

# Insight guide: IT, Technology & Communications

The way you see the world depends on where you stand. But, what if it's your stance that's the problem?

There is an urgent need for businesses within the IT, Technology and Communications (ITC) sector to consider a fundamental change of position. Thinking horizontally, not vertically. Looking across, not down. Creating partnerships with others to build more complete solutions. Supporting their customers needs and exceeding the expectations of those customers by providing them with far better outcomes.

It's the only way to thrive in a world where boundaries are becoming meaningless, and services are fluid. B2B, B2C, B2B2C, are formulas that have lost their luster. Now, it's X2X via XaaS – Anything to Anyone, Everything as a Service. As Apple Computer put it way back in 1984 'Think Different.' Forget the old grammar, learn a new one. In fact, remove the grammar of traditional business and be brave enough to reinvent yourself. Remove old definitions, siloes, and chains of command.

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# Introduction: Think horizontally. The new role of IT, Technology and Communications

The digital age has driven a scale and pace of change that has transformed business and society and business, economic and society. Cash generated is ploughed back into the next wave of new technologies such as AI, MEC, IoT, 5G, Robotics, 3D printing, VR/AR and Quantum Computing. In turn, these deliver the next wave of innovative products: packaged up XaaS, available on-demand anywhere at any time, acquired frictionlessly and with limitless cloud scalability they will both disrupt and invent completely new markets in future. Digital technology and connectivity are what defines the modern world. Everything is connected, or if it isn't, it soon will be.

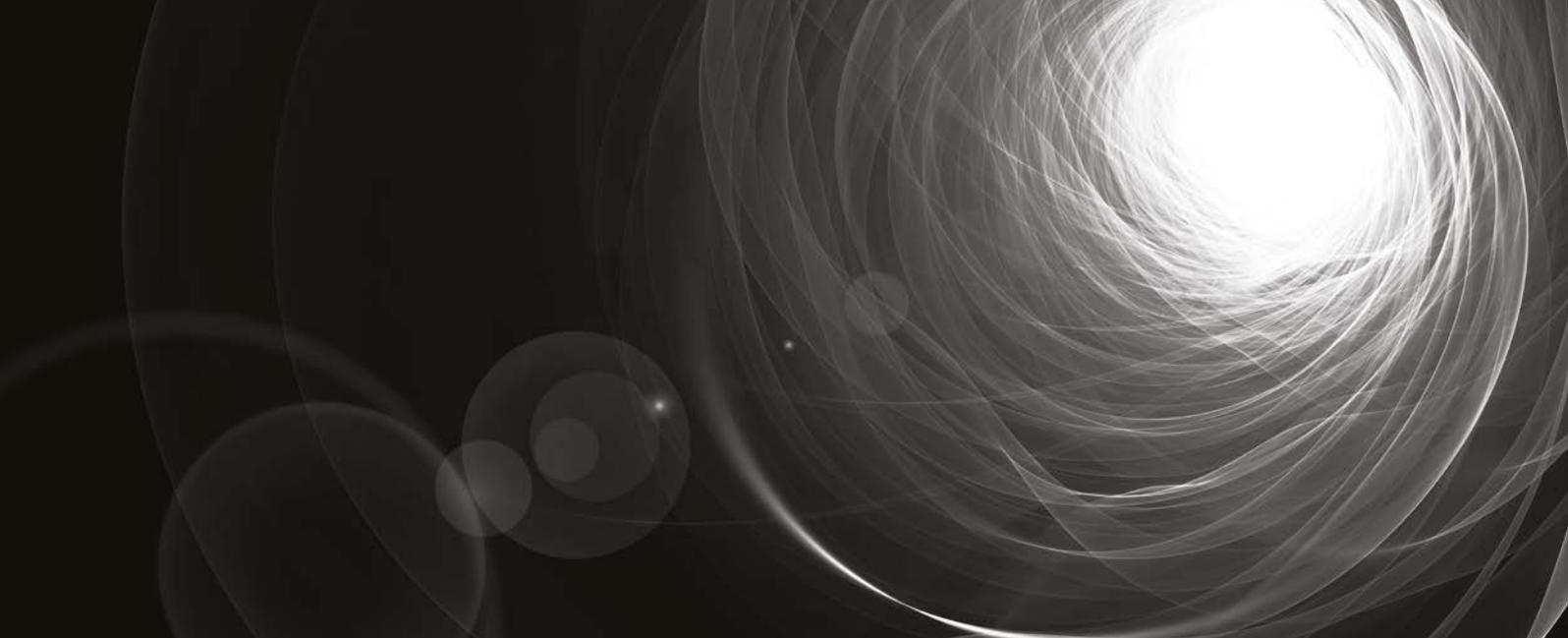
Whilst IT, Technology and Communications (ITC) companies are in the vanguard driving these new digital technologies, they're not immune themselves from falling victim to these disruptive forces reshaping their markets and value networks, because they are both creators and consumers. Large R&D driven ITC companies with the scale to fund multi-year investment programs conversely find that the structures and processes created to operate at global scale and secure funding also makes it much more difficult for them to alter course.

You only have to look at the rapid demise of ITC market leaders over the last 30 years. Whether it be DEC, Data General and WANG in mini computers, Kodak in cameras or the rapid consolidation of industries from the many to just a handful. This has impacted almost every ITC market from consumer electronics to enterprise search. Indeed, the digital age with compelling new business models, partner ecosystems and digital platforms generating powerful direct and indirect 'network effects' is one of winner takes all.

**You can sympathize therefore with the many challenges the ITC sector faces:**

Hi-tech product developers need to continuously innovate. Playing safe is investing in sustaining innovation ('red oceans') to fight competitors by continuously adding new features to existing products; and incorporating new technology and personalization. In parallel, it's about managing the manufacturing process to continually drive out costs to offer more functional products for the same or less money. It relies on the immutability of existing sources of competitive advantage, barriers to entry and Porter five forces.

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In contrast, riskier disruptive innovation is embracing new digital technologies and importantly also, new business models, to create new markets and value networks ('blue ocean') and displace established market-leaders by offering something radically better.

Inventing new products is more difficult especially as customers aren't demanding them and innovations often threaten to cannibalize existing sales presenting tough choices. Whereas sustaining innovation seems safer, it doesn't always mean customers value new features ('overshoot') allowing disruptors to position a more focused or radically better product or price point.

This is the story of Apple displacing Nokia in mobile handsets, a company which heavily invested in innovation, with strong product launch and market segmentation capabilities and which met customer demand by channeling sustaining innovation into incrementing battery life to win in the 'red oceans' and not smart phone technology, an undefined new need in the 'blue oceans'. The rest is history. Aligned with the iPhone was a new business model (Apple App Store), with an open ecosystem driving a new source of competitive advantage for the digital age and new levers (like 'network effect') to continuously raise barriers to entry.

Whilst physical and digital lines are blurring with new products and business models sold XaaS, so are vertical industry boundaries: Amazon sells everything, but it also develops technologies through Amazon Web Services which is now a market leader in compute, storage, databases, analytics, networking, IoT, security and enterprise applications. Is it an ITC company or a retailer?

It's both and much more. Apple makes movies; Facebook is deciding what's real news and its Open Compute Project shares the most efficient data center hardware designs for scalable computing; Google is trying to beat Uber to transforming mobility with autonomous drive; the list is endless. What happens if all traditional companies respond to the digital age by becoming part-ITC themselves?

Is this blurring of ITC boundaries a real threat? Potentially yes, but only for ITC businesses that are set in their ways and not willing to adapt. A middle-aged, vertically led industry feels comfortable with boundaries and limits. It is 100% focused on traditional competitors not seeing the real threat comes from without. It tries to dictate to customers what they need, want and when they can have it. It focuses on incremental growth more than disruptive innovation and new business models (even though it says the opposite). And it feels threatened by open ecosystems. In contrast, no other company has been as successful as Amazon at building its brand around the customer – so even if ecosystems are too fluid, too messy and the outcomes too unpredictable – if this delivers the best customer outcome then this is what has driven Amazon's strategy.

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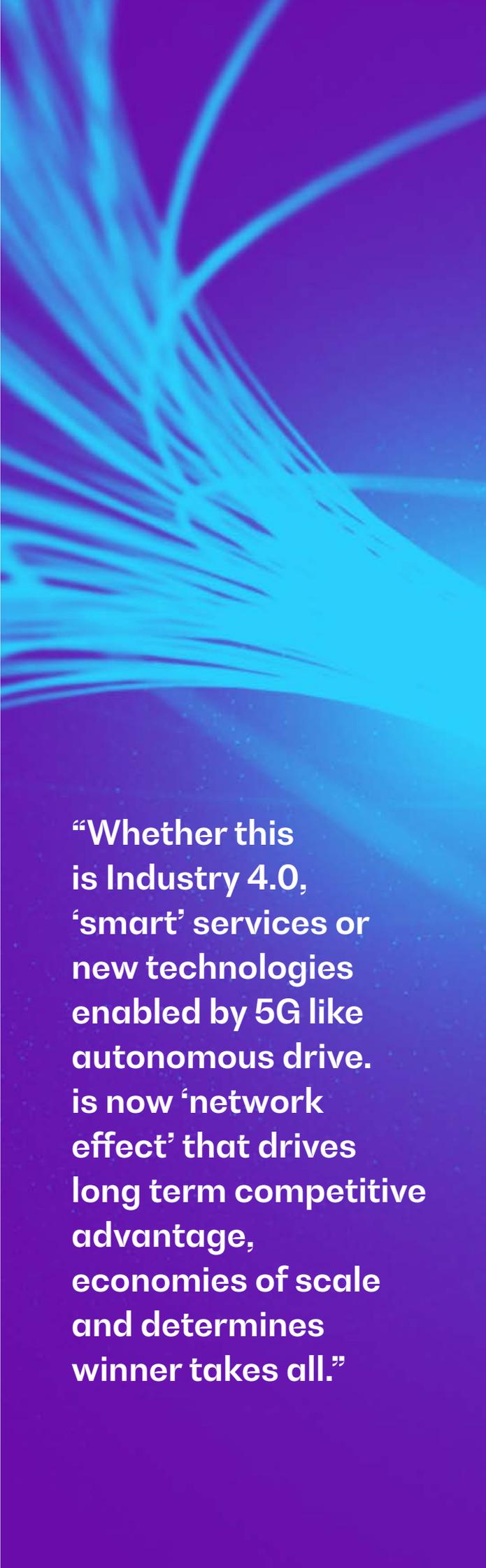
Digital technologies supercharge growth and help build powerful new – horizontal multi-sided – business models. Resulting in deeper and advantageous changes ending existing and historic barriers to entry.

Ease of scaling linked with near 0% marginal cost of growth, ability to virtualize then seamlessly add and combine digital services together, super low cost/frictionless customer acquisition (enabling ‘lean startup’ based experimentation and innovation), ubiquity of trust (register online with Google+ or Facebook), accessibility of every platform to any potential customer anywhere and a rich seam of customer data to mine. Enterprise scale is no longer a necessity and startups can disrupt ITC. It is now ‘network effect’ that drives long term competitive advantage, economies of scale and determines winner takes all.

Now is the time for the ITC industry to reposition as end customers embark on far reaching transformation to make far greater use of digital technologies to reshape their business. Opening up white space, horizontal markets and a new set of customer problems that the ITC industry can help solve. Whether this is Industry 4.0, ‘smart’ services or new technologies enabled by 5G like autonomous drive.

So what is the opportunity? The tech giants and the digitally adept who are seeing most success are not leading just because they were first to market with disruptive new technology. They’re seeing success because they’re breaking business model tradition to get closer to customers: building multi-sided ecosystems around digital platforms which cross the usual vertical industry divide. They draw on the experience and capabilities of partners who bring real value to what gets delivered to customers and generate network effect.

It’s this dynamic that is revolutionizing customer experience, changing the way innovation is run and opening up ‘blue oceans’ for exciting and disruptive new products and services. What customers really want are seamless services that know no boundaries, technical or sectorial. They want everything and anything as a service, and the old B2B/B2C models are no longer fit for purpose. Now everything is about joining up the chains to be B2Bx2Xx – any way that delivers revenues and customer satisfaction.



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# Our expert contributors

In this Insight Guide we're going to help you start the process and 'think differently' about your market and what you could and should offer your customers. We also investigate the role of the 'digital platform' as the enabler of partner ecosystems, innovation and all-important network effects. Success depends on a broad and frictionless ecosystem of partners and at the heart of the proposition lies the utility of BearingPoint//Beyond, a deceptively simple platform that enables the new business models where players create, orchestrate and exploit ecosystems to achieve operational efficiencies, drive innovation, and deliver against customer expectations.



**Henri Tcheng**

Partner at BearingPoint and Global Leader for Consumer Industries

Henri is a Partner and member of the Firmwide Management Committee, where he is in charge of Consumer Industries, and the Communications, Media and Entertainment practice. Henri has developed specific expertise in both network business models and regulatory issues for the telecom and media industries: strategy, customer relationship management, performance management, finance, regulation, strategic costing, accounting and organizational separation, network access by 3rd parties, and cost-based pricing.



**Angus Ward**

Partner & CEO Digital Platform Solutions

Angus brings 30 years of consulting and solutions experience, helping organizations across many industries transform their business/operating models and use data to add greater insight into customer needs. He has worked with clients across a range of related fields including IoT, 5G, cloud, Industry 4.0, AI and bridging into new topics such as Blockchain.

Angus is a chartered accountant and has worked with many of the leading academics in the fields of digital transformation, business model reinvention and digital platforms.

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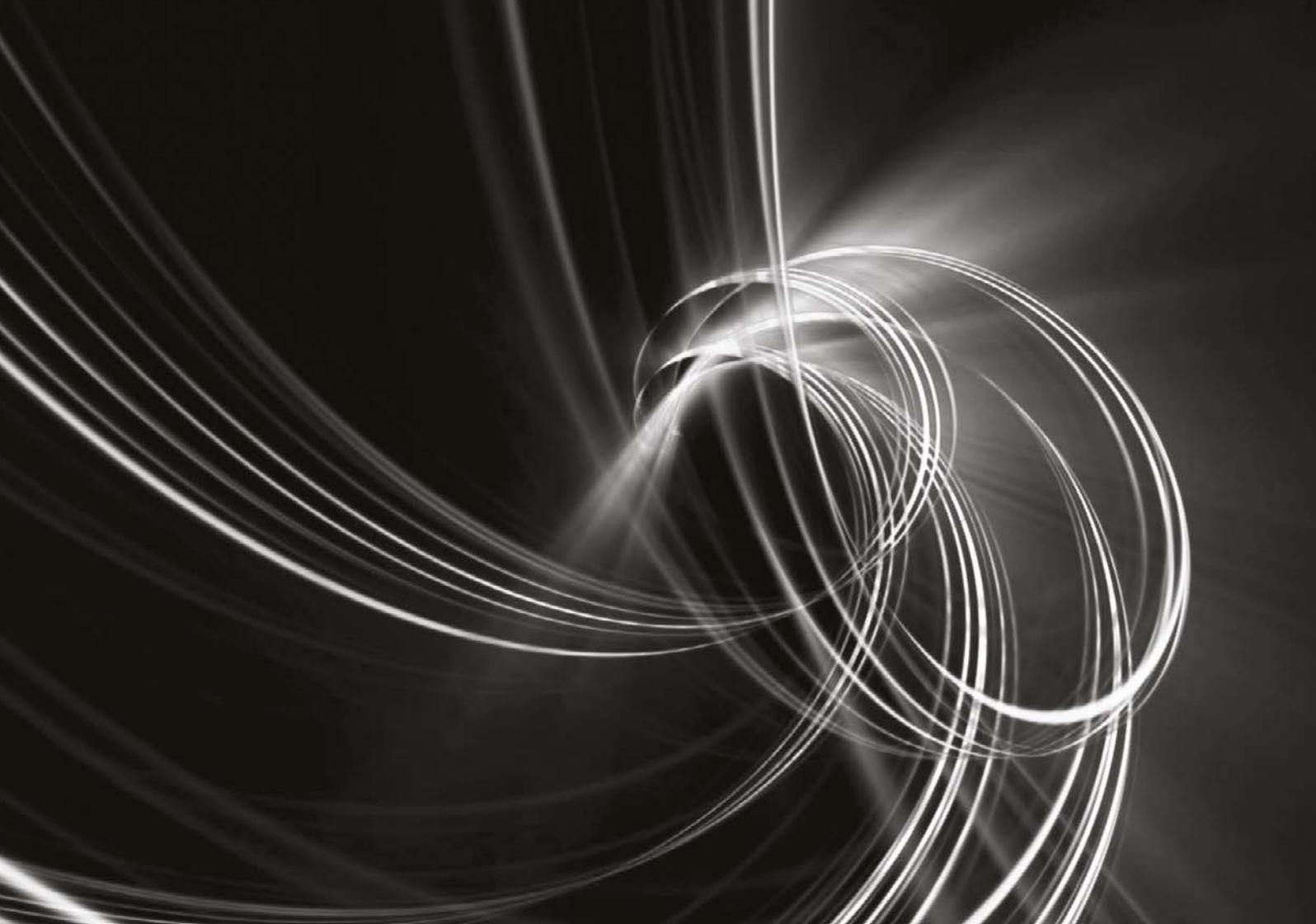
## **The cloud and virtualization revolution**

An ecosystem can't be conjured out of thin air. It is a physical thing made up of technologies, applications, processes and systems, and above all, people. That's why the rise of cloud and virtualized applications and networks has been so important. Fully virtualized and digital ecosystems make it possible to think and act in a horizontal manner.

The problem is that many ITCs don't view them in that way. They're seen as a means to achieve greater efficiencies in doing what they've always done and optimizing sustaining innovation. Sure, you achieve more flexibility, lower costs, faster scalability, as well as the ability to work anywhere and everywhere. But the fundamental vision hasn't changed.

From the point of view of the customer – consumer as well as business – cloud and virtualization has transformed the way products and services can be consumed and the basis upon which they're billed and paid for. No need to purchase CDs or DVDs anymore, just stream any track/movie/TV show you want on a subscription basis (Spotify, Netflix). No need to buy in servers or create a cloud infrastructure, just pay for what you need (AWS).

The mistake though is thinking virtualization and cloud are simply a move into the subscription economy to sell XaaS. This goes far deeper. It needs to reflect the more fundamental way digital is changing how companies innovate with ecosystems and compete which is fueling startups to create new business models that deliver blue ocean products and services that add far more value to customers and disrupt existing markets.



But some ITC companies are taking too long to see the world differently. They're still thinking in terms of vertical product lines. Their pricing model is static. It's still about things rather than services. The old business models are still intact with a thin veneer on top called 'subscriptions'.

Far deeper change is needed to embed XaaS thinking, open ecosystem collaboration and an all important service culture. For example, a product world funds sales teams with the promise of upfront commission payments on asset purchase. These disappear with XaaS purchased online. Higher margin spares and repairs evaporate as software fixes and continuous upgrade become part of the subscription. Instead it is all about mining the data to bring insight to innovation and improve service design. It's also about different risks, security being an obvious example. New customers want to transfer business risk at launch if end customer demand isn't as expected in terms of speed and volume so there is much higher commercial risk with XaaS.

It's clear the ITC sector must move beyond simple subscription thinking and embrace deeper change to leverage its unique position, architecting and providing the core backbone technologies and infrastructure to underpin digital. The common themes for business success are the need to experiment with new ecosystem led multi-sided business models and not be scared to switch from vertical to a horizontal models: driving collaboration and generating more innovative and complete solutions for which data is the vital raw material. Let's not forget that the digital ecosystem trend is a revenue generator in itself.

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# Knowledge is power

21<sup>st</sup> century capitalism has come to be centered upon extracting and using a particular kind of raw material:

Data, points out a recent radical critique of the current state of the global economy. Data fuels most of our modern economy as well as our daily lives. Data is value. There is a long list of clichés we could all quote (it's the new gold, oil, etc.), but it illuminates the fact that intangible assets like data are prime sources of value in the future and a critical component of any new business model.

All those ones and zeroes have to be collected by connected devices and sensors. The business of identifying, analyzing, capturing and extracting value from data can be almost as capital intensive as traditional extractive industries. For instance, around 10% of the world's electricity consumption is gobbled up by datacenters, all of which are processing... data.

The rise of digital platforms and, in parallel, the ubiquitous addition of sensors and IoT will generate unimaginable levels of data needing to be interpreted in creative ways using analytics and Artificial Intelligence (AI) to automate action. The numbers – whether you use exabytes, petabytes or yottabytes to quantify them – are too big to comprehend. But, the opportunity is to leverage the power of data – especially generated by embedded IoT devices – to rethink manufacturing with Industry 4.0, to automate processes, manage material flow within the supply chain, uncover and understand customer trends, find new ones, and improve the way we run our world, buy and sell things, pre-empt product failure and achieve a sustainable and prosperous future. With digital, data drives key components of the value for any new product or service, a source of insight for innovation but also a lever to continuously improve operating performance.



Industry 4.0 foresees the power of data, a vehicle for instance, to revolutize manufacturing with data being used to customize to the specific customer's needs as a 'batch size of one'. The customer's preferences downloaded into the smart manufacturing process and a car with specific features, colors, services, is produced 'just-in-time' to be delivered to the customer's home. And it's not just cars or white goods: it could be servers for a corporation, diggers for a construction company or software for a media business. Anything.

Data is also being used to streamline processes and improve customer experience by proactively predicting behaviors and changes to identify potential issues meaning they can be addressed before they become an issue. Again, it's all about understanding the right outcome so you can deliver it.

How efficiently and effectively you can do it depends on... data. Harvesting it quickly and accurately and then analyzing it to understand market demand is also essential. Once you gain an insight it's essential to move quickly – with the ultimate goal being a response in real-time. Current developments in AI are just the beginning to enable that to happen. Essentially, data provides the intelligence that drives digital technology to deliver what customers want, when and where they want it.

Creating this new data-driven connected world demands businesses in the ITC sector shift their mindset, as we've stressed, from a vertical approach to a horizontal one. The old break-fix model is outdated. The sell-something-then-go-repair-it-when-it-fails approach won't work anymore because customers don't want it. The supply chain no longer runs up until a car is driven off the production line but with connected car and software-over-the-air upgrades runs through life and across its multiple owners.

It's about outcomes: a fridge is not a thing, it's a service: it keeps the customer's food fresh. So, the service is fresh food, not a fancy fridge. The outcome is a smooth, healthy lifestyle.

That all requires a broad ecosystem. It's a huge opportunity for the ITC sector because the new approach relies on data and digital connectivity. That means ITC players have a head start when it comes to dealing with customer's data, managing configurations and over the air upgrades and protecting their privacy, issues which are now crucial to trust in a platform economy.

Customers don't want to have to deal with three different suppliers to get a service they need up and running, they just want to buy the complete service XaaS and consume it as an outcome off the cloud.

For ITC companies, therefore, the future is about making the right alliances by creating a broader ecosystem and investing in technologies that open up the possibility of achieving closer more direct relationships with customers across industries, switching from a vertical to horizontal model.

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# Be famous for outcomes, not what you're known for

As Steve Jobs put it, 'No one asked for the iPad.' Customers don't demand new services, they respond to them. They might have a vague idea of what might be good – a sort of small phone-like thing that gets email and shows videos – but they don't clamor for the iPhone. They might dream about being able to listen to any music track they like but can't quite work out how that could be delivered. Spotify had to do that. It's been the same since the dawn of the Industrial Revolution. It's nothing new.

But when the innovation comes along and catches on, it quickly cannibalizes the existing sales and market shares of businesses who thought they were invincible (Blockbuster, HMV, most record and movie companies). So, innovation for the sake of innovation isn't the point. The price point isn't the point. Nor is, for instance, the battery life of a phone that isn't smart. Nokia spent a lot of time and money improving battery life, but Apple's insight into what a smartphone could do for human life and communication trumped it. In a virtual heartbeat.

As Clayton M. Christensen pointed out in his classic study, *The Innovator's Dilemma*, listening to customers can be problematic. Yes, you need to know what they're thinking, saying and doing, but their insights are limited. You need to lead. You have to imagine a better world/product/service for them. That's your job.



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Amazon started out by imagining that people would respond well to buying books online. Most readers would get frustrated by limited stocks in physical book stores. The ordering process was long and haphazard. So, creating a vast, virtual bookstore linked electronically to myriad publisher warehouses transformed the book buying experience.

No one would have predicted that Amazon would end up selling anything and everything, globally. And they certainly would not have predicted that the success of their retail and logistics endeavors would challenge the biggest ITC players. But that's what has happened and is happening right now.

Amazon Web Services is a huge cloud player. It makes Amazon a de facto ITC company. Arguably more important and potentially more powerful than the biggest names in the industry. And it happened almost overnight, almost by accident. Customers didn't email Jeff Bezos and ask for time on their servers, Amazon identified the white space in the market and that their spare capacity might generate income. They weren't restrained by business structure, heritage and existing skills and expertise. They were daring enough to step outside of their vertical, to look across rather than down or up.

#### **New market leaders are focused on outcomes**

Mission statements are famously vacuous, though if you study them you can spot important trends. Centrica is a huge energy business, but its mission statement includes the word 'customer' more often than the word 'energy.' In fact, a cursory read might suggest that Centrica is an ITC player. It talks about digitization and linking technologies to customer needs. Oh, and we'll provide a choice of energy supply too.

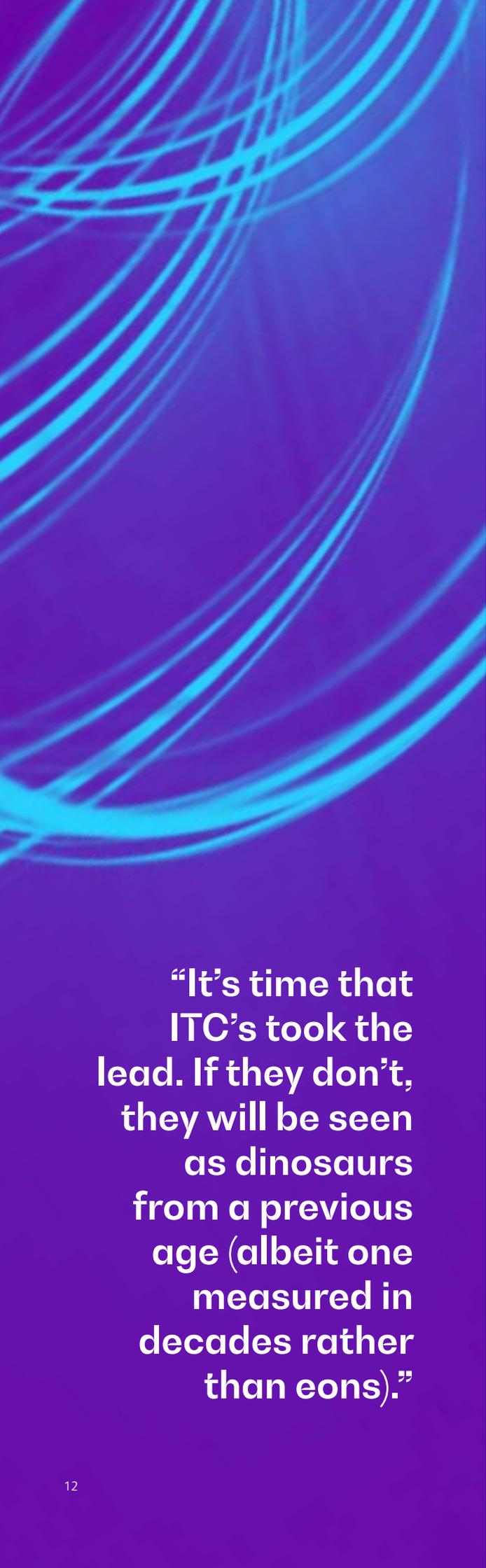
Centrica are thinking in terms of outcome not origins. Customers want to power their lives as well as their cookers or boilers. They want to feel as if they're contributing to fighting climate change as well as pay a fair price for energy. The outcome Centrica is after is to contribute to a 21st century lifestyle that's in harmony with the world, not to be seen as a utilities company.

Tesla makes cars. Great cars, technologically advanced cars. But, their mission – much like Centrica's – is to enable its customers to make a big contribution to a world based on sustainable energy and mobility. Hence their move into advanced battery power based on solar. They don't want to be known for a sector or specific product, but a movement, an historical change. One that customers want to be part of.

And Amazon – everything comes back to Amazon – have reworked their mission too. It's not just about retail or logistics or even ITC services, it's about discovery and satisfaction. Amazon says it wants to be the 'Earth's most customer-centric company where people can find and discover anything they want to buy online.' 'Find and discover' are the key words. They're not retailers, they're Aladdin's cave and the Genii combined.

Thinking about and defining outcomes are important for the new horizontal strategy ITC businesses need to adopt. If your mission to deliver an outcome then you need to think more broadly about how you can do it, who you need to work with to deliver results and create processes and systems that support the customer journey. You need to think in terms of an ecosystem (and all the partners which will reside within it) which delivers all of the above.

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**“It’s time that ITC’s took the lead. If they don’t, they will be seen as dinosaurs from a previous age (albeit one measured in decades rather than eons).”**

## **The market expects you to lead – now**

Every business understands that they need to undergo digital transformation – some more fundamentally than others. But, there’s a vacuum of leadership.

That’s leading to many organizations attempting to go it alone, or trying to transform their operations in piecemeal fashion (for instance, adopting digital in HR but not in accounts etc.). That vacuum is ripe for exploitation by disruptors. It’s time that ITC businesses took the lead. If they don’t, they will be seen as dinosaurs from a previous age (albeit one measured in decades rather than eons).

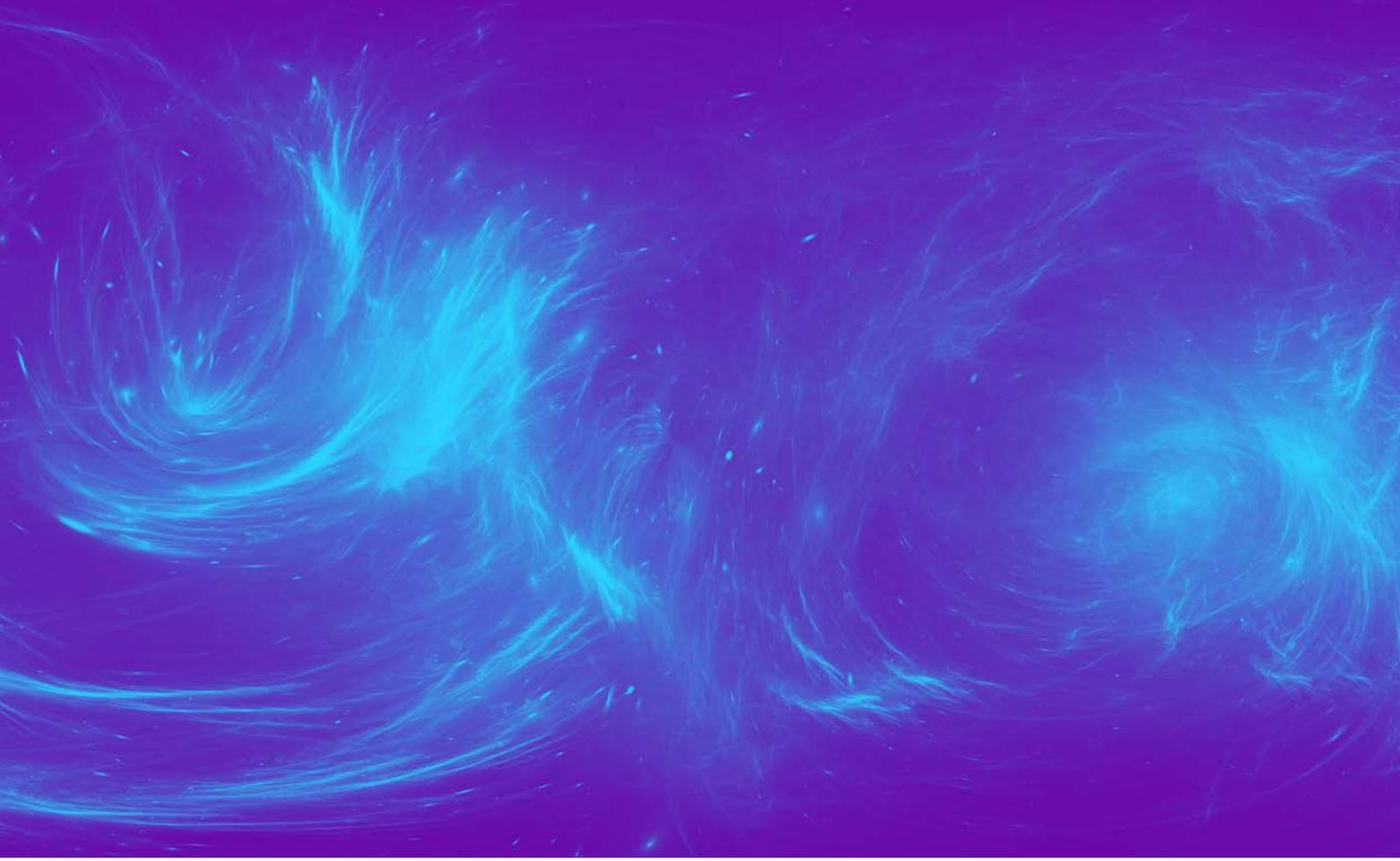
Those ITC businesses that are proactive, think in terms of outcomes, act horizontally via an ecosystem to deliver new services and transformed business models, will not only gain more customers, but they will out-disrupt the putative disruptors.

Our ecosystem survey showed that over 50% of respondents (large enterprises in need of ITC services) preferred to deal with established ITC companies. But that figure is time limited.

Many businesses found themselves unprepared as they embarked on their digital transformation journey – therefore many are looking up to ITC player to support them in this journey. At the same time, many organizations have started to recruit new talent to their organization, to ‘bring technology to the core’. In a few years most will close the technology gap – and will look for new types of partnerships that will bring different value to their business, the value of innovative products – cross vertical solutions and true innovation that support customers needs and expectations.

ITC businesses should capitalize now. To be at the center of digital transformation but also to work out a clear strategy to partner with new vertical players to find opportunities that go beyond technology.

**The opportunity is time-limited. Action is needed, now.**



## A horizontal mindset

The authors of the bestselling book, Platform Revolution, provide the most succinct and direct definition of what a platform should look like and why it matters. They wrote, “A platform is a business based on enabling value-creating interactions between external producers and consumers. The platform provides an open, participative infrastructure for these interactions and sets governance conditions for them. The platform’s overarching purpose: to consummate matches among users and facilitate the exchange of goods, services, or social currency, thereby enabling value creation for all participants.”<sup>1</sup>

That means the digital business platform enables a horizontal sector, perfectly suited to those who want to add partnerships outside of their traditional business to extend their capabilities to truly deliver the Anything-as-a-Service (XaaS) that customers are demanding. All the benefits of the platform are clearly demarcated and focused on the needs of customers – be they business customers or consumers. The ITC sector was at the forefront of the original digital revolution. There’s no reason why it should not be at the forefront of the new one – Industry 4.0 or the 4<sup>th</sup> Industrial Revolution. As Platform Revolution stresses, the era of a vertical (pipeline) business model is over.

<sup>1</sup> Platform Revolution: How Networked Markets are Transforming the Economy and How to Make Them Work for You: Geoffrey G. Parker, Marshall W. Van Alstyne, Sangeet Paul Choudhry. Norton 2017

It’s a unique chance to be, well, unique. And important. ITC companies are best placed to create and run ecosystems which deliver the new world to all kinds of enterprises across sectors. You will be the driving force that brings them together. Your outcome is their new ecosystem that delivers new services and business models to their customers. It’s a huge opportunity, but the window in which it’s all possible is a limited one.

Now, you need an ecosystem to drive change and deliver value and enable your customers to do exactly the same thing.

**Don’t miss out. Act now.**

**“All the benefits of the platform are clearly demarcated and focused on the needs of customers – be they business customers or consumers.”**

BearingPoint//Beyond can support you on your journey towards reinventing your business model, helping you grow from efficiency to innovation.

We help companies grow their revenues through the use of our digital platform solution. It is specifically designed to harness ecosystem collaboration, by allowing different business partners and systems to easily and dynamically exchange and combine offerings; cultivating innovation and the invention of new services at speed. We work together with our customers, linking methodology with technology to quickly identify customer needs; translate them into viable offerings, prioritize them and build the right ecosystem; test them together in the market; refine; launch and expand with minimum risk and cost.

BearingPoint//Beyond is part of BearingPoint, an independent management and technology consultancy with European roots and a global reach. A worldwide consulting network with more than 10,000 people, BearingPoint supports the world's leading companies and organizations in over 75 countries, engaging them to achieve measurable and sustainable success.

## Contact

To get in touch with one of our advisors and find out how your business could benefit from our digital platform solutions, please contact [infobeyond@bearingpoint.com](mailto:infobeyond@bearingpoint.com)