

*Audit Committee Seminar 2018*

# *AC in the Age of Disruption*

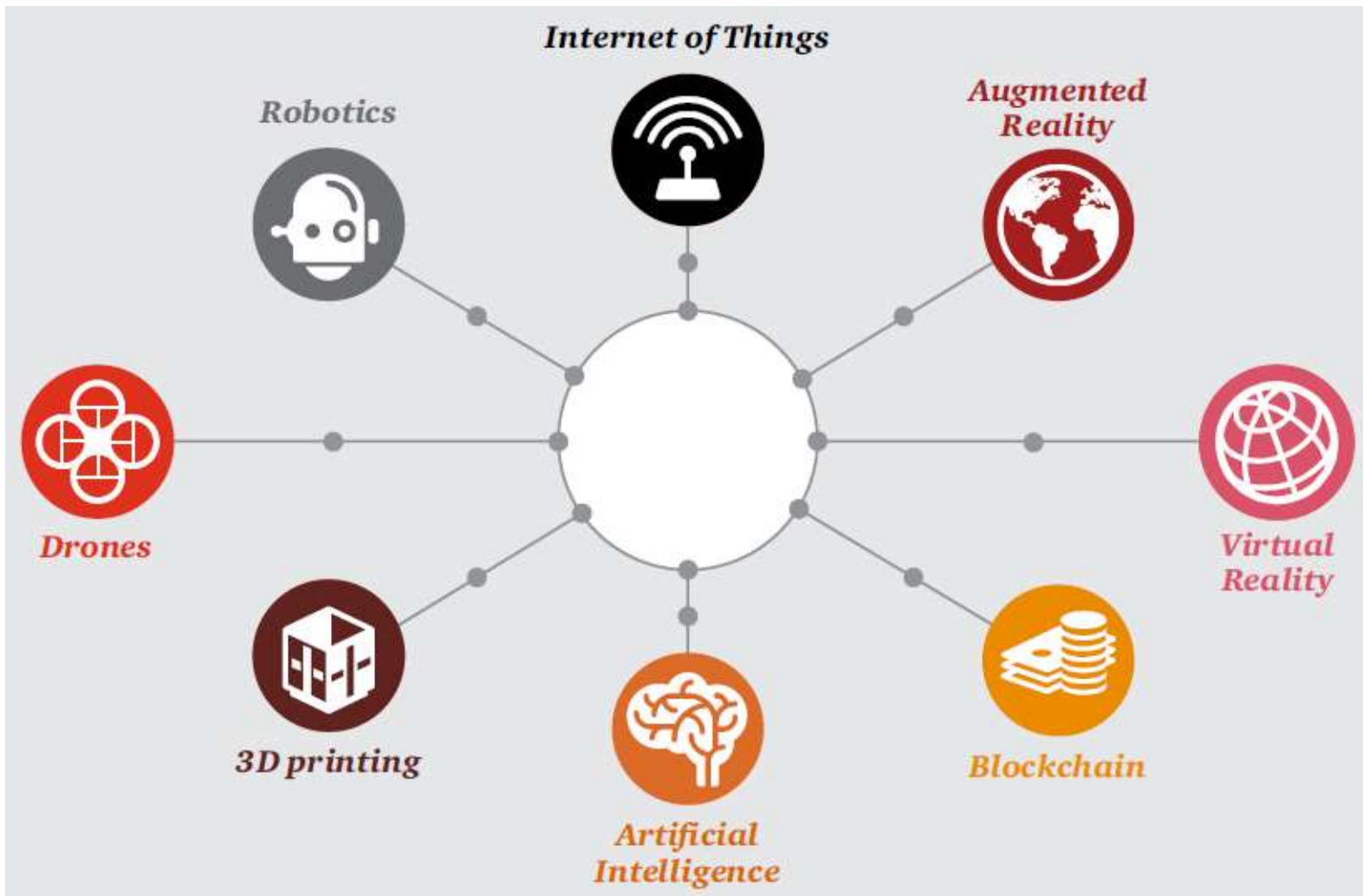
*Learn, Unlearn and Relearn*

12 November 2018

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Partner - Governance, Risk and Internal Audit Services

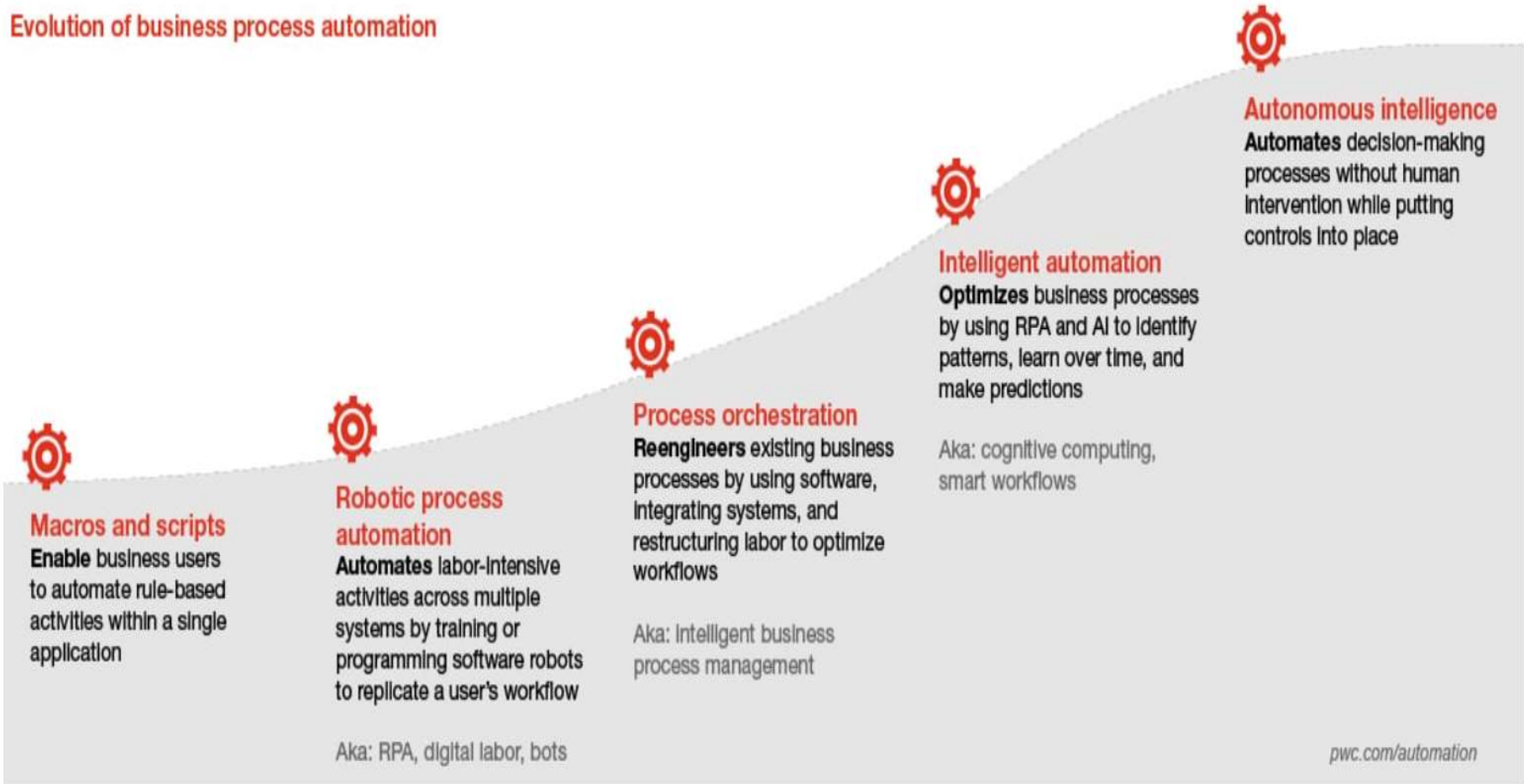
# Technology

## The Essential Eight Emerging Technologies

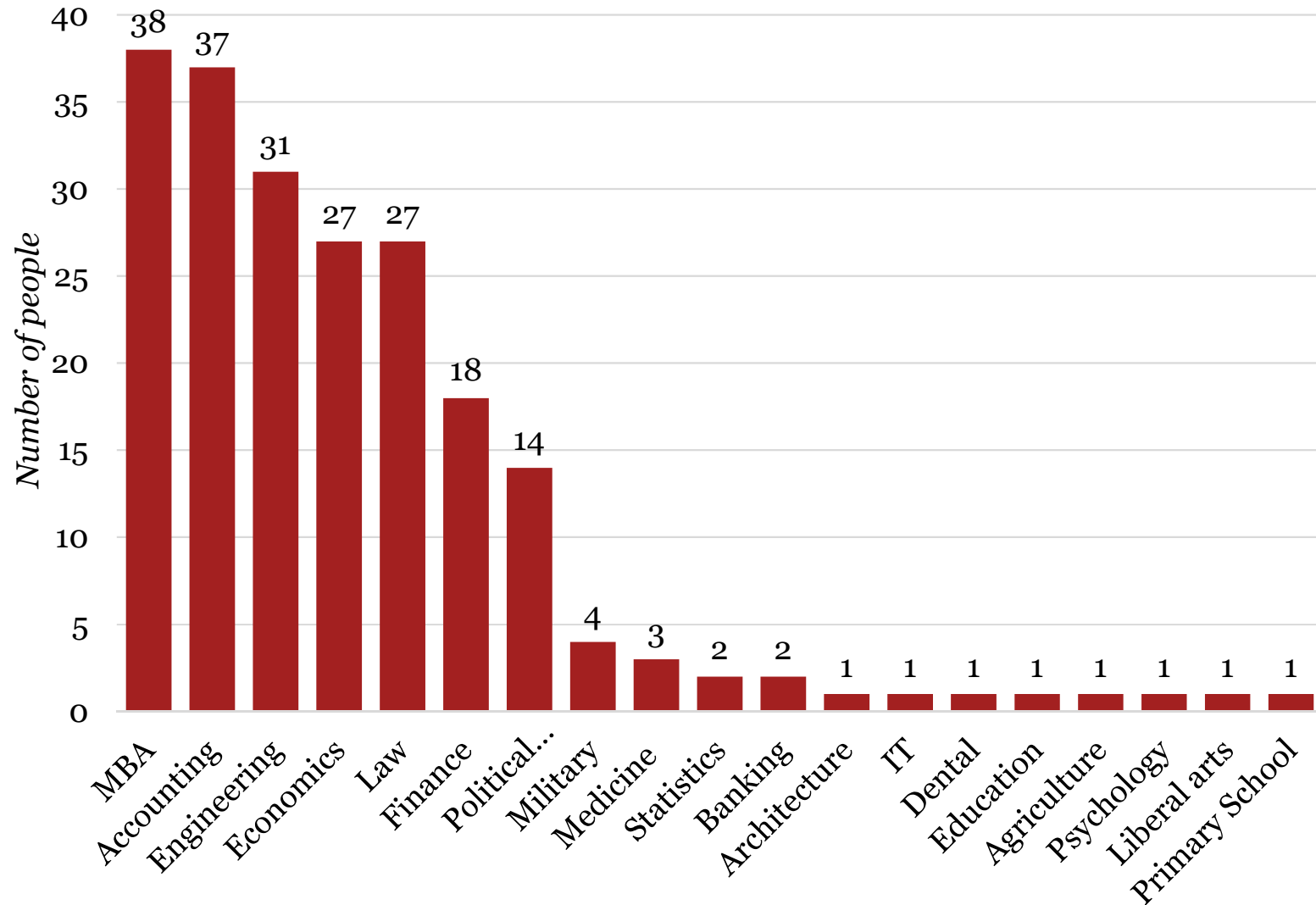


# Evolution of business process automation

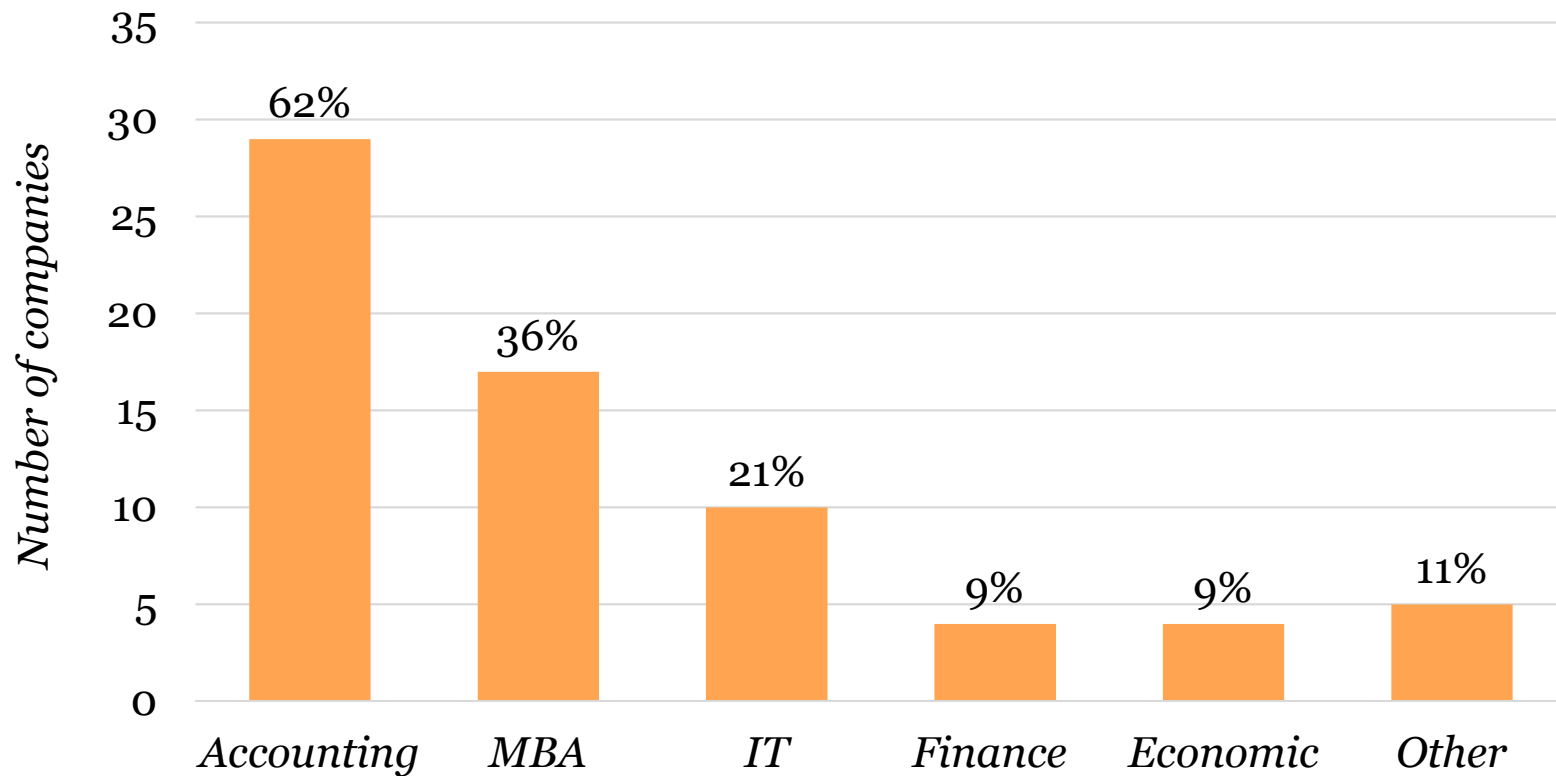
## Evolution of business process automation



## ***Audit Committee Background - Chairman & Members***



## ***Chief Audit Executive - Background***





The Evolving Role of  
Audit Committee and Auditor  
in the Digital Age



# Big Challenges in the Digital Age



### P2P - lending

Peer-to-peer lending (crowd bonds) companies match lenders directly with borrowers through online services.



### Big Data Credit rating

The bank offer loans to individuals based on their creditworthiness analyzed with online data. The credit rating changes in real time.



### Cryptocurrencies

A cryptocurrency is a digital or virtual currency that uses cryptography for security.



*Bill Gates*

**BANKING IS  
NECESSARY.  
BANKS ARE  
NOT.**



### Crowdfunding

A financing method that involves funding a project with relatively modest contributions from a large group of individuals, rather than seeking substantial sums from a small number of investors.



### P2P - transactions

Person-to-person payments (P2P) is an online technology that allows customers to transfer funds from their bank account or credit card to another individual's account via the Internet or a mobile phone.



### Robo-advisors

Human intervention is being replaced by robots especially in the wealth management.



## NON-TECH INCUMBENTS WANT TO BE TECH COMPANIES



Goldman  
Sachs

**“We are a technology company.”**

**Lloyd Blankfein**

CEO, Goldman Sachs

Previous Submission

## Goldman Sachs – A Technology Company?

Next Submission



Written by [Brittany W](#), Posted on [April 26, 2018](#)



In early 2017, Lloyd Blankfein (Goldman Sachs CEO) stated “We are a technology firm. We are a platform.” Goldman Sachs still has a long way to go, but is taking steps in the right direction to effectively employ digital technologies. What does this mean for the future of the traditional investment banking industry? Is human capital still a bank’s greatest asset?

## MANAGING THE ENVIRONMENT CHANGES

Disruptive  
technology  
Cloud, Blockchain, Big  
data, AI

Changing  
business models  
Rise of FinTechs/non-banks

Increasing regulations  
KYC, AML, FATCA etc.

Cybersecurity attacks  
GDPR/Data Privacy



## MEETING THE CUSTOMER'S EXPECTATIONS

Changing demography/  
preferences  
Millennials / GenZ

Increasingly  
sophisticated  
customer

Demand for  
Self-service banking

Concerns  
about Security

Traditional Banking



Digital Banking

Location  
of  
transaction

Bank Branch

Anywhere

Mode  
of  
transaction

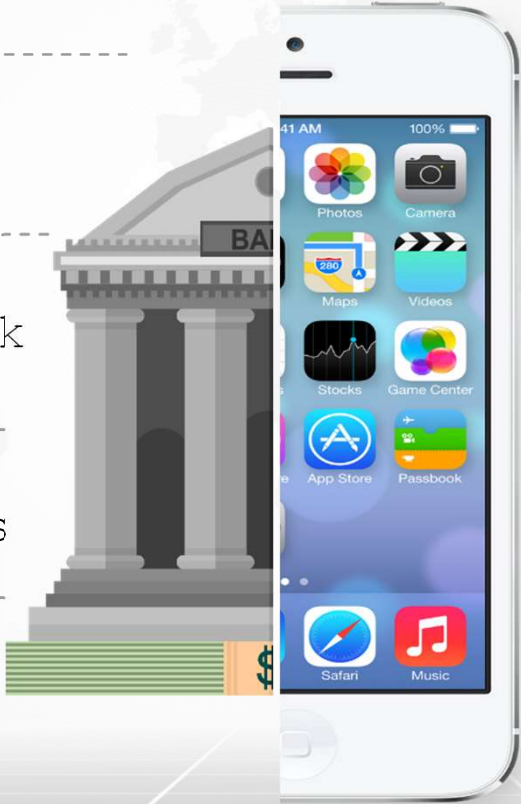
Branch network

Customer chooses  
how

Nature  
of Products

Mass Products

Tailor-made



Source : Change management - Bank digitization (Cardiff Metropolitan University)



***Audit Committee in the Age of Disruption***

# ***Audit Committee*** in the Age of Disruption



## **Rethinking risk oversight**

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- Is there clarity on top five strategic and operational risks facing the company?
- Is risk oversight properly communicated among the board's various committees?



## **Oversight of Corporate Risk Culture**

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Corporate risk culture must be top of mind for corporate boards, and also for audit committees given their focus on ethics and compliance and the hotline process.



## **Talent**

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- Audit committees must continue to help ensure that technology is being leveraged properly and in a way that complements and amplifies the strengths of their human auditors.
- Does the company have sufficient internal audit resources?



## **Cybersecurity**

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The audit committee can help assess the policies and procedures that management has in place to help prevent corporate espionage and safeguard the ability of the business to continue uninterrupted.

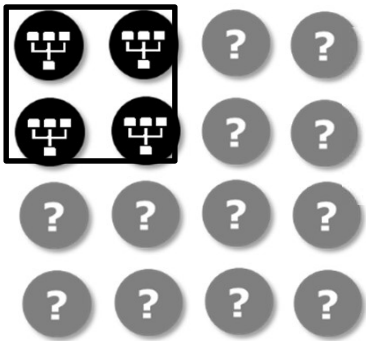


# ***Internal Audit in the Age of Disruption***

# What we need to *change*



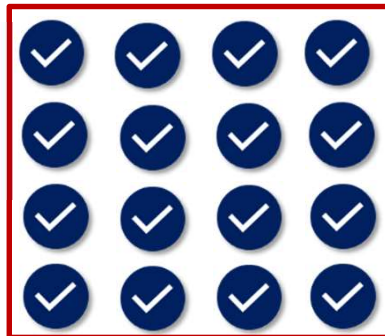
Manual /  
Sampling



Population



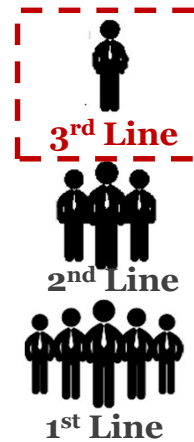
100% Data Audit



Population



Silo  
working



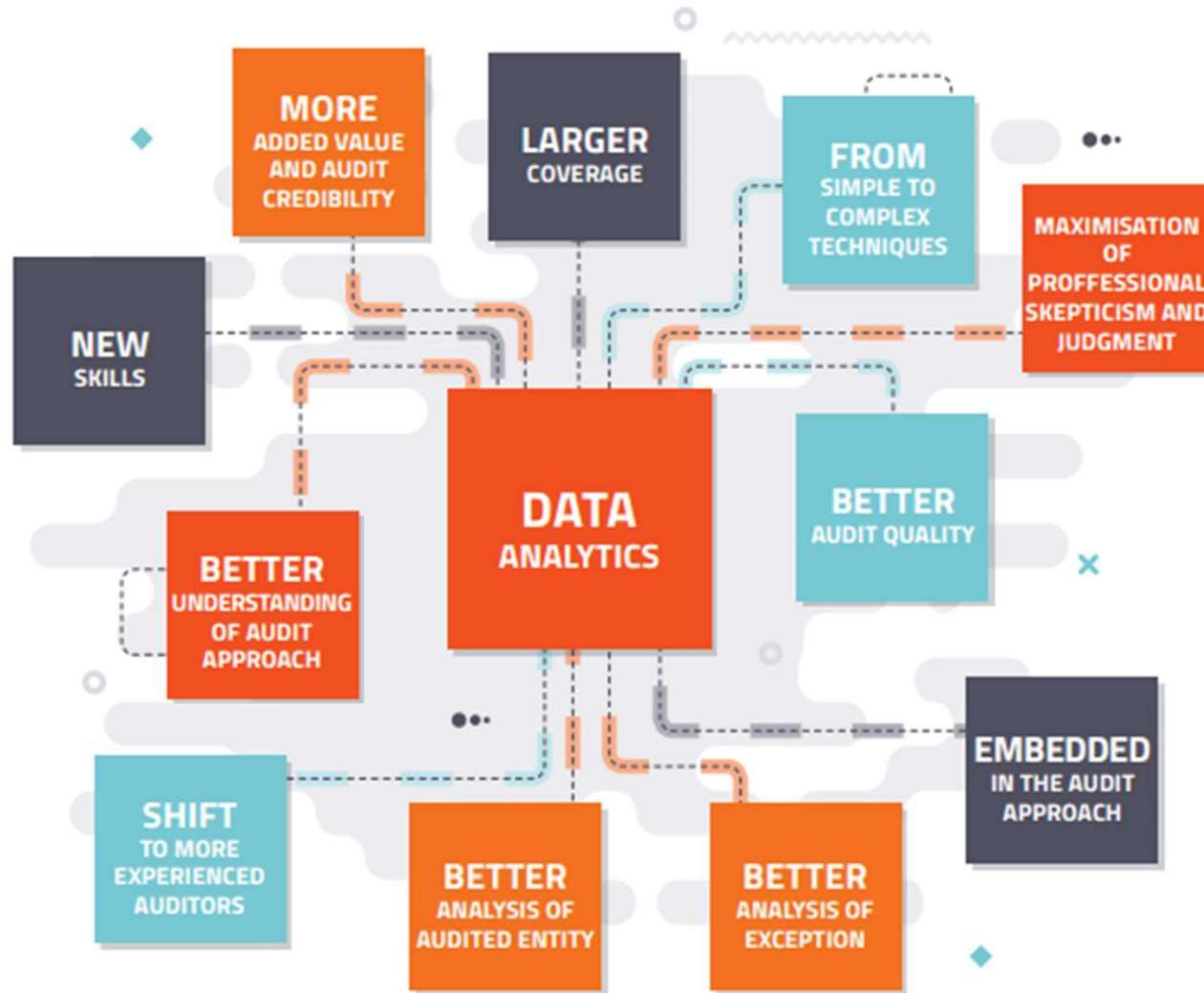
Collaboration with  
1<sup>st</sup> and 2<sup>nd</sup> lines of defense

Collaborate with

- Compliance
- Operational Risk
- Financial Crime etc.

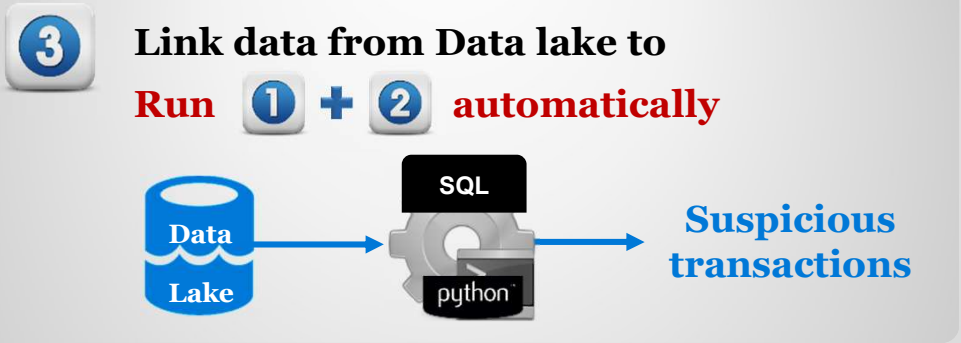
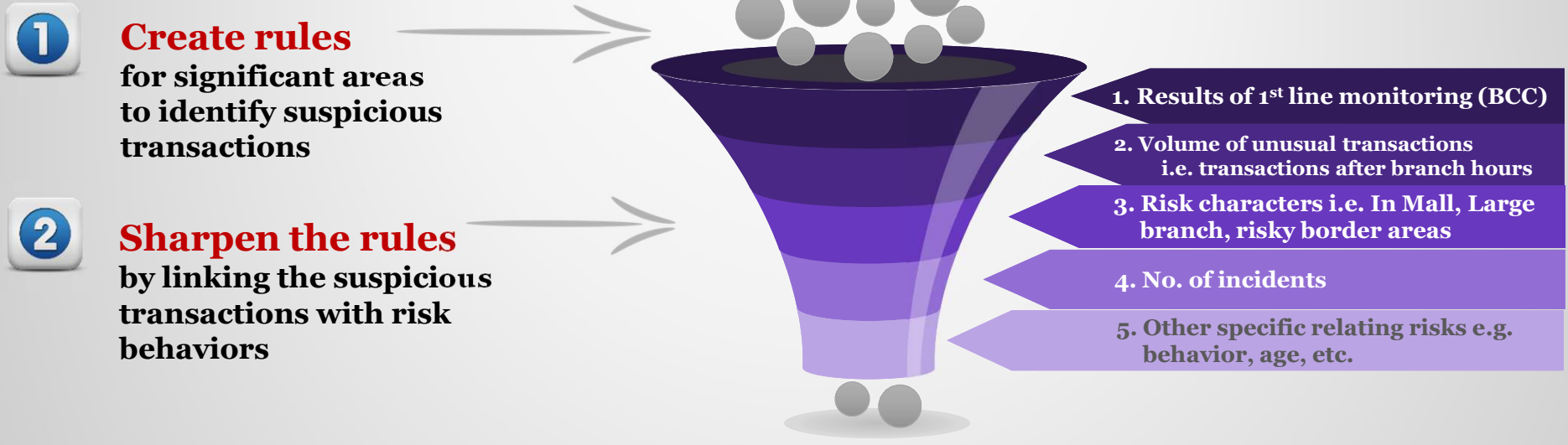
to ensure overall assurance  
for the organization.

# ***Data analytics*** become a ***Game Changer*** for internal audit





# Data analytics journey



Ordinary Auditor



Digital Auditor

Professional  
of Internal  
Auditing

Risk assessment and  
identify control  
activity

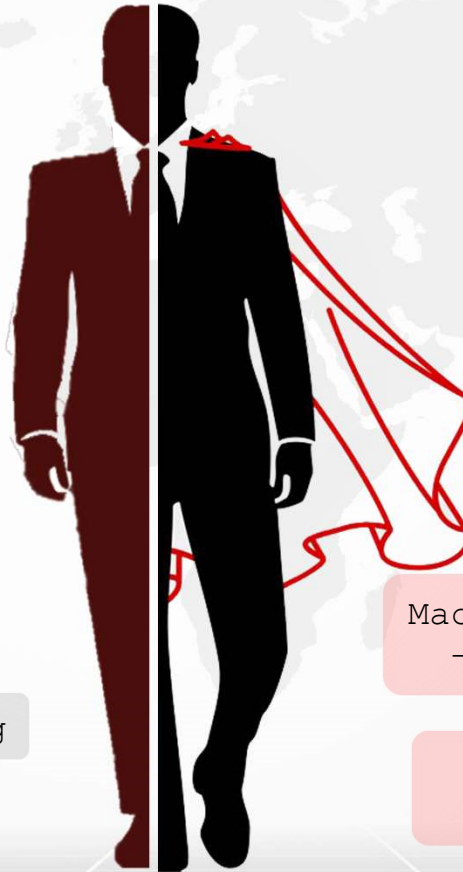
Leverage  
technology to  
audit work

Analytical Thinking Interpersonal Skills

Writing Skills Influencing Communication

Time Management Team Management

Driving change Strategic thinking Coaching



What is  
the **NEW**  
capabilities for  
Internal Auditor  
in Digital era?

Robotic process  
automation (RPA)

Machine Learning  
- Predictive  
model

New programming  
language -  
Python, R

New cybersecurity  
trends

??

# Conclusion of *Internal Audit* in the Age of Disruption



## Focus on Assurance

By continuing to focus on risk management, control, and governance, auditors can help ensure that processes are designed and operating effectively - regardless of the speed of disruption.



## Engage with Stakeholders

Align internal audit's work with the expectations of internal audit's key stakeholders.



## Invest in Training on Disruptive Technologies

Develop an adaptive, flexible, innovative staffing model to tap into a highly specialized talent pool with technological competence and the ability to rapidly understand and leverage new tools, techniques, and processes.



## Put New Technologies to Work

Must take advantage of machine learning and data analytics in their audit processes — real-time auditing should be a requirement as organizations implement new business processes.

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# *Thank you*

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