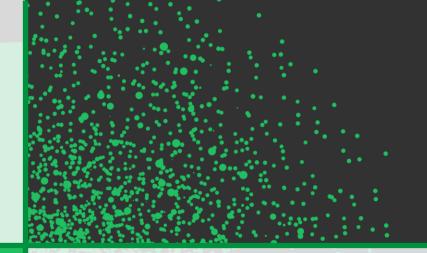


Executive Perspectives





# **Unlocking Potential from AI and GenAI**

**Finance** 

October 2024

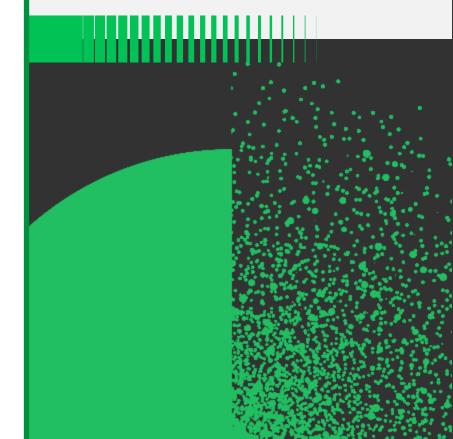
#### Introduction

Al a key topic top for CFOs today. After working with numerous clients in the past year, we are **sharing our most recent learning in a new series designed to help CFOs navigate Al.** With Al at an inflection point, the focus in 2024 is on turning Al's potential into *real* effectiveness and efficiency gains.

In this edition, we discuss the future of finance and the role AI will play in unlocking the finance function's full potential. We address key questions on the minds of finance leaders:

- Where are the opportunities for AI in finance?
- How will the finance processes evolve as a result?
- What impact does AI have on the finance operating model and talent?
- How do I get started... and how do I get this right?

This document is a guide for CFOs and finance leaders to cut through the hype around AI in finance and understand what creates value now and in the future. In this BCG
Executive Perspective,
we articulate our
vision for the future
of finance with AI



### **Executive summary** Unlocking impact from AI in the finance function

The time to act on AI is now

While finance functions have taken a bit longer to get started, CFOs are now starting to **explore GenAl** and how it can help finance become proactive **"value drivers"** for business

~15% of companies<sup>1</sup> are actively piloting or implementing GenAI in the finance function

Al unlocks many sources of value

Al is a key unlock for finance to **deliver new capabilities** (e.g., Al-based forecasting) and **higher-quality business support** (e.g., GenAl-powered FP&A insight generation)

Al delivers both **efficiency and effectiveness** benefits for the finance function, e.g.:

- **Efficiency:** 20-40% capacity unlock, enabling more focus on business partnerships
- **Effectiveness**: 50%+ increase in forecast accuracy, 2x faster insight for decision making

**Executing** successfully

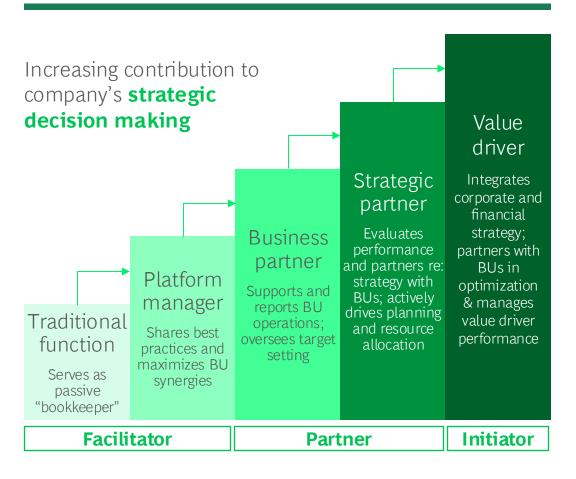
CFOs start their journey by **building high-value use cases** and demonstrating early impact

Yet to fully unlock value from AI, finance functions should move beyond use case exploration to **reinventing end-to-end (E2E) processes**, by:

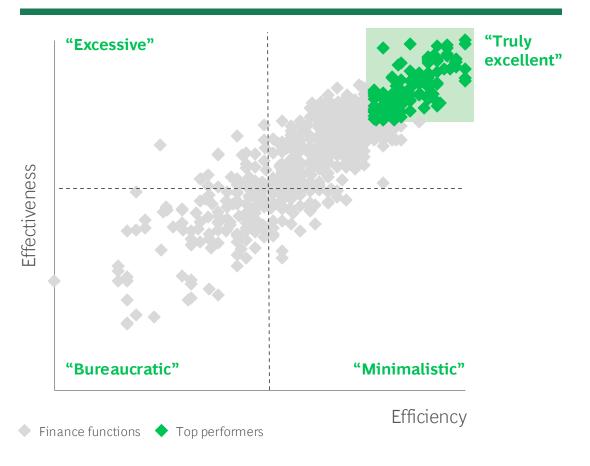
- Adapting the operating model, talent, and ways of working to support new processes
- Modernizing the tech stack and rewiring data hierarchies to enable further value gains

# Next-gen finance functions break the compromise between efficiency and effectiveness, to become proactive value drivers for the business

# Next-gen finance functions actively integrate strategy and drive value...



# ...by delivering on BOTH effectiveness and cost



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## Inspiration | What next-gen finance functions look like

		Common starting points	Digitally mature functions	AI-enabled functions
Planning, budgeting, & forecasting	FUTURE	Fragmented data, heavy Excel use, manually intensive and siloed budgets / forecasts	Integrated cross-functional planning, modernized processes & tools with single-source data	Predictive AI models for planning, forecasting, and scenario analysis
Reporting and business intelligence		Static tools / reports with limited visualization, built on manual processing of fragmented data	Automated dashboards with standardized metrics, using harmonized data & definitions	Self-serve dashboards with GenAl- based commentary, supported by conversational querying and search
General accounting		Fragmented ERP; Excel-heavy, time-consuming reconciliations; manual statutory reporting	Lean GL, automated journal entries, system-triggered controls & exception monitoring	Predictive close, AI reconciliations, GenAI entry recommendations, AI pattern / error recognition
Finance operations	\$	Lack of end-to-end systems, leading to off-tool calculations, tracking / monitoring via Excel	Integrated sub-ledgers, automated invoice generation / processing, auto-matching and data validation	AI-based data extraction (e.g., OCR) & validation, predictive collections, supplier analytics, AI controls
Expert functions		Reliance on Excel & manual inputs limits visibility and future planning	Integrated solutions for transaction processing and global monitoring, with standard insights / alerts	AI-based cash forecasting, FX hedging models, working capital optimization, risk monitoring

## A combination of levers is required to achieve finance excellence, and AI is an important lever in the digital modernization journey

#### Levers to achieve finance excellence:



# **Digital modernization** including AI



#### **End-to-end process** reimagination

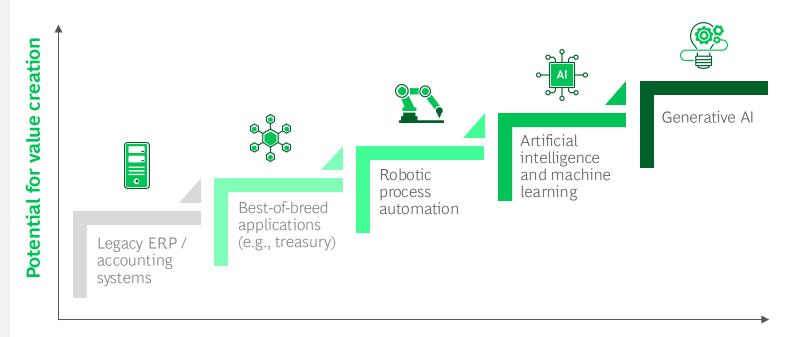
- Reinvent the finance offering with new AI-powered capabilities
- Adopt AI across E2E processes to deliver exponential value



#### **OPO** New operating model and talent profiles

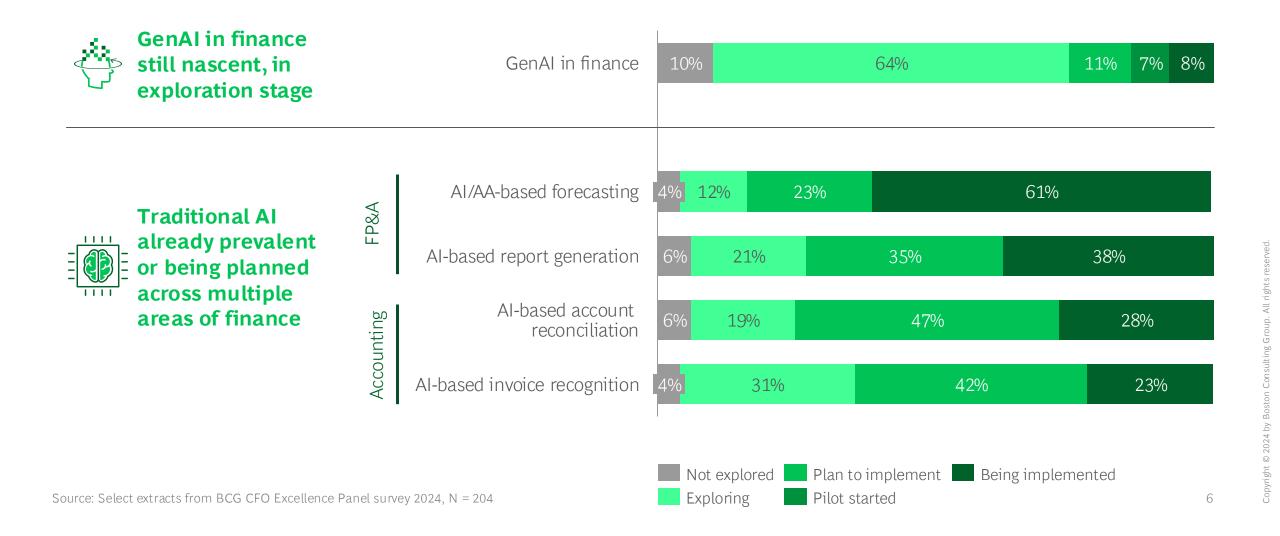
 Changes in roles, accountabilities, and skills/expectations driving need for new capabilities and ways of working

AI tools bring cognitive and predictive capabilities to augment existing tech solutions (e.g., ERP, specialized tools, RPA)



**Recency of application** 

# While GenAI is still nascent, companies are actively exploring its potential, in addition to expanding the use of traditional AI



# AI combined with other levers will be critical to unlock transformative value across the finance excellence journey

#### **Transformation of FP&A**

(~20-30% efficiency gains applying all levers)

#### **Transformation of Accounting & FinOps**

(~25-35% efficiency gains applying all levers)

#### From To Business data support Scenario models, Preparing plans, market analysis, AIbudgets, & forecasts based optimization Data analysis and Self-service and creation of static proactive insight management reports Stress-testing Al-built budgets & forecasts Data collection, processing, & validation Insight generation from dashboards; ad hoc analytics

From To Compliance tracking; system controls Customer/supplier contracting and comms, Policy writing, workflow improvement, etc. Close & consol., Predictive risk mgmt. reconciliation and statutory reporting and controls; AI pattern / error recognition Transaction tracking, GenAl-enabled review and approval negotiation & analytics Al-enabled close. recons, & statutory reporting Manual transaction Exception-based review processing of AI-generated invoices,

journal entries, etc.

## **How AI accelerates** this transformation:

- Reduction of manual work,,
   e.g., data extraction, rule /
   pattern-based validation,
   calculation
- Task reinvention through
  Al-created first drafts, smart
  reviews/alerts, analytics,
  etc.
- New finance capabilities and insights enabled by AI

Capacity unlock for more strategic advisory and business partnering

## **Use cases** Key opportunities exist for AI across finance processes

Planning, budgeting, & forecasting



**Business strategy**: Analysis of market/demand, competitive landscape, etc.

Al-drafted plans and budgets, leveraging KPI driver trees and automated data feeds GenAl-created variance investigation and commentary generation

Al-based **forecast** and scenario modeling, Al <u>refine</u>ment of driver trees

Reporting and business intelligence



**Standard dashboards/reports**: GenAldrafted commentary, performance analysis, creation of leadership decks

Ad hoc reporting: GenAI-based data search and visualization, performance analysis and insight generation

**Proactive monitoring** (e.g., overspend, project delays) and **optimization** (e.g., working capital)

**General** accounting



**Subledger close**: Al-recommended journal entries, proactive/predictive close monitoring

**Consolidation & filings:** Al-based balance sheet reconciliations, preparation of statutory reports

Compliance & policies: Al-based controls and error detection, GenAI policy and guidebook writing

Finance operations



**Procure to pay**: Al/OCR invoice processing and matching, payment terms monitoring, supplier spend/risk analytics + optimization suggestions

**Order to cash**: Al-based prediction models for credit scoring, early warnings for DSO/aging, predictive collections with Al, GenAl-tailored customer comms.

Others (payroll, fixed assets, etc.)

**Expert** functions



**Treasury**: Al-based cash forecasting, FX hedging, balance sheet optimization

**Tax**: Al-based provisioning calculation, proactive flags for deferred tax impacts

Investor relations: Earnings call Q&A prep, investor sentiment analysis

**Risk management**: Early warnings using pattern recognition; fraud detection

**Cross-finance opportunities:** Chatbots, guided workflows, co-pilot support, etc.

Analysis of opportunities based on additional value that AI can unlock (beyond other digital tools):





Medium



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## Al in action (I/III) | Using Al-based financial forecasting to drive impact

#### **Context**

Large manufacturing client

Struggled to forecast market accurately (17% increase in forecast error)...

#### ..driving business challenges:

- Inability to anticipate and adjust to market situation
- Increased costs of labor & overtime, transport, and increased inventory
- Customer dissatisfaction from decreased service levels and fewer on-time, in-full deliveries

#### **Solution overview**

AI-based demand forecasting engine leveraging internal and external data:

- Trend-sensing engine to identify early shifts in market sentiment, production technology, etc.
- ML-based modeling to adjust for business trends such as seasonality, competition, etc.

Driver tree models linking executive metrics to operational variables (e.g., production units):

- More granular, data-derived forecasts for root cause analysis and sensitivity assessment
- Ability to model various demand / production scenarios and enhance decision making

AI/ML center of excellence created, to enhance models and develop new AI offerings

#### **Impact**

50%+ Improved forecasting accuracy

> 80%+ Reduction in forecast variance and bias

Forecasts and scenarios generated rapidly

Illustrative

## **Deep dive** Structured and leading-edge AI modeling provides: step-change in operational driver forecasting capabilities

#### Operational driver for financial model



Baseline

Endogenous time-series forecast

Features: seasonality, long-term category trend,...



Operational drivers

Machine learning time-series correction

Features: market data, competition, economy, COVID stringency,...

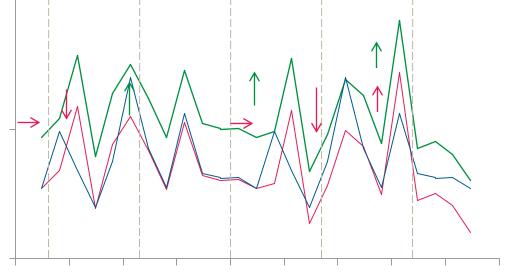


One-off events

Planner override (micro / macro)

Features: extreme weather occurrences, regulatory changes, supply shortages,...





Impact:

Variability better explained & anticipated, forecast error cut, bias reduced

## Deep dive | Driver trees link operational drivers to financial results, underpinned by AI algorithms

Illustrative

#### Level 2 metrics **Operational drivers OTR** shipping Cost per mile **OTR** supplies Intra-network costs Miles Miles per run **Transportation** Runs costs Units Pallets Units per pallet Outbound transportation Cost per pallet costs Historical CPP (CPP) Fuel price △

#### **Data inputs**

#### **Automatic inputs**

Automatic data feed of actuals/ forecasts directly from data systems

#### AI model outputs

Outputs from relevant AI models (e.g., demand forecasting model) that serve as inputs into driver trees

#### **Manual inputs**

Assumptions and manual adjustments

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# Al in action (II/III) | Using GenAl-based business intelligence to drive impact

#### **Context**

Large US retailer struggles to get deep insights on performance, due to rapidly changing market / demand environment, complexity of product portfolio / categories, and fluctuations across cost areas

FP&A analyst faces several challenges while investigating variances to advise business partners on the drivers behind performance:

- Poor view of drivers' under/ overperformance
- Significant time needed to analyze variances and identify root causes
- Slow turnaround for ad hoc data investigation requests

#### **Solution overview**

GenAl chatbot for conversational queries of data and generation of dynamic visualization:

- Provides 2nd and 3rd order performance insight, with suggested actions for improvement
- Creates live charts that can be interrogated, adapted, and exported into leadership decks

Driver tree engine enables FP&A analyst to build and live-edit dynamic relationship models between key operational and financial variables:

• Driver model enables deep investigation into root causes behind variances, to enable timely corrective action

Scalable infrastructure that can be connected to any data source or system, providing visibility across BUs, categories, and processes

#### **Impact**

**2-4x**Faster report generation

<1 day
Turnaround
for ad hoc
analytics

More data-driven decision making

# **Deep dive** | GenAI-based chatbot interface and driver tree relationships allow for quick drilldown into root causes of performance

#### Conversation between analyst and tool

FP&A analyst GenAI chatbot



What is driving the forecasted sales miss for [category A] for November and December of 2024?

The forecasted sales miss is due primarily to a drop in sales velocity (-25%), with a slight decrease in expected average price (-5%).





What are the drivers of the drop in sales velocity?

The forecasted sales velocity decline was primarily due to a large decrease (-20%) in purchases per order and small decrease in order rate (-6%).





What were the drivers of decreased purchases per order?

Purchases per order forecast model attributes 50% of the decline to anticipated increase in inflation (+1%), to predicted CDP reduction (-2%), and the remaining 35% due to a drop in expected competitor prices for similar systems ([CLIENT] 15% higher than the expected competitor average price).





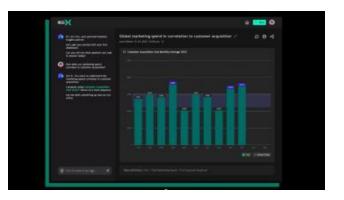
What actions can we take to increase purchases per order?

The economic outlook cannot be adjusted by any levers. However, planning for a steeper discount rate on [category A] heading into Q4 2024 will help offset some of the expected losses and improve the outlook for CY 2024.



# Dynamic charts generated throughout the conversation





# Al in action (III/III) | Using GenAI-based annual report creation to drive impact

#### **Context**

Controllership team at a large company looking to reduce the time spent on generating investor reports by having Gen AI write the textheavy section:

- Manual data aggregation and consolidation for 10K-style reporting
- Significant time spent on analyzing peers and market trends to write MD&A commentary
- More time spent by consolidation team on drafting reports and less time on review / insights

#### **Solution overview**

GenAI-based creation of draft 10K/annual reports based on past filings and latest internal data

 Tool auto-refreshes data, shifting human focus from data collection to review / refinement

**GenAl-drafted MD&A commentary, using external data to synthesize market trends and implications** 

• Tool adapts comments to highlight key business conditions, e.g., demand, industry fluctuations, economic landscape

Performance benchmarking across peers, based on publicly reported financial metrics, strategic announcements, and other news

• GenAl provides quick answers on competitive performance and peer outlook, replacing time-intensive manual analysis

#### **Impact**

40-60% Automation of statutory reports

**2K hours**Saved in the controllership organization

40+
Benchmark
companies
compared via
GenAl tool

# Deep dive | GenAI-enabled tool supports finance function in generating the annual report and inquiring about peer companies



#### **Annual report generation**

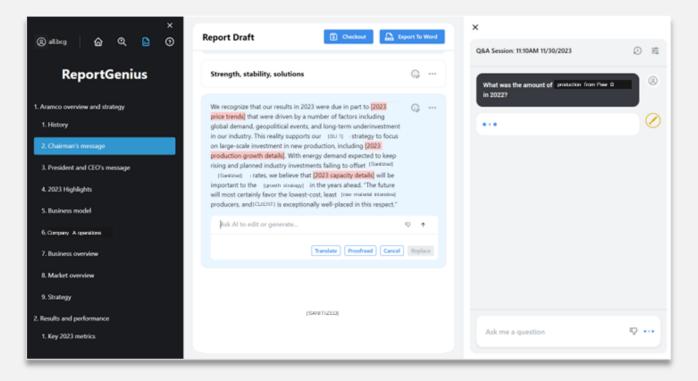
- Creation of draft of annual report commentary based on prior reports
- Benchmarks and sentiment-based text editing, including translation and proofreading
- Conversational interactions to refine and improve on GenAl-created drafts



# Peer reports and press release inquiries

- Query peer reports and press releases to refine commentary around market sentiment, industry outlook, etc.
- Generate answers on peer financial performance based on public data

First-draft commentary generated by tool leveraging past annual reports, news articles, competitor publications, etc.





## Performance Insights and recommendations

# Management reporting

## Illustrative time allocation<sup>1</sup>



FP&A analyst **accesses multiple systems** to pull and validate data

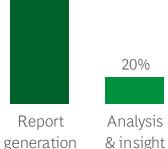
**Excel** used to calculate variance vs. budget and past actuals

Analyst looks into high variance items by reviewing source data, cross-referencing operational metrics, and sending questions to business teams

**Analyst writes** variance comments

explaining findings and flagging key cost items to be resolved and remaining budget available Variance calculations and comments are consolidated into PPT report and sent to leadership









With GenAl

FP&A analyst uploads prompt to GenAI tool, to quickly collate data and run calculations

GenAl builds charts, comments for review

**GenAl queries** run to investigate driver trees and dimensions (BU, region, GL item, etc.)

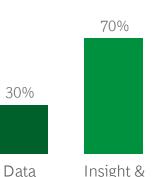
GenAl provides
reasons for the higherthan-trend cost
variances

Analyst builds options to optimize cost and simulates P&L impact of options with ML tool

ML tool enables live review and refinement with business team GenAl used to build leadership report with recommendation

with recommendation and P&L forecast

Analyst reviews and socializes report with stakeholders

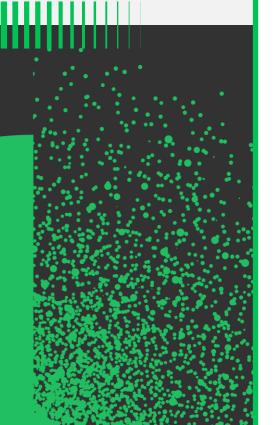


collection &

calculation

Insight & decision support

<sup>&</sup>lt;sup>1</sup>Based on client experiences of typical breakdown of FP&A time spent





New mandates for the CFO organization

- Shift of CFO role toward "chief performance officer" driving strategic direction and decision making
- Increased focus on data stewardship, to build new insights and analytics for evolving business needs
- **Custodian of value**, providing investment funding and monitoring benefits realization from org-wide GenAl efforts



New engagement models with the business

- Evolution of finance **service catalogue**, with new offerings for the business (e.g., AI optimization engines)
- Increased push toward AI-powered self-service, driving leaner "finance business partner" teams
- Greater **cross-functional collaboration**, to fully leverage internal financial, sales and operational data for insight



Reinvention of finance talent and skill sets

- **New roles and profiles** (e.g., solution architects) to identify AI opportunities and build use cases
- Need for enhanced digital skill sets within finance, such as data analytics and AI capabilities (e.g., ability to create scripts)
- Increased **need for strong business acumen** within finance, resulting from new AI-based offerings and reduction of transactional work

## Al implications: technology | Three types of vendors for AI in finance are suitable for different needs and use cases

Nonexhaustive



#### **Approach** and use cases



#### **Enterprise tech solutions**

Augments their existing ERP / EPM offerings with AI capabilities

Example offerings:

- GenAl invoice creation and AR management
- Controls / transaction review
- GenAl customer / vendor comms
- Fraud / risk detection







#### **Point solutions**

Leverages AI to offer specific solutions tailored for use cases, with focus on building new analytics

Example offerings:

- AI / ML budgeting & forecasting
- GenAl management reporting & business intelligence
- Predictive collections

#### Foundation builders

Provides infrastructure and out-of-box models to support a broad set of use cases (including finance)

Clients can leverage a mix of open- and closed-source models / engines to create solutions tailored to their use case















Standard, scalable offerings

Ability to customize

Suitable to augment existing tools with limited build effort

Suitable for companies looking for off-the-shelf models with flexible customization ability

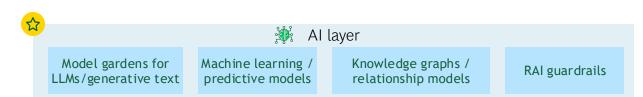
Suitable for companies looking to build highly tailored models with in-house resources

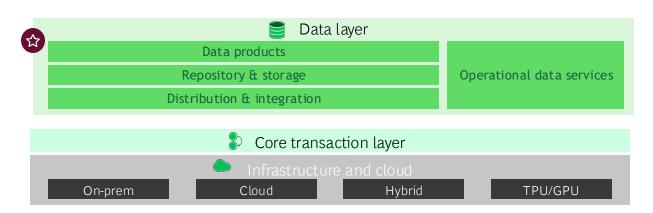
Source: Expert interviews 18

# Al implications: technology | Target state tech landscape for finance will significantly evolve, driven by Al requirements

#### Illustrative platform design incorporating AI







#### > Immediate priorities for AI execution

- **Define stakeholder needs:** At use cases need to be defined based on current needs, vision for finance capabilities
- Create roadmap: Companies are increasingly building quick AI pilots to prove effectiveness/efficiency impact
- Build models: AI tools can be developed today on top of existing stack, prioritizing areas with higher data fidelity
- Set RAI guardrails: Standards are defined for data / models, based on responsible AI frameworks
- Augment using AI: While AI models are evolving, ML capabilities can be used to accelerate data clean-up and improve quality / governance
- Explore out-of-box capabilities: AI solutions are increasingly being embedded into transactional solutions (e.g., AI controls within ERP)

## Getting started | 6 critical success factors for CFOs driving Al



**Systematic** transformation

Use AI as a catalyst to accelerate end-to-end finance transformation, including processes and operating model

**Value-focused**build

Act as the value guardian, driving the highest-impact use cases and monitoring early benefits realization

**Technology** flexibility

Leverage off-the-shelf tools when possible and selectively build use cases in-house when existing offerings do not fully address the requirement

Data foundations

Be the "chief data officer," continuously exploring opportunities to better leverage big data for finance and business

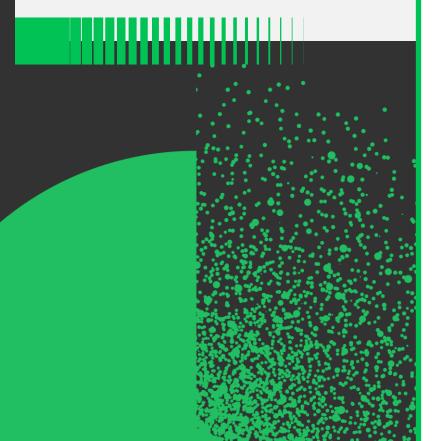
**Quality** governance

Establish safeguards against hallucinations and ensure reliability / security of results (e.g., human-in-the-loop review, GenAI testing and evaluation)

**Leadership** buy-in

Get finance leaders and key business stakeholders onboard; drive change management/culture toward supporting AI efforts

## BCG experts | Key contacts for AI in finance transformation



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Jody Foldesy



Michael Demyttenaere



Hardik Sheth



Laurin Henderson Menton



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Mike Beyer



Nick Tanaka



in the state of