

*Course title: Digital Strategy and Action*

Market drivers and digital disruption

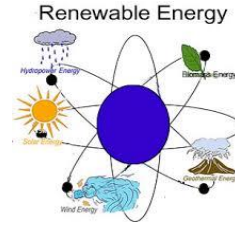
**Dr. Shakhlo Ergasheva**

# Why Market drivers and digital disruption?

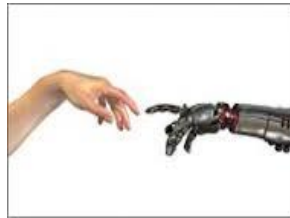
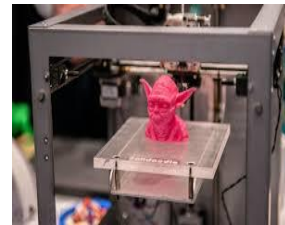
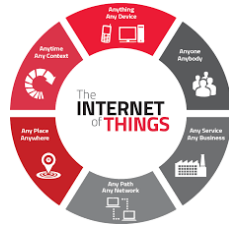


- Customers demand a consistent and contextual experience
- And, they rely on digital devices - forcing changes in organizations

# Back to the Future: Digital Disruption Trends



- Self Driving Cars
- Smart Cities
- Connected Healthcare
- Robotics assisted surgery
- Smart Homes



What's Happening in the Enterprise

# The CIO's World has Changed Massively in the Last Five



In the past, we protected our employees, customers and data within four walls of the enterprise.

Controlled environment - data locked within four walls

On-premises apps

Finite networks

Physical data centers and connectivity

Desktops



**But all of that  
has changed**

Now...



Cloud applications

Private cloud data center

Mobility

From data to insights

Global complexity

Connectivity to our entire  
eco-system—employees,  
customers and partners

CIOs must protect their  
company's most  
important asset—data—  
in an ever-changing,  
dynamic environment

# Five Trends That Are Converging

## Mobility

- 7 billion phones by 2020 (Gartner)

## Cloud - Apps & Data Center

- 69% of all workloads will be in the cloud by 2017 (Cisco)
- 500K new apps in the past three years. Over 1.8M global apps; downloaded >10.9 B times (Gartner)
- 33% of Symantec apps are cloud-based and growing; we've deployed our first private cloud data center

## Data - Structured & Unstructured

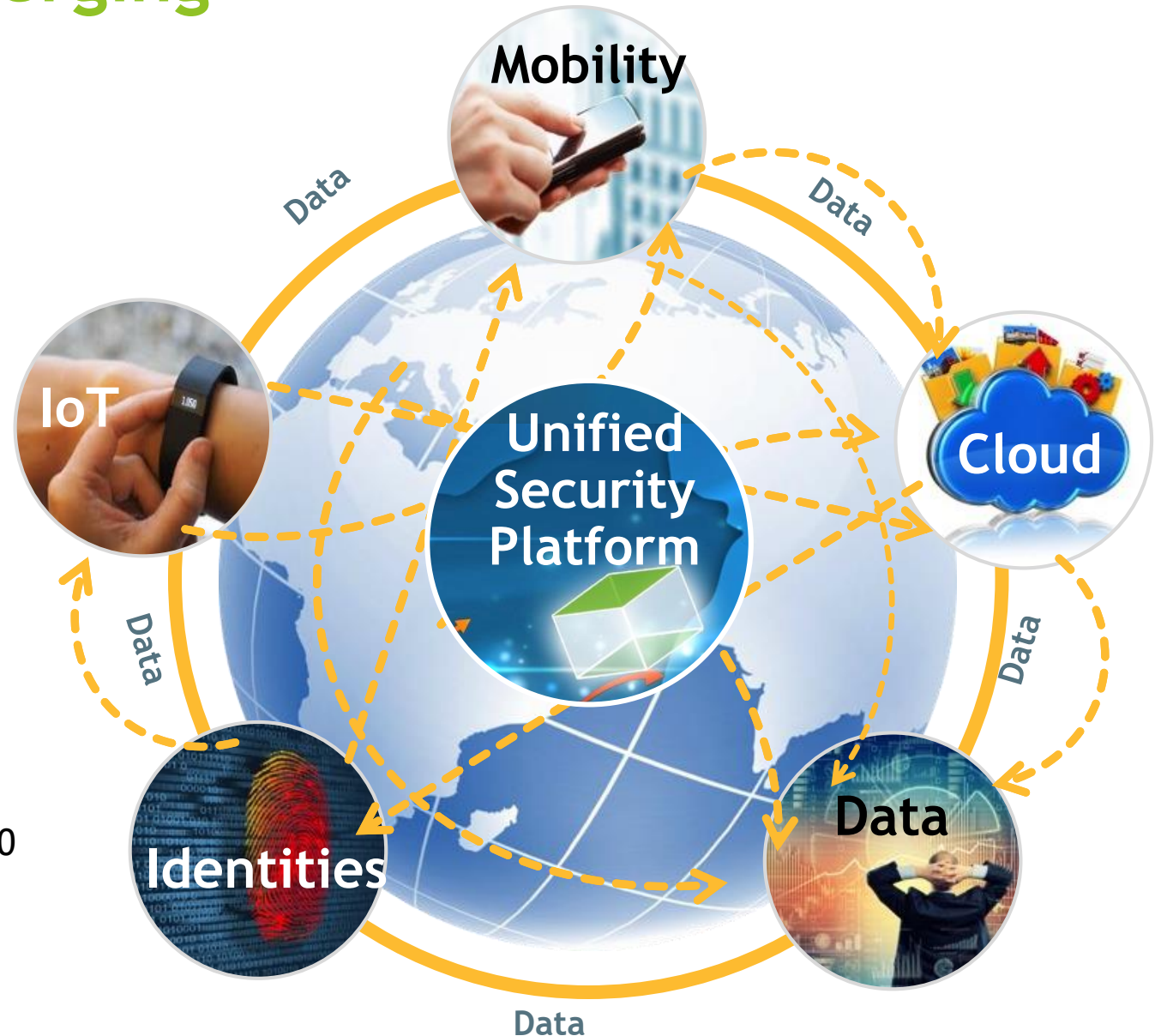
- IDC estimates that 90% of big data is unstructured

## Identities - Personal & Professional

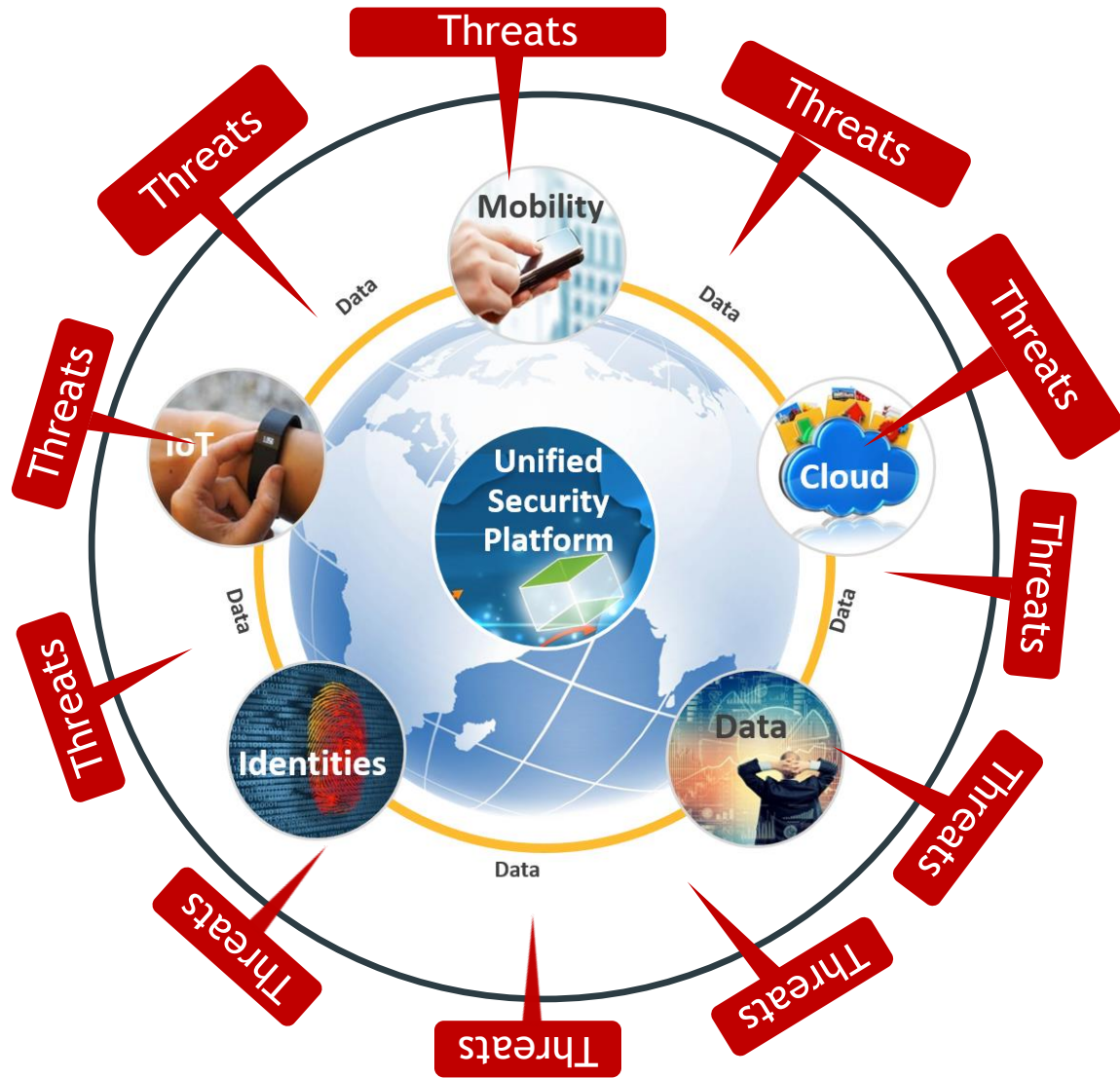
- Personal and professional identities are blurring
- In “connected countries” there are between 24 - 30 digital identities per person (IDC)

## The Internet of Things

- Will exceed 26 billion by 2020 (Gartner)



# Threats are Increasing!



In addition:

- **Frequency and duration are increasing (1)**
  - A large business attacked once in 2015 is now likely to be attacked 3 more times
  - Symantec discovered more than 430 million new unique pieces of malware in 2015, up 36 percent from the year before
- **38% increase in detected information security incidents in 2015 (1)**
- **56% increase in theft of “hard” intellectual property in 2015 (1)**
- **2014 Verizon report on over 63,000 incidents: almost every incident involved human error**
- **Digital extortion on the rise (2)**
  - 45x more people had devices held hostage

Quite a challenge, but also our opportunity  
—building a unified security platform



**Global Crypto Currency market** is now worth more than \$500bn



Over 50 billion **connected devices** will exist in 2025



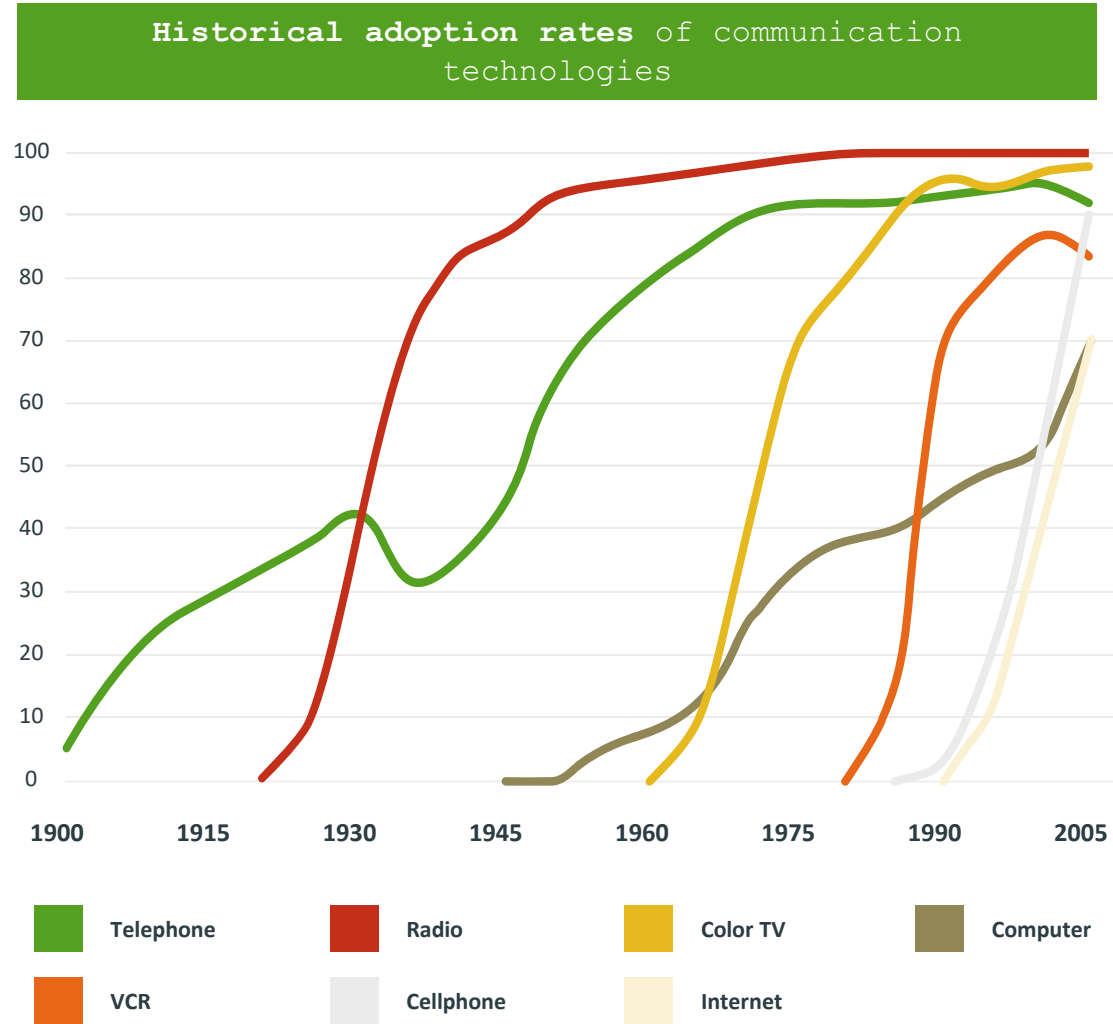
The **global mobile wallet market** is expected to cross \$7.5 trillion by 2025



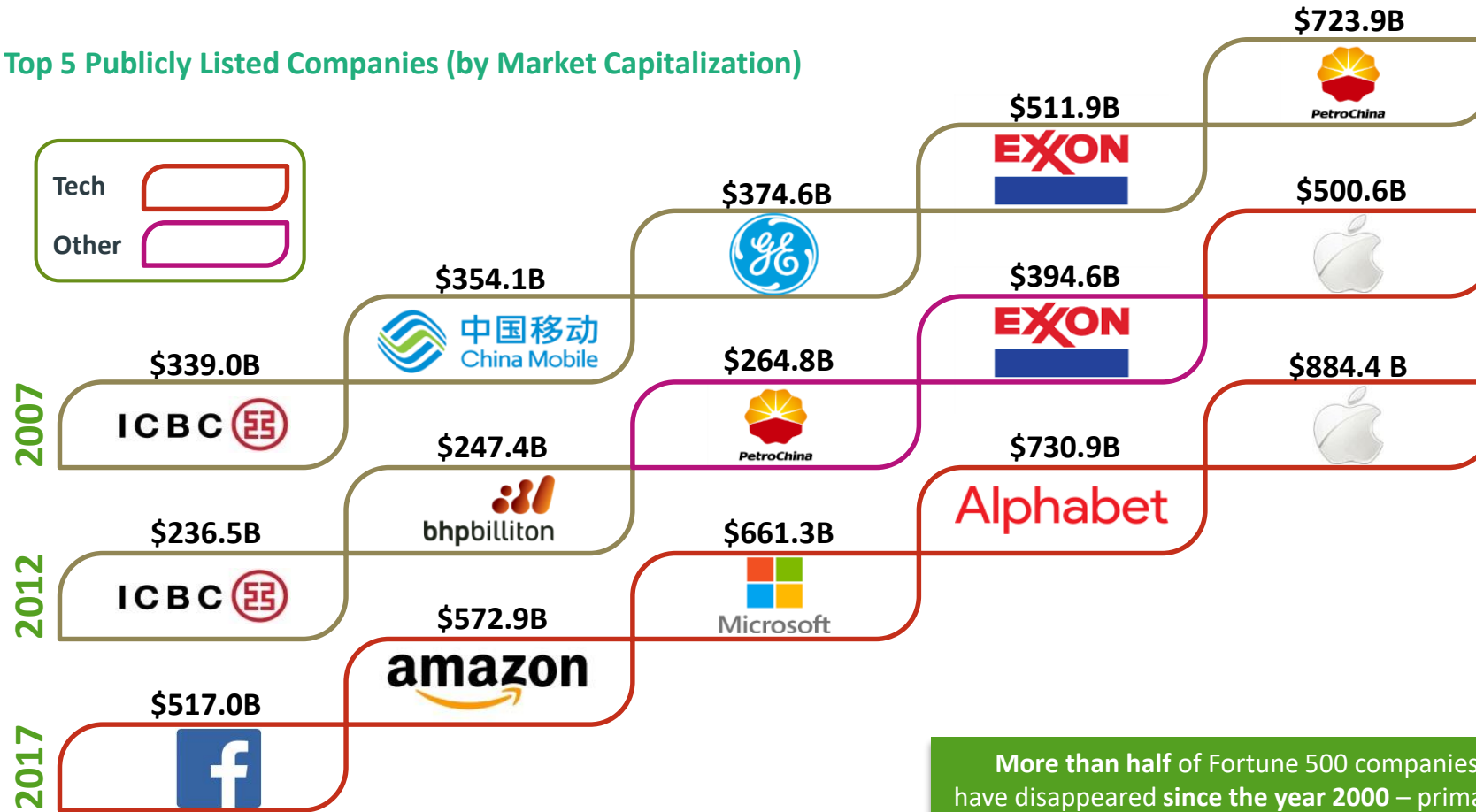
Over one million **businesses** will adopt **AI technologies** by 2025



More than 3 mn **Industrial Robots** to be operational by 2020











## Top 5 Publicly Listed Companies (by Market Capitalization)



More than half of Fortune 500 companies have disappeared since the year 2000 – primarily due to the impact of digital business models.

	 Artificial Intelligence	 Blockchain	 Connected Devices & IoT	 Digital Business	 Payment Technologies	 Robotics & Drones	 Security Tech	 Others
 Consumer	#Virtual Assistants #Customer Engagement	#Direct to consumer #Counterfeit Detection	#Smart Homes #Consumer Wearables	# Digital Commerce # Sharing Economy	#Digital Wallets #Virtual Currency	#In-home Robots #Autonomous Vehicles	#Home Security #Intrusion Prevention	#Social Analytics #3D Printing
 Retail	#Bots #In-store Experience	#Warranty Management #Inventory Tracking	#Store Management #Smart Warehouse	# Virtual Stores #Ambient Commerce	#Mobile Wallets #Biometric Payments	#Drone Delivery #In-store Robots	#Biometric Authentication #Smart Store	#VR/AR Experience #Customer Analytics
 Financial Services	#Credit Scoring #Fraud Detection	# Crypto Currency #P2P Payments	#Telematics #Wearables for Banking	#P2P lending #Digital Banks	#Biometric Payments #Wearable Payments	#Robo Advisers #RPA	#Vulnerability Management #Biometrics	#Predictive Analytics #Financial Mgmt. Platform
 Healthcare	#Diagnosis & Detection #Drug Discovery	#Electronic Health Records #Counterfeit Drug Detection	#Mobile Health #Sensors	#Appointment Management #Lifestyle Monitoring	#Automated Claim Processing #Digital Health Wallets	#Robotic Pills #Surgical Robots	#Patient Data #Network Security	#Genomics #Bionics


 Artificial Intelligence	 Blockchain	 Connected Devices & IoT	 Digital Business	 Payment Technologies	 Robotics & Drones	 Security Tech	 Others
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Consumer

							
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Retail











							
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Retail

							
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Retail

							
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	 Artificial Intelligence	 Blockchain	 Connected Devices & IoT	 Digital Business	 Payment Technologies	 Robotics & Drones	 Security Tech	 Others
 Financial Services	FICO	ripple	Zobie	LendingClub	zwipe	Betterment	ThreatMetrix	alteryx
	H <sub>2</sub> O.ai	FIS Empowering the Financial World	Apple WATCH	Atom	Alipay	UiPath Robotic Process Automation	M2SYS	Kreditech
 Healthcare	Infermedica	guardtime	AliveCor	Zocdoc	PEGA	Rani THERAPEUTICS	CleanDATA SECURE • HEALTHCARE • CLOUD	23andMe
	RECURSION pharmaceuticals	BLOCKVERIFY	fitbit	runkeeper	InstaMed Healthcare Payments Simplified	INTUITIVE SURGICAL	Secureworks	ekso BIONICS

GlobalData's **Disruptor** is the leading market intelligence service that decodes emerging tech-enabled opportunities by providing must-have information on promising start-ups, tech-led innovations, latest tech/sector trends, consumer insights, and venture capital portfolio investments.

Six ways in which **Disruptor** drives success in a disruptive world



## Anticipate emerging competitive threats and future-proof your business

- Pinpoint the emerging disruptors shaping technological change
- Decode competitor strategies to avoid predictable surprises
- Stay up-to-date with competitors' key digital disruption developments

### Gain access to:

- A database of more than 40,000 start-ups
- 50 Competitor Ecosystem Reports per year
- Expert opinion from 500+ GlobalData analysts



## Learn from real-world, high-impact innovation case studies

- Track the latest innovations leveraging disruptive technologies across sectors
- Monitor competitor activity and stay ahead of innovation trends
- Contextualize innovation best practices and monetise Disruptive Innovation
- Stay on the pulse with latest developments
- Inspire innovation by understanding the true nature of latest disruptions

### Gain access to:

- Over 1,500 innovation profiles
- 300+ new innovation profiles every month
- 50 Disruptor Case Studies per year

The screenshot displays the GlobalData Innovation Explorer interface. At the top, there is a navigation bar with links for Contact, Careers, and Subscriptions, and a main menu with Home, Analysis, Databases, and Dashboards. A green banner below the menu indicates 'Focus on: Technology' and 'Vertical'. The main content area is titled 'Innovation Explorer' and shows '1-50 of 239 Innovations'. On the left, there are filters for 'Refinements' and 'Industry'. The main grid features several innovation profiles, each with a representative image and a title:

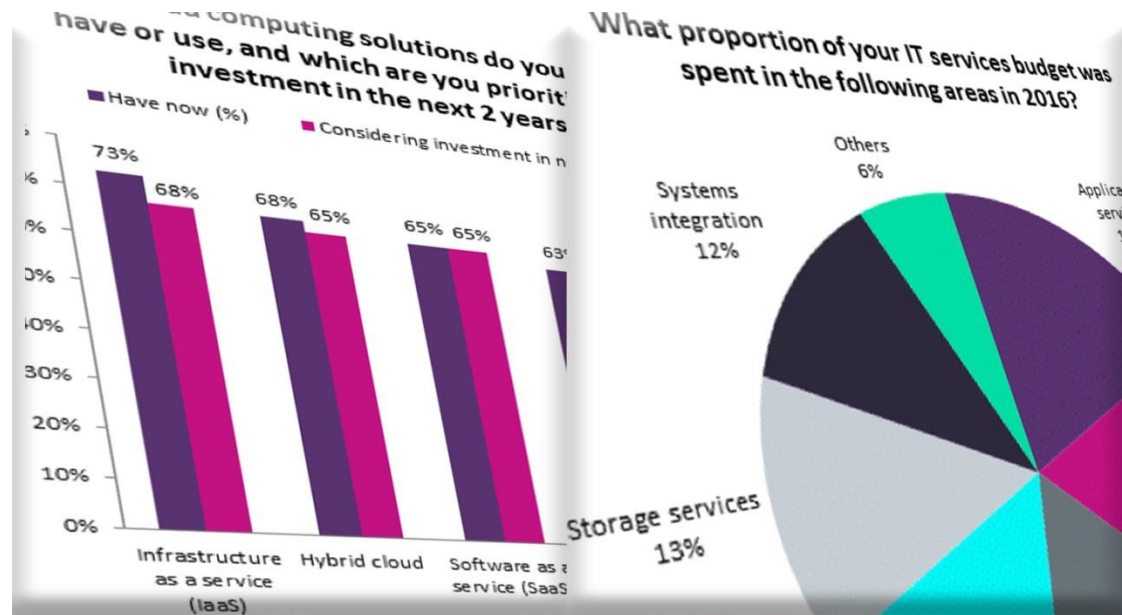
- UJet Unveils Its New Foldable Electric Scooters at CES 2018**: Accompanied by an image of a black and white foldable electric scooter.
- Tactical Haptics Launches New Haptic-Based Game Controllers for Virtual Reality**: Accompanied by an image of a person wearing a VR headset and holding a controller.
- Neurable to Unveil a New Mind-Controlled Virtual Reality Gaming Headset**: Accompanied by an image of a VR headset.
- Myntra adopts AI, augmented reality to boost sales**: Accompanied by the Myntra logo.
- Medial EarlySign uses machine learning algorithm to predict who is at risk for certain conditions**: Accompanied by an image of a human brain with neural activity.
- Google Develops Human-Like Text to Speech Artificial Intelligence System**: Accompanied by the Google logo.

Each profile includes a small icon in the top right corner (a green arrow or a red circle with a slash) and a small red circle with a slash icon at the bottom right of the profile card.



## Stay ahead of the curve by uncovering emerging trends

- Identify the players and technologies that will disrupt your core business
- Diversify & expand beyond your core: identify your next market
- Identify the key technologies in which your customers and competitors are investing
- Uncover emerging trends before the competition and get ahead in the digital race



### Gain access to:

- 100+ Digital Trends Reports per year
- 50+ monthly newsletters across core verticals per year
- Expert opinion from 500+ GlobalData analysts



## Make sound investment decisions in next-generation technologies

- Build your partnership ecosystem to achieve disruption objectives
- Identify and monitor potential partners that will transform your disruptive capabilities
- Track and trace venture capital investments into disruptive tech
- Unpick key investor portfolios and identify hot start-ups by market, funding rounds, and investor sector

### Gain access to:

- A database of more than 40,000 start-ups
- 14,000 venture capital and private equity firms
- 20 Smart Money Reports per year



## Deliver next-generation customer experiences

- Understand the motivations of the ultimate driver of market change – the consumer
- Identify the requirements of the consumer of the future
- Anticipate customer needs and deliver next-generation products and services
- Identify latest trends and attitudes with techno-economic data on markets and consumers
- Access expert reports and insights curating latest consumer surveys and interviews


### Gain access to:


- Techno-economic data on 40+ countries
- Consumer behavior survey across 36 countries & 26,000 respondents
- Fintech Adoption & Awareness survey across 28 countries and 22,000 respondents





Access a complete offering with the intelligence, insights and opinions that will enable your business to **win in a disruptive world**.

**COMPANIES**



  
Start-ups database of 40,000+ companies

  
50 Competitor Ecosystem Reports per year

  
Expert opinion from 500+ GlobalData analysts

**MARKETS**




  
Smart Money Investments


  
100+ Digital Trends Reports per year


  
50+ monthly newsletters across core verticals per year


  
Tech Maturity Framework

**INNOVATION**



  
Over 1,500 innovation profiles


  
50 Disruptor Case Studies per year

  
Innovation Landscape Reports


**CONSUMERS**





  
Consumer Survey Data & Adoption Studies


  
Techno Economic Data for 40+ countries

**INTELLIGENCE**



  
Latest technology news & deals activity coverage

  
500+ analyst opinions per year

  
Top 100 Influencers per sector

**Monitor**  
competitor strategies

**Monetize**  
disruptive innovation

**Mine**  
thought leadership

**Predict**  
emerging trends

**Decode**  
smart money

**Capture**  
digital consumers

Technology data complemented by in-house expertise in vertical industries like Healthcare, Consumer, Retail and Financial Services.

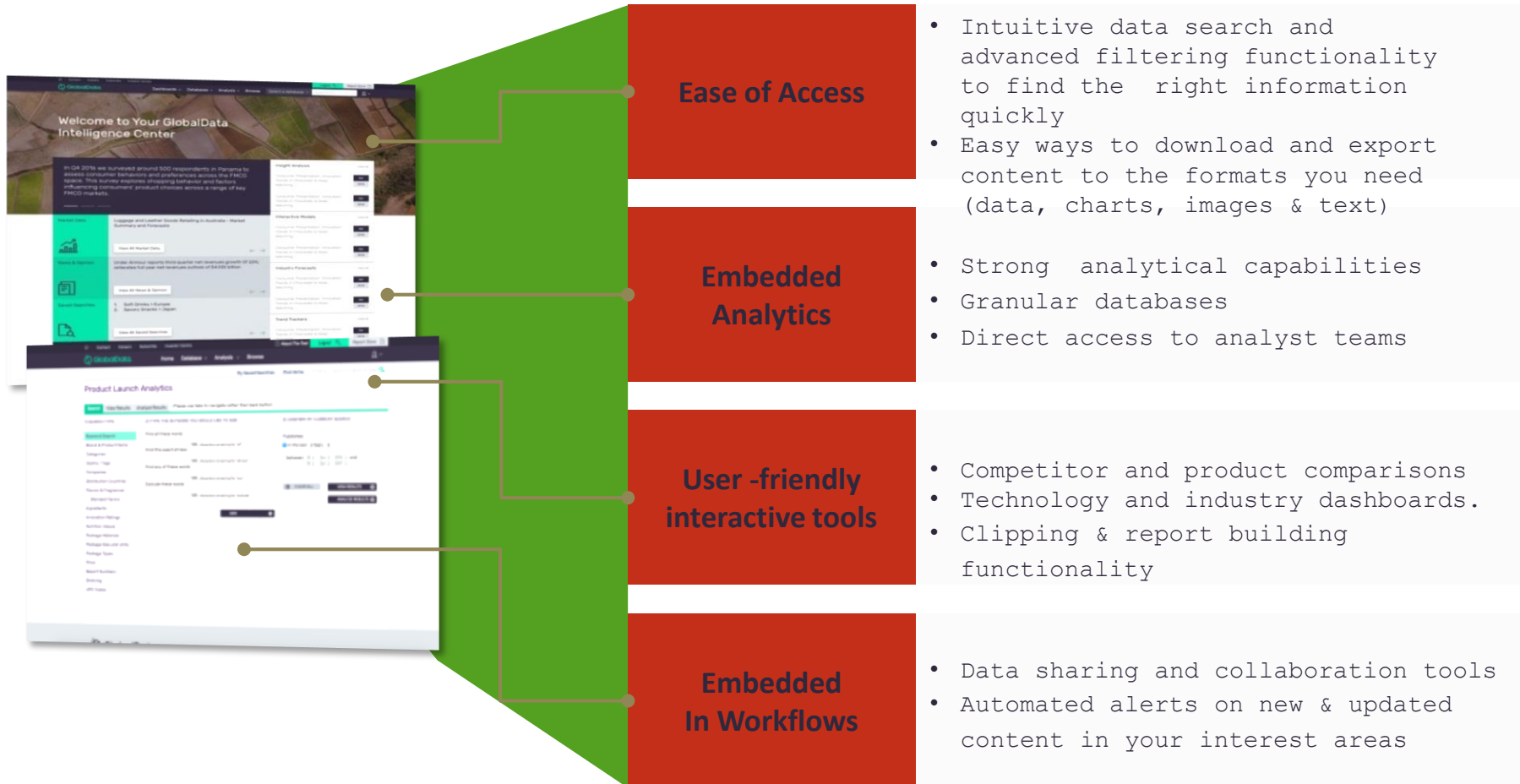
**Trending Disruptive Tech Segments**

Artificial Intelligence	Blockchain	Connected Devices & IoT	Digital Business	Payment Technologies	Robotics & Drones
Machine Learning Natural Language Processing Decision Management ...	Financial Markets Data Sharing Identity Management. ...	Connectivity Platforms Beacons NFC ...	E Commerce Social Platforms Apps & Platforms....	Crypto Currency POS Digital Wallets ...	Autonomous Vehicles Smart Robots Commercial UAVs ...
Security Tech	Others	Consumer	Retail	Financial Services	Healthcare
Fraud Protection User & End Point Behavioral Analytics IOT Security ...	3D Printing Enabling Solutions Analytics ...	Smart Homes Mobile Wallets Wearables...	Payment Platforms Augmented/Virtual Reality Digital Content Recognition ...	Chatbots Peer-to-Peer Payments Marketplaces...	Genomics Mobile Medical Devices Electronic Patient Records....

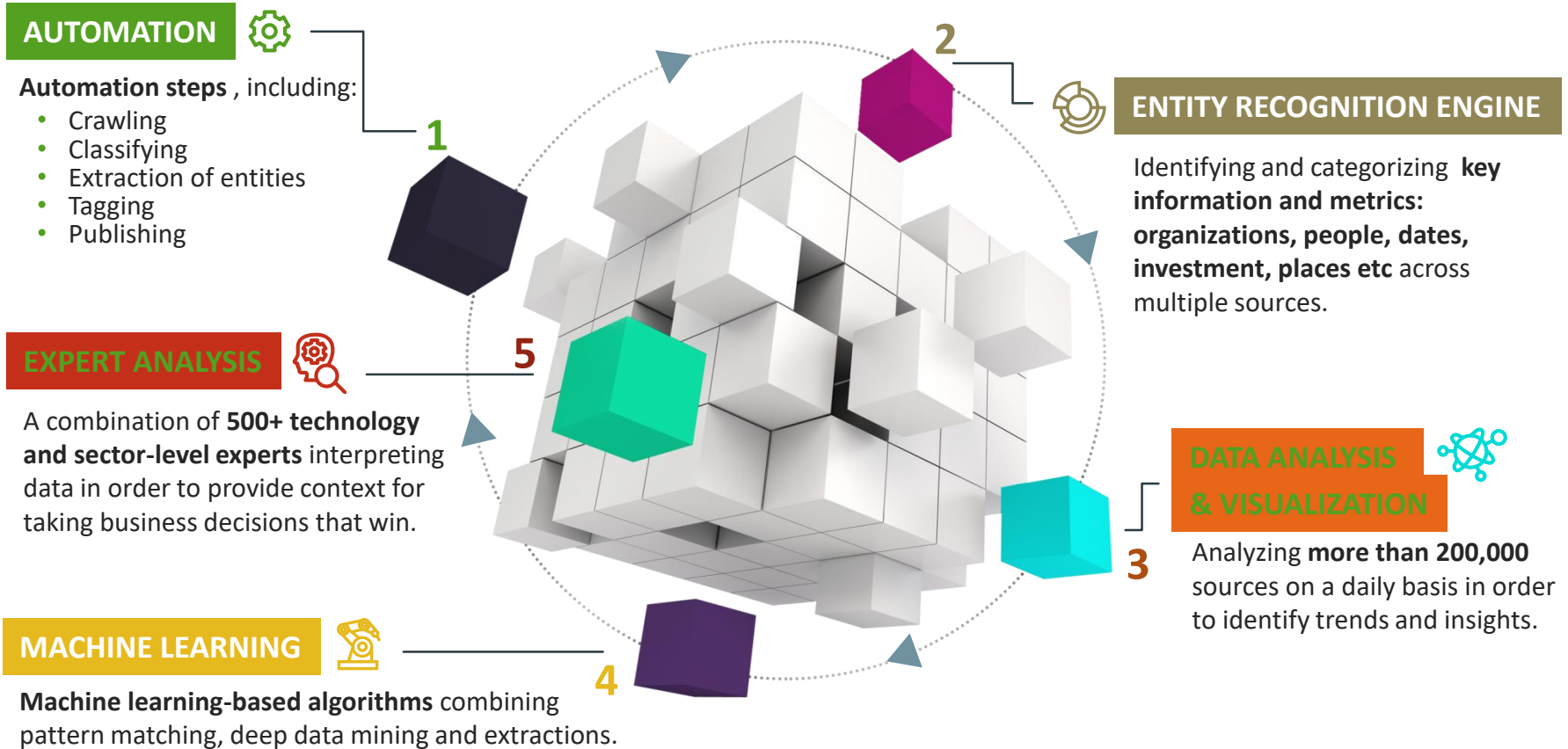
Our Intelligence Center delivers all our services through **a single platform, with combined search, browse, and alert functionality.**

- Technology
- Vertical

Our Intelligence Center offers a mix of data visualization, analytical tools, presentations, reports and export tools to slot seamlessly into your workflow.

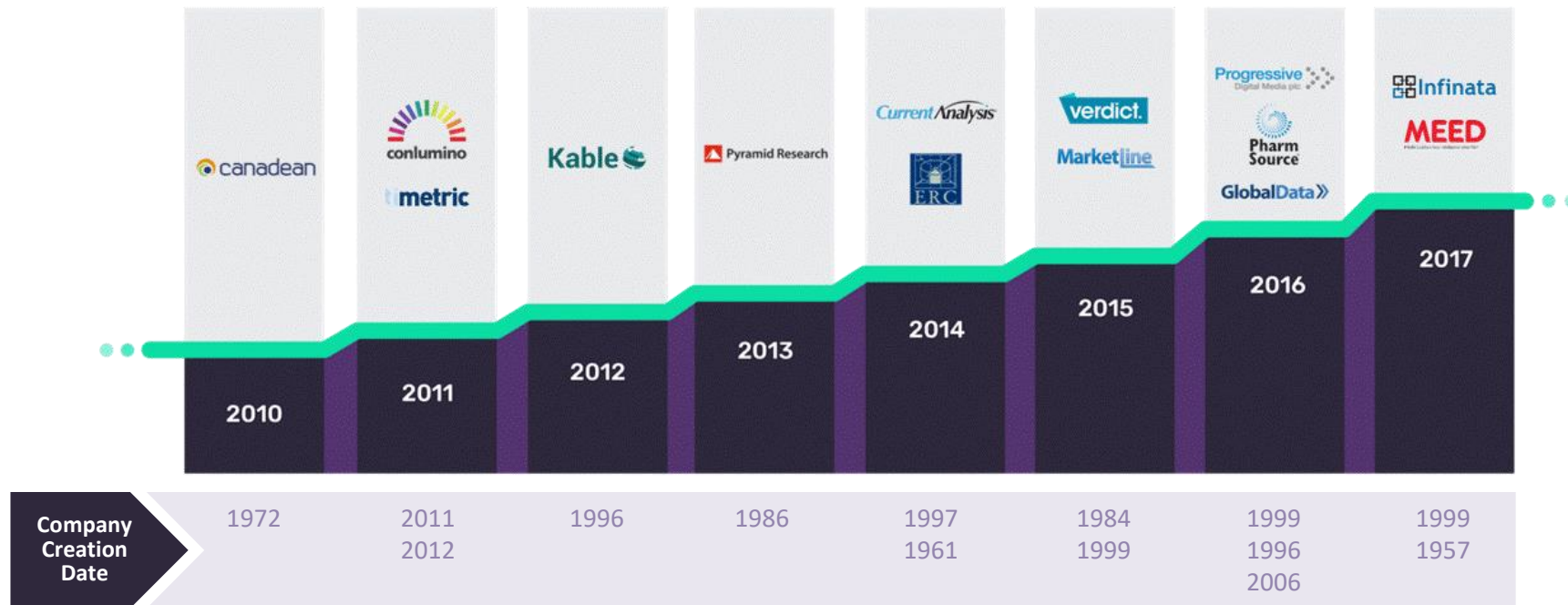


A combination of **machine learning algorithms, advanced data mining capabilities and expert analysis** guarantees **reliable and insightful outputs**, enabling your business to confidently make decisions that will drive top-line growth.

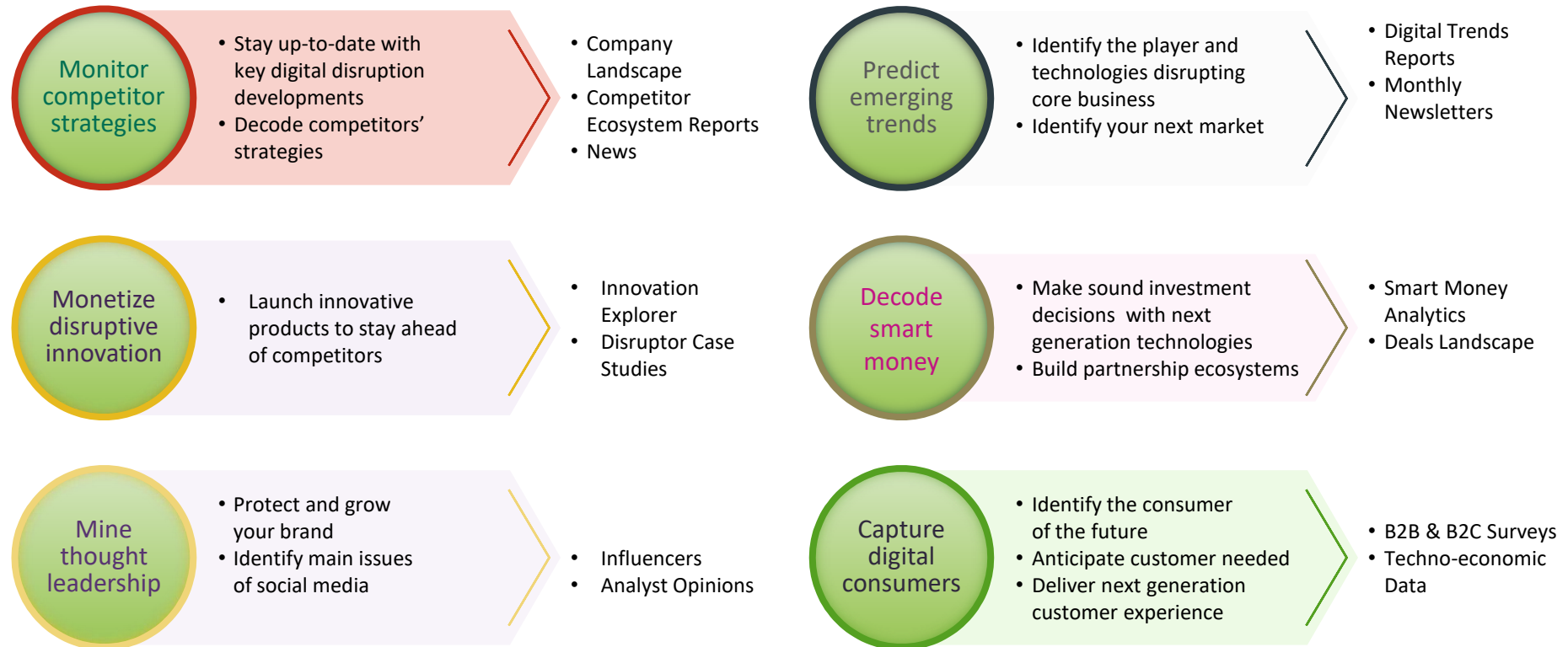


**GlobalData**, incorporated in 2016 based on brands with a long history, has now become the fastest growing Data & Analytics company in the LSE – 65% growth in 2016 and \$600M market cap.

## Acquisition Timeline



Access a complete offering with the intelligence, insights and opinions that will enable your business to **win in a disruptive world.**





## SEGMENT TECHNOLOGIES

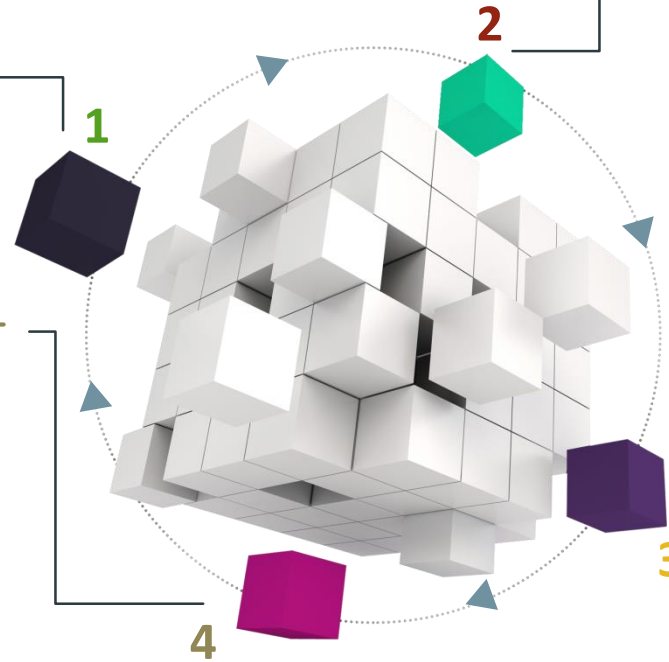


- Each technology is segmented into a set of individual use cases
- Vendors supporting each use case are identified

## IGNORE. EXPLORE. INVEST.



- Use cases are segmented into three groups:
  - Ignore – market not ready / no business impact
  - Explore – requires further investigation
  - Invest – high degree of market readiness and business impact
- Conclusions based on:
  - Market demand
  - Feedback from cross-section of enterprises
  - Expert analyst insights



## MARKET READINESS



- A market readiness score is provided using the following criteria:
  - Ecosystem readiness (state of the vendor community, extensible platforms, maturity standards, established deployment and consumption models, contained costs)
  - Customer readiness (established customer and geographic deployment bases, industry support, breadth of industry expertise)
- A score is provided on a scale of 0-10

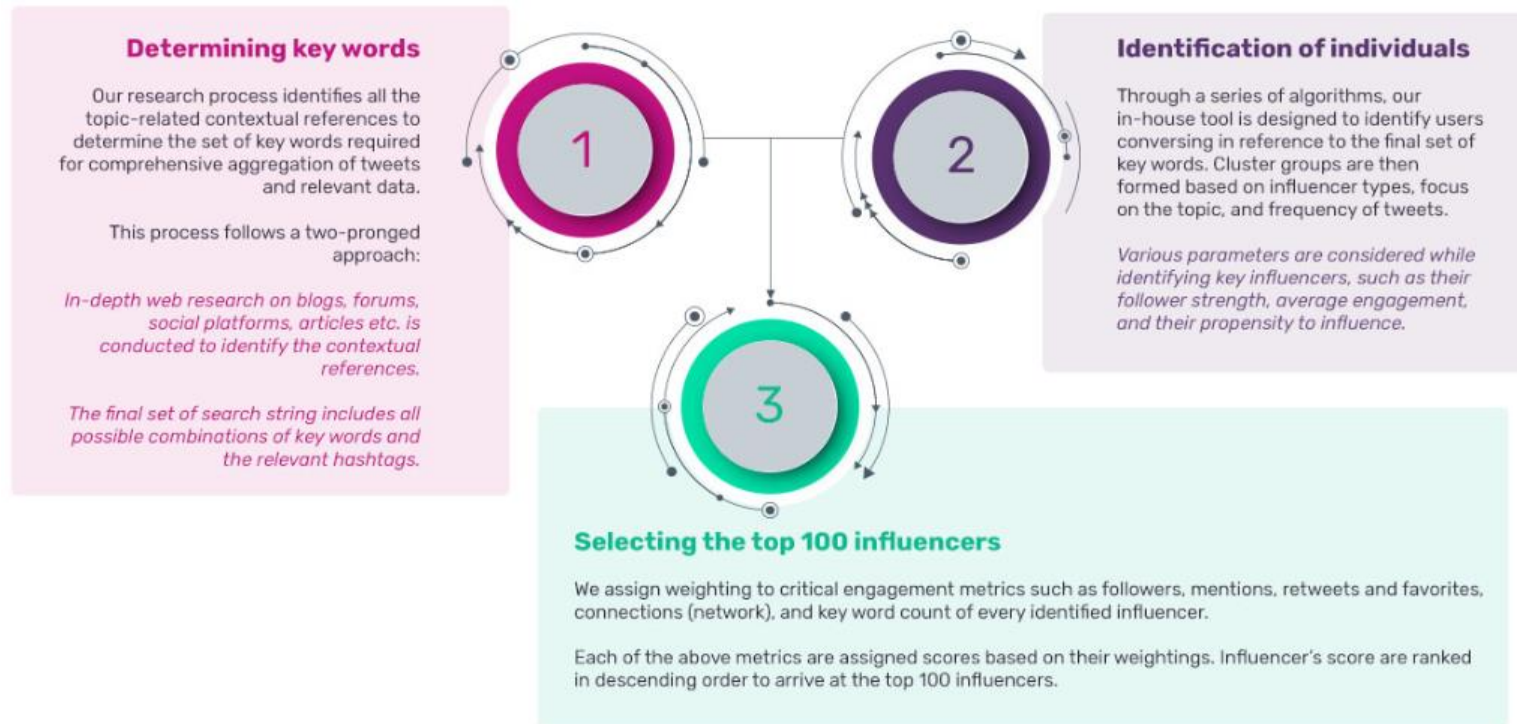
## BUSINESS IMPACT



- A business impact score is determined using the following criteria:
  - Cost reduction
  - Revenue growth
  - Proof points around market impact (displacement of older technologies, impact on competing technologies and vendors, and market projections)
- A score is provided on a scale of 0-10

The Influencers tool is based upon two main stages of Influencer identification, followed by analysis of the topics and level of influence of this group.

A **three step process** is followed: Initially, an exhaustive list of keywords is determined to define a project area . This set of keywords is then used as an input to a proprietary algorithm that results in a detailed list of the key individuals associated with these keywords. Finally, a series of algorithms is then used to determine the 100 most important influencers within this initial list.

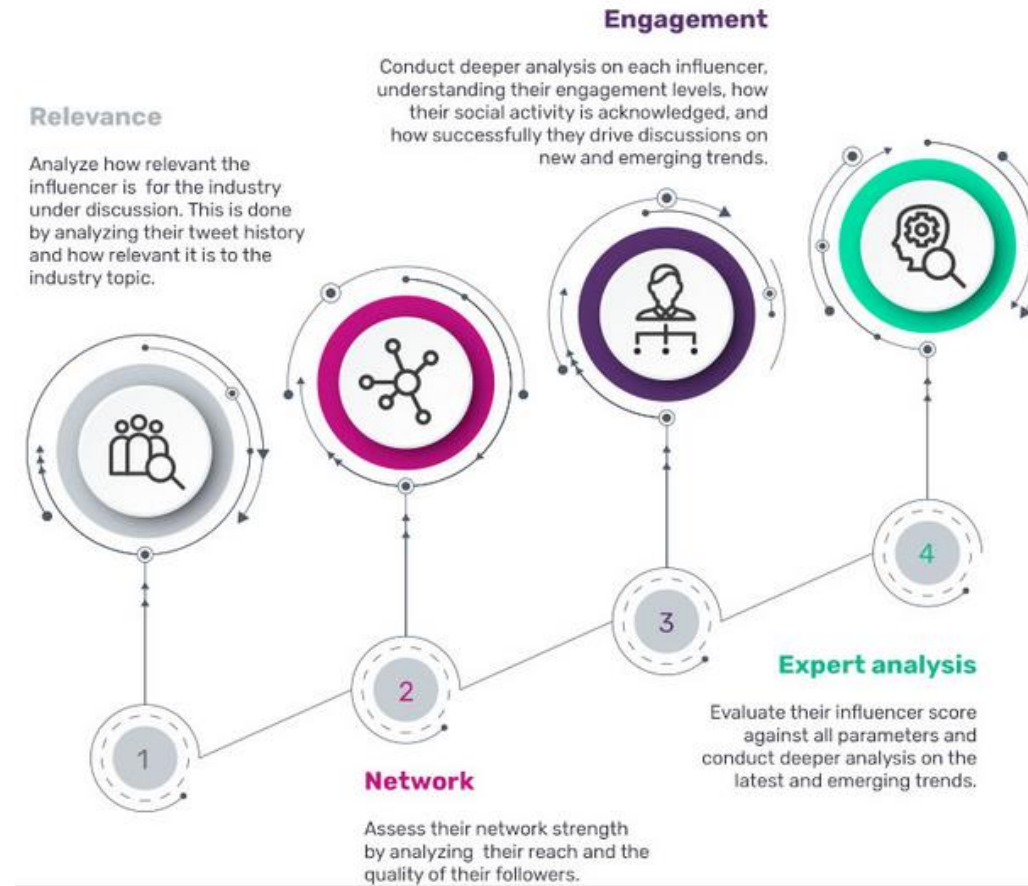


In the second and third stages of the process, a series of parameters are analyzed based on key pillars of relevance, network and engagement.

**GlobalData's proprietary Influencer Identification Framework is based on a scientific process that works on pre-defined parameters using our proprietary algorithms.**

Our multi-stage methodology works on the pillars of relevance, network, engagement, and our deep analysis by evaluating the following parameters:

- **Relevance** – Tweets relevant to our subject; the number of times influencers use relevant and most appropriate keywords in their tweets
- **Network** – Number of followers; connections within the shortlist of influencers
- **Engagement** – The number of times tweets are re-tweeted; the number of times influencers are mentioned
- **Expert analysis** – A combination of proprietary algorithms as well as inputs from in-house sector experts



# Reference and source

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4. 77 BUILDING BLOCKS OF DIGITAL TRANSFORMATION: THE DIGITAL CAPABILITY MODEL by Jace An | Aug 28, 2018
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6. Think in Systems: The Art of Strategic Planning, Effective Problem Solving, And Lasting Results by Zoe McKey | Nov 21, 2019
7. Agile Strategy Management in the Digital Age: How Dynamic Balanced Scorecards Transform Decision Making, Speed and Effectiveness by David Wiraeus and James Creelman | Aug 11, 2018