CIONET
What's next.

# CUSTOMER CENTRICITY

## THE CRITICAL IMPERATIVE POST COVID-19

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# EXECUTIVE SUMMARY

## CLOSING THE INNOVATION GAP – A CASE FOR ACTION

The first 20 years of the twenty-first century has been a tale of two competing enterprises: the traditional and the new. On the one side are traditional FTSE 100 and European incumbents many of which have witnessed a sustained period of slow growth in revenues, equity value and productivity. On the other side are new digital companies, which have emerged from the garages of their founders to generate trillions of dollars of new wealth, enabling the US economy to bound ahead as witnessed by record highs in the S&P 500 and NASDAQ (see **Table 1**).

This tale of competing enterprises has been played out with significant impact for the boards and CIOs of blue-chip businesses. Our 2019 report on 'Closing the Innovation Gap'[1] highlighted just where these discrepancies between traditional incumbents and fleet-of-foot digital natives might lie. Another unexpected twist has come with the emergence of COVID-19, which has thrown an even sharper spotlight on corporate weaknesses and potential areas for further development. Our research suggests now is the time for action – now is the time for incumbents to bridge the innovation gap.

**Table 1 –** Major equity market growth rates, 2000 to 2020

| Index | Market | Index 1/1/00 | Index 1/1/20 | 20 Year Growth | Per Annum |
|-------|--------|--------------|--------------|----------------|-----------|
| NASDAQ | United States | 4,069 | 8,973 | 120.5% | 6.03% |
| NYSE | United States | 6,876 | 13,913 | 102.3% | 5.12% |
| DAX | Germany | 6,958 | 13,249 | 90.4% | 4.52% |
| OMX 30 | Sweden | 1,199 | 1,772 | 47.8% | 2.39% |
| OMX 25 | Finland | 3,223 | 4,222 | 31.0% | 1.55% |
| FTSE 100 | UK | 6,930 | 7,542 | 8.8% | 0.44% |
| CAC 40 | France | 5,858 | 5,978 | 2.0% | 0.10% |
| AEX | Netherlands | 671 | 605 | -9.8% | -0.49% |
| FTSE MIB | Italy | 26,687 | 23,506 | -11.9% | -0.60% |
| IBEX 35 | Spain | 11,641 | 9,549 | -18.0% | -0.90% |

**Source:** 650labs, visit www.650labs.com

During 2020, CIONET has undertaken extensive interviews and research on both sides of the Atlantic to develop possible growth strategies for industrial incumbents across multiple sectors, with specific reference to customer centricity.

Our conclusion is that industrial incumbents' prevailing culture of operational excellence is no longer fit for purpose, especially with customers' growing appetite for hyper-personalisation and direct channel intimacy. To help incumbents survive and thrive in the post-COVID-19 age, we present a three-stage journey for the short term (immediate prioritisation), medium term (improved agility), and long term (radical rethink).

In all cases, the focus should be on the customer – outside-in thinking. We believe that embracing this fresh approach has profound implications for boards and CIOs at incumbents. The task now is for executives to help their organisations participate in active collaboration, to surround the core with digital capability, and to apply new technologies to maintain leadership and deliver great customer experiences.

| 1 | → | 2 | → | 3 |

| Do less things | Do things differently | Do different things |
| — | — | — |
| Stop optimising, start prioritising. | "Just-in-Case" replaces "Just in Time". | Re-envision the business. |
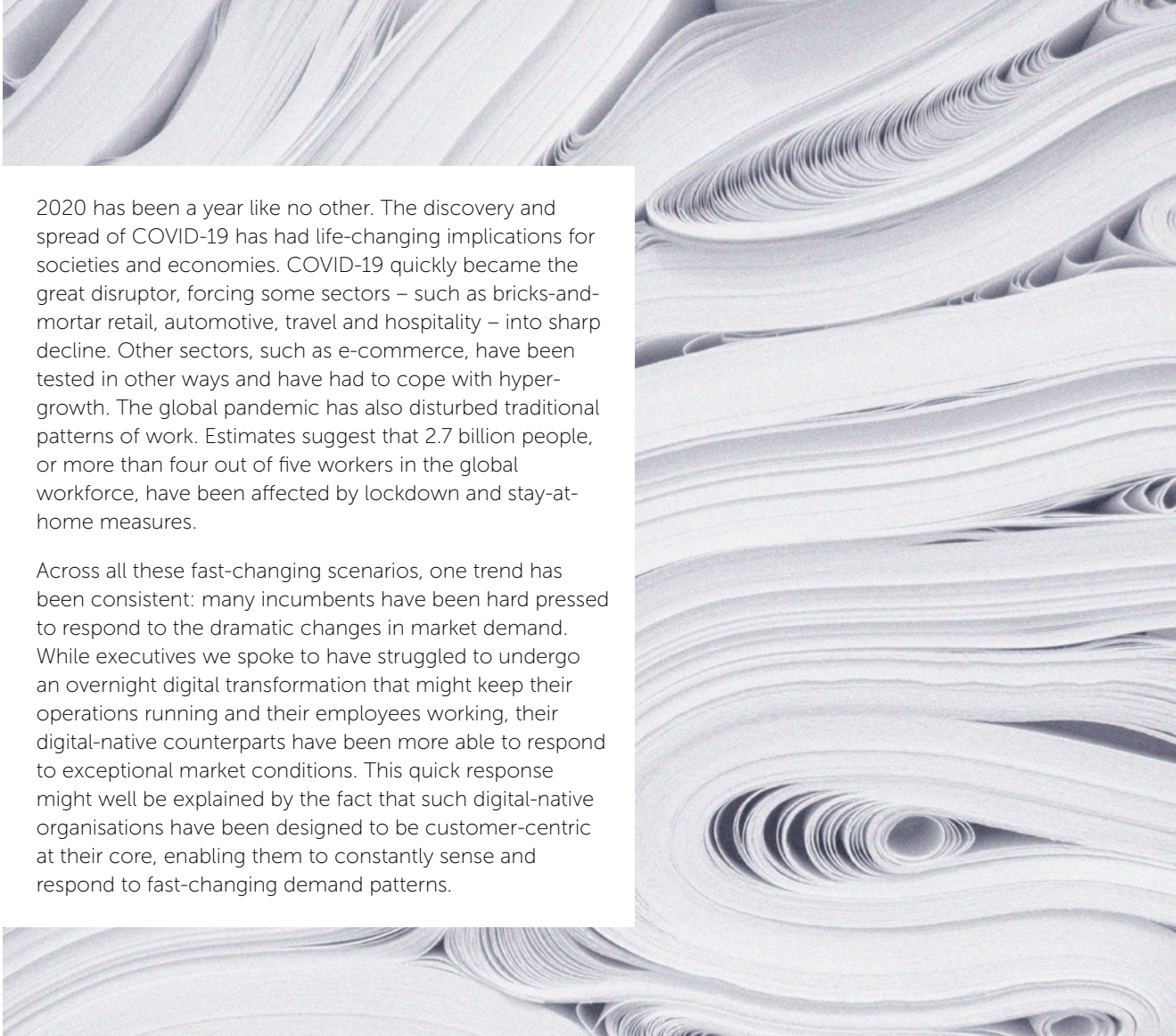
# COVID-19 –
# THE GREAT ACCELERATOR

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**" We are witnessing twenty years of change compressed into just twelve months "**

2020 has been a year like no other. The discovery and spread of COVID-19 has had life-changing implications for societies and economies. COVID-19 quickly became the great disruptor, forcing some sectors – such as bricks-and-mortar retail, automotive, travel and hospitality – into sharp decline. Other sectors, such as e-commerce, have been tested in other ways and have had to cope with hyper-growth. The global pandemic has also disturbed traditional patterns of work. Estimates suggest that 2.7 billion people, or more than four out of five workers in the global workforce, have been affected by lockdown and stay-at-home measures.

Across all these fast-changing scenarios, one trend has been consistent: many incumbents have been hard pressed to respond to the dramatic changes in market demand. While executives we spoke to have struggled to undergo an overnight digital transformation that might keep their operations running and their employees working, their digital-native counterparts have been more able to respond to exceptional market conditions. This quick response might well be explained by the fact that such digital-native organisations have been designed to be customer-centric at their core, enabling them to constantly sense and respond to fast-changing demand patterns.

Executives at incumbents must not allow this gap to widen. We recognise that most incumbent organisations have been working with a strong operational excellence mind-set and have to work within legacy structures, processes and systems. Now, more than ever, adopting a more agile mindset and approach will be key to surviving a post COVID-19 New-normal. We recommend a three-phase evolution to match and possibly supersede many of the newer digital leaders:

1. Do less things. Stop optimising, start prioritising. Focus on business continuity by delivering only customer centric solutions that enhance the customer journey

2. Do things differently. "Just-in-Case" replaces "Just in Time". Focus on organisational agility by using the 'voice of the customer' to influence all decisions across the organisation

3. Do different things. Prepare for the 'Ultra-normal'. Re-envision the business by focusing on new value-creation for the customer, enabled by new technologies and associated partnerships

Our report describes how incumbent organisations can complete this three-phase evolution. They must exploit the experiences they have built supporting highly efficient and globally distributed operations within the core of their businesses over many decades while also co-developing data-centric capabilities out at the edge that engage with and amplify the voice of the customer (see **Figure 1**). Adding these capabilities to deliver rapid and sustainable outcomes will involve new partnerships and collaborative schemes.

**Figure 1 –** Voice of customers in core and edge innovation
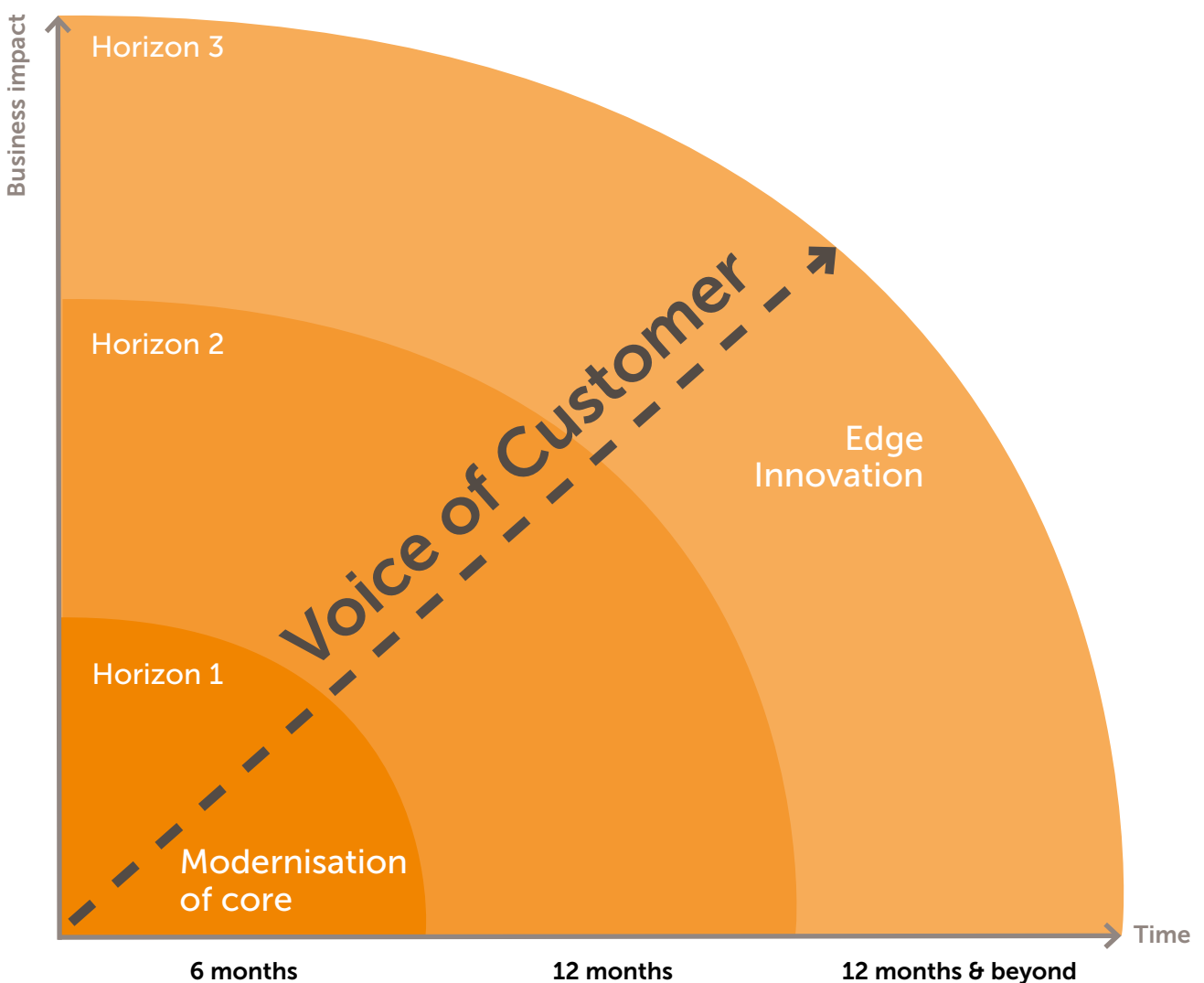
# RE-ENVISIONING THE BUSINESS THROUGH THREE TIME HORIZONS (3H)

So how can executives help their organisations to undertake a three-phase evolution that will enable their incumbent enterprises to match and supersede the newer digital leaders? We believe the Three Horizons (3H) framework, first identified by McKinsey consultants[2], provides a structure for incumbents to assess future directions, pivot and shift, and identify important growth opportunities without sacrificing a focus on the core concerns that confront their business in the present. We believe this three-pronged framework prevents the tendency for urgent requirements to take precedence over important priorities in businesses. Each Horizon corresponds to our aforementioned three-phase evolution stages. Across all three stages, we are advocating for the voice of the customer to form the core of all aspects of the business.

[2] Mehrdad Baghai, Stephen Coley, and David White, The Alchemy of Growth, New York: Peresus Publishing, 1999

## Horizon 1 (H1): Do less things — Stop optimising and start prioritising

Businesses should focus on rapid execution by implementing customer-centric and business-critical technology, such as big data, cloud, omni-channel services, predictive analytics and software as a service (SaaS), that has a direct impact on attempts to improve customer satisfaction and enhance customer loyalty.

## Horizon 2 (H2): Do things differently — Transformational agility

Businesses should focus on using the voice of customers to dictate incremental adjustments and transformational experiments in key areas, such as augmented reality, data analytics, deep learning, mixed reality and pulse computing. These fast-emerging technology trends will move to the core of the company in the coming years, either as central propositions or as replacements for current business models. This shift will require new competencies and new ways of thinking. This transition has the potential to fundamentally transform the company's revenue, business and organisational models.

## Horizon 3 (H3): Do different things — Re-envisioning your business

Businesses should explore emerging ideas, innovations and paradigms in the intelligent era that could form future growth pillars. Some of these innovations, such as biological computing, brain-machine interfaces and humanoid robotics, will be highly disruptive to current business models and organisational structures.

In our view, only by adopting the re-envisioning stage, through the lens of customers, can incumbents extract themselves from decades of stagnation and generate genuinely new sources of value for their customers, staff and shareholders.

More than ever before, the time is right for the role of CIOs to be propelled to the centre; CIOs must lead the customer-centric discussion of how the business will be re-envisioned by technology. This central role for CIOs will help organisations to embrace innovation.

**Table 2 —** The 3 Horizons framework on technology

| Horizon 1: Rapid Execution in the Digital era | Horizon 2: Agility | Horizon 3: Innovation in the intelligent era |
|---|---|---|
| Current paradigms, assumptions and infrastructure | Incremental adjustments and transformational experiments | Ideas, Innovations and paradigms |
| Big Data | Augmented Reality | Bio-Economy |
| Biometrics | Automated Analytics | Biological Computing |
| Cloud | Deep Learning | Brain-Machine Interfaces |
| Omni channel | Fog Computing | DNA Storage |
| Platform Services | IoT | Haptics |
| Predictive Analytics | Machine Learning | Holograms |
| Robotic Process Automation | Mixed Reality (+VR) | Humanoid Robotics |
| SaaS (also H2) | Networked Organisations | Material Revolution |
| Virtualisation | Prescriptive Analytics | Nanotech |
| Wearables | Pulse Computing | Phonics |
| | Swarm Intelligence | Quantum Computing |
| | The Edge | SmartDust – Internet of Nano |
| | Virtual Assistants | |
| | Volumetric Displays | |
| | XaaS | |
| | Zero UI | |

# GOALS AND SCOPE
# OF OUR RESEARCH

Our research programme was launched in April 2020 and completed in August 2020. It had three objectives in mind (see **Table 3**):

**Table 3 –** Scope and objective of research

What pre-pandemic customer centricity assumptions still holds true and which needs to be debunked?

What does the "New-normal" look like in the area of data, hypersonalisation and customer intimacy?

How should organisations collaborate in the area of customers' data/insights to create agility in supply chain models, enhance end-to-end customers' experience and/or co-create new business opportunities or revenue streams.

We interviewed key executives of Global 2000 and FTSE 100 companies to gain insights into possible weaknesses in current practices and potential areas of improvement (see **Box 1**).

**Box 1 –** Logos of organisations participating in the research programme

The topics covered in these conversations are summarised in **Table 4**.

**Table 4 –** Key interview questions relating to customer centricity

**Data is key:** How much data do you share to maximise supply chain efficiencies.
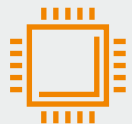
**Agility is critical:** How do you flex to respond to changes in customer demand.

**Collaboration:** How do organisations collaborate to gain greater customer insights.

**Board:** what will be the strategic priorities post pandemic.

**Vital Technologies:** which will be critical given Covid-19 lessons learnt.

We hope that the findings and conclusions of this research will help major incumbents to meet the many challenges and opportunities of a post COVID-19 era.

# TOP-LINE
# FINDINGS

## INDUSTRIAL INCUMBENTS
## VERSUS DIGITAL NATIVES

Research shows that industrial incumbents' prime mantra of "operational excellence" has been designed to optimise the supply of products and services sometimes missing the opportunity to create genuinely customer-centric organisations. This focus on operational excellence has helped to sustain incremental improvements in business performance, but has had an impact on equity value (as seen in **Table 1**) and on customer intimacy.

Incumbent organisations sometimes miss the chance to boost customer intimacy or build agile supply network that can flex to meet fluctuations in demand. In the former instance, some incumbent organisations have too many data silos that make it difficult for them to extract a "single source of truth" that can provide valuable insights about their customers. When it comes to agility, the rigidity of supply networks often prevents fast prototyping for new products and services at incumbents in our current VUCA[3] world.

Digital-native companies, such as Amazon and Google, have taken a different path since their inception. Unencumbered by centralised, legacy processes and systems that often date back to the 1980s, these digital-first organisations have adopted entirely different structures. They use modular structures that are based on micro-services that interact together through application programming interfaces ,or APIs. This modular architecture is easily adapted as demands change and places customer data at the centre of operations. As the majority of their

customers' interactions take place across electronic channels, these digital natives can use the data they collect to constantly monitor and then respond to changing patterns of customer behaviour (see **Table 5**). This agility has proven to be a significant advantage during the fast-changing economic environment that has characterised 2020.

To put this agile capability in pure economic terms, Apple recently became the first publicly traded US company to be valued at $2 trillion. In comparison, the FTSE100's total market capitalisation at the time was around £1.7 trillion. Tech companies have seen their equity values grow by 30% or more since January while many incumbents have seen a 15% to 25% decline in market value. This needs to be addressed urgently as the post-COVID-19 era – sometimes referred to as the 'New-normal' – begins to emerge.

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[3] VUCA stands for volatility, uncertainty, complexity and ambiguity. It is a management shorthand for the challenging modern business environment that draws on the leadership theories of Warren Bennis and Burt Nanus. Coined at the U.S. Army War College in the immediate post-Cold War period of the 90s.

**Table 5 –** Incumbents versus digital natives

| | Before Digital (Incumbents) | After Digital (Digital Natives) |
|---|---|---|
| Competitive mega-trends | Hardware, Products, Transactions | Software, Services<br>Lifetime customer value |
| Performance optimisation | Operational excellence<br>Consistency and reliability<br>Low cost | Adaptability at scale<br>Continuous experimentation<br>Speed and agility |
| Organisational Structures | Monolithic, Hierarchical<br>Management intuition | Matrixed service teams<br>Data driven decision making |
| Innovation | Projects<br>Stage Gates | Continuous improvement<br>Automated testing |

**Source:** Report on Closing the Innovation Gap 2019

> *The post-COVID-19 era – sometimes referred to as the 'New-normal' – begins to emerge.*

# CONSEQUENCES
# OF COVID-19 IN 2020

Companies have been under great duress to respond to quantum changes in demand as a result of the dramatic socio-economic changes created by COVID-19. While UK online retailer Ocada experienced a dramatic increase in customer inquiries, firms in other sectors – notably air travel – have experienced a drastic decrease in transactions volumes. Such extreme differences have exposed intrinsic weaknesses in customer intelligence and supply-chain flexibility.

However, if there is one positive consequence of the pandemic, it has been the speed at which organisations have been able to make decisions. In the words of our Innovation Council members, decision times have been compressed from weeks and months to days and hours. At the same time, executives have taken stringent steps to reduce the number of internal projects. One organisation reduced its project count from 140 to nine priority programmes. This process ensured employee effort was focused on key priorities, while also eliminating unnecessary effort and investment.

There is strong evidence that these changes will persist beyond the pandemic and will influence how incumbents operate in the future. In short, the genie is out of the bottle and will not be easily pushed back in, which creates important considerations for executives:

- Where and how do we work? A new era of distributed working will become the new normal

- How will companies interact with their customers, suppliers, and trading partners? There will be an increased prevalence of online interactions (see **Table 6**)

- How will social and family relationships cope with a more uncertain and volatile world?

**Table 6 —** Impact of COVID-19 on how customers interact across sectors

| Sector | Before | During | After | Direction |
|---|---|---|---|---|
| Using online banking | 56% | 79% | 69% | Towards ambient banking and finance, via an array of interfaces. |
| Online groceries as % of market | 8% | 12.2% | Operational excellence Consistency and reliability Low cost | Adaptability at scale Continuous experimentation Speed and agility. |
| E commerce as % of total sales | 18.1% | 30%, (33.4 % in May ) | 53% by 2028 | 17.2m British – (~25% of the population) is forecast to permanently change the way they shop. |
| Use of online learning tools | 35% | 65% | 82% | Towards smaller, modular content and courses, to a wider audience |
| Non-food online FMCG as % of total | 15.9% | 32.7% (June) | 53% by 2028 for total ecommerce | Towards immersive, virtual commerce. |
| Telehealth: GP consultations not done F2F | 30% | 77% | Ubiquitous | Towards consumer driven healthcare and decentralisation of locations. |

**Source:** Global Futures & Foresight. See www.thegff.com

*❝ COVID-19 has been a catalyst for changes that were long overdue ❞*

# THREE STAGES TO ACCELERATE GROWTH AND SUSTAINABILITY

We recommend that CIOs and boards at incumbents take a three-stage approach to help their organisations transition from an operational-excellence mindset to one that is genuinely customer-centric. Judging by the success of digital-native businesses in the first two decades of this millennium, we are confident that this three-stage approach will lead to sustained growth in value in the post-COVID-19 era. Here are the three stages:

## Stage 1: Do less things – Streamline business execution

The overarching message here is straightforward: stop optimising and start prioritising. The seismic disruption of COVID-19 in early 2020, including the move to cloud-based distributed working, has focused management minds on business continuity.

However, our interviews also reveal that pioneering companies are taking big steps forward in the way they relate to their customers, placing the customer journey ahead of core operations. In many cases, management teams have suspended hundreds of internal projects so that they can instead focus on the customer journey. Here are some examples drawn from our interviews:

- Harvesting the explosion of online data to gain better insights into customer behaviour. Here organisations needs to capture, anaylse and generate insights from data to enhance that captures, analyses and generates insights to enhance the customer experience. Media companies,

including Channel Four, are exploiting data generated through their on-demand streaming service All 4 to help improve the targeting of programmes to customers.

- Personalising customer data to improve the effectiveness of products and services. This trend is most prevalent in the pharmaceutical sector, where greater insights into individual genetic structures can potentially help to cure chronic diseases such as cancer. For example, GSK is partnering with genomics specialist 23andMe to help customise treatments and improve outcomes.

- Going direct to the customer. Consumer-product companies recognise that full visibility of customer-buying patterns is a prerequisite to anticipating new areas of demand. Such insights are helping to accelerate product and service innovations. Both Unilever and Avon Group are pursuing this path.

These customer-focused activities have been underpinned by the adoption of cloud platforms, data-lake technology and intelligent automation (artificial intelligence and machine learning) to help businesses manage the explosion of customer data.

## Stage 2: Do things differently — Focus on transformational agility

Few organisations have clarity about the post-COVID-19 future. This lack of clarity is demonstrated by the reluctance of many quoted companies to provide forward guidance on financial performance. The area of greatest uncertainty is around the shape and evolution of market demand, whether that's in the area of travel, finance, shopping, eating, education or fashion. Incumbents are trying to enter the minds of their customers by designing more intelligent products and services, making brands more relevant to a digital era, and implementing more adaptable operating models.

One of the key conclusions from our interviews is the realisation amongst executives that no single organisation can fight the battle against COVID-19 unaided. Partnerships are crucial to helping organisations develop transformational agility. Here are examples of how incumbents are forming partnerships to improve agility in uncertain times:

- **Flexibility of solutions** becomes a key success factor in an uncertain marketplace. In the commercial property sector, distributed working has called into question the way in which offices might function in the mid-to-longer term. Large companies, such as Schroders, have already incorporated home working into their terms of employment. Leading developers, such as Landsec, are responding by working closely with major clients to create adaptable workspaces.

- **Trust** has always been central to brand value. This reality resonates even stronger in the COVID-19 era, where customers of all businesses worry about their personal health and wellbeing. Hilton has formed a clean-room partnership with the Mayo Clinic and Reckitt Benckiser, which assures visitors that strict safety standards are being observed.

- **Agility** requires more flexible operating models. Kensington Mortgages has devolved many of its non-core business functions, such as IT operations, to qualified business partners so that it can focus exclusively on the customer journey and win ground against its competitors.

One consequence of current market uncertainties is the preparedness of executives to adopt a 'just-in-case' operating philosophy in place of 'just-in-time'. This has profound consequences for supply-chain relationships, including the need to share customer data with all parties. This sharing of data implies the need for a hyper-connected ecosystem of suppliers. Once again, cloud adoption plays a key role and can assist businesses as they seek to build new and agile operating models across multiple parties.

## Stage 3: Do different things — Re-envisioning the business around customers

The risk of disruption means organisations of all sizes had already begun experimenting with new ways of engaging their customers prior to the coronavirus pandemic. These experimental efforts have intensified during the COVID-19 outbreak, as competition from digital-native leaders continues to increase and compel traditional incumbents to consider radical thinking. For example, a great deal of effort has been focused on simplifying online interactions to encourage loyalty. The bar was set by Amazon's 1-Click Ordering system. Other companies, such as EasyJet and esure, have followed Amazon's lead.

Our research has identified some leading examples of how incumbents have adopted new ways to engage customers and business partners:

- **Improving the customer experience.** Disney introduced its MagicBand wristbands as far back as 2013 at a cost of $1 billion. These RFID-enabled bracelets help to improve the experiences of theme-park visitors, such as enabling fast access to rides. These bands also simplify transaction processes, such as parking fees, hotel access and restaurant payments. The project increased visit time by as much as 50% and paid for itself in just three months.

- **Streamlining order entry.** McDonald's introduced touch-screen kiosks in 2015 to reduce the load on front-counter staff. The results of this technology adoption were surprising. The average transaction value increased as customers decided to opt for more indulgent meal choices. The kiosks also gave McDonald's up-to-the-minute information on consumption, enabling the company to optimise the flow of ingredients across its entire supply chain.

- **Adopting a data-centric business model.** For organisations such as the UK's Financial Conduct Authority (FCA), the ability to capture and store vast quantities of data on the public cloud has created new possibilities to serve both businesses and citizens. Extracting data electronically from some 56,000 regulated organisations to a cloud-based data lake has allowed the FCA to apply powerful data-science-based techniques to the information it holds. This streamlined process saves time by sponsoring a pull rather than push mode of information transfer. The process also helps the FCA to produce better information faster for the citizens it serves.

In all these examples, a combination of technology – such as cloud, wearables and data analytics – has opened entirely new business opportunities for organisations to connect with customers and business partners.

# PREPARING FOR THE 'ULTRA-NORMAL' RATHER THAN 'NEW-NORMAL'

While the examples above illustrate the willingness and determination of incumbents to evolve from a deep-seated operational-efficiency mindset, senior executives also recognise that more radical steps are necessary in a post-COVID-19 era. The remarkable growth of digital natives in the recent decade suggests that incumbents will only grow their businesses and deliver outstanding shareholder value by putting the voice of the customer at the centre of their operating models. This requires a radical cutback on internal bureaucracy, more rapid decision making, and a genuine outside-in mentality to business.

We have identified a framework for helping to transform incumbent business models to prepare for what we refer to as the 'ultra-normal':

- Identify gaps. By focusing exclusively on the 'customer journey' businesses can seek out new sources of revenue relating to current gaps. Starbucks launched a mobile app to pre-order food and drinks in 2015. This helped customers avoid queues and has increased revenues by 30%

- Build and Test. Incumbents can use collaborations or joint ventures to gain access to data-centric business models that help to connect core operations with the end customer. This is the case with the GSK and 23andMe joint venture, where the latter holds unique genome data on large sections of the population. Such data gives GSK new insights to innovative across products and services.

- Simplify the core. By stripping down legacy applications and structures into their component parts, incumbents can find agile partners that are more flexible and relevant to modern times, such as how Workday has changed the provision of HR. This helps businesses to simplify internal structures and focus on the end customer.

- Adopt new techniques. This decade will witness a new wave of technologies and specialist companies in fast-maturing areas, such as the Internet of Things, 5G, artificial intelligence (AI), 3D printing, and public cloud. The ability to make use of these innovations for customers will be a key imperative for senior executives. Now is the ideal time to evaluate and apply new thinking at the front end of the organisation, while also connecting practical lessons from such experiments back to the core.

# IMPLICATIONS FOR THE BOARD AND 'C' SUITE

COVID-19 has galvanised management attention on the importance of enhancing the customer journey rather than just modernising the factory. Operational efficiency is simply table stakes – success in the post-COVID-19 era will require a constant focus on the customer. This realisation has important implications for the board and the C-suite:

- Place the customer at the centre of all conversations. This is a radical departure from an operational-excellence mindset. Many internally focused digital transformation projects should be reconsidered in favour of customer-facing initiatives.

- Engage in co-development with your customers to fill value gaps. Launch live experiments with customers and ecosystem partners to test out new ideas. Cadbury, for example, has recently asked its consumers to vote on a selection of new chocolate bars to identify the most popular flavours.

- Intensify market intelligence by employing a Data Wheel framework (See **Figure 2** below). This will help organisations to absorb and then make better sense of the exponential growth in customer data derived from e-channels of all kinds. Find partners who are equipped to support such efforts.

- Continue to reduce the complexity of legacy systems within the core in favour of more flexible SaaS components resident in the public cloud. This shift will provide the operational agility to cope with rapid changes in market demand.

**Figure 2 –** Data Wheel – Model for data centric businesses
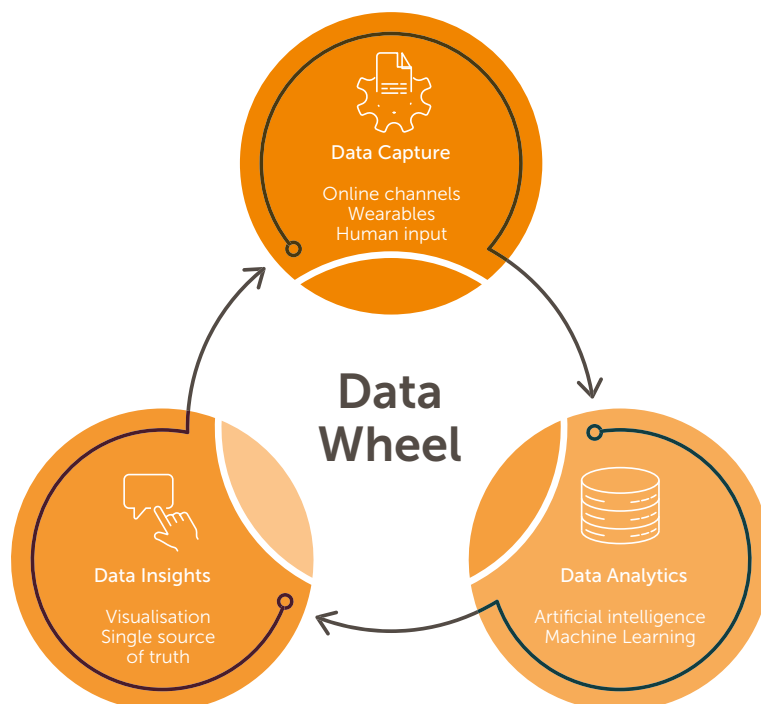
# IMPLICATIONS
# FOR CIOs AND CTOs

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**"** *The CIOs and CTOs who can speak the language of the customer and the business with the board may well find themselves qualifying for CEO positions as they help their organisation evolve in the post-COVID-19 era* **"**

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Creating an agile and customer-responsive business has profound implications for the IT function as well as other members of the C-suite. CIOs and CTOs should reduce time spent on day-to-day operational matters and focus instead on post-COVID-19 strategic imperatives, especially in H2 & H3 scenarios. Our interviewees offer four imperatives for IT:

- Engage directly in customer-facing activities, working together with heads of marketing (CMOs) and sales (CSOs). This will include participating in pre-sales and bidding processes in a business-to-business context, and in every aspect of the customer journey in a business-to-consumer context.

- Experiment with advanced techniques and partnerships in areas such as AI and machine learning to gain insights from the explosion in customer data that is now available through e-channels and wearables.

- Continue to automate back-office and supply chain-workflows to improve the quality and timeliness of decisions. Intelligent automation can help reduce the pressures on front-line staff, such as in contact centres, by supplementing human dialogue.

- Accelerate the journey to the cloud to clean up and aggregate customer data, and reduce the reliance on legacy applications. Cloud has the potential to help upgrade the entire enterprise architecture, as is already the case in digital-native enterprises.

# IMPLICATIONS
# FOR THE FUTURE

The race is on to respond effectively to the COVID-19 crisis. Our research suggests re-envisioning corporate strategy to suit the post-COVID-19 era, or what we call the 'Ultra-normal'. In this Ultra-normal world, we believe a range of technologies will emerge and could have significant implications on societies, economies and businesses (see **Table 7**).

**Table 7 –** Future Implications

| Source of data | Where are we know | Where are we going? | Future implications digital |
| --- | --- | --- | --- |
| **Size of global data** | 59 ZB globally | 175 ZB by 2025 | A new GDP – gross data product – could become a measure of wealth and power of businesses and nations. |
| **Cloud** | 33% of data stored in public cloud | 2025: 49% of the world's data in public cloud. | Amount of global data stored and analysed is forecast to rise from 1% today to 37% by 2025, implying up to $5 trillion in annual benefit. |
| **IoT & Edge** | 7m networked sensors 4,800 connections per minute. 4.4 ZB of data. | 2027:150m networked sensors 2025: 152,000 connections a minute 2025: 79.4 ZB of data. | The IoT will radically shift the relationship between consumers and producers, and potentially inbuilt into everything from food packaging to clothes and infrastructure. 81% of execs believe that industry boundaries will dramatically blur as data reshapes industries into interconnected ecosystems. |
| **Wearables** | 118.9 million units | 520.1 million units in 2025. Wearable AI market forecast at $180bn by 2025. | Intelligence-amplifying devices will become our primary interface with the world. Personal computing will change significantly as a result, shifting org. models and business models too. |
| **Connected Worker** | 402m in 2019 | $4.3bn in 2030 Enterprises are projected to use 1bn+ virtual digital assistants by 2025. | Every typology of new 'connected device' – AR, VR or AI – will lessen/reduce the knowledge barrier between an individual and the organisation. It will provide a new paradigm of platform from which to connect with stakeholders. |
| **Connected Cars** | 4 terabytes of data are created from each connected car. | 2030 could see AVs generate more data than the earth's entire population did in 2018. | Connected cars and AVs will have a rippling impact far beyond the auto and transit industries. Sectors ranging from 'insurance and healthcare to energy and media have been considering how to create value in this emerging environment. |
| **Smart cities** | | By 2030, one smart city is forecast to generate more data than all AVs combined. | Smart cities could generate $2 Tn of business by 2025 43% of business leaders are looking to move offices to cities with a compelling smart city vision. |
| **Real time data** | 15% of all 2017 data | ~30% of all 2025 data | By 2025, nearly a fifth of the data generated worldwide will be marked as 'critical' to daily life, and nearly a tenth seen as 'hypercritical.' |
| **Data centres** | ~ 20% of enterprise data is produced & processed outside central data-centres. | By 2025, that is expected to rise to 75% and could even reach 90% around 2030 or later. | By 2025, more than 50% of data will be managed autonomously. What data we hold and what we do with it could be the life and death of our companies. |
| **Business vs Personal** | The consumer share of global data is around 50%. | The consumer share is forecast to decline 4% by 2025, with enterprise share growing. | Network effects and the scalability of digital techs may give rise to third-party data marketplaces, both for personal and enterprise data. Data ownership, access and models will all change. |

**Source:** Global Futures & Foresight. See www.thegff.com

We recognise the task of transforming the core will be herculean for most Global 2000 and FTSE 100 organisations. In fact, it could take decades to introduce entirely new digital architectures. We recommend an alternative approach that creates a new digital layer around the core to accommodate all customer-related interactions. The creation of this new layer is likely to require partnerships with digital natives. The benefits could be a step-change in customer experience and an acceleration in the development and testing of new products and services across a range of sectors (see **Table 8**).

**Table 8 –** What comes after 'what comes next'

| Sector | Building on accelerated digital |
| --- | --- |
| Banking | Banking moves beyond finance, with IoT connected devices and zero UI interfaces, such as mixed reality, all tied into delivering data in ways that add value for the consumer (e.g by saving money, switching out suppliers etc.). |
| Groceries | Automated shopping bots able to customise shopping lists and seek best prices. |
| E-commerce | The future of e-commerce may be in combining livestreaming and entertainment, or via social shopping. |
| Online learning | The whole notion of consumer-centrism is rewritten if organisations open-up B2B models, partnerships and networks. Higher education could become a key part of daily life for a much wider range of adults. |
| Non-food FMCG | We are likely to see an enhanced version of existing virtual assistants, able to interrogate a wider range of web-based information, deals and so on while also becoming key adjuncts for brands' marketing. |
| Telehealth | At home diagnostics, smart-home health systems and the Internet of Health. |
| Videocalling | Third spaces (virtual) able to foster collaboration more naturally than current models and enabling globally sourced input. |

**Source:** Global Futures & Foresight. See www.thegff.com

We believe the most important recommendation to emerge from this research programme is to embrace the voice of the customer in every business conversation, whether that's in the back office or the front office. Only by doing so will corporates change the narrative and create the necessary cultural environment to accelerate the much needed changes that will help to bridge the innovation gap.

*“Put your customers at the centre of all your business decisions ”*
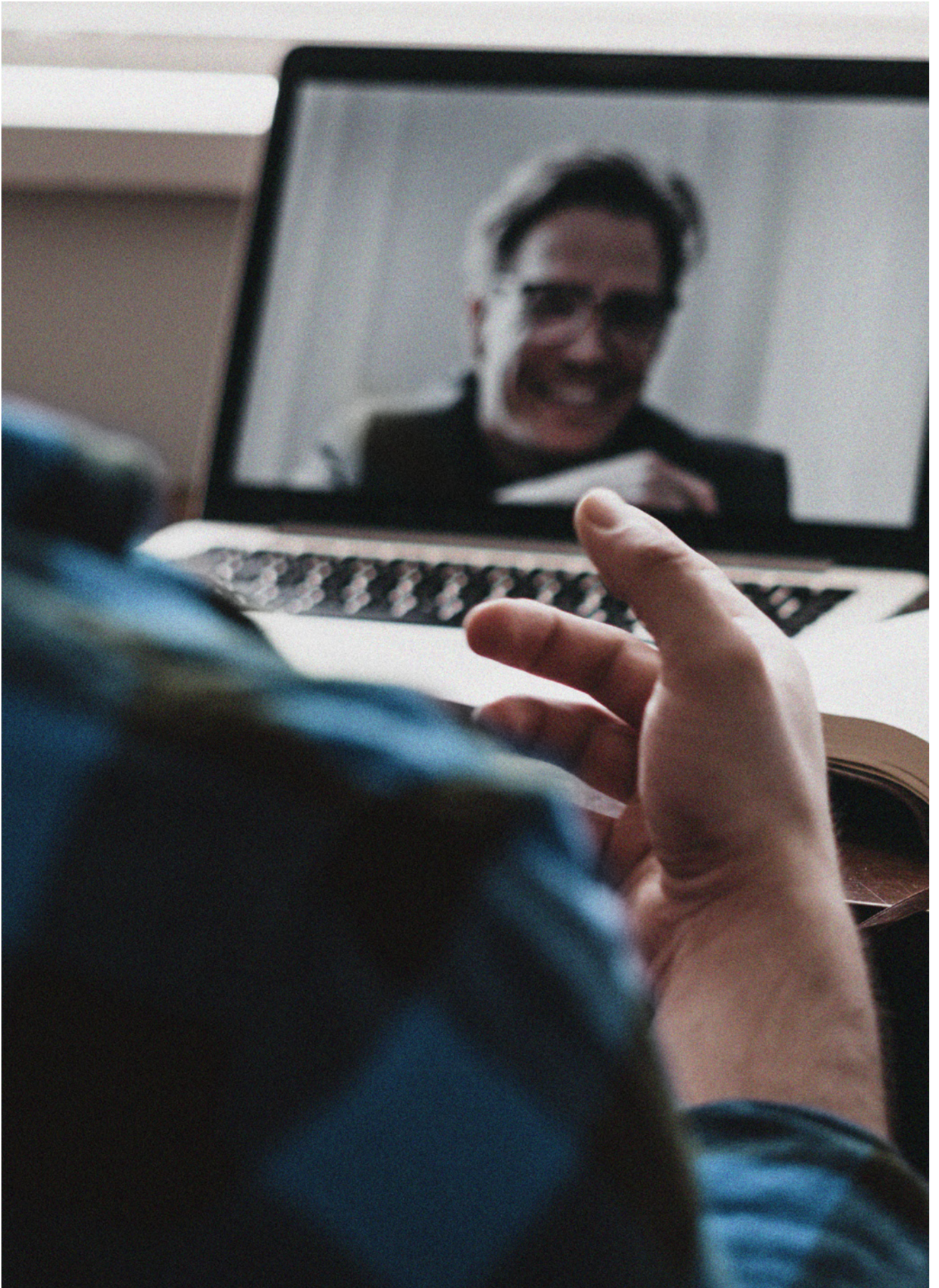
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## About CIONET

CIONET is the leading community of IT executives in Europe and LATAM. With a membership of over 7000 CIOs, CTOs and IT Directors, CIONET has the mission to help IT executives achieve their aspirations. CIONET opens up a universe of new opportunities in IT management by developing, managing and moderating an integrated array of both offline and online tools and services designed to provide real support for IT executives, so they can do more than just keep up with change but ultimately define it.

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