

The Cognitive Enterprise

The finance opportunity.

Kati Arndt

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The Cognitive Enterprise

The finance opportunity

Cognitive automation



The Cognitive Enterprise

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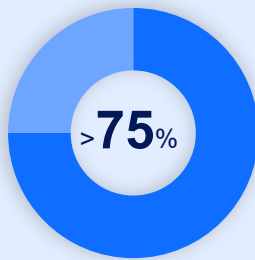
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Is Automation really going to have an impact?



of execs agree their organization *does not* have the **necessary skills** to support intelligent automation capabilities

98%

of enterprises have an automation agenda; 31% already integrating automation into their service operations

>70%

of enterprises are planning to deploy RPA over the next 2 years

90%

of organizations report they use some level of intelligent automation today

80%

of C-suites are demanding Automation & AI as a critical part of an operations strategy

Source: Horses for Sources



Human vs Cognitive vs Machine

Humans excel at:



Common Sense



Dilemmas



Morals



Compassion



Imagination



Dreaming



Abstraction



Generalization

Virtual robots excel at:



Obeying Rules



24/7 working



Endless Repetition



Consistent Results



Scalable & Flexible



Configurable



Cost Savings



Speed

Cognitive systems excel at:



Natural Language



Pattern Identification



Locating Knowledge



Machine Learning



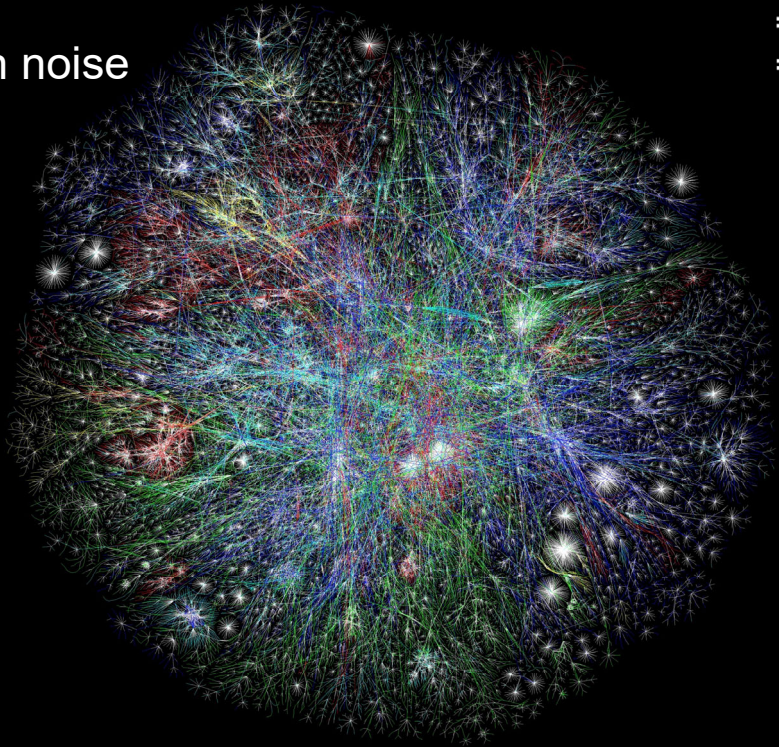
Eliminate Bias



Endless Capacity

Finding signal within noise

Extract
Meaning Out Of
Noise?

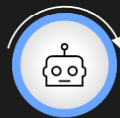


41#IOWHUHG

51#FOHDQ

61#IOWHUHG

The Automation Continuum



Basic Automation

Humans using automation and data analysis

Resolve deterministic and repetitive tasks

Triggered by events, schedule, structured data or human execution



Advanced Automation

Artificial Intelligence is attached

Combined with humans addressing exceptions

Multiple systems work together to execute functions

Derives insights and recommendations to improve outcomes



Intelligent Automation

Artificial Intelligence elements lead

Infused in everything

Resolves non-deterministic tasks

Autonomous decision-making and self-remediating

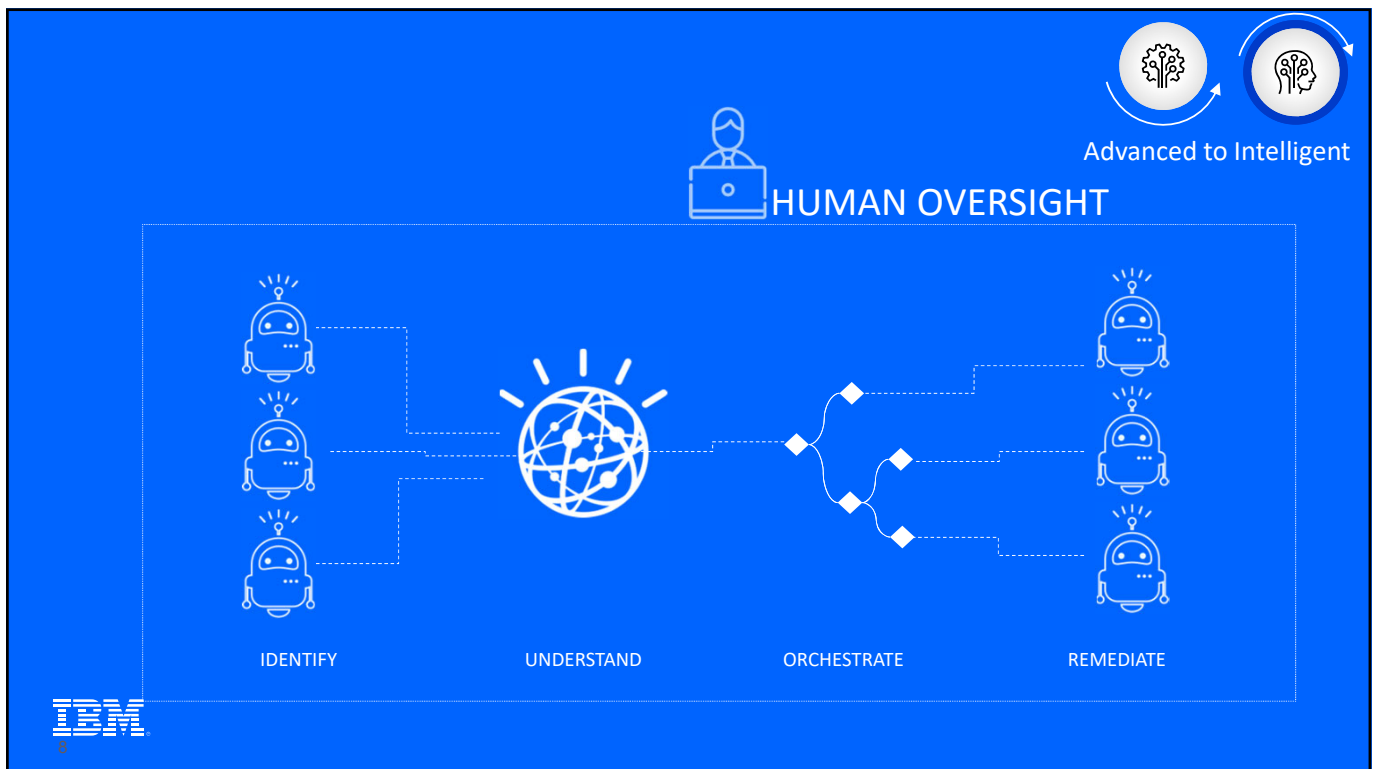
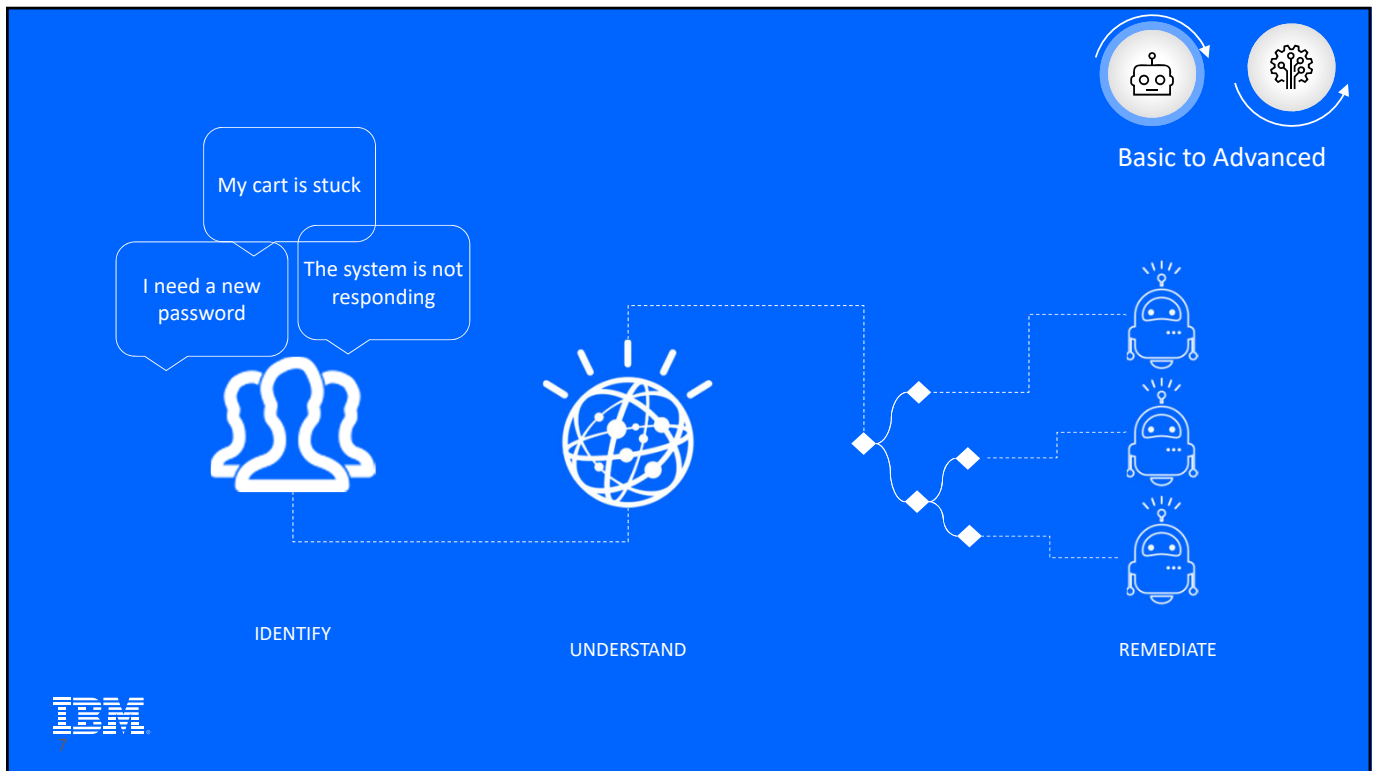
Analytics across all data, recognizes semantic inference

BUSINESS OUTCOME

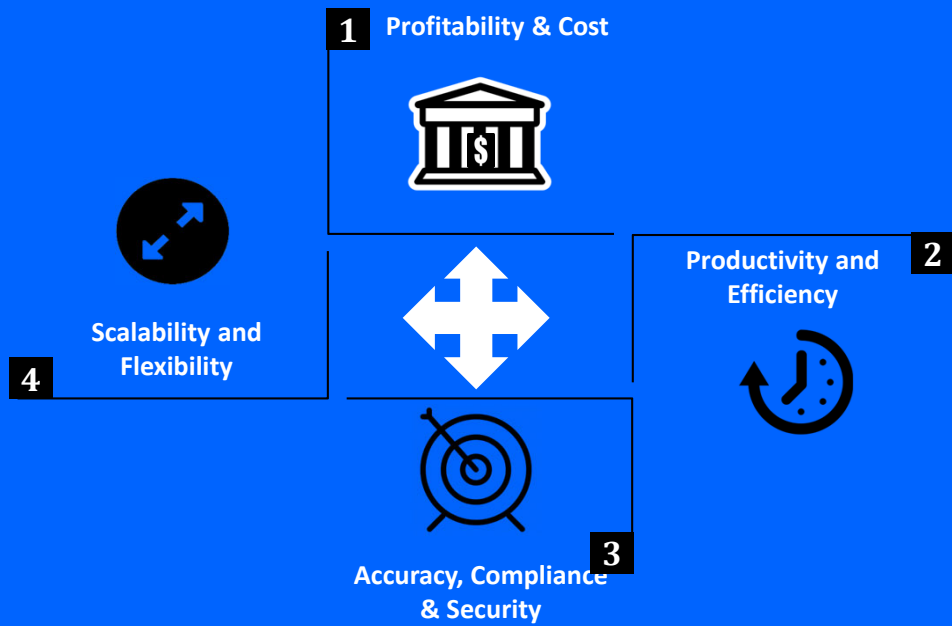
LEVEL OF AUTOMATION BENEFITS

COST DRIVEN

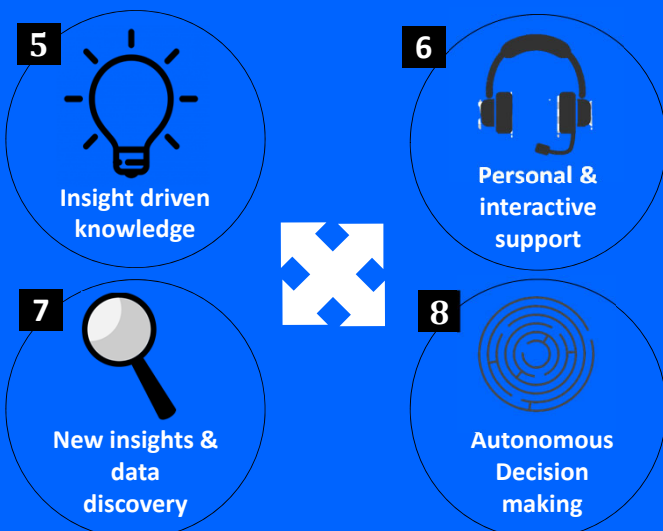
LEVEL OF AUTOMATION COMPLEXITY



Benefits driven by Robotic Process Automation

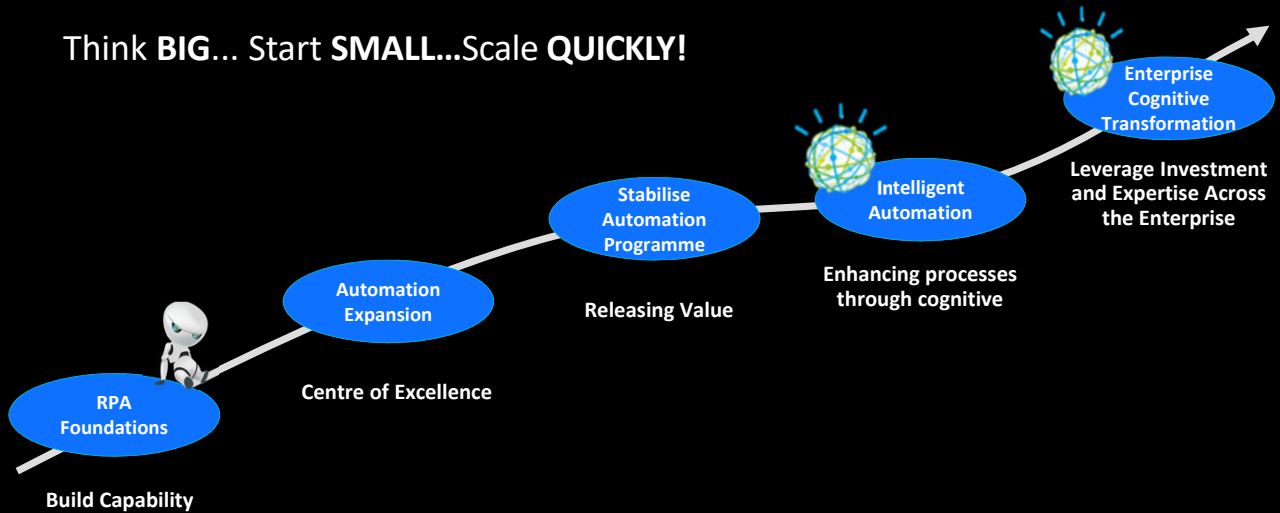


Additional benefits when combined with Cognitive








Intelligent Automation Roadmap

Think **BIG**... Start **SMALL**...Scale **QUICKLY**!



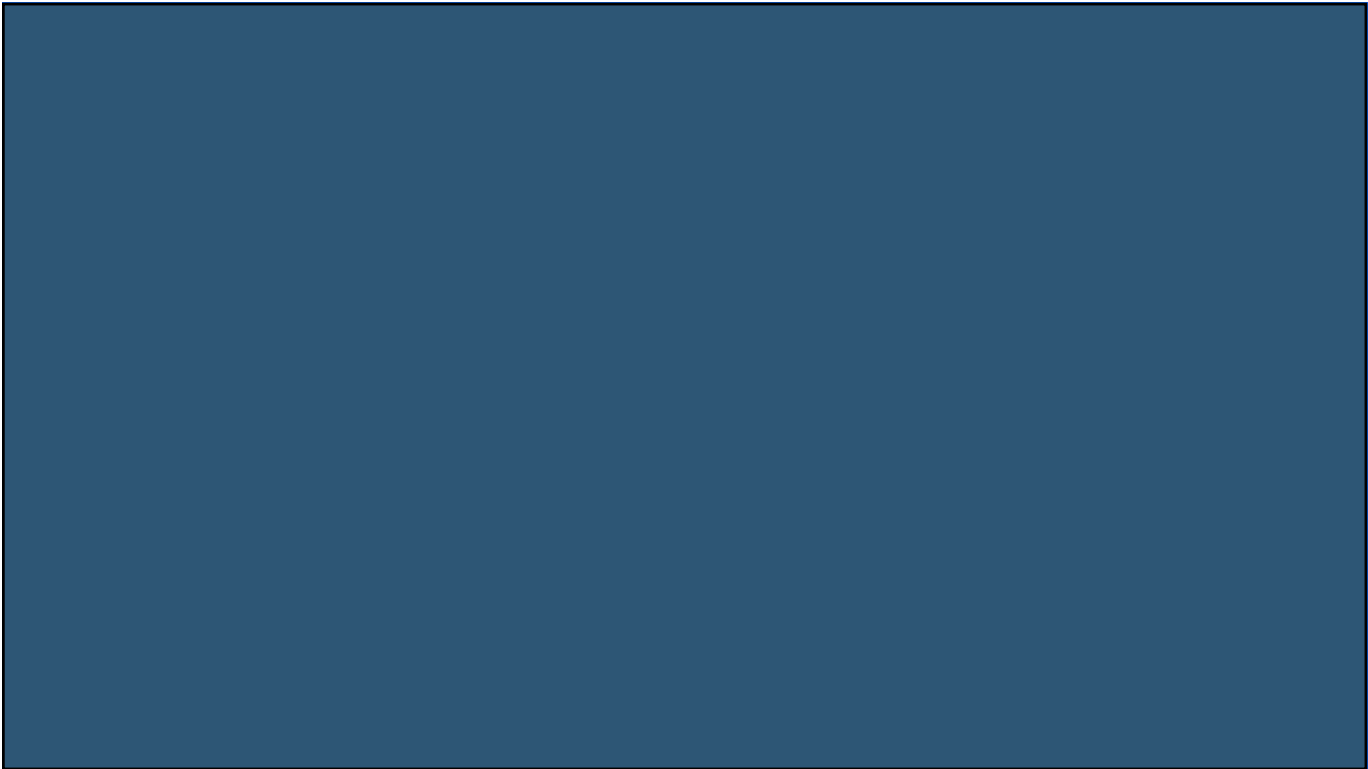
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Digitizing all aspects of your operations

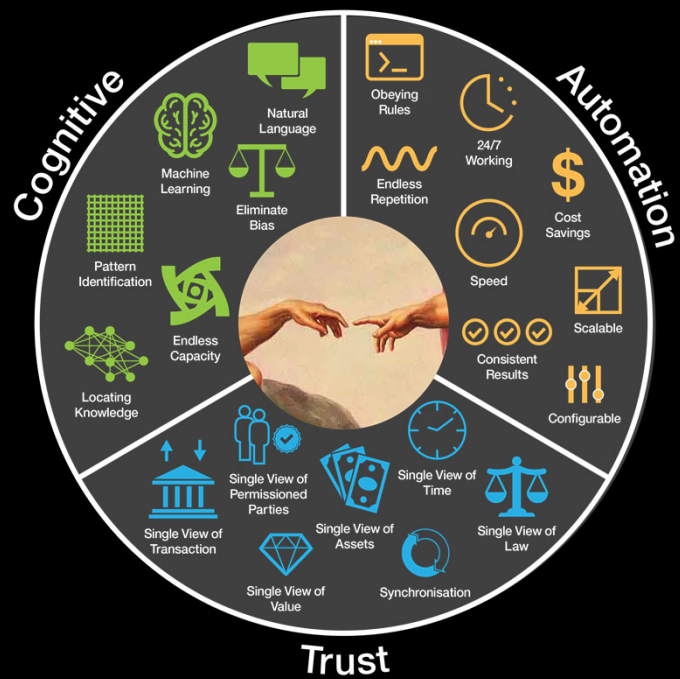
					
	Tasks	Content	Workflow	Capture	Decisions
What is automated	<ul style="list-style-type: none"> Computerized human tasks 	<ul style="list-style-type: none"> Content lifecycle management 	<ul style="list-style-type: none"> Processes & cases 	<ul style="list-style-type: none"> Data extraction from documents 	<ul style="list-style-type: none"> Policies & decisions
Outcome	<ul style="list-style-type: none"> Reduces human tasks from 20 minutes to one minute & errors to almost zero 	<ul style="list-style-type: none"> Enables users to focus on their work & collaborate internally or externally 	<ul style="list-style-type: none"> Provides agility, visibility & consistency across hundreds of processes 	<ul style="list-style-type: none"> Scans large numbers of documents & extracts relevant data 	<ul style="list-style-type: none"> Manages millions of rules & enables rapid business change



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No single technology will transform the workplace but in combination everything changes





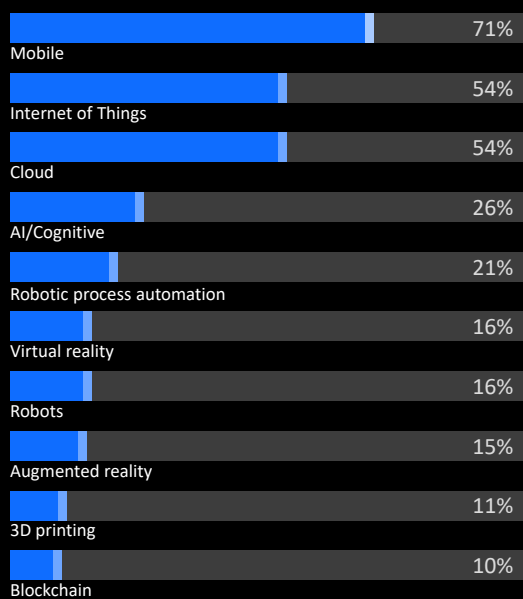
The Cognitive Enterprise – The finance opportunity

Drivers of the Cognitive Enterprise

1. The power of computing, networks and data are expanding exponentially
2. New business value sits on top of previous innovation waves
3. Platforms can be used to create value, jointly with ecosystem partners

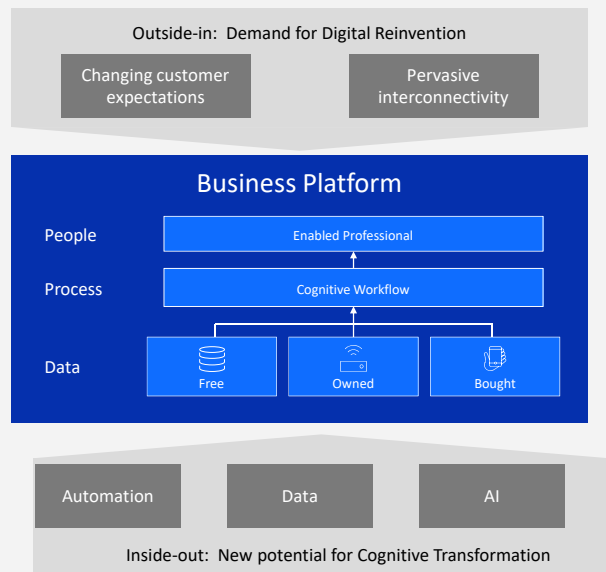
Source: 19th Global C-suite Study, IBM Institute for Business Value

CxOs are planning investments in emerging technologies



● Foundational technologies ● Emerging technologies

Becoming a Cognitive Enterprise is about making a “platform play”



Source: IBM Services

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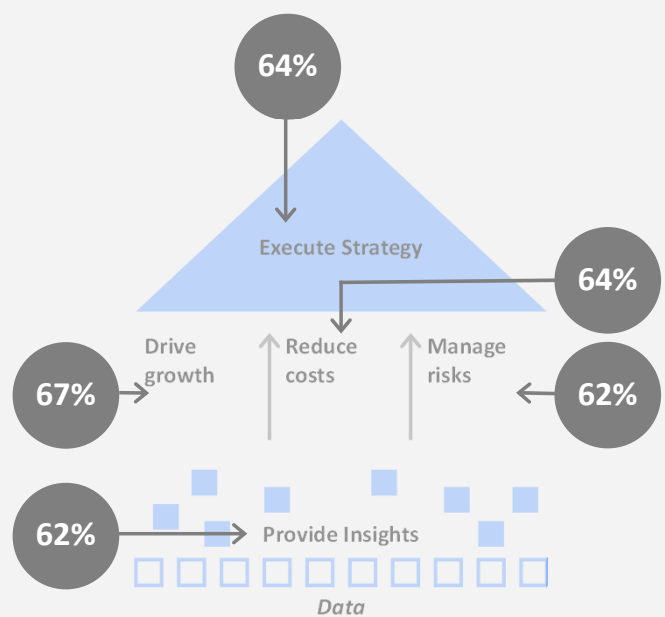
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Almost two thirds of CFOs view each aspect of their agenda as “mission critical”

Percent of CFOs indicating this is “mission critical”



Source: “Elevate your enterprise: CFO Perspectives from the Global C-suite Study.” IBM Institute for Business Value. June 2018.

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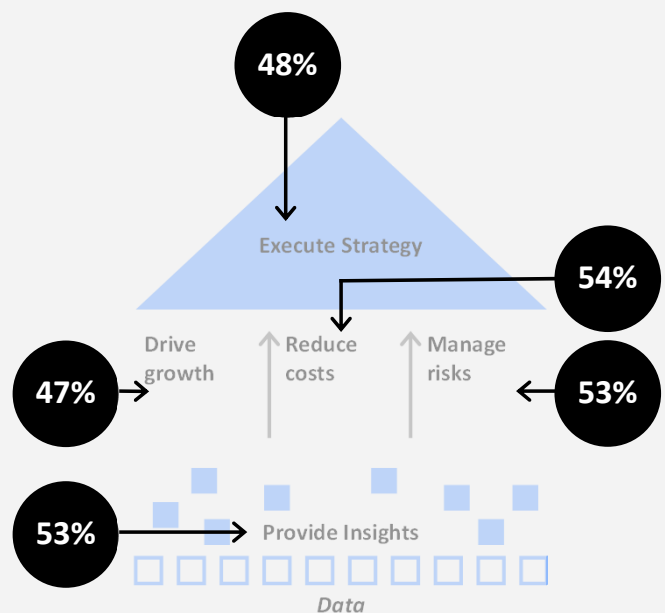
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Yet, on average, close to half of all CFOs feel their finance organization is not up to the task

Percent of CFOs indicating their finance organization is “ineffective” to “somewhat effective”



Source: "Elevate your enterprise: CFO Perspectives from the Global C-suite Study," IBM Institute for Business Value, June 2018.

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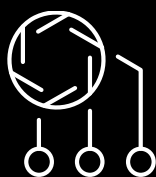
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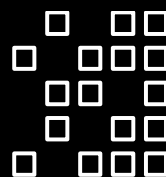
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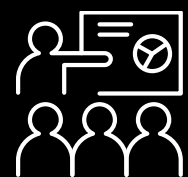
The CFO and the finance organization will play a leading role in the Cognitive Enterprise transformation



Re-engineer workflows to use cognitive capabilities, with technologies to deliver where and when needed



Curate proprietary data actively to capitalize on opportunities for monetization or competitive advantage



Reinvent the workforce proactively, creating a knowledgeable, agile, collaborative and empowered team to lead the organization into the future

Source: IBM Services

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How the CFO can contribute towards a Cognitive Enterprise:

- Data-first culture
- Data as an asset that can be monetized
- Estimate the financial damage
- Forecast the impact
- Maintaining data integrity and authenticity

Source: Foessler, William, Spencer Lin, and Carl Nordman. "The cognitive CFO: How 'leaders' are increasing finance IQ." IBM Institute for Business Value. May 2017; IBM Global Business Services.



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Cognitive computing has a dramatic impact on enterprise information demands

	 Traditional	 Cognitive
Information elements	<ul style="list-style-type: none"> – Finance transactional – Volumetric/statistical 	<ul style="list-style-type: none"> – Social – Demographic – Economic – Meteorological
Information types	<ul style="list-style-type: none"> – Structured – Rule-based (GAAP, IFRS) 	<ul style="list-style-type: none"> – Unstructured
Information time horizon	<ul style="list-style-type: none"> – Periodicity – Quarterly, yearly historic – 12-month planning 	<ul style="list-style-type: none"> – Real-time – Predictive
Information lead times	<ul style="list-style-type: none"> – SEC calendar driven 	<ul style="list-style-type: none"> – Immediate – Anticipatory
Information uses	<ul style="list-style-type: none"> – Historic – Explanation/attribution 	<ul style="list-style-type: none"> – Strategy development and adjustment – Revenue growth – Anticipate events

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The seven keys to transforming to Cognitive Enterprise

1.

Clarify intent of core platform focus

2.

Re-engineer workflows to use cognitive capabilities

3.

Reinvent your workforce proactively

4.

Curate proprietary data actively

5.

Secure your data, processes and platforms end-to-end

6.

Integrate agility across organization boundaries

7.

Revisit and adjust technology architecture choices continually

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