

Processes that require a **great deal of manual effort** or are **unfeasible for a team to perform due to volumes**

Opportunities

- **Enhanced efficiency and automation:** Automation of routine tasks to reduce manual effort and allow focus on strategy

- **Governance:** Audit logging and reduced chance of manual error

Considerations

- **Governance and risk management:** Validation and monitoring are required to monitor biases and security risks

- **Human-in-the-loop:** Certain tasks should require human review and approval, such as high-value or high-risk transactions

ANALYTICS-DRIVEN

Analysis of data **(ideally from data lakes/warehouses)**

Opportunities

- **Strategic value creation:** Treasury can shift from reactive to proactive management with predictive analytics and autonomous execution

- **Improved decision-making:** Real-time data analysis for vast amounts of data with actionable insights

Considerations

- **Data quality:** Inconsistent or incomplete data can lead to poor decisions or errors as models rely on high-quality, timely, and accurate data

- **Explainability and transparency:** The solution should provide interpretable explanations for recommendations

Treasury AI use case examples

Across the two archetypes, several top-of-mind use cases have emerged as treasury organizations ideate on value:

PROCESS-FOCUSED

Processes that require a **great deal of manual effort** or are **unfeasible for a team to perform due to volumes**

Examples

- **Payments monitoring:** Monitor payment activity, identify required actions for issue resolution

- **Bank statement monitoring:** Monitor daily bank statement receipt and action required reconciliations or remediations

- **Transaction mapping:** Determine the purpose of unreconciled transactions and classify them

- **Bank account administration:** Administer bank portal access and initiate action for account or personnel changes
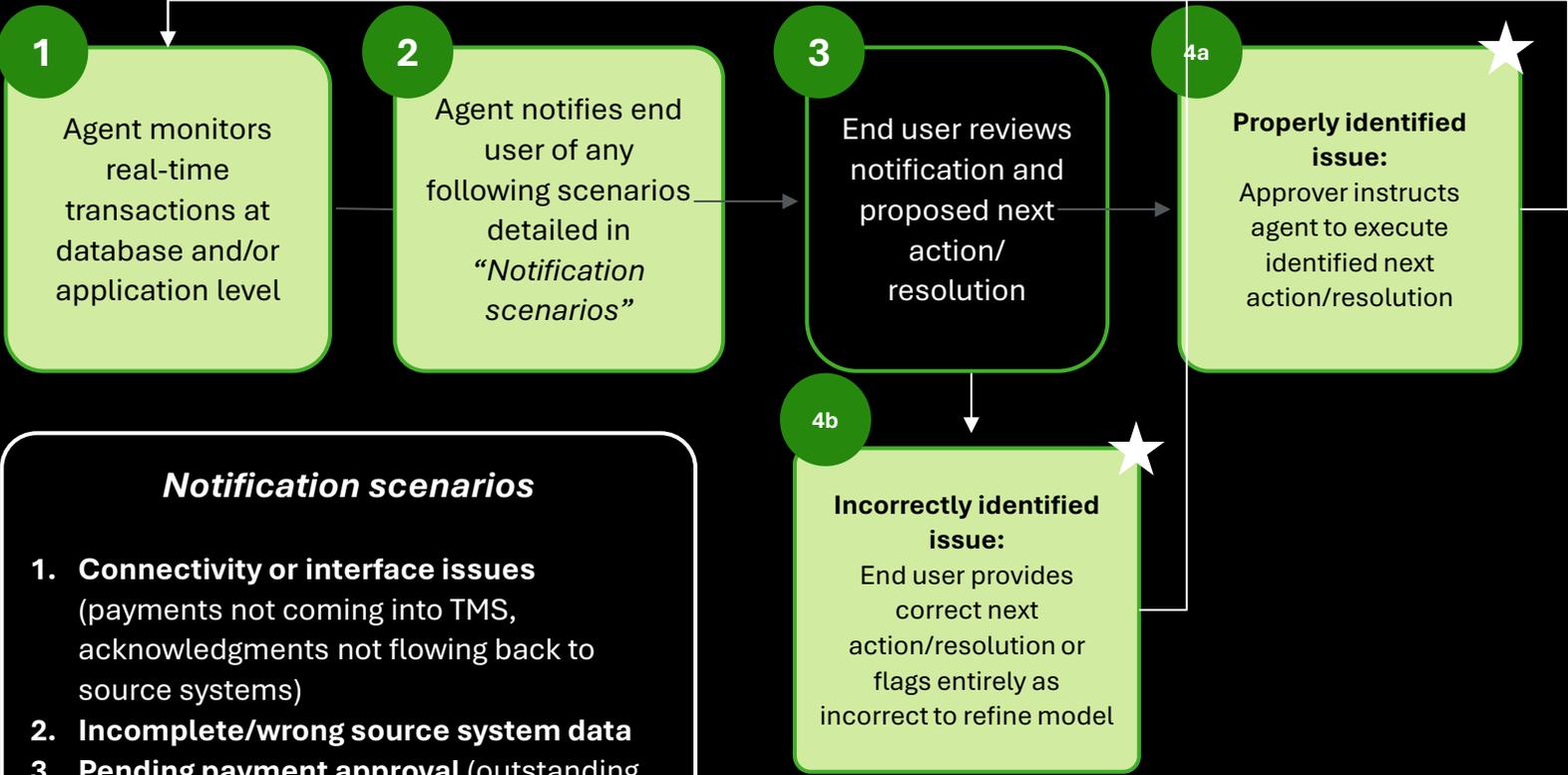
ANALYTICS-DRIVEN

Analysis of data **(ideally from data lakes/warehouses)**

Examples

- **Cash forecasting:** Integrate cash data sources, apply ML for cash position prediction, conduct scenario analysis and stress testing

- **Investment and liquidity management:** Assess positions, monitor counterparty and credit risks, manage liquidity buffers, provide recommendations for allocation of cash and investments

- **Risk and anomaly detection:** Analyze transactions, identify unusual patterns, integrate market and external threats, trigger automated alerts and responses

- **Bank fee analysis:** Review and analyze share of wallet and fee structures to maximize value from banking partner relationships

Payments monitoring agent high-level process

1 — Agent monitors real-time transactions at database and/or application level

2 — Agent notifies end user of any following scenarios detailed in *"Notification scenarios"*

3 — End user reviews notification and proposed next action/ resolution

4a — **Properly identified issue:** Approver instructs agent to execute identified next action/resolution

4b — **Incorrectly identified issue:** End user provides correct next action/resolution or flags entirely as incorrect to refine model

Notification scenarios

1. **Connectivity or interface issues** (payments not coming into TMS, acknowledgments not flowing back to source systems)
2. **Incomplete/wrong source system data**
3. **Pending payment approval** (outstanding approvals, out-of-office resolution)
4. **Payment failure** (missing acknowledgment from bank or failed payment instruction at the bank)
5. **Payment file failure** (unable to generate payment file)
6. **Cut-off time alerts**

Step	Inputs	Outputs
1	Transactional information	
2	Transactional information	Notification scenarios
3	"Triggered" transactions	
4a	Notification "corrections"	Transaction to release back
4b	Notification "corrections"	Revised transaction

Legend

☐ Process/end-user involvement

☐ AI agent action

★ AI model training

Polling question 3

Which of the following types of use cases would drive the most value for your treasury organization?

A. Process-focused (bank statement/payment monitoring)

B. Analytics-driven (forecasting, liquidity management, bank fees)

C. Chatbots (plain-speak interfaces to existing data sources)

D. Not applicable

# Evaluation and implementation of treasury AI in organizations

Understanding your AI ambitions through a multidisciplinary approach

Below is an illustrative approach and would be a starting point to consider. This includes an introduction to and use of AI applications and a structured approach to identify, refine, and develop potential use cases that could support the organization's goals:

	EDUCATE	PLAN	IDEATE	EXPERIMENT	DEPLOY	ITERATE
PHASE IN THE JOURNEY	Innovators within the organization must educate themselves on Generative AI applications and potential use cases	Leaders will investigate Generative AI implications to their business to make informed decisions on its uses within the organization	Identify opportunities for the business	Experience technology firsthand with pilots	Build solution(s) and accelerate time to market	Find opportunities to continuously improve on technology
ACTIONS THAT SUPPORT	Understand AI **applications, uses, risks, and impact** on financial and accounting industry **Invest in AI fluency across the organization** to educate employees and increase proficiency	Assess client's **current AI capabilities** and needs Develop **AI program framework and detailed roadmap** to guide AI integration and deployment **Manage AI program** under organization's governance structure (e.g., schedules, meetings, and reporting)	**Refine/prioritize** identified use cases for further development Assist with identification and selection of **AI technologies and vendors**	**Project management** and technical service on AI adoption activities for selected use cases Assist with addressing potential AI technology and **adoption risks** including: • Data security and privacy; • Business risks (e.g., bias, safe usage, responsible applications, etc.); and • Regulatory risks (including copyright protection).	Move solutions from proof-of-concept (POC) phase to minimum viable product (MVP) This includes **Developing a project plan, assumption, and estimated budget** around both services and potential license procurement to move experimental POCs from a lower environment to a production-ready deployment for the organization	Begin next wave of **functional and governance workshops** not included in initial AI strategy assessment Further refine prior MVPs to more functionality and stabilization to **expand ROI of existing use cases** Draw upon lessons learned from initial AI strategy assessment and rollout to improve and **enhance the operating model**

Key considerations
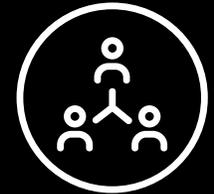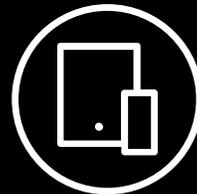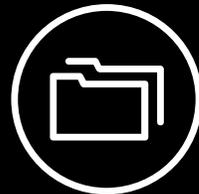
User experience/ change mgmt

- **Curate a personalized AI insights hub for finance associates**

- Reimagine end to end

- Pivot from process to dialogue

- Experience is at the heart of adoption

Data

- **Assess fundamental data needs and no-regret moves**

- Bring model to data; fit-for-purpose

- Availability, accessibility, security and control

Technology

- **Explore solution construction, build vs. buy options**

- Speed to value

- Extend current platforms

- Vendor landscape

- Creating a platform

Risk

- **Establish guardrails to address risks as AI grows**

- **Risks include** bias, hallucination, privacy and security, inappropriate behavior, emergent abilities, cost, and accountability

Talent/operating model

- **Prepare for the workforce of the future with AI across:**

- AI fluency

- Operating model

- Workforce impact

- Adoption and scaling

What organizations have learned as they embark on AI transformations in finance

Today's discussion focuses on treasury technology and data, but E2E transformation requires combined effort in four areas:

OPERATING MODEL

- **Start small, scale fast**: Begin with targeted pilot projects to demonstrate value quickly, followed by agile scaling

- **Clear accountability drives results:** Clearly define roles, responsibilities, and governance to accelerate decision-making and ensure alignment

FINANCE OPERATIONS

- **Optimize before automating:** Help AI amplify efficiency and quality more effectively through process standardization

- **Human-in-the-loop matters:** Embed human judgment and oversight, especially during early deployments

E2E finance transformation

TALENT

- **Upskilling is a necessity, not a luxury:** Reduce fear of disruption and accelerate AI adoption by investing in AI literacy and skills

- **Blend technical and domain expertise:** Combine deep treasury knowledge with AI and data analytics skills

TECHNOLOGY AND DATA

- **Data quality over model sophistication:** Prioritize investments in robust data governance and data quality over complex AI models

- **Think platforms, not point solutions:** Select scalable and interoperable AI platforms to enable flexibility and long-term ROI

Leading practices: What can organizations do now?

There are a variety of actions that firms can take to potentially mitigate AI risks

Design process

- **AI ethics training** programs for AI developers
- **Consult a diverse group of stakeholders** and gather a variety of use-case scenarios
- Conceptualize and **document** the system's intended use, objectives and risks
- Hold sessions with stakeholders to **identify potential sources of adverse** outcomes and risks
- Understand latest **regulatory and legal requirements**
- Potential sources of risks (e.g., bias) are identified, and **plans for mitigation** are put into place

Data

- Data sources are **reputable and well-documented**
- **Representative data sets** are utilized for AI training purposes
- Utilize least number of data features that meet performance goals
- Perform assessment of data elements/features (including post-transformations) for **potential bias**
- **Data quality metrics** identified and monitored

Development and implementation

- A **clear statement of purpose** to ensure that the model is developed in line with its intended use
- A model selection process driven by **objective criteria** and a structured assessment of the model suitability
- A variety of **development tests** used to evaluate the model type assumptions, the model stability, bias, impact of potential limitations, and model behavior over a range of input values (sensitivity and boundary testing)
- Back-testing (in-sample and out-of-sample) and cross-validation results
- **Strong documentation** that discusses approach, assumptions, limitations, risks, and related mitigation controls

Validation and review

- A **second line of defense** for review and AI oversight
- AI oversight with authority to challenge AI design and development
- Review conceptual design of model including data elements
- Review developmental tests and perform additional tests where needed

Ongoing monitoring

- Regularly **evaluate model performance** using relevant metrics looking for changes or degradation
- Compare performance to relevant baselines or expected performance indicators
- **Use visualizations** for easier identification of patterns/trends
- Monitor distribution of input data
- Evaluate the model performance on subsets of data (e.g., **edge cases and demographic groups**)

Use

- Use a **human-centric approach** for decision-making to identify and report bias
- **End-user training** that includes considerations for ethics and potential harm

Polling question 4

What is the likelihood of your organization investing in AI capabilities in the broader Finance / Treasury function in the next 12-18 months?
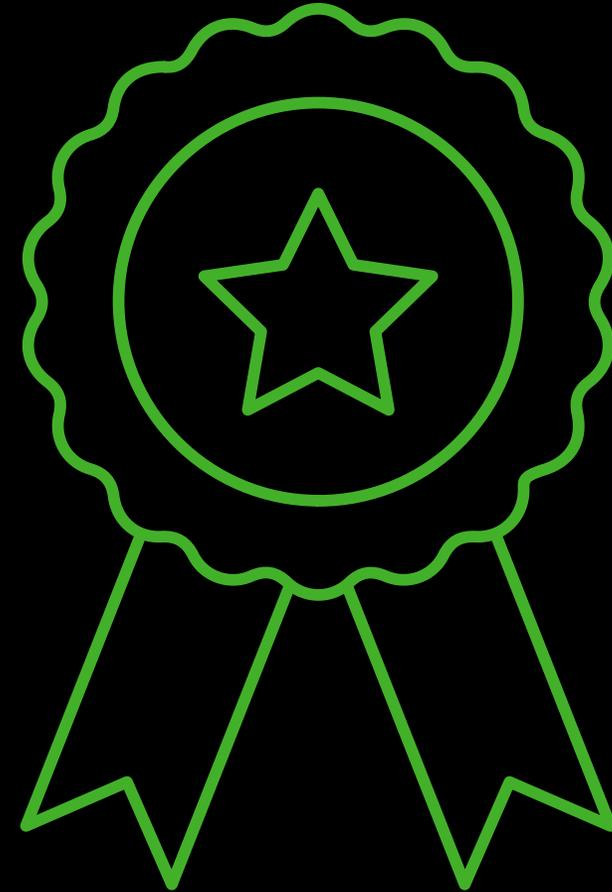
A. Very likely

B. Somewhat likely

C. Not likely

D. Not likely at all

E. Not applicable

Q&A

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