



Flowing With The Tide of Disruptive Technology for **Chartered Accountants**

68TH Induction Ceremony for New Members

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Outline

1. Technology Disruption “A Global Context”

2. The Nigerian Perspective

3. Impact of Digital Tools on the Accounting & Auditing Profession

4. What to Do?



Technology Disruption

"A Global Context"

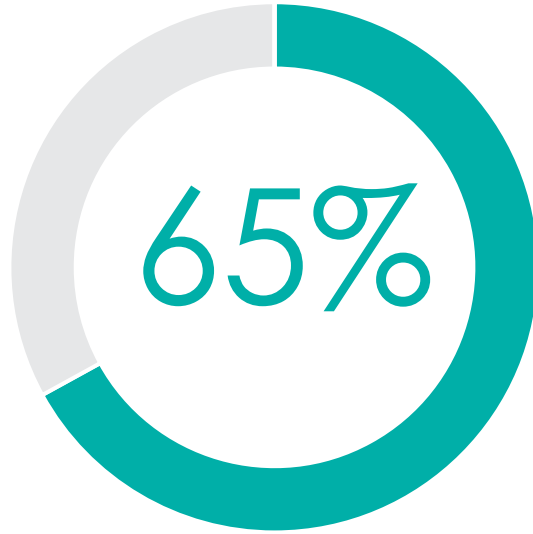


What Global CEO's think about disruption

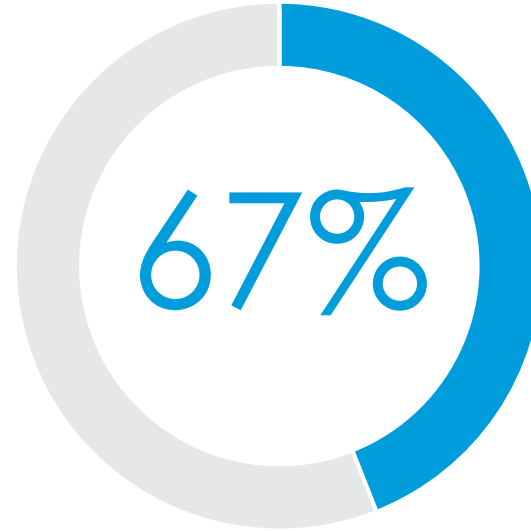
KPMG's CEO Outlook Survey 2017 tells us that:

Over half of CEO's believe their organisations will face more disruption in the next three years than they have in the prior 50 years...

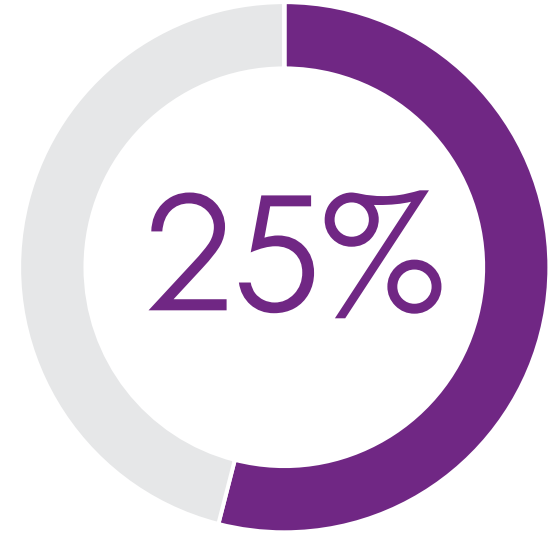
Do you think you will be different?



see disruption as an opportunity



of CEO's believe they need to disrupt their organizations

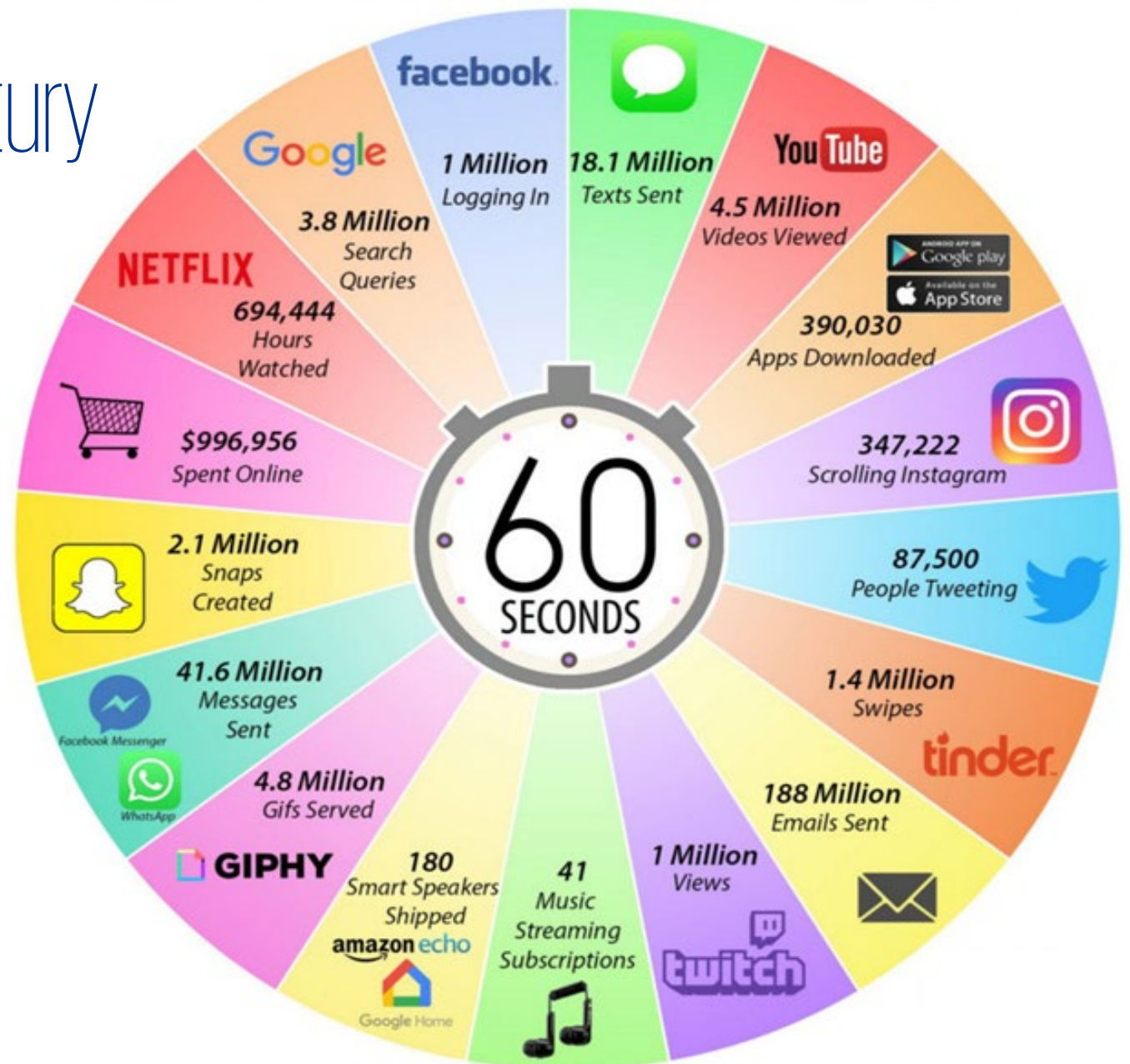


have appointed chief digital officers

Data is the oil of the 21st century

"Every two days now we create as much information as we did from the dawn of civilization up until 2003"

Eric Schmidt,
Former CEO, Google



Today every business is a digital business

“ The future of banking is **less banking** and **more of financial services tailored to customers' lifestyle** needs. ”

“ My vision is to make DBS invisible. We should be able to hide the banking service in something else that the customer really wants to do with their life, and it should be just completely seamless ”

Piyush Gupta, CEO,
DBS Group

Key Technology Enables for Digital Ambition



UX/ UI

Today's digital consumers have higher expectations of their financial institution than ever before



AI & Robotics

AI & Robotics cover a range of emerging technologies being used in driving operational efficiency and cutting costs



API

APIs provide a layer that serves to connect backend business services across digital applications across multiple channels



Cloud

Cloud technology has emerged as a primary enabler for dealing a demanding and expanding client base

Digital Business Models [Before & After Top 10 Companies]

COMPARISON OF THE WORLD'S MOST VALUABLE COMPANIES (BY MARKET CAPITALIZATION) IN 2010 AND 2020

2010_(third quarter)

1	\$314.62B	ExxonMobil
2	\$270.89B	PetroChina
3	\$259.22B	Apple
4	\$220.62B	Petrobras
5	\$213.36B	ICBC
6	\$210.67B	Microsoft
7	\$205.34B	China Mobile
8	\$204.79B	Berkshire Hathaway
9	\$202.99B	China Construction Bank
10	\$196.87B	BHP Billiton

2020_(third quarter)

Apple	\$1.98T	🌟
Microsoft	\$1.59T	🌟
Amazon	\$1.577T	🌟
Alphabet	\$999.57B	🌟
Alibaba	\$795.40B	🌟
Facebook	\$746.10B	🌟
Tencent Holdings	\$646.79B	🌟
Berkshire Hathaway	\$509.47B	
Visa	\$425.51B	🌟
TSMC	\$420.44B	



8 of the 10 most valuable companies in the world in 2020 have extensively leveraged digital technologies to accelerate value realization

Source
Financial Times Global 500

OECD GDP Vs Top Corporations Market Cap (2021)

Country/Company	Nominal GDP (country) or Market Cap (company)
United States of America	\$21,433 B
China	\$14,343 B
Japan	\$5,082 B
Germany	\$3,861 B
India	\$2,869 B
United Kingdom	\$2,829 B
France	\$2,716 B
Apple	\$2,125 B
Italy	\$2,004 B
Microsoft	\$1,942 B
Saudi Aramco	\$1,888 B
Brazil	\$1,840 B
Canada	\$1,736 B
Russia	\$1700 B
Amazon	\$1,688 B
Alphabet	\$1,656 B
South Korea	\$1,647 B

The implication of digital transformation for incumbents who are not future-ready is dire



Blockbuster

The innovation of on-demand video streaming by Netflix led to the demise of Blockbuster



Kodak

The inhibition to evolve to a more digital focused organization led to the bankruptcy of Kodak



Toys R Us

Satisfaction with status quo led to the erosion of market share by online giant, Amazon



The global giants are
now expanding into
businesses outside
their core domain

China Racing Head



Aiming to **lead by 2025** and have **economic dominance by 2030**



500 million faces



Police experimenting with **Facial Recognition glasses**



10,000 PhD Data Scientists



Health care data

The Nigerian Perspective





Nigeria has one of the largest millennial population in the world...



Gen Z

Still in High School, soon entering college and new to workforce. Tech fluent

72M

0 - 18 years



Millennials

Interconnected. More likely to have a mobile phone and a personal laptop

60M

18 - 38 years



Gen X

Time- crunched. Tech - friendly, but have more realistic expectations of enterprise tech

30M

39 - 52 years



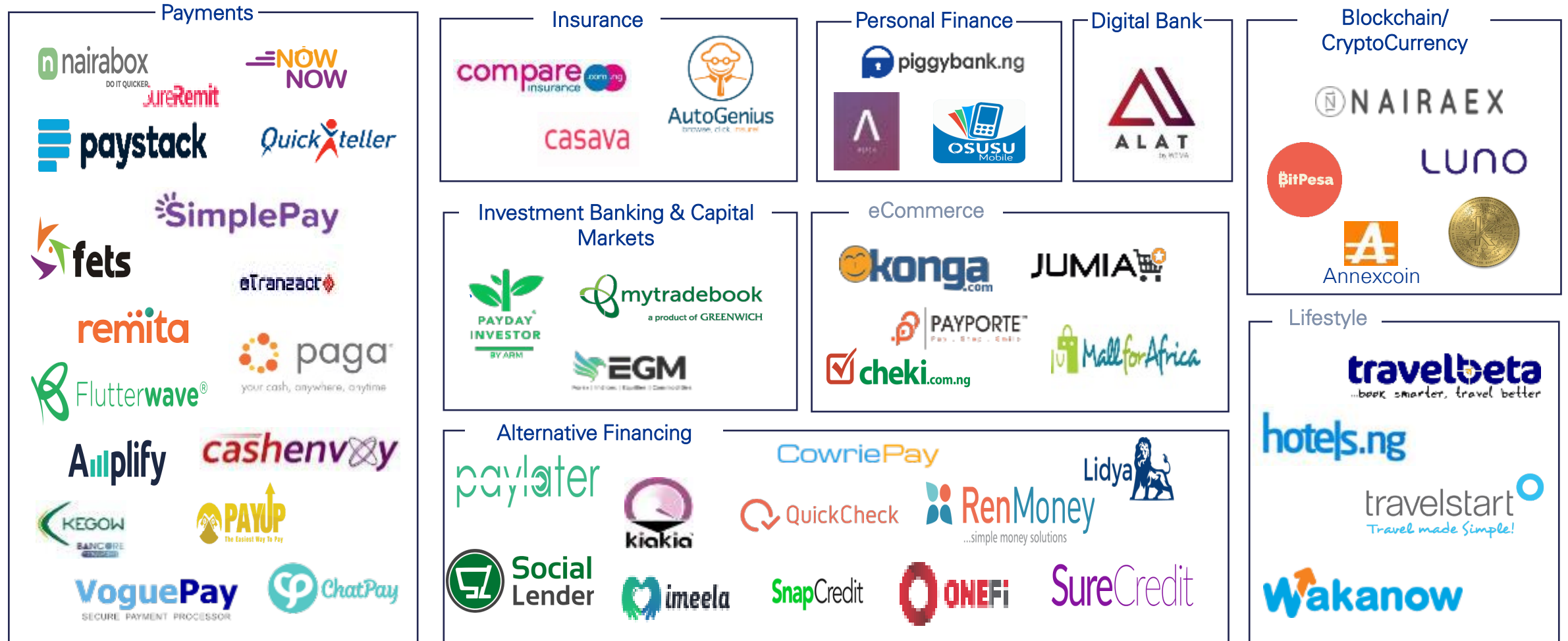
Boomers

Born 1946 – 1964. Greatest disparity in tech literacy – influenced by Millennial children

27M

53 – 71 years

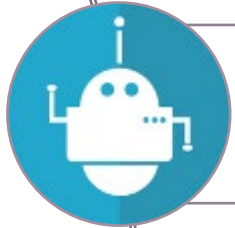
Emergence of FinTechs is Changing the Financial Services Landscape



Recent Trends in Financial Service



Increasing adoption of USSD Banking Solution



Adoption of chatbots for banking processes



Exploration of block chain technology



Disruption of landscape by non-banks (FinTechs)



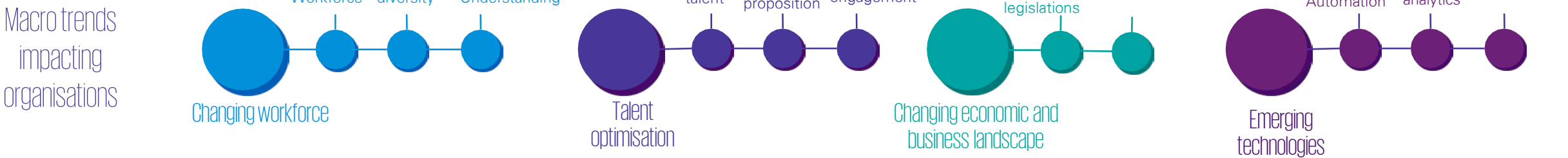
STELLAR



Impact of Digital Tools in Delivering Audit Service



Skills of the Future - The 2022 Job Landscape



Digital Marketing and Strategy Specialists

Information Security Analysts

Information Technology Services

Organizational Development Specialists

User Experience and Human-Machine Interaction Designers

Sales and Marketing Professionals*

Digital Transformation Specialists

Process Automation Specialists

Robotics Specialists and Engineers

AI and Machine Learning Specialists

Ecommerce and Social Media Specialists

Big Data Specialists

People and Culture Specialists

Data Analysts and Scientists

Software and Applications Developers and Analysts*

General and Operations Managers

Client Information and Customer Service Workers

Innovation Professionals

Service and Solutions Designers

New Technology Specialists

Training and Development Specialists

Source: Future of Jobs Survey 2018, World Economic Forum



“What if we don’t change at all ...
and something magical just happens?”



Impacts of New Technologies on Audit and Accounting (cont'd)

Disrupting Landscape

Customers

Regulators

Investors

Partners

Infrastructure

Risks

Predictive Analytics

Digital Automation



Focus on
Audit/Accounting

Cognitive Technologies

Data and Analytics

Digital technology: here and now

JPMorgan

300K
COIN

Hours of legal word reviewing financial deals

after

Contract Intelligence AI system

JD.com robot-run warehouse in Shanghai

200k

Packages
processed
every hour

1 Person
employed

where

500 Previously

Using robotic unloading
systems, barcode
scanning, automated
vans and even drone
deliveries

FOXCONN Robots

60,000

Workers replaced

500k FTE's to be
replaced by 1 Million
robots



Big 4 firm

50%

Big 4 firm has announced a
reduction of at least 50% in
graduate recruitment

KPMG Loans Tool



100%

Of a bank's loan book can
now be reviewed and
reassessed by AI

Tesla & SpaceX beyond Current Ambitions

3b miles

autopilot miles driven
(04/2020)

4,425

Cross-linked
communications
satellites

About

60

As of May 2021

Autodesk

Generative Design

In: Constraints
eg. weight, cost etc.
Out: Optimised design



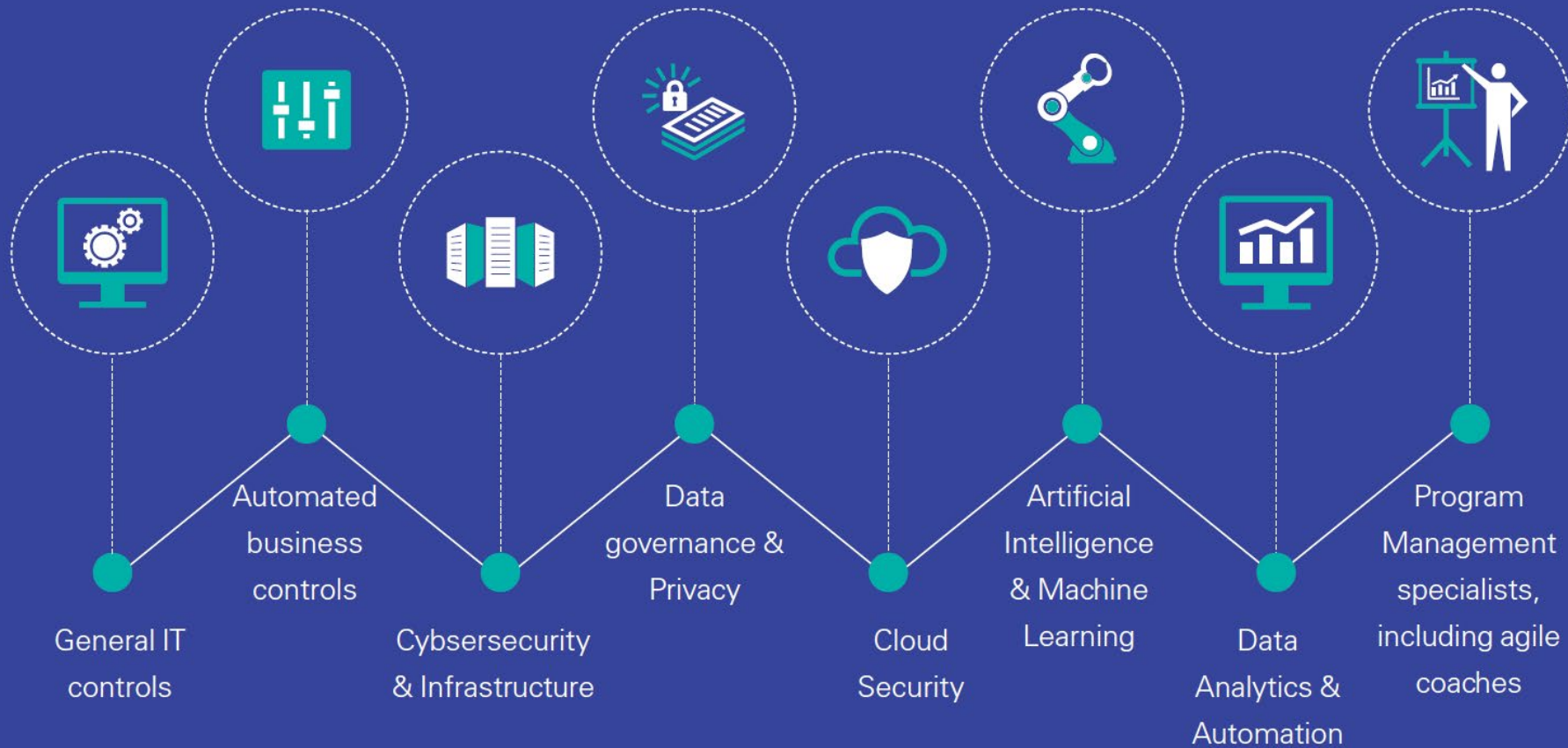
Bank of England

15m

Jobs have potential to be
automated in the UK out of 34m

Digital Risk Universe

Capabilities of today's Technology Internal Audit



No single organization has all the IT assurance resources it needs because of the sheer breadth of skills required and the cost of maintaining, training and developing in-house resources to cover all the bases.

The New Face of Data Analytics & Forensic Tools

**SAS
Enterprise
Miner**

IDEA

ACL

**KDAT/
KTRACE**

Clearwell

Data Robot

Python

**Arbutus
Analyzer**

Knime

**R
programm
ing
language**

**Forensic
Toolkit**

DTsearch

SoftCAAT

**IBM i2
Analytics**

Encase

Drones in Audit

Adopting drones for accounting/ audits provides the following benefits for organizations:



**Improved
Efficiency in
Inventory Data
Capture**



**Centralized data
collection and
audit trails**



**Elimination of
Human Error in
Inventory Data
Capture**



Drones in Audit

Use Cases



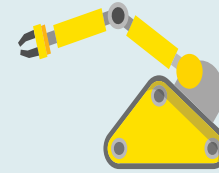
Agriculture

Drones are used for crop supervision, mapping of farmlands and herbicide spraying which help to drastically cost of farm operations



Energy

Drones are used to execute inspection of rigs, vandalized oil lines etc.



Infrastructure

Drones are used for topography mapping in construction companies.



Telecommunications

Drones perform mast structural integrity inspections for telecommunication companies

Challenges

Weather

Drones are less effective in high winds or rain with wind, rain and snow

Regulation

Preapproved access before deployment and other regulations by the Nigeria Civil Aviation Authority (NCAA) are major hindrances to drone adoption.

Theft

When used for delivery, drones are only able to drop parcels in a relatively open area and thus prone to theft

Cost of Adoption

Small scale business may not be able to deploy on a large scale

Drone in Nigeria - A case of Beat Drone

Case of Beat Drone as at 2018

7

States

40,000

Hectares of rice farms being serviced

N5m

Won in Bank's TechFest in May 2019

Impact

Farm Mapping

- Better health assessment of crops,
- Soil analysis which benefit the planning of seed planting pattern
- Thermal imagery showing parts of the field lacking adequate water.

Fertilizer Spraying;

- Maintains the right distance from the crops when spraying fertilizers,
- Faster pace than traditional machinery.

Inventory

- Generate inventory to optimize operation management and boost profit

Traceability

- Tracking what has been done on the field and improving sustainability.

Audit Automation Through Robotics

AudyBOT - KPMG Automated Audit Assistant is a multi technology audit toolbox which is used to digitize the control assessments and testing using advanced automation capabilities.

AudyBot At A Glance

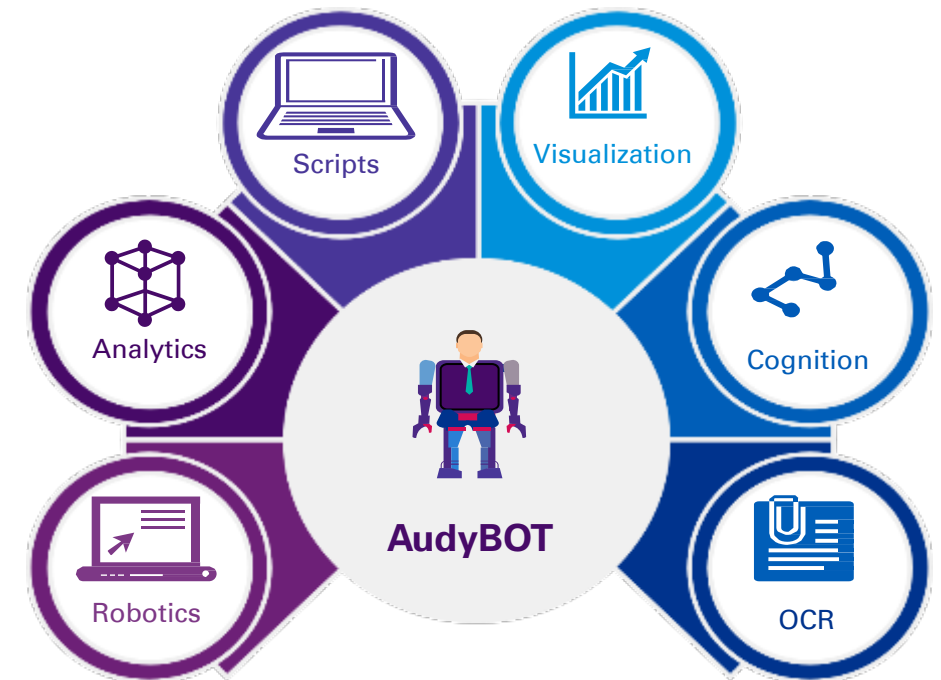
40+

No. of Bots built



- Bots developed by a team comprising of auditors, risk management professionals and developers who have extensive knowledge on the subject and the technology respectively
- Bots developed to assist in SOX, Internal Audits, Third party risk assessments and Background Verifications for forensic teams
- Bots developed to assist Eth Hack teams in preparation of penetration testing reports in excel and PPT formats
- Bots developed to assist in performing configuration testing at application, OS and DB level
- Bots designed for sectors including financial sectors, manufacturing and industrial markets
- Bots which are task masters specifically developed for assisting in extraction of relevant information from various application and uploading of work papers in the assessment tools

Integrated Technologies in AudyBOT platform

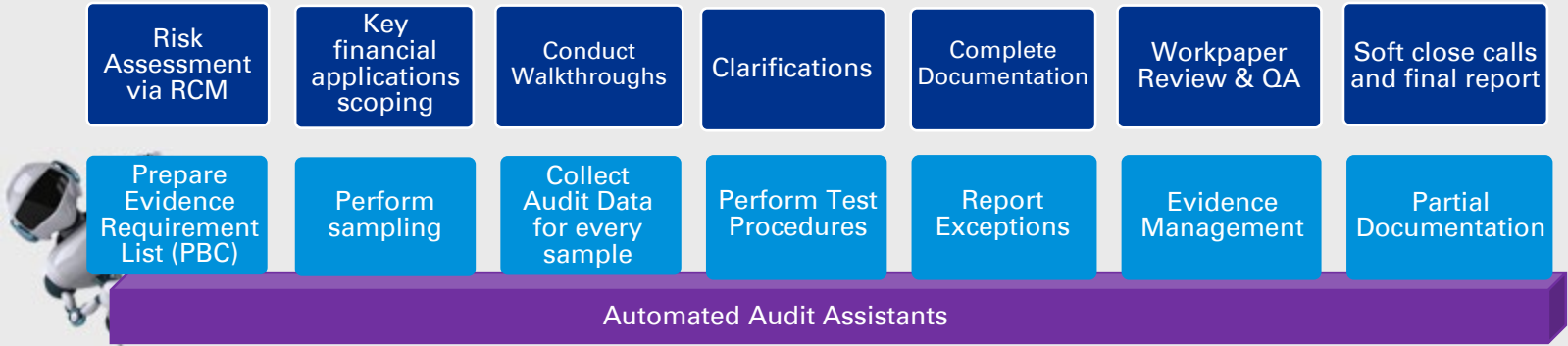


AudyBot Platform

Transform How Assessments are Performed

Future State – Accelerated Control Assessment

Manual activities



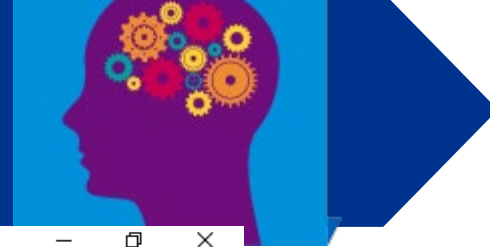
Current State- Traditional Control Assessment

Manual activities



Automated Audit Assistant for Controls Assessment and Assurance

Our Bot Portal Snapshot



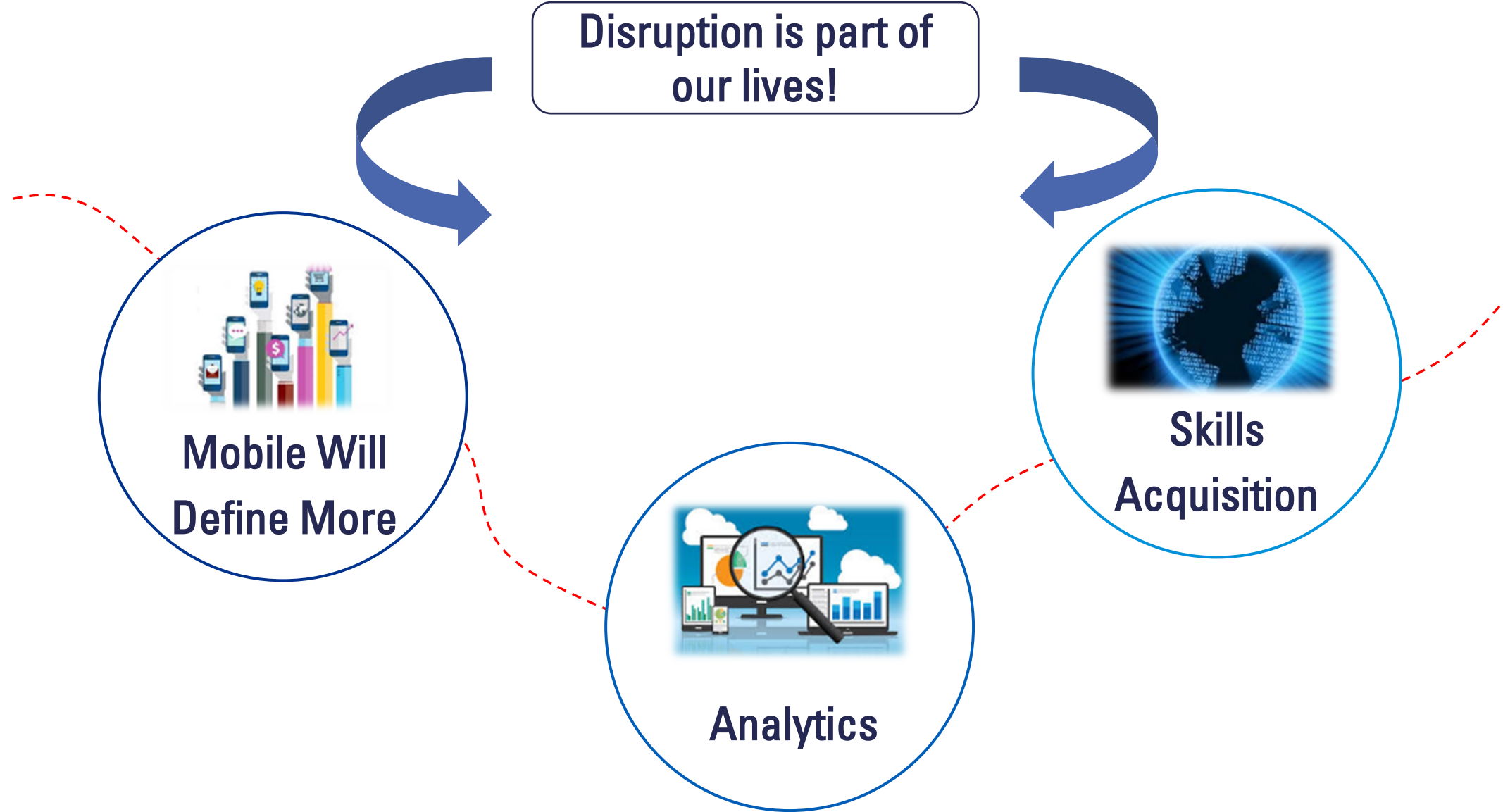
Browser address bar: http://10.188.223.35/poc/botvideos/listall.html?IT_Ap India Home AudyBOT Videos - KPMG

KPMG KPMG AudyBOT - Automated Audit Assistants

KPMG Audybot the Digital Audit Assistant	KPMG Audybot the Digital Audit Assistant	KPMG Audybot the Digital Audit Assistant
Invalid Logon Attempt SAP Negative Testing	RSPARAM Password Configuration Testing	Developers Access to Production in SAP
Bot for Testing Invalid User Logon Attempt Configuration on SAP	Bot for testing password configuration parameters in SAP against baseline security configuration	Bot for testing segregation of duties between developers' access to production environment in SAP.
IT General 2:04 mins	IT General 3:22 mins	IT General 12:36 mins

KPMG Audybot the Digital Audit Assistant	KPMG Audybot the Digital Audit Assistant	KPMG Audybot the Digital Audit Assistant
User Access Revocation in SAP	Change Management Approval	User Access Creation
Bot for testing SAP user access revocation control integrated with ACL and Tableau dashboard.	Bot for testing change management approvals with pre-provided client evidence with evidence exception handling.	Bot for testing SAP user access creation integrated with a ticketing system.
http://10.188.223.35/poc/botvideos/details.html?rsparam IT General 5:57 mins	IT General 9:54 mins	IT General 7:23 mins

In Conclusion





Scan the code on the right to download select KPMG
Thought Leadership materials or follow the link



OR

<https://goo.gl/YVpFd8>



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