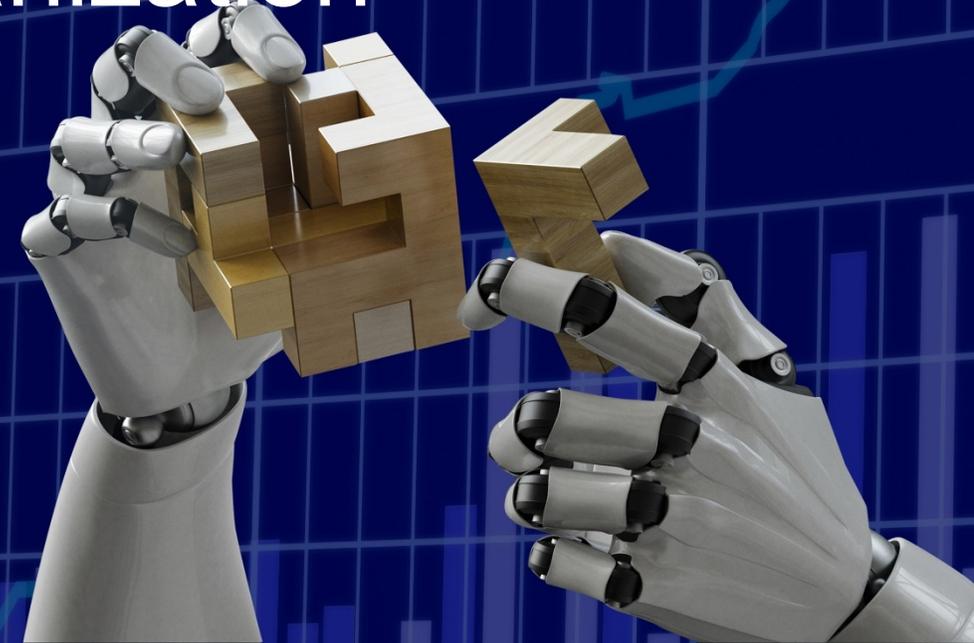




Looking at the future of Data & Reporting The Performance Organization

September 2018

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The future of data & reporting: Insights and analysis discussion agenda



What is changing and why should organisations care?



How can organisations respond to the challenge?



How can organisations deliver leading-edge analytical capabilities?



How are the roles around data & reporting changing?



Where do you begin?

Big data and analytics are not new ... what is changing?

Speed of disruption

“Every organization must find its own way ahead through its own set of complex business considerations [...] No single approach will serve every enterprise. What is consistent across a wide range of industries, companies, and functions, however, is the pressure to act. Finance is in a unique position within the company to answer this call to action.”

— Harvard Business Review Analytic Services, sponsored by KPMG LLP, *Advanced Analytics and the CFO* (November 2017)

Technology investments

Areas of greatest investment in technology expected in three years



61% Data analytics



58% Cognitive technologies



55% Internet of Things

CEO's mandate



35% of CEOs see **“performance and growth”** as the greatest opportunity to contribute to the organization.



85% of the CEOs of top-performing organizations say **applying financial data to achieve profitable growth** is the greatest strategic value a CFO can bring to an organization.

- CEOs expect their organisations to take the initiative to apply financial data and analysis to **explore new products, markets, and channels**.
- Strengthening the **alignment between financial planning and corporate strategy** will be one of the CFO's top 5 priorities going forward.

Source: KPMG International, *The view from the top* (November 2015).

Source: KPMG LLP, U.S. CEO Outlook 2017 survey: *Disrupt and grow* offers insights into the greatest concerns of CEOs and how they plan to mobilize for the fourth industrial revolution. Findings based on a study of the 3-year outlook of nearly 400 U.S. CEOs, with annual revenues greater than U.S. \$500 million; 32% have greater than U.S. \$10 billion in revenues.

Despite this focus, companies continue to struggle

CEO's areas of concern

49%

Are concerned about the integrity of the data on which they base decisions

32%

Say the depth of their customer insight is hindered by a lack of quality customer data

61%

Are concerned about integrating cognitive processes and artificial intelligence

Can you answer strategic questions with confidence?

Customers



- How can we develop Customer Value - which customers are more profitable and why?
- Where should we invest to improve the customer experience?

Products



- Which products / routes are truly profitable?
- How can we reduce complexity to improve profitable growth?

Channels



- How does revenue and cost vary by channel?
- What is our digital opportunity?
- What pricing strategies should we deploy?

Future Outlook



- How can we improve forecasting accuracy for demand, sales and profitability?
- Which new markets should we target considering internal and external factors?

Source: KPMG LLP, U.S. CEO Outlook 2017 survey: *Disrupt and grow* offers insights into the greatest concerns of CEOs and how they plan to mobilize for the fourth industrial revolution. Findings based on a study of the 3-year outlook of nearly 400 U.S. CEOs, with annual revenues greater than U.S. \$500 million; 32% have greater than U.S. \$10 billion in revenues.

How can you close these gaps?

Organisations must equip themselves with the right tools, skills, and capabilities to address critical questions with newfound speed, accuracy, and effectiveness.

Financial and operational measurements fully aligned to business strategy

Automated data management, performance reporting, and improved speed of access to information

Integrated planning (strategic, business, financial) supported with scenario analysis and predictive modelling

Agile, real-time integration across financial and operational systems



Leadership is required for an enterprise analytics CoE

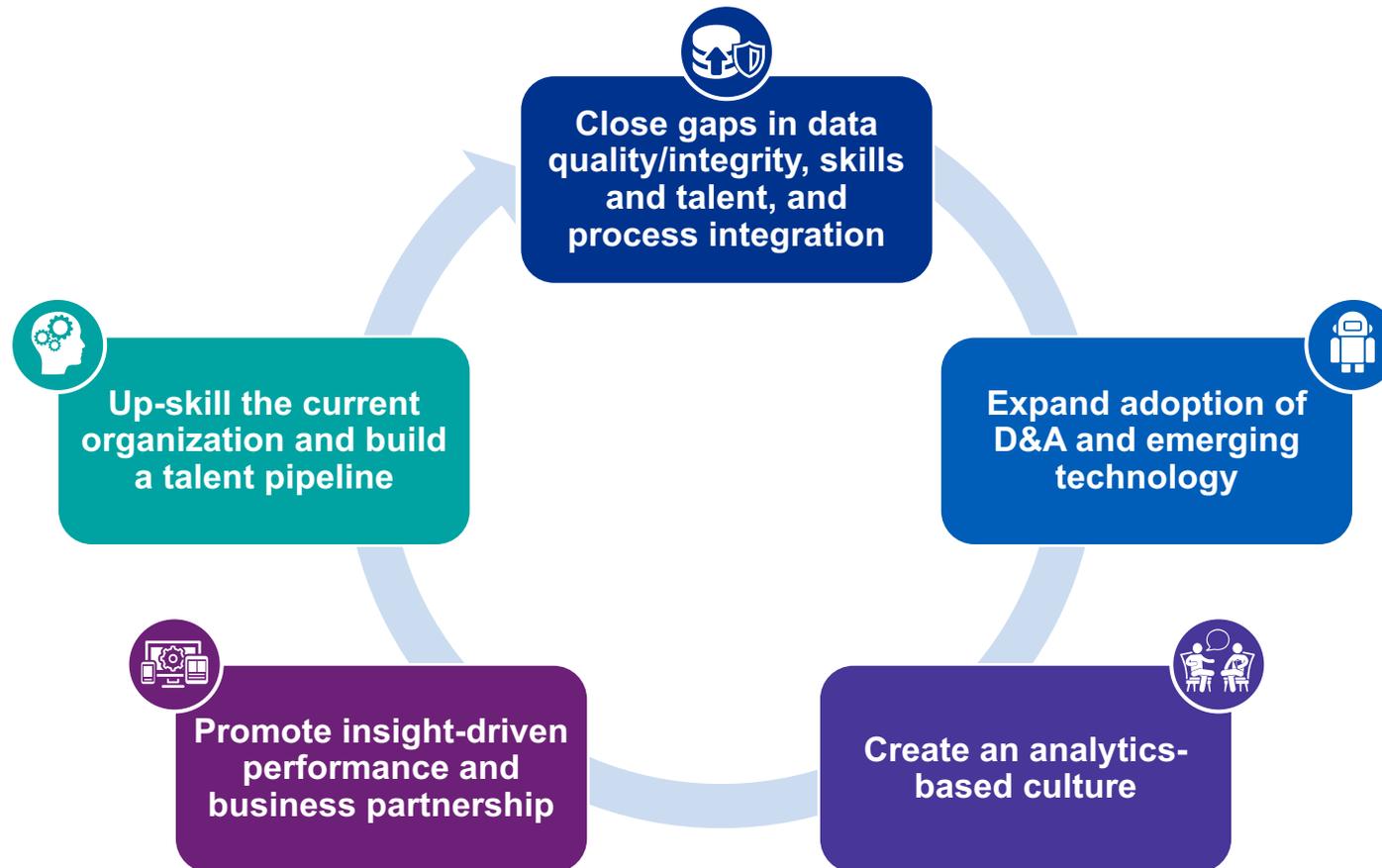
Elevated business partnering and cross-functional collaboration

Artificial intelligence processes big data and generates advanced analytics

Create a clear enterprise data strategy

With these capabilities, talent can embrace the role to proactively lead enterprise performance

The right tools, skills, and capabilities will enable the right talent to spearhead significant organizational change and meet the changing demands of the organization.



Reflect on your situation today ... Questions to consider

Who owns data and analytics in the organization today? What is the role of data scientists?

How is strategy connected to financial and operational plans and measures?

What is finance's role in data management and governance (beyond traditional controllership)?

What use cases would add the most value to apply leading-edge (predictive and prescriptive) analytics?

Do you see your role in the business to challenge the business to make better decisions?

To what extent are your foundational analytics (descriptive and diagnostic) automated?

Do you have the skills and capabilities to use the analytical information, if it is available?



What can you do about it?

People and data deliver the value—data & reporting concepts must be more than record-keepers and become performance and enterprise-focused.

1) Know what to measure and analyze



- Align your measurements with enterprise strategies and performance
- Identify the foundational measures and analytics
- Look forward with leading-edge insights to analyze and predict

2) Employ emerging technologies



- Drive the intelligent automation of foundational measurements
- Enable the generation of leading-edge insights and analytics
- Enhance data quality and access to analytics

3) Be the enterprise data steward



- Shape the enterprise's vision for insights and analytics
- Develop the optimal delivery model for finance
- Spearhead the evolution of an analytics-based organization

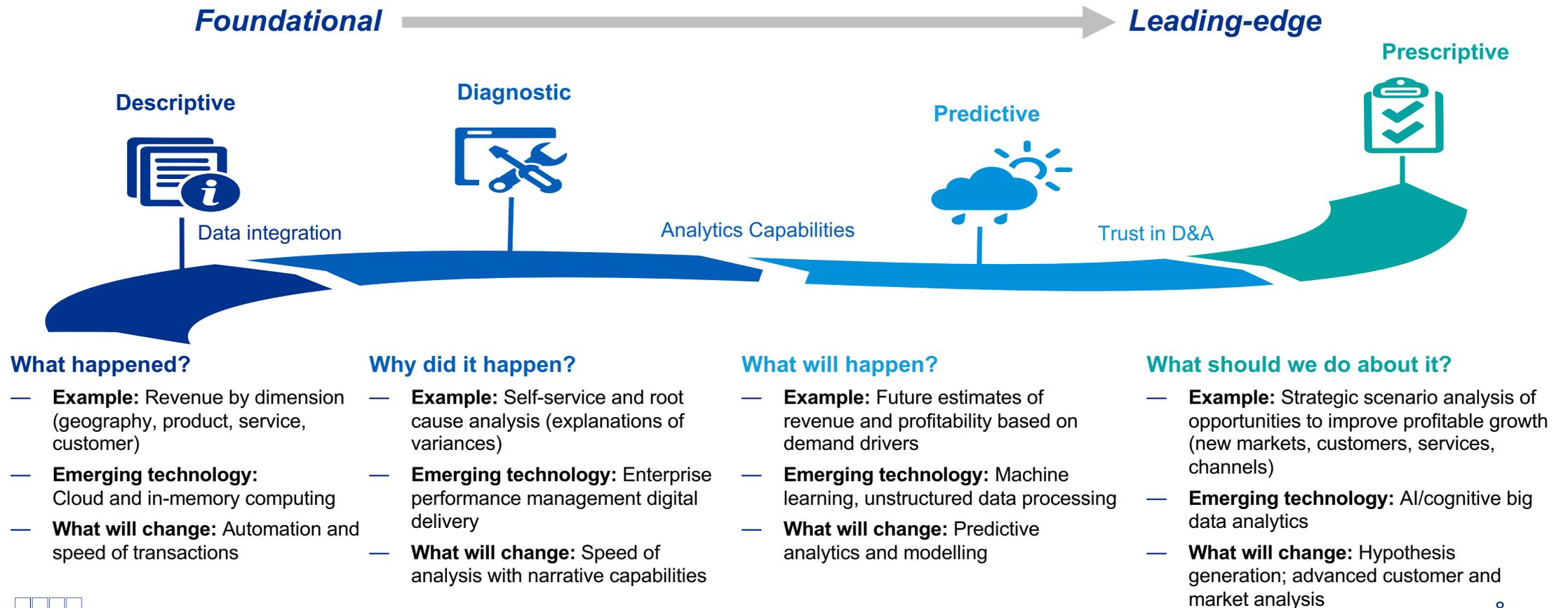
4) Develop business partnership capabilities and culture



- Understand the evolving roles of the finance function
- Invest in the right skills and talent
- Create a performance-centric and technology-enabled function

The evolution of analytics

Capabilities will shift from “descriptive” to “prescriptive” analytics that go beyond foundational reporting, allowing business leaders to identify actions and adjust strategies, plans, and forecasts.



Define the foundational measurements to establish the drumbeat for the organization

The CFO is able to set a drumbeat for how a company operates by identifying the right KPIs to measure, anticipate, and communicate drivers of growth, profitability, and sustainability.



Source: KPMG LLP, *The clockspeed dilemma of the automotive CFO* (2017).

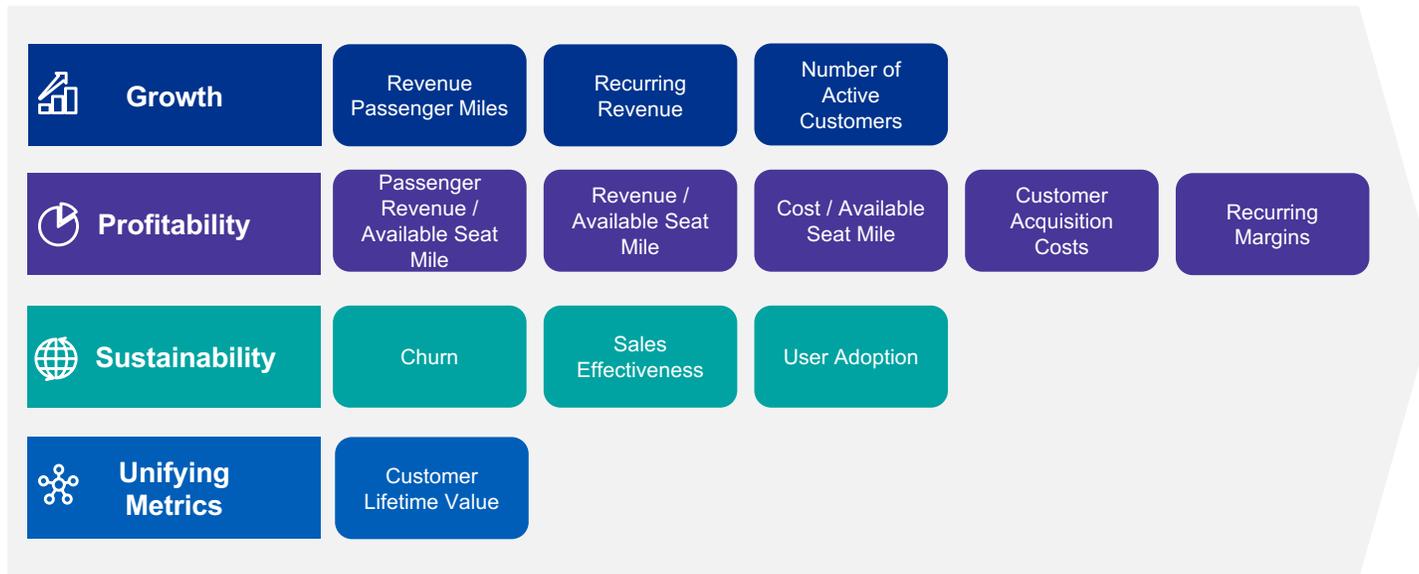
Anticipate new business models and measures required to support strategic decisions

Industry-wide issues, disruptions, and developments will create the need for new measures, metrics, and KPIs.

As an example, mobility services models in the transportation industry are creating new revenue streams, asset ownership approaches, and unfamiliar organisational environments.

Solution: New, non traditional KPIs

Industry issue:
Proliferation of mobility services business models requiring change in existing strategic decision support from finance



Business value:
Enhanced strategic decision support to operate effectively in a new market

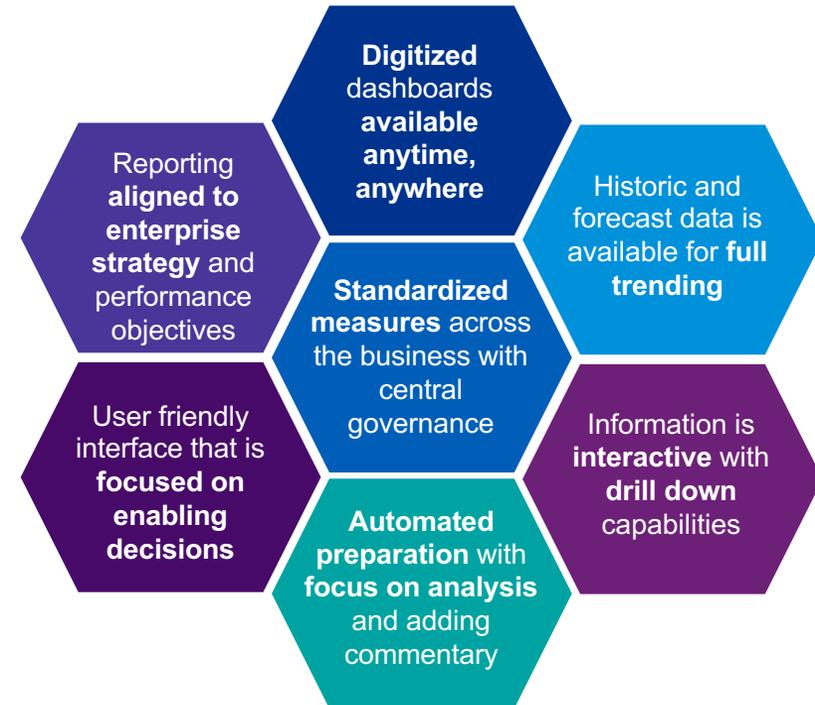
Then automate these descriptive and diagnostic measurements ...

Foundational measurements and metrics that we rely on for financial statement and operational information will be fully automated through leading technologies that improve speed and integration.

The questions we ask to seek foundational information...

- Innovation**
Where are we investing? What is the return?
- Markets**
What is our market share? What is the profitability of each of our existing markets?
- Customers and channels**
Which customers and channels are most profitable?
- Core business processes**
How can we reduce costs? Where are the inefficiencies?
- Technology and infrastructure**
What is driving our working capital?
- Talent and organizational structure**
What is the size of my organization? What are the spans of control?

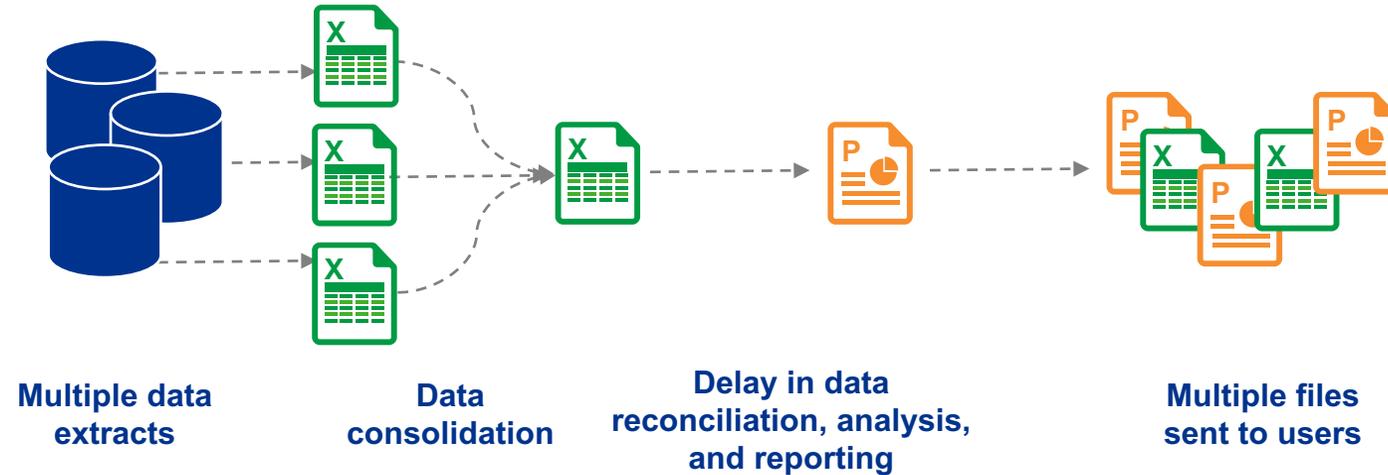
...should be automated and answered through leading performance reporting capabilities



... to improve speed, integration, visualization, and access

Example current situation

The value of performance management information is currently impaired by data limitations or slow consolidation and reporting processes



Automated vision

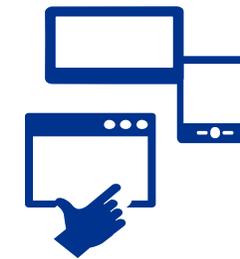
Extract data in real time from multiple systems and publish it straight to a visual dashboard for analysis and review to multiple users through multiple channels



Integrated data from multiple sources



Real-time collaboration and analysis



Single app for multiple users and channels

And enhance decision making through leading-edge analytics

Companies across all industries are already leveraging leading insights and analytics capabilities to drive better decision making, enhance operational execution, and provide to answers to complex, multidimensional business problems.



Industrial manufacturing

Question: How can we better manage our assets to enhance performance and costs?

D&A solution: Collecting wear-and-tear data in real time to determine component failure rates and develop predictive servicing and maintenance schedules.

Business value: Insight to develop engineering enhancements, improved asset life, reduced costs.

Applicability to finance:

- Predictive maintenance improves Finance's ability to structure and evaluate more profitable long-term contractual service agreements
- More robust capital and financial plans through greater understanding and control of servicing and maintenance costs
- Enhanced assessment of risk associated with planning and executing large-scale projects
- Enhanced project accounting



Consumer markets & retail

Question: How can we better predict customer buying behavior to improve demand insight and forecasting?

D&A solution: Computer vision and product sensors providing advanced, real-time insights into consumer behavior and buying patterns of specific products across key markets and channels.

Business value: Improved demand and sales forecasting accuracy, enhanced customer insight and experience, improved profitable growth and ROI.

Applicability to finance:

- Significant insights into product-specific consumption patterns enables improved ability to forecast volume and market potential
- Enhanced ability to develop strategic pricing and discounting models on key products across geographies
- Greater visibility to promotion spend effectiveness
- Improved ability to allocate funding to new product and market development



Tech, media & telecomm

Question: How can we improve sales forecasting accuracy and better predict financial outcomes?

D&A solution: Machine learning applied to five years of historical data to analyze algorithms and predict sales. Digital and interactive financial insights solution producing pro forma financials with instant voice activated analysis and insights.

Business value: Significantly improved sales/revenue forecasting accuracy, insight into financial performance (P&L and balance sheet) prior to period closings, integrated sales and financial planning.

Applicability to finance:

- Improved forecasting accuracy (sales and financial)
- Better integrated planning with sales and operations
- Integrated self-service analysis drilling into financial statements (balance sheet, income statement, cash flow)
- Integrated narrative analysis and story creation

These capabilities are enabled by emerging technologies

The finance technology ecosystem will continue to evolve and be more integrated.

Foundational

Leading-edge



Data management

Data management will no longer be an aggregation of performance data; finance will lead data strategy utilizing new data sources (internal and external) to drive deeper prescriptive insights.



Cloud ERP, EPM and BI

Cloud technologies will give finance the ability to select leading application solutions, real-time data accessibility, and business partnering capabilities.



Robotics

Robotic process automation (RPA) will drive “extreme automation” within rules-based finance processes resulting in greater capacity for value-added activities.



Machine learning

Adaptive technologies will radically change the work that finance does through the use of smart algorithms that can be leveraged to accomplish activities and tasks.



Cognitive/Artificial intelligence (AI)

Cognitive/AI technologies will advance automation past execution, through the ability to reason and infer trends and patterns from both structured and unstructured data.

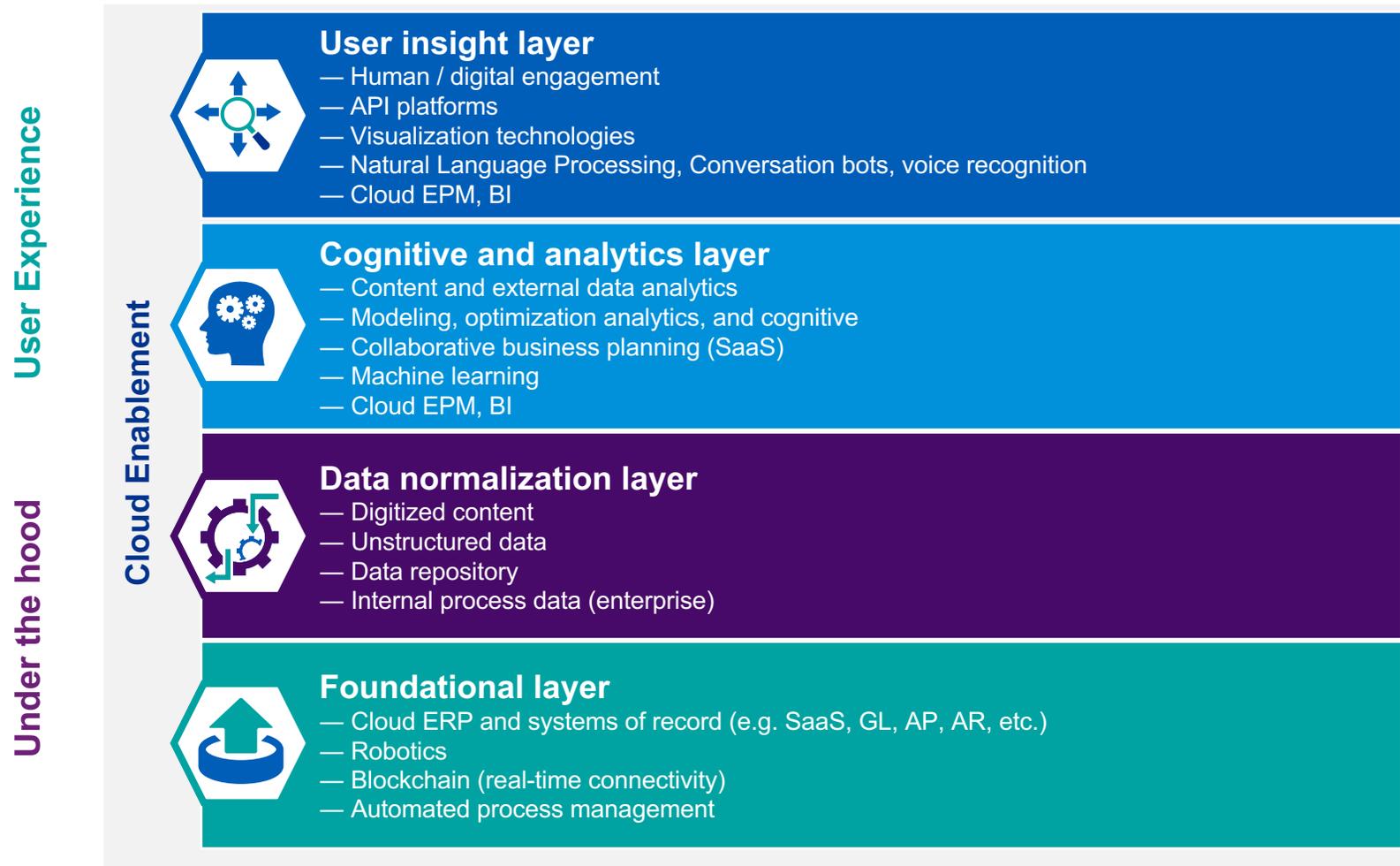


Natural language processing (NLP)

NLP will provide finance with unconstrained, real-time information accessibility, beyond just the numbers.



Enabling insights through an integrated technology stack



Be the enterprise data steward by leading the D&A strategy

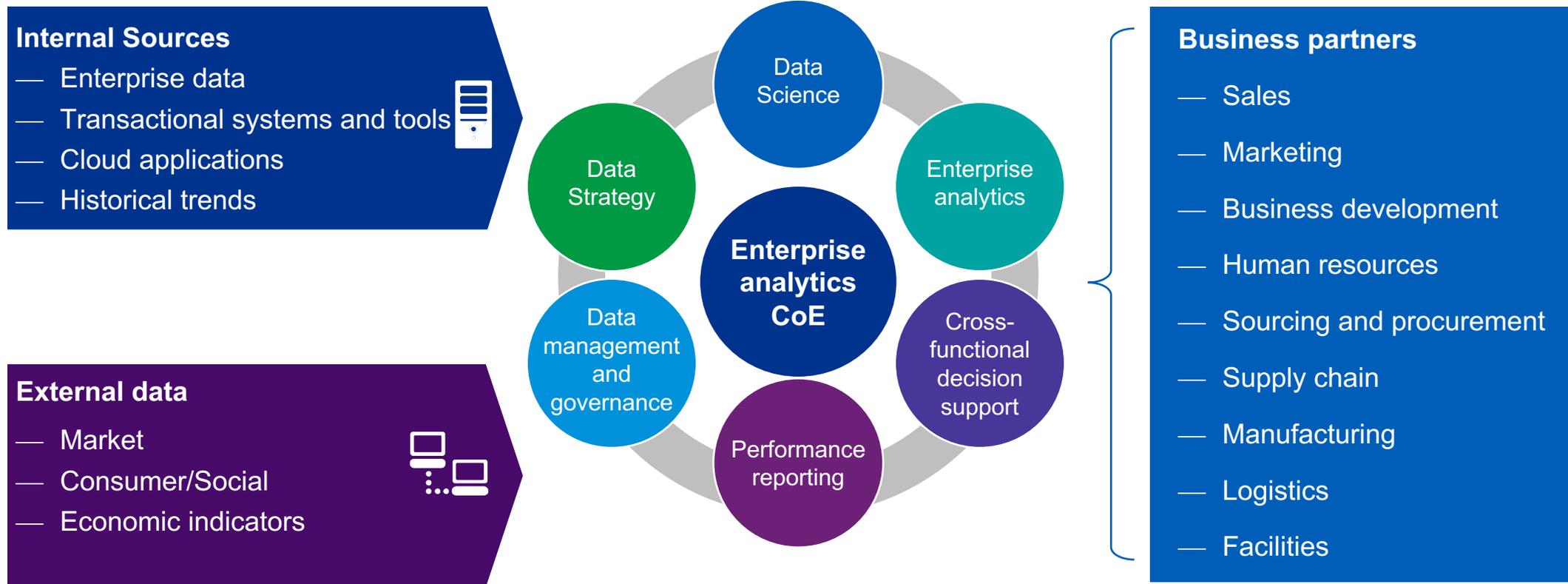
Leading finance organizations will spearhead the execution of the enterprise data strategy.

Where do you see your role? Now and in the future?

Participant 	Influencer 	Leader 
<ul style="list-style-type: none"> — Finance is consulted in the development and execution of the data strategy — Finance owns financial statement and auditable information — Finance provides inputs and functional requirements for future technology developments — Finance is a customer of the enterprise technology infrastructure 	<ul style="list-style-type: none"> — Finance co-leads the development and execution of the data strategy — Finance owns financial data, and advises on which inputs and functional requirements are needed across the business — Finance is consulted in the development of the enterprise technology infrastructure — Finance designs reporting and KPI dashboards for the organization — Finance supports the selection of corporate resource management tools 	<ul style="list-style-type: none"> — Finance defines and drives the enterprise data and analytics strategy — Finance owns the GL and shapes the design and development of all functional data models — Finance develops and implements the enterprise data governance frameworks and policies — Finance oversees the development of the enterprise technology infrastructure — Finance evaluates and selects corporate resource management tools — Finance provides leadership for an Enterprise Analytics CoE to provide leading-edge insights across the business

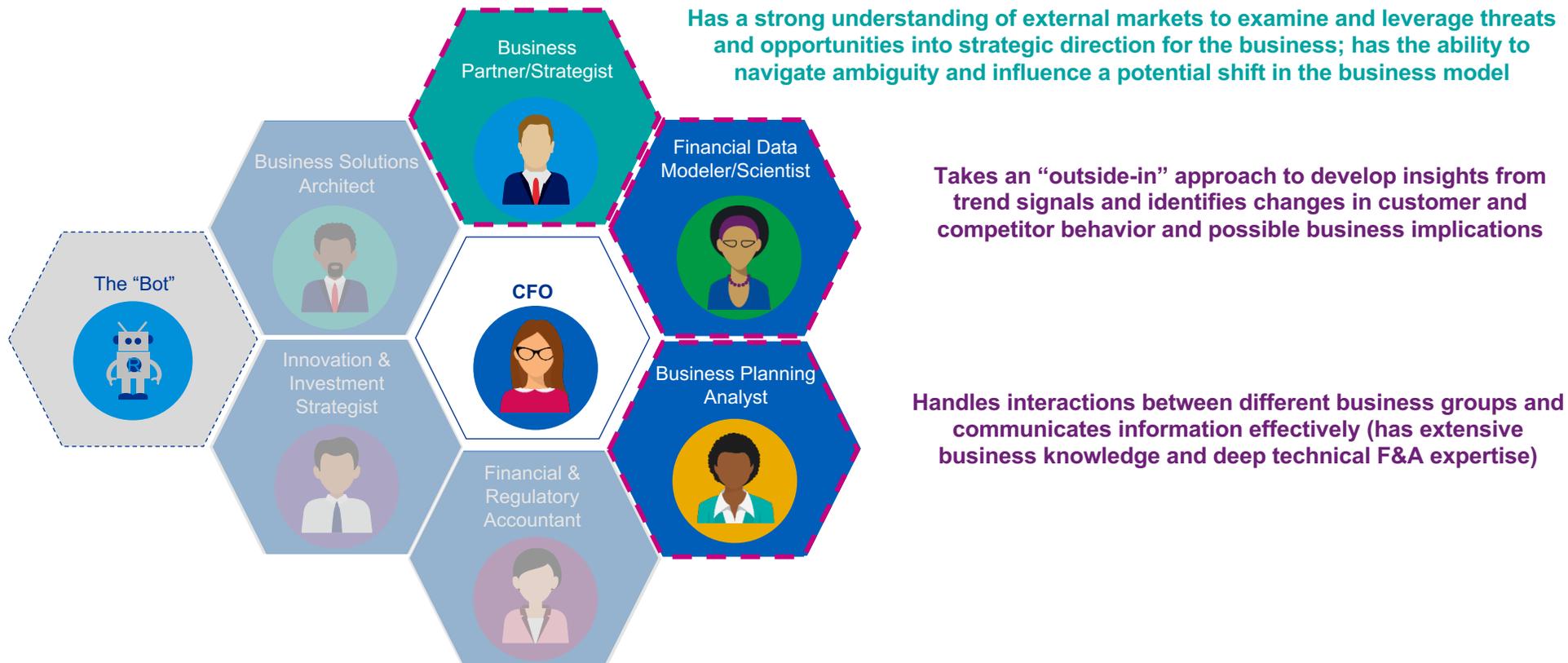
An enterprise analytics CoE improves data management, governance, and insights for decisions

Finance is perfectly positioned to build an internal analytics function to spearhead the data and analytics strategy for the business.



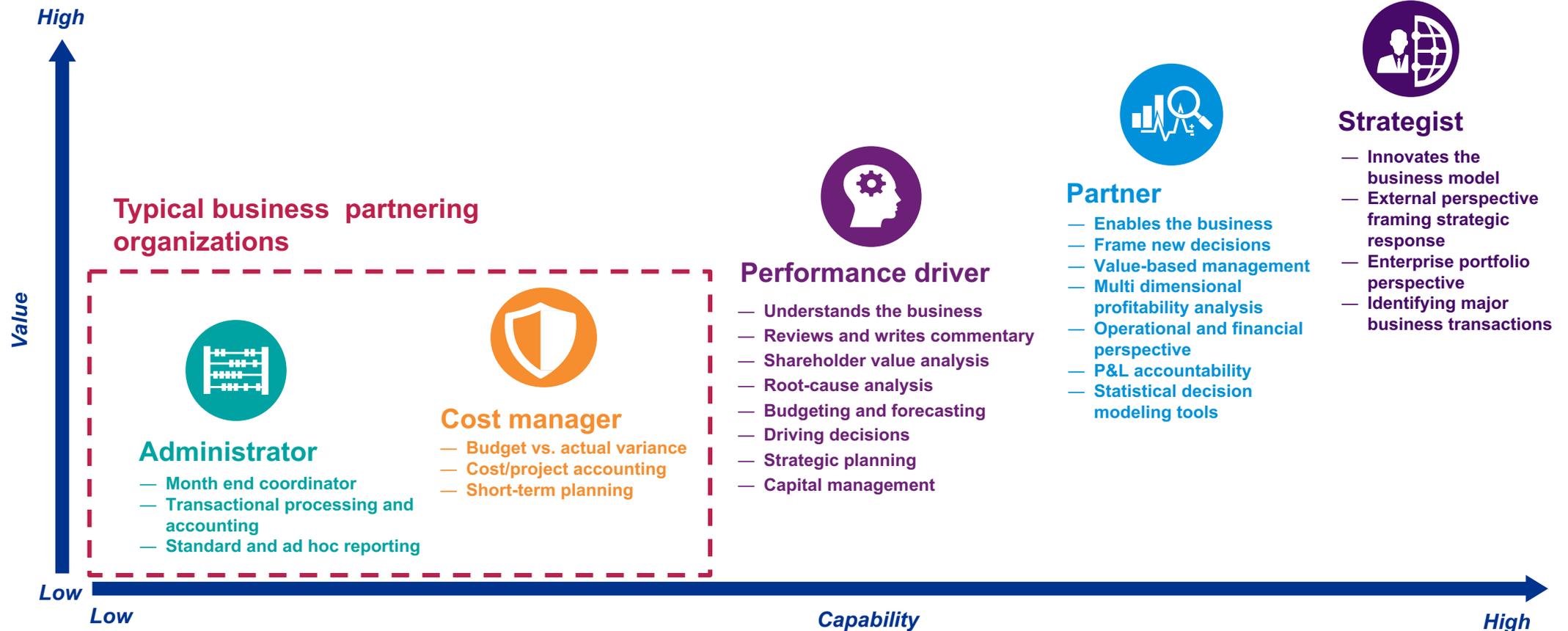
New capabilities, new roles

The future finance organization engages with and leverages digital technologies and data to better serve the enterprise, creating new roles and elevating business partnering.



Functions become business partners and strategists

As an example, many finance “business partners” are operating as administrators or cost managers. Lifting the performance of finance business partners can help to drive value and overall business performance. The same is through of technical, legal, trading etc.



Skills must be addressed ... **Behavioral** as well as technical

Finance will need to adapt to become performance-centric and technology-enabled, causing a shift in the skillsets required of the finance workforce.

Data utilization and technology



- Data modeling, analytics, and visualization
- Robotic share (RQ)¹
- Strategic trend analysis
- Research capabilities
- Design thinking background
- Programming expertise

Behavioral



- Strategic thinking
- Service management
- Relationship management
- Impactful storytelling
- Feedback, communication, negotiation
- Program management
- Navigation skills
- Ambiguity and white space

Technical



- Business Modeling
- Core financial driver analysis
- Process design and navigation
- Predictive values
- Cycle insight

Source: Man and Machine: The Future of Jobs, Forrester Podcast.

How do you get started?

Finance must respond to the speed of disruption and the increasing demands for leading insights and analytics.

- 1 Understand the business and finance disruptors for your organization and its impact on business strategy**
- 2 Conduct an assessment of your current data and analytics foundation and evaluate its automation potential**
- 3 Define the enterprise data and analytics strategy and the desired role for finance**
- 4 Identify your process, technology, and organizational requirements**
- 5 Develop a road map to facilitate the transition towards leading-edge analytics**





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