

DIGITAL TRANSFORMATION

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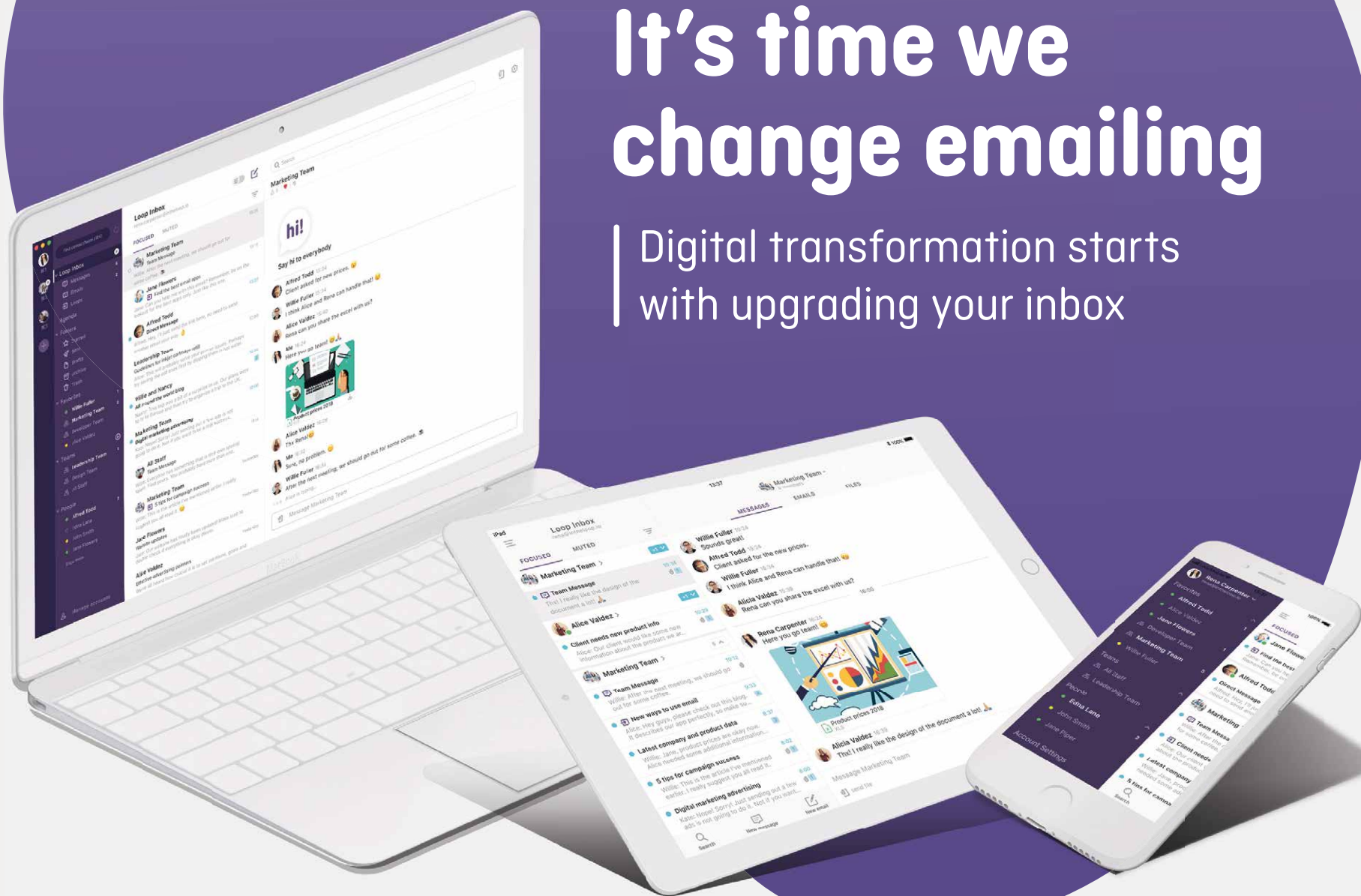
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STRATEGY

Directions on a
digital journey

For digital transformation to have real meaning and be effective, it must be an ongoing process central to business strategy

MARK FRARY

The very public troubles of some of the UK's most-famous high street retailers should leave business leaders in little doubt about the pressing need for digital transformation. If House of Fraser can wobble, how can you survive without questioning your entire digital strategy?

Yet, you see, that is almost exactly the problem. Having a digital strategy is not what digital transformation is about.

"Companies often equate digital transformation with IT transformation – that is a recipe for disaster," says Dr Gianvito Lanzolla, professor of strategic leadership at Cass Business School.

Cranfield Business School's professor of business strategy Mark Jenkins adds: "The idea you can park digital transformation off in some department, or with a chief digital or innovation officer, is wrong. Unless organisations think about how these disruptions can affect their model, they are going to die."

Euan Semple, author of *Organizations Don't Tweet, People Do*, agrees. "Digital transformation straddles existing silos – human resources, communications, marketing and, yes, technology – but they all need to be part of the solution," he says.

As well as lacking Ronseal's premise of "doing what it says on the tin", the phrase "digital transformation" has become overused. "Like so much, it has been turned into a thing, oversold and it has ended up as a damp squib," says Mr Semple.

David Woodhead, an award-winning consulting director in digital strategy with Sopra Steria, who works with clients in central government, says: "Digital transformation is increasingly meaningless, since it's used indiscriminately. For any enterprise to be viable and sustainable it has to deliver increasing levels of operating efficiency and enhance its customer experience."

Digital transformation, then, is not so much about digital strategy, but more about business strategy.

"Almost without exception, the best customer or citizen experience is also the most operationally efficient for the enterprise, so all interests are aligned and there is an overwhelming imperative for fresh thinking," says Mr Woodhead.

The problem, says Renee Tsielepi of agile consultancy Transcendence,



is that many business leaders have no idea what they need to do.

"It can be a huge shift of mindset and not one they can do instantly," she says. "As an example, a C-level might have trouble letting go of control, to which I would recommend small steps like letting your partner drive the car instead of you, or someone else choosing your clothes one day. Once you start reprogramming your brain that you don't always have to be in control and nothing bad happens, you can start bringing this into the workplace."

Once chief executives have challenged themselves, they can then ask others to do the same, effectively inviting them up the leadership ladder.

Ms Tsielepi says retraining business leaders to allow employees to fail is also vital. "If you don't allow employees to fail, they won't experiment or innovate, which would be crippling," she says.

While chief executives understand only too well the threats of nimble disruptors, they are paralysed because they are creative and can see the possibilities, but will not destroy an existing business model that still makes money.

Professor Lanzolla says paralysed business leaders needing to embrace digital transformation can do it in one of three ways.

The first is the digital garage approach, setting up an innovation lab, for example. Yet how do you integrate these ideas?

The second is the agile approach in which agile teams, leadership or whole organisations experiment from within. The challenge here is that experimentation with a framework becomes a mess.

The third is the top-down approach, where a leader takes a business decision to transform which permeates throughout

the organisation. "This is a massive undertaking because you cannot envisage all the implications of digital technologies," says Professor Lanzolla.

GE has tried to do it and many have accused the company of not moving quickly enough; the jury is out on whether it will succeed. Carmakers, used to producing metal vehicles rather than being a showcase for connected car technology, face similar problems.

Microsoft, which arguably was not born a digital company in the modern sense, is succeeding. "It has a very clear plan of how it wants to transform," says Professor Lanzolla.

Underpinning transformation is a digital strategy that can be summed up as "building less"; experiment rapidly and continuously, but in the digital environment.

Professor Jenkins says this is evident in his specialist field of motorsports, where he is known as the F1 Professor. He says: "Simulation technology is transforming the speed at which organisations can develop new products because you will no longer need to develop the physical prototypes. We are going to see a compression of timescales and cost base."

In practice, coming up with your own strategy might work better than hiring expensive consultants, says Professor Jenkins.

"Stay close to your customers and find ways to become more agile; find ways to speed up the cycle of testing concepts and bringing them to market," he says.

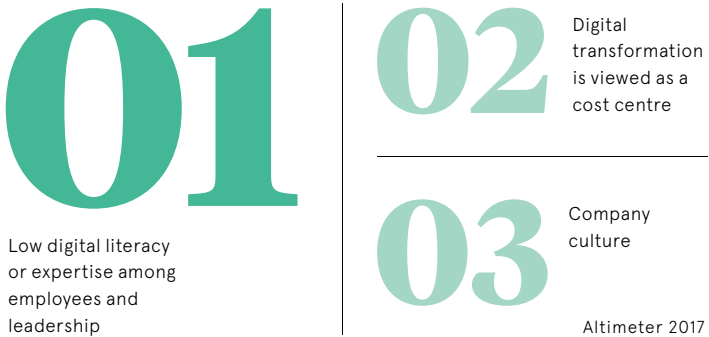
Professor Lanzolla adds: "The bottom line is that digital transformation is very painful. Digital technologies are so pervasive that it is no longer a question of whether companies should use them. Companies must have a digital strategy for everything they do because it transforms customer engagement, employee engagement and optimisation of operations. If you don't do it, you are not in the game."

Ms Tsielepi notes: "The same will happen as in the Industrial Revolution. Those not adapting and embracing the changes will be displaced by some level of automation."

But will business leaders embrace new business strategies? "People talk transformation, but they only want tinkering," says Mr Semple, arguing that most chief executives are not standing on the burning platforms that would make them jump. ♦

Top three challenges for digital transformation initiatives

Ranking by business-to-business digital transformation leaders and strategists



Don't let transformation harm employees

Successful change management relies on clear communication with the workforce and buy-in from the top down

VIRGINIA MATTHEWS

Senior leaders may be forgiven for resenting the “ice-berg of ignorance” notion that it is those on the shop floor, not the C-suite, who truly understand what makes an organisation tick. Yet when it comes to digital transformation, failure to secure buy-in from the sharp end can lead to disasters of Titanic proportions.

So says Richard Pryor-Jones, who as co-founder of IT transformation consultancy Kasei Group argues that fears over robots must be tackled head on.

“If you accept that the term ‘transformation’ has scary connotations, you will also see that phrases such as ‘agile working’ are viewed as code for compulsory job cuts,” he says.

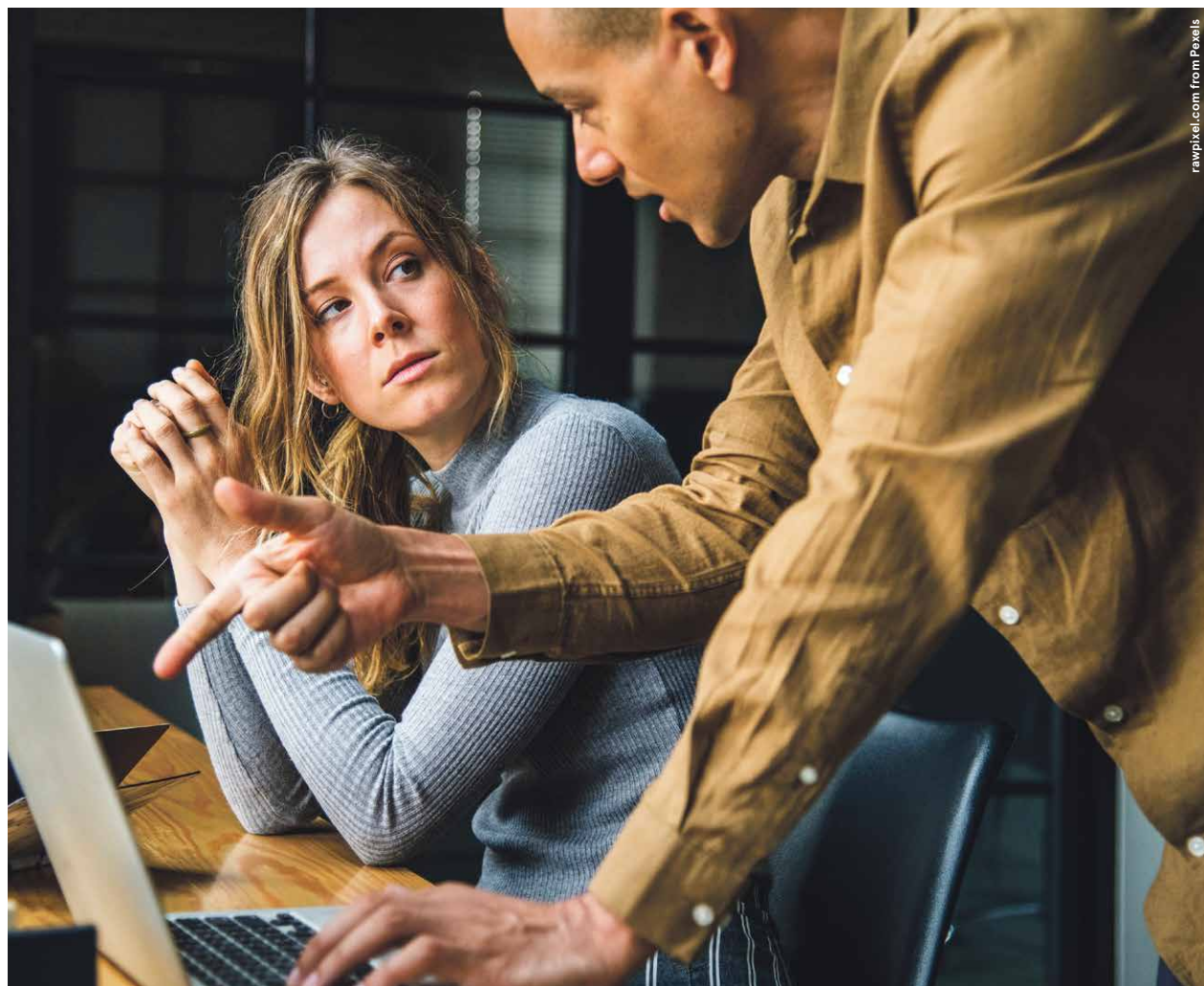
“By putting the coal face at the front end of a project, rather than an afterthought, you will harness support from the very people who can make or break any project.”

All change management needs careful thought and prior warning, but in the case of systems overhauls, transparency is mandatory, he argues.

“When you are told your current job is being merged with someone else’s, you may feel hurt,” says Mr Pryor-Jones.

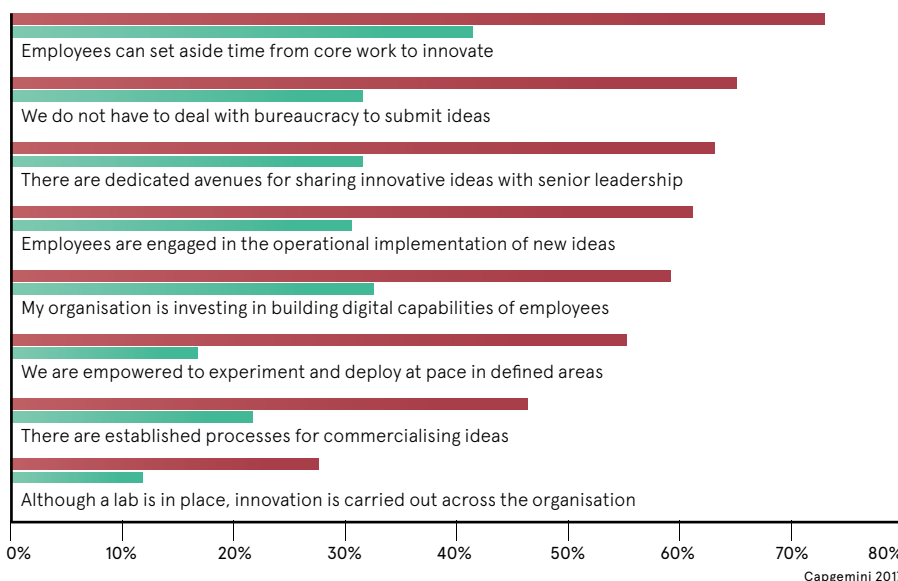
“If management then waits until a couple of days beforehand to send people in day-glow T-shirts to distribute balloons and a helpline number, doubtless ticking the box marked learning and development soon after, hurt could be replaced with anger.”

While it may be tempting to leave an IT rollout to what Mr Pry-



Innovation initiatives are not being realised

Percentage of leaders and employees who agree with the following statements on innovation initiatives



or-Jones calls “technicians in darkened rooms”, this is a mistake.

“At Kasei Group, we have found that frontline staff are brighter than managements suppose and can be of enormous help in any transformation process,” he says.

“By involving them before plans are finalised, you will learn which aspects of the business need looking at. Once the new system is bedded in, they will be your eyes and ears as to which bits are actually working.”

While efforts to establish a digital workplace may raise eyebrows in risk-averse cultures, new strategies are less likely to be questioned at disruptors such as Amazon or Airbnb.

“If you deploy staff surveys to produce ‘heat maps’ of where your people say the organisation is going wrong today, it is possible to drive cultural change before the transformation tomorrow,” says Mr Pryor-Jones.

“If, say, you are slow to delegate or make decisions, it’s vital to address this before the tidal wave of IT-related decisions begins to hit.”

At the Chartered Institute of Personnel and Development, head of learning and development Andy Lancaster says business leaders must own the cultural changes driven by digital transformation.

By putting the coal face at the front end of a project, rather than an afterthought, you will harness support from the very people who can make or break any project

“In the run-up phase, staff need a clear vision from the top as to why change is necessary and how the organisation will look in the future. The C-suite needs to win its argument across the entire piece if it is to motivate and support people during implementation,” says Mr Lancaster.

He believes progress towards the digital workplace is variable. Some organisations are taking a measured approach, while others appear more concerned to keep up with competitors, with very little obvious pre-planning or thought.

In cases where corporate vanity is the driving force, mistakes are bound to be made, he says, adding that a more productive focus would be on life versus work.

“Internal digital audits often reveal a disconnect between the high-tech paraphernalia we use domestically and the creaking corporate systems in use in many offices,” says Mr Lancaster. “By finding synergies between the two, progress towards a digital workplace can be accelerated.”

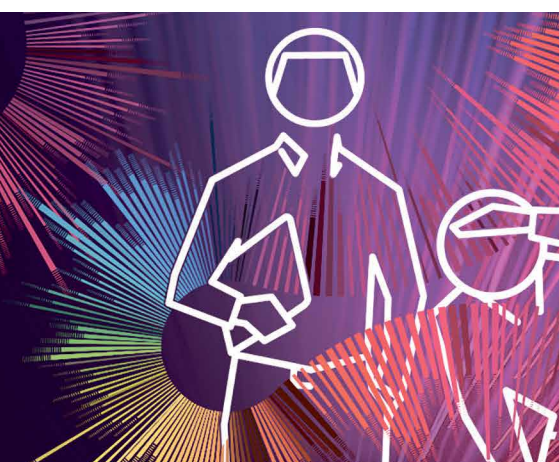
For those looking forward to the burial of one-dimensional chalk-and-talk sessions, there is more good news.

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Case study

TSB

In late-April, then-TSB chief executive Paul Pester admitted the bank was on its knees, following a major IT meltdown during the migration of accounts to new Spanish owner Sabadell.

While attention focused on the millions of customers who were locked out of their accounts, an experience which was repeated after an upgrade at the beginning of September, few considered the lasting impact on TSB's bewildered workforce.

In the days that followed, insiders reported staff were suffering unacceptable levels of stress. Forced to work emergency hours to deal with customers whose essential bills still hadn't been paid, many had been sent home on extended sick leave.

Further revelations from the TBU trade union, which represents 4,000 TSB staff but isn't officially recognised, alleging management had been repeatedly warned the upgrade needed more testing yet had pressed ahead regardless, prompted some angry employees to quit.

"When a digital transformation project goes bang through inadequate planning, there is always a knock-on impact for frontline staff, who represent the organisation to the public day-in and day-out," says Andy Lancaster at the Chartered Institute of Personnel and Development.

"Sadly, this may well have a long-lasting impact on the relationship they have with management and it cannot help but influence their attitude to any further transformation plans that are put on the table."

"Augmented reality, virtual reality and simulations have the capacity to reinvigorate our entire approach to learning and development, but this process is only just beginning," he says.

Small and medium-sized enterprises unsure of the opportunities available could consider scanning the horizon to help pinpoint free or low-cost local digital solutions.

With negative staff attitudes towards artificial intelligence now a familiar sticking point for change-hungry C-suites, Mr Lancaster calls for a stronger focus on the personal benefits.

"Digital transformation offers the workforce a valuable set of skills for life as well as helping make you an employer of choice among millennials," he says.

"But it takes time for your staff to acquire new mindsets and to assume you can achieve cultural change quickly is specious."

However tempting it may be to mask transformation plans for fear of spreading panic, leading by example is a sure-fire way to build trust.

"This isn't about imposing things on people or getting your way through fear. By blogging about tech yourself and sharing your story, you as senior leader can engage directly with your workforce," says Mr Lancaster.

Colin Light, digital consulting lead at PwC, also stresses the vital role of empathy in driving cultural change.

He says: "With some roles, you can argue that a transformation will get rid of the knucklehead stuff that's been frustrating people for years, but if you fail to discuss it openly and with empathy, the rumour-monger mill will work overtime."

"We have already seen big problems of adoption and engagement with cloud-based solutions, despite their enormous potential, and we need to learn from that."

Mr Light believes that winning hearts and minds needs a focus on bite-size steps, such as ensuring 100 per cent of staff use a new platform, rather than on grandiose corporate ambitions.

"Whatever you implement though, it must be as easy to operate as the apps we use every day at home and it must also have an affinity with your message," he says.

"If your brand identity is about simplicity and value, and you opt for a difficult, expensive platform, it will be resented by both staff and consumers."

While horror stories of business leaders unable to use smartphones continue to do the rounds, Mr Light believes such executives are a dying breed.

"Nowadays, organisations need diverse diversity of thought, rather than a single voice," he concludes. "The days of decision-making by small groups of ageing, white, technophobe men is less prevalent." ♦

Digital transformation towards a modern workplace...

Working with a knowledgeable and experienced IT partner is essential to guarantee every stage of the digital transformation journey

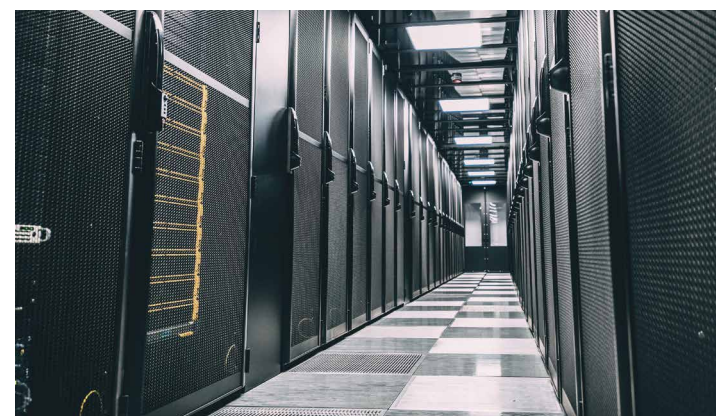
In a bid to leverage fully the potential of recent digital advancements, businesses in virtually all sectors are embarking on digital transformation projects, which are becoming increasingly complex. Although it may be vital to break down information silos within a company, making employees a central part of any transformation strategy is of equal importance.

"Millions can be spent on digital transformation projects, but if an organisation doesn't train people how to use the technology effectively, it just won't work," explains Paul Richardson, head of transformation at SCC, Europe's largest independent IT group. "Businesses must have the capability to improve end-user adoption. To support transformation everything from user manuals to a full learning management system, including online courses and videos, may need to be created."

When performed correctly, digital transformation can turn an organisation into a modern workplace and effectively utilise disruptive technologies to enable greater collaboration, whether within the organisation itself or a wider partner network. Datacentre modernisation often lies at the core of digital transformation programmes that are moving companies towards a more agile and dynamic workforce model.

"Digital transformation means different things to different people. What many businesses want is the panacea for the modern workplace. Everything from the Holy Grail of the paperless office to datacentre transformation, building new infrastructure and capabilities in the cloud, and embracing a cloud-first strategy," says Mr Richardson.

Driven by a desire to move towards more predictable fixed costs and away



from expensive, cyclical digital refreshes every few years, digital transformation projects that empower employees to work from any location are on the rise. Working with a knowledgeable and experienced IT partner is essential to guarantee every stage of the transformation journey, from designing a cloud strategy to full implementation, while ensuring alignment with business strategy.

It's clear to see how digital transformation projects can help a business maintain a competitive advantage. If a business is not on a digital transformation journey, they can be sure their competitors are.

In an age of always-on devices, employees increasingly need to be as mobile as possible and not be constrained by outdated technological infrastructure. As the younger generations enter the world of work, they will want the same frictionless digital experience they get in their personal life, for example a consistent digital experience, including wifi and mobile internet at all times. Companies that fail to offer this experience simply won't be able to attract the best talent.

It's just as important to change business processes as it is to transform the technological foundation of a company, with a costly digital rebuild doing little to improve the bottom line if staff aren't given the freedom to work in a way they feel most comfortable and productive.

According to market intelligence firm IDC, companies are on course to spend \$1.3 trillion on digital transformation technologies in 2018 alone, illustrating the willingness of businesses to pay out large sums delivering digital strategies. From companies migrating email into Office 365 to moving all services into AWS or Microsoft Azure, most companies are on some type of journey into cloud services.

Mr Richardson worked with a global manufacturing firm to transform their legacy collaboration platform.

40%

of all businesses will die in the next ten years if they fail to accommodate new technologies

John Chambers, executive chairman, Cisco Systems

2.9%

rise in annual revenues for UK companies due to digitalisation

3.6%

cut in costs for UK companies that digitise

Email, instant messaging and video conferencing solutions were all sitting on old infrastructure in highly expensive datacentres, and costing the enterprise dearly.

"We helped migrate services into the cloud that are utilised in 40-plus countries around the globe. This enabled the firm to standardise and consolidate their entire global collaboration platform and remove the issues they used to have because of systems not integrating. The new environment we built for them had a global standard, and enabled them to transform applications and other services on top of the platform to further enable their business," he concludes.

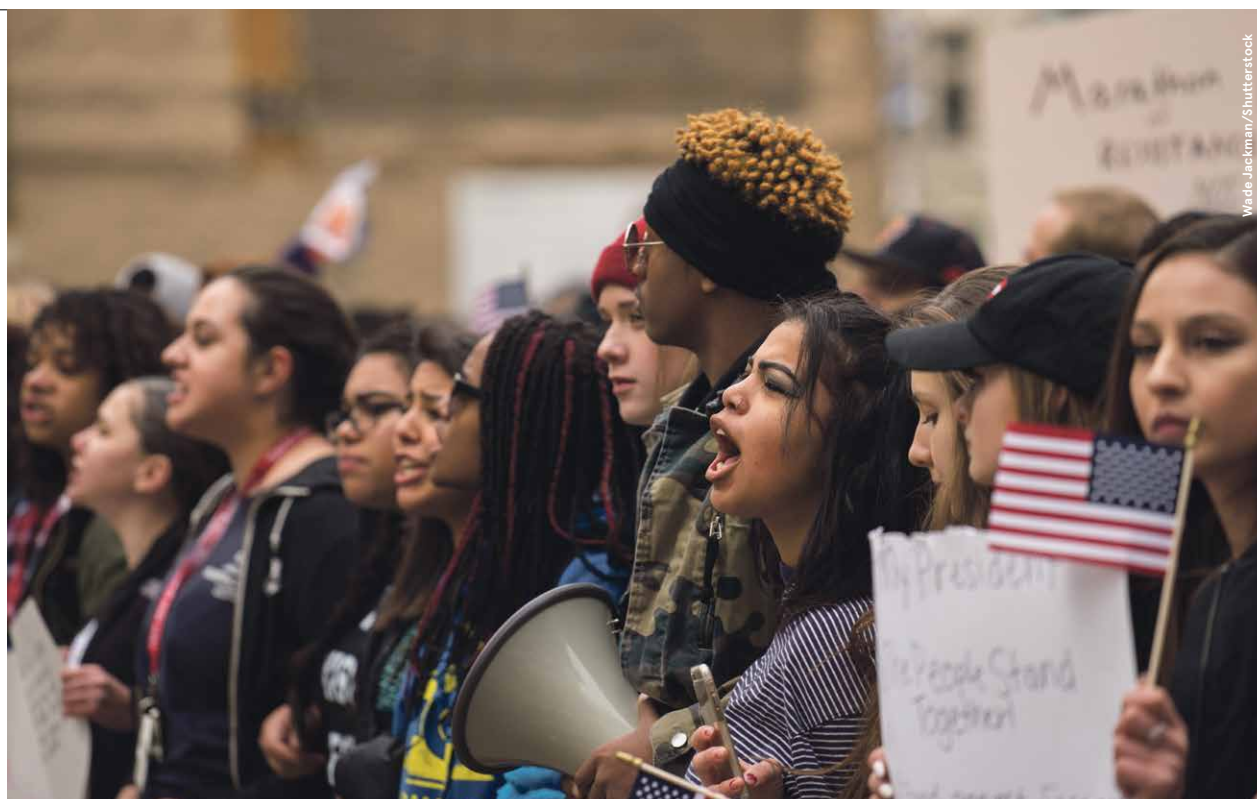
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Paul Richardson
Head of transformation
SCC

Weighing up the impact of digital tech

Digital technologies have had an earth-shaking impact on democracy from opening up debate and protest to spreading fake news and extreme views



GEORGE HAMMOND

Digital disruption may have subverted democracy in some respects, but in others it has revitalised it. Within government, digital tools are being used to engage citizens and improve service delivery. The London Datastore, a publicly accessible repository of datasets covering everything from health to transport

and the local economy, is an example of transparent government underpinned by digital technology.

Elsewhere, elected officials are engaging citizens directly in the democratic process. "Madrid and Barcelona have used online platforms to facilitate participatory decision-making on a number of issues, including the city budget," says Paolo Gerbaudo, senior lecturer in digital culture and society at King's College London. In France, the *Parlement et Citoyens* initiative lets citizens offer input on live legislation.

This is part of what Dr Gerbaudo calls a "digital democracy trend" that has also led to the "development of participatory platforms

adopted by a number of digital parties, such as the Pirate Parties in northern Europe, the Five Star Movement in Italy and *Podemos* in Spain, which have developed internal decision-making systems so their members can make proposals and vote on various issues".

Those parties, which began as insurgents, have each made significant progress at the ballot box and more mainstream parties – Dr Gerbaudo cites Labour in the UK, the Spanish Socialist Workers' Party and the Social Democratic Party of Germany – have started aping their methods.

"Until only 20 years ago, there was no way to participate in politics without joining a political

party or organised interest group, attending meetings and knocking on doors," says Professor Helen Margetts, director of the Oxford Internet Institute. Digital transformation, and in particular the advent of social media, has changed that. As well as the direct involvement in decision-making, social media provides a new channel through which to participate in democracy.

That participation has been derided as "clicktivism" but, according to Professor Margetts: "Tiny acts can and do scale up to large-scale mobilisations and campaigns for policy change that have brought major shocks and surprises to political regimes all over the world." She cites "the so-called 'Twitter

revolution' of Tunisia or 'Facebook revolution' in Egypt in 2011, or the largest demonstration in Romanian history in the autumn of 2017, which appears to have been co-ordinated via the messaging app Slack".

It is a bitter irony that the virtue of these platforms for the Arab Spring's revolutionaries – the fact they are relatively unrestricted arenas for free expression – is the vice for those railing against the free-roaming bots and trolls which prejudice elections. This contradiction is perhaps typical of democracy in the social media age, characterised by Professor Margetts as "a democracy built on workarounds and fixes, a messy solution for a disorganised, chaotic politics".

For

A framed poster with a white background and a dark border. The text "Fake news is not our friend." is written in a large, bold, blue sans-serif font. Below this, in a smaller blue font, is the text: "We're committed to reducing its spread; so we're working with more fact-checkers globally, improving our technology, and giving you background information on the articles in your News Feed." At the bottom, there is a small blue box with the word "facebook" in white. To the right of the poster, there is a vertical credit line: "Ink Drop/Shutterstock".

Digital transformation has whistled through every aspect of our lives, from social interactions to cultural phenomena and industrial strategy. Only in politics, though, might the heralded revolution be literal rather than metaphorical: companies might fear the man with a sharp pitch deck; governments fear the man with a sharp pitchfork.

Over the last decade, digital disruption has heightened that anxiety, putting pressure on incumbent governments and reshaping democracy in fundamental, sometimes detrimental, ways.

The most significant development in that decade has been "the rise of social networks, and the way in which they have created a new space of political participation and opinion-formation", says Dr Gerbaudo. "Social media has produced a crisis of authority which engulfs journalism, academia and politics, where many people do not trust anymore the information they are provided."

Rather than creating a horizontal forum for communication, as many anticipated, social media has in fact amplified certain voices – "hyper-leaders", as Dr Gerbaudo calls them

– "who act as a key point of identification for the diffuse networked crowd". Unchecked, these hyperleaders can mutate into authoritarians, he says.

Much has been written about the role of social media platforms in hosting or disseminating "fake news", and there is no doubt that a "post-truth" media landscape is also a threat to democracy. "Greater access to information has not been accompanied by a digital literacy allowing people to discern true from false information," says Dr Gerbaudo.

A further threat to public bodies is that, because of the pace of digital change, they are outflanked by nimbler and less accountable private actors. "Digital transformation today requires risk; for every success there were a thousand failures, at least. Government does not work like that," says Yasar Jarrar, vice chair of the Global Agenda Council on the Future of Government at the World Economic Forum. Unable to fail and burdened

by bureaucracy, governments may ultimately be rendered redundant.

Digital transformation has also created vast spaces over which government has little or no remit, which throws into question the relationship between citizens and state. "Who looks after our kids online? If governments will not do that, then our relationship with them – the social contract – will change," says Dr Jarrar.

As well as the disruption created by new modes of communication and the rapid advance of private tech companies, democracy faces a direct threat from malign actors. Hacked emails, bot farms and the dissemination of fake news were prominent in the 2016 US presidential election.

Ultimately, digital transformation could precipitate the undoing of government as we know it. Dr Farrar concludes: "Governance is key for the functioning of our societies, governments are not." ♦

Against

The global switch to digital tax has begun: Are you ready?

The deadline for HM Revenue & Customs' new online filing regime is in April – now is the time to prepare



On April 1 next year a new era begins in tax. HMRC will require that VAT returns for registered businesses with turnover more than £85,000 are filed electronically, using specialist software. The initiative, known as Making Tax Digital, or MTD, is the first step in a process with ambitions to switch all corporate taxes to filing via software.

Many businesses are underprepared. A recent survey by EY of 1,300 tax professionals, including heads of VAT, tax and finance functions, found nearly 50 per cent have not yet started planning for MTD and are only "somewhat confident" or "not confident" of meeting the deadline.

"The lack of action is worrying," says Charles Brayne, head of the tax technology and transformation practice at EY. "You have to be ready. No excuses. If you don't act now, you may not be ready for the deadline."

The current rate of improvement is slow. In June, EY asked delegates on its *Making Tax Digital* webcast how many were "extremely confident" and equipped for the new system. Only 4 per cent said they were. EY asked again in early-September. The number had risen to just 6 per cent.

There are obvious reasons why companies are struggling to implement the changes. There are distractions, in the form of Brexit, and other market reforms. The information can be fragmented across departments, with significant dependencies on the IT and finance functions to ensure compliance.

"MTD has three requirements," says Mr Brayne. "First, having digital records. Most large corporates and mid-sized companies will have this already. Second is being able to submit VAT returns to the HMRC portal, using compatible software. There are a number of solutions you can buy and are listed on the HMRC

Savvier businesses will see this as an opportunity to think about future changes

website. This is a relatively straightforward implementation. Third is the ability to record the entire digital journey with limited manual intervention, from initial input into digital records through to submission. This is the most difficult step."

HMRC is offering a degree of leniency on this last point. It has declared a soft-landing policy. The deadline for compliance won't be moved, but there will be a 12-month period of grace so long as companies clearly demonstrate they have a plan in place to record the full digital journey. Figures from EY suggest a third of businesses remain unaware both of this policy and its purpose.

The call to action is particularly significant as MTD is merely the first step on the road to digital tax. HMRC plans to extend digital submission of returns via specialist software for income tax and corporation tax. The trend is international. Tax authorities around the world have moved quickly to integrate new technologies within their approach to revenue assurance and enforcement. HMRC's aim is to become a market-leading digital tax authority, but many are already ahead of HMRC in terms of their implementation of a truly data-driven compliance regime.

"This is a real chance for companies to take a step back and think about their processes around tax," says Mr Brayne. "If done correctly, preparing for MTD in April can be the start of a wholesale transition to being a digital enterprise."

There is significant assistance on hand to make the process easier. Outsourcing entirely to a digital tax specialist is an option. This partner will already have the software, hardware and processes to allow for a rapid transition.

"Certain businesses outsource to us," says Fiona Campbell, EY associate partner, indirect tax. "If needed we can handle the implementation. Alternatively, for clients who want to retain responsibility, we have solutions they can use; these are scalable according to our clients' needs and particular circumstances. These solutions provide extra control, but ensure they use reliable software and processes. A third option is to use our managed service called EY Absolute. It runs everything from transaction processes to submission."

Business may try to go it alone. But the early signs are that this is a sizeable burden to undertake without assistance. When asked by EY in June for their main concern with MTD, 40 per cent of companies said understanding technology and 30 per cent cited reliability of processes.

Ms Campbell advises: "To help identify and alleviate concerns over

technical requirements and reliability of processes, businesses should conduct a gap analysis of where they are currently, and what actions and investments are needed to make their business MTD compliant."

In the short term, MTD will be seen as a cost for business. "But there are upsides too," says Mr Brayne. "Companies will have better visibility around cash flow, risks and transactional analytics. The more data you have the better and while people aren't necessarily seeing it as a positive now, when it's up and running they could do."

As an example of the potential benefits, he points to the increasing adoption of machine-learning and artificial intelligence tools, which can scan and review tens of thousands of lines of tax entries looking for errors, including overlooked allowances. The use of intelligent software to produce a company's tax return in this way will quickly become routine, he says. Data integration will be radically improved. Digital tax is at the heart of this.

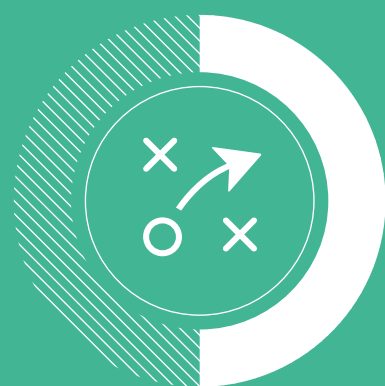
"The headline message is this," says Ms Campbell. "You have to be ready for the April deadline. Don't underestimate the amount of time it will take. You may be surprised. But there's a positive message too. Savvier businesses will see this as an opportunity to think about future changes. The switch over the longer term is across multiple taxes, across multiple jurisdictions. If you develop a strategic plan, you can be a winner. But you have to take action now."

For more information please visit ey.com/mtd



Building a better working world

MAKING TAX DIGITAL READINESS ACROSS UK FIRMS



50% have not yet started planning for MTD



10%

increase in awareness of MTD from June to September



6%

are "very confident" about meeting the MTD deadline, up from 4 per cent in June

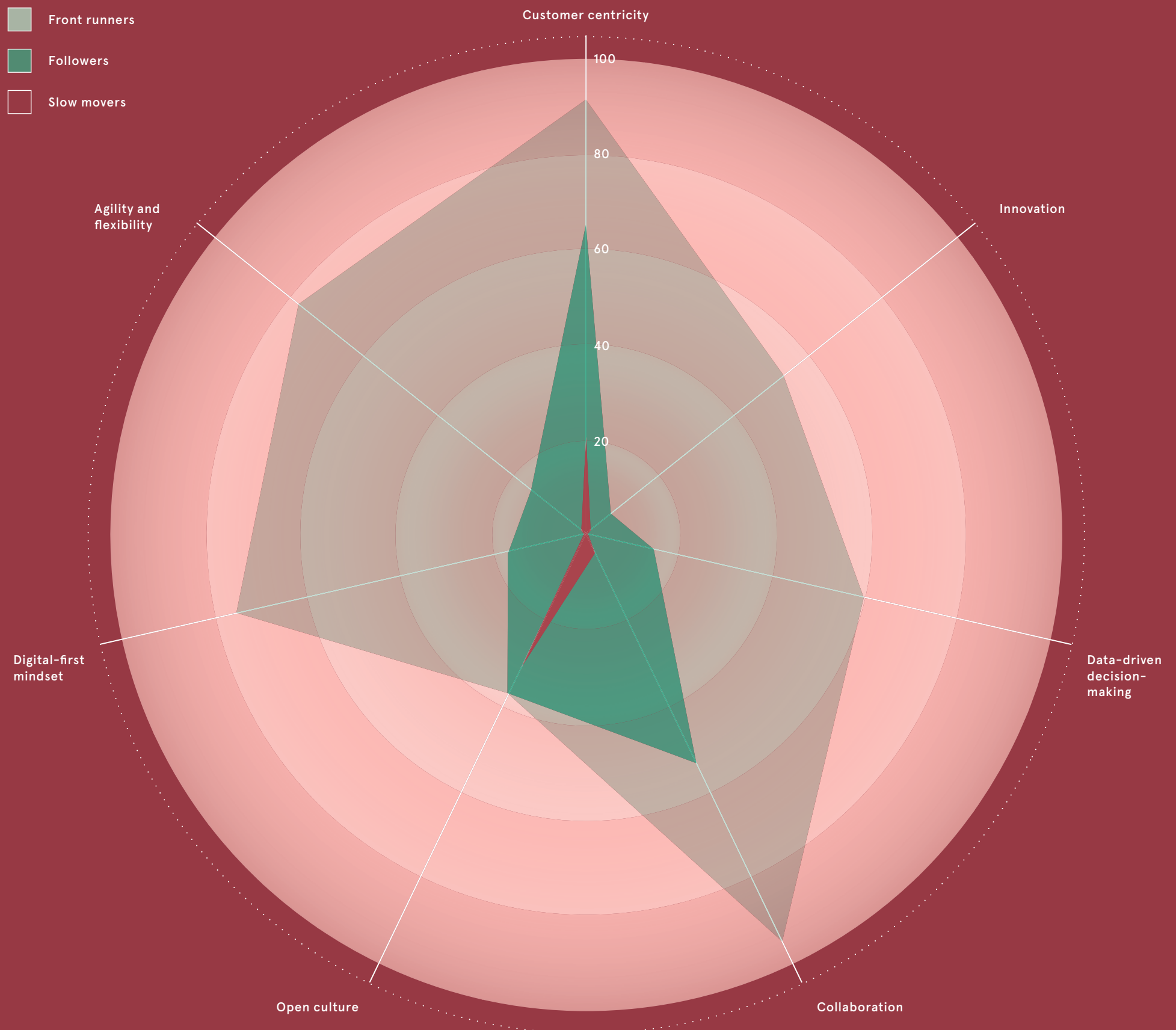
EY surveys on June 5 and September 11, 2018

DIGITAL CULTURE

Digital technologies have the potential to revolutionise entire businesses, but without the right strategy, approach and leadership, transformation initiatives will fail. This infographic explores the elements of a strong digital culture and the common obstacles standing in the way of true transformation

Seven dimensions of digital culture

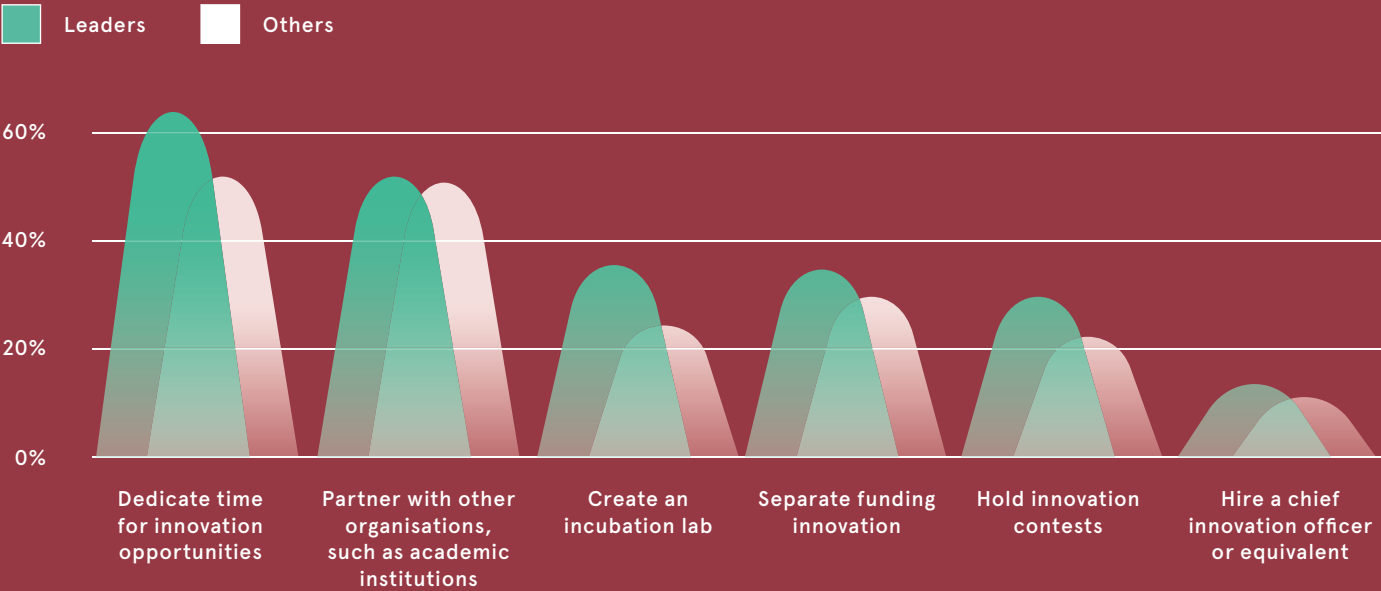
Average share of firms from Germany, the UK and United States that have cybercover



*Front runners performed consistently well across all seven dimensions and leadership has largely succeeded in aligning the wider organisation to the desired culture. Capgemini 2017

How digital leaders foster innovation

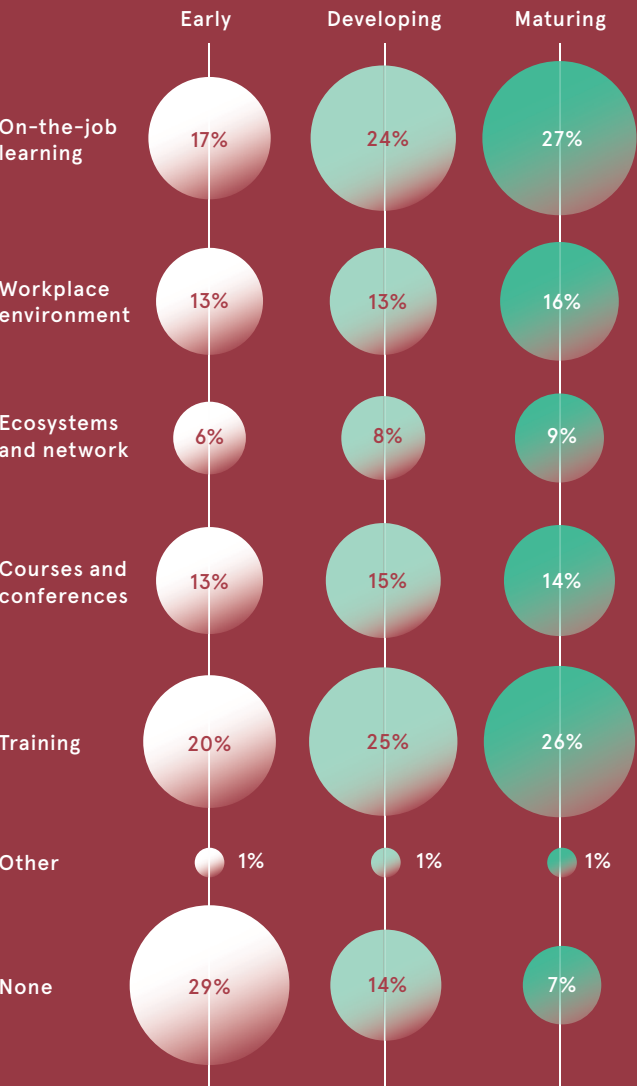
Digital leaders are classed as those who regard themselves as highly effective in using digital technologies to advance their business strategy; share of chief information officers who do the following



Harvey Nash/KPMG 2017

Developing new skills for a digital environment

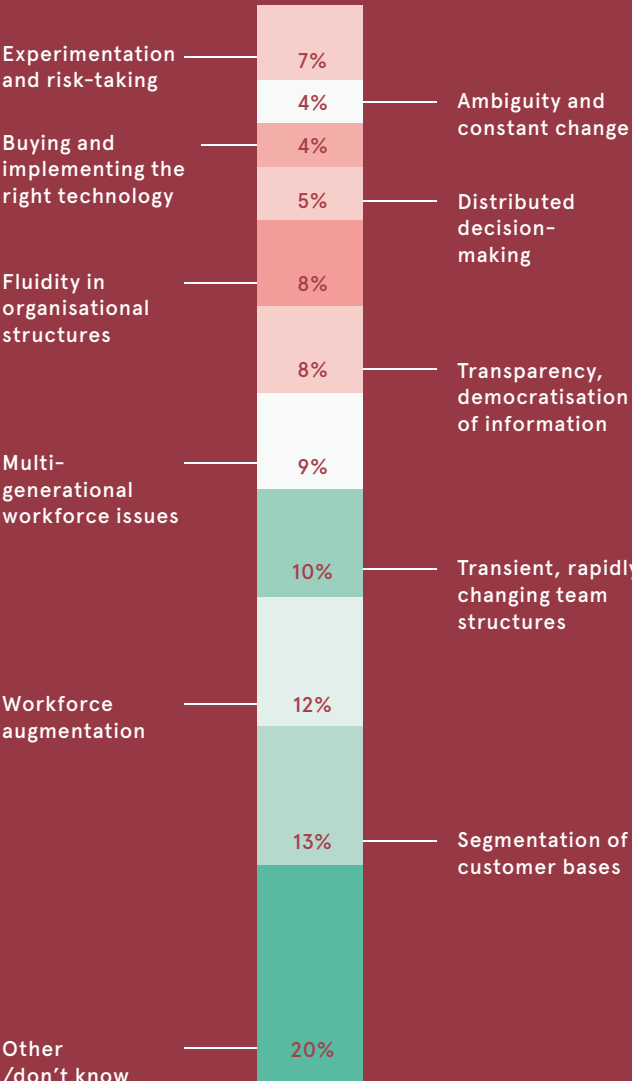
How companies at different stages of digital transformation develop new skills*



*Maturity of digital capabilities/processes were ranked on a scale of one to ten: early (one to three), developing (four to six) and maturing (seven to ten)
Deloitte/MIT Sloan Management Review 2018

People and culture are among the biggest challenges to digital implementation

Biggest challenges impacting companies' abilities to compete in a digital environment



Deloitte/MIT Sloan Management Review 2018

Ways digital leaders could improve

Attributes leaders could have more of to help organisations navigate digital trends

- 01 Direction: providing vision and purpose for digital
- 02 Innovation: creating the conditions for people to experiment
- 03 Execution: empowering people to think differently
- 04 Collaboration: getting people to collaborate across boundaries
- 05 Building talent: supporting continuous self-development
- 06 Inspirational leadership: getting people to follow you
- 07 Business judgment: making decisions in an uncertain context
- 08 Influence: persuading and influencing stakeholders

Deloitte/MIT Sloan Management Review 2018



Going digital to advance global infrastructure

Embracing digital workflows for connected infrastructure projects

Infrastructure is crucial to socio-economic stability and quality of life for people of every nation. It is essential to modern living and provides the basis for our connectivity worldwide. As the population of the world's cities continues to grow exponentially, the demand for new, and improvements to existing, infrastructure becomes increasingly urgent.

Infrastructure capital projects are typically complex and involve expertise in numerous disciplines. One of the major challenges in such projects is the effective management and accessibility of vast amounts of data from multiple sources and for dispersed project teams.

While software technology has improved processes for designing and building projects, valuable project data has historically been somewhat "dark", siloed and disconnected, or sometimes even in paper form. It can, therefore, be outdated due to project changes, or otherwise unusable or inaccessible by other teams on the same project and for future projects or purposes.

Because the work of all infrastructure project participants shares a dependency upon the evolving conditions at the physical work site, dark data can make the collaboration required to complete a project difficult and disjointed, perhaps even leading to safety concerns, costly mistakes and missed project milestones.

Connected data environment

Advances in cloud computing and infrastructure applications, such as those offered by Bentley Systems, enable a connected data environment, which facilitates more continuous digital workflows throughout an entire project, from conception through construction and commissioning. In digital workflows, data captured or created for one purpose can be used for other purposes, saving time, minimising rework and improving data quality over an infrastructure asset's life cycle.

Digital twin

For instance, with a connected data environment, the digital context of a work site can be represented as an engineering-ready, 3D "reality mesh" processed from photographs, scanned imagery, or both, and then updated continuously through drone surveys. This real-time digital context, or digital twin of the physical project, enables immersive visualisation of construction progress and inspections, including through virtual reality and augmented reality devices, such as with Bentley's Synchro 4D construction scheduling and management software, together with technology like Microsoft's HoloLens. Design and construction status reviews become continuous and comprehensive. Each discipline and trade are better equipped to avoid errors and interferences with other teams' work, and have better visibility into schedules and safety, which leads to overall improved project performance.

With further connectivity through the internet of things, the digital twin can be updated with sensor data throughout the life cycle of the asset, providing owners and operators insight into

real-time data to manage operations, safety and proactive maintenance.

Commitment to going digital

Realising the full benefits and potential of digital workflows enabled through a connected data environment depends upon a commitment to going digital, eliminating traditional, paper-based processes and integrating technology solutions for every infrastructure capital project. But it also requires the willingness of project teams to maintain transparency and accountability in their information-sharing, and to agree on what information will be shared, by whom, and in what time frame.

The construction industry has historically lagged in its adoption of innovations in technology and the need for streamlined project delivery for infrastructure projects has never been greater. Going digital, or embracing digital workflows, is crucial for the safe, efficient and cost-effective delivery of projects that advance the world's infrastructure.

Year in Infrastructure conference

From October 15 to 19, Bentley Systems hosts its annual Year in Infrastructure 2018 conference at London's Hilton Metropole. Thought leaders and leading executives in infrastructure from around the world discuss innovations in design, engineering, construction and operations to help organisations reach their digital potential.

View the conference agenda at <https://yii.bentley.com>

To learn more about Bentley Systems please visit www.bentley.com

Bentley
Advancing Infrastructure

\$57trn

needs to be spent on global infrastructure by 2030 to keep pace with GDP

McKinsey and Company

60-70%

average underspend by construction on technology compared with 18 other industries

Gartner

Transforming th

Building infrastructure can result in a complicated and disjointed project desperately in need of digital technologies to connect all parties

FELICIA JACKSON

If you're thinking about infrastructure, it's likely you're picturing construction: dirty, messy, inefficient and wasteful, with a serious disconnect between designers and architects, engineers and builders, and operators of the asset. Projects often come in late and over budget. The European Commission has even estimated that 30 to 35 per cent of waste comes from construction.

The advent of big data is, however, bringing an end to that model, with the connected environment transforming the way in which infrastructure is designed, planned, constructed, operated and maintained.

As Charlie Ely, project engineer at Mabey, says: "The use of digital technology is transforming the speed and efficiency of infrastructure projects. By making use of digital services, contractors can create 3D models of projects in advance to phase and co-ordinate the physical elements and timings of a project. This saves time on having to visit a project in person while minimising the risk of human error."

This is not without its challenges. Will Cavendish, global digital services leader at Arup, points out: "One of the most significant barriers for the UK's built infrastructure is that it is still far from digitised. Data is largely fragmented and of poor quality, so not in a fit state for mining, analysis and insight-generation."

This understanding led to the UK government's Level 2 Building Information Management (BIM) mandate in 2016, whereby all government-procured buildings have to be created using BIM. The process is a collaborative way of working that facilitates early supply chain involvement. Using 3D models it is intended to result in more efficient ways of designing, creating and maintaining infrastructure assets.

It has resulted in a fundamental transformation of the infrastructure sector, led by the application of new technologies and tools, from sensors, the internet of things (IoT),



Smart infrastructure is infrastructure that talks back, telling owners about its condition and its changing patterns of use

machine-learning and drones. As Andrew Watts, chief executive of Newtecnic, says: "It's no longer about designers and engineers producing 2D pictures; it's becoming a process that leads to making."

Jonathan Hunter, chief operating officer of Elecsoft, notes that with growing population comes a growing demand for infrastructure and digitisation is then necessary to survive. Construction projects are increasingly complicated and, when complete, it's often difficult to assess exactly what happened and when. This can result in increased costs, putting managers under greater pressure to improve costs, timelines and efficiency.

The last couple of years have seen this result in failures, with Carillion the latest victim. Mr Hunter says digitisation is about providing the evidence of impact across the

e way we plan, build and recycle our cities



Technology and infrastructure

Percentage of infrastructure industry decision-makers who agree with the following statements

The coming ten years will be a pivotal time for infrastructure, driven by huge trends in disruptive technology

81%

Many of the traditional, tried-and-tested approaches to infrastructure project management do not fit the demands of today's large, complex programmes

71%

The infrastructure industry is not evolving fast enough to meet the changing needs of society

67%

Major cities in my country are unprepared for the impact of disruptive technology on their civil infrastructure

65%

AECOM 2018

industry, adding: "Visibility across buildings and projects allows you to see the return on investment. It's about design with cost and time certainty."

Richard Shennan, digital business development director at Mott MacDonald, says: "Smart infrastructure is infrastructure that talks back, telling owners about its condition and its changing patterns of use. This data, together with a live asset information model or digital twin, enables predictive maintenance, scenario planning and investment decisions that will meet the changing demands and optimise through-life asset value."

The Thames Tideway sewer is a digitally transformed project which has used an integrated model-based design and construction approach, resulting in time and cost-savings as well as virtual reality for maintenance operations.

01 The KVMRT Sungai Buloh-Serdang-Putrajaya Line is the second mass rapid transit system being developed for the Greater Kuala Lumpur-Klang Valley region of Malaysia, and the first metro project in Asia to adopt a BIM level-2 strategy

02 Thames Tideway uses virtual reality for maintenance operations

Santanu Das, senior vice president of design modelling at Bentley Systems, says: "Connected data environments enable everyone involved to collaborate and access data about what's relevant to them. The digital twin is an ongoing long shot of how the project is being designed, constructed or operated. It's about exposing the data and making it workable."

According to Mr Das, this is increasingly the way the process is managed within infrastructure development. In Tianjin, northeast China, the local water utility modelled a leakage map of more than 1,000km of pipes to predict where peaks would happen. When building a second tunnel for KVRMT, Malaysia's rapid transit system, Bentley Systems and Microsoft connected project information with asset data, resulting in a 35 per cent efficiency gain over the first project.

As Mr Hunter says: "Infrastructure is evolving. It's about the delivery of assets". That makes it likely we'll see an increase in more offsite building products, especially when every element and impact can be modelled. When things are modular, there is an increased demand for digitisation during pre-construction and a reduction in onsite risk, waste and storage.

He adds: "We move away from construction to life cycle management, which allows us to build more efficiently and more sustainably." For example, Elecosoft's Powerproject

was used in the construction of the Shard, where large sections were built offsite and manoeuvred into place.

This approach of increasing standardisation also makes it easier to integrate circular economy principles into design and construction. Newtecnic's Mr Watts says: "Up until the Renaissance, thinking and making were part of the same process. When you have a phase-change in a journey, then the division of labour between design and execution is a problem – holistic thinking is required."

If you know where all the electrics and plumbing are, and which walls can come out, it allows you to think about how to reuse and recycle elements of infrastructure. The stadium for the 2022 Fifa World Cup in Qatar has been designed and is being built in a modular way, so after the football finals the structure can be disassembled and either rebuilt elsewhere or the elements can be used in the development of new buildings and developments in the region.

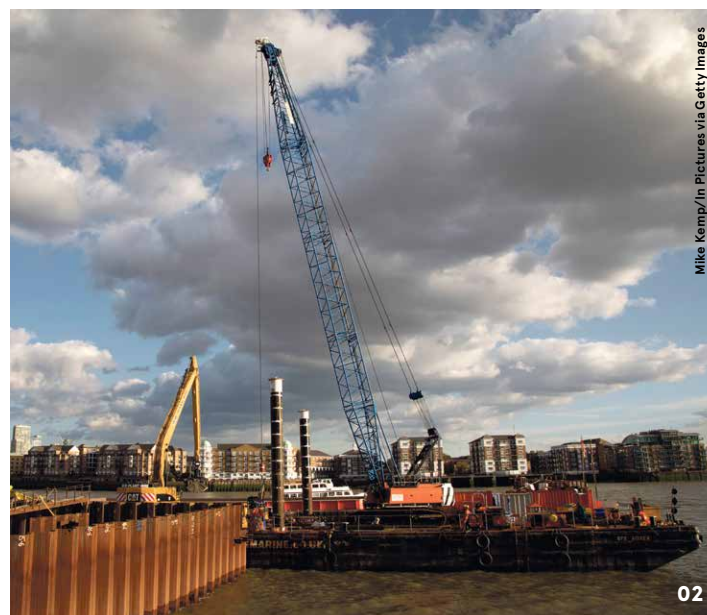
Mr Watts says: "Buildings are going to be more like software, all the

different elements working together to keep it going, evolving designs and changing functions. Every part of every building needs to be accounted for, so it can be removed and reused. Eventually everything will have to be handed back."

Mr Das adds: "There will be much faster smart cities, smart buildings and smart traffic management, with changing modalities to keep flow moving." The digital transformation of infrastructure provides a change to leapfrog the baggage of the past.

It's not just construction and operation that is set to change, however, as business practice must change too. Mr Das says: "Traditionally the industry was very different, build by the hour, say at 400 man hours. Now the model is shifting from being paid not for what you do, but how much you have saved – owners are much more focused on outcomes."

The UK's Institute of Chartered Engineers has a new scheme called Project 13. It is about trying to embrace and adapt a new methodology where owners and contractors will share in best outcomes, resulting in a shift in payment style. Mr Das concludes: "It's about accountability and transparency. Companies will have to adjust their models and reconstruct their financial models." It could be this that has the biggest long-term impact on the industry. ♦



Buildings are going to be more like software, all the different elements working together to keep it going, evolving designs and changing functions

Five failures to overcome the challenges of digital

Prominent failures to implement digital transformation provide lessons in how to avoid potential pitfalls

FINBARR TOESLAND

BBC

In an attempt to embrace an increasingly digital world, the BBC launched its Digital Media Initiative (DMI) in 2008. This ambitious project was set to modernise production operations and fundamentally change how the BBC both manages data and provides content to audiences, at the same time as reducing costs. Then-director of future media and technology Ashley Highfield said: "It is the single most important initiative we are working on. Without DMI, we simply can't deliver many of our planned exciting new on-demand services."

Overhauling the BBC's data management system was a central part of the digital transformation, with considerable efforts made to enable staff to collaborate on audio and video content, including being able to access archived material.

German technology conglomerate Siemens, selected by the BBC to be their technology partner on the DMI project without running an open procurement process, lost the contract in 2009 after numerous delays and rising

costs. The BBC brought DMI in-house after the Siemens contract was terminated, but problems persisted as the corporation didn't have the required technical capability to deliver the already challenging programme.

In 2013, BBC director general Lord Tony Hall announced that DMI was to be shut down, writing off £98.3 million in unusable technology assets. Chief technology officer John Linwood lost his job the following year.

Consultancy firm PwC conducted a review of how the project was managed and found there was a lack of oversight, due to no executive steering board keeping DMI on track, alongside an inability of the overall governance structure to manage the project's complexity effectively.

The PwC report also noted that while technological advancement was prioritised, improving business practices and operations didn't receive the same focus, illustrating the importance of keeping company culture aligned with digital strategies when carrying out a comprehensive digital transformation.

Co-operative Bank

Few digital transformation failures damaged the bottom line as much as the Co-operative Bank's £300-million IT fiasco. The bank made the decision to embark on a transformation of its legacy technology infrastructure in 2006 and began to consider how to rebuild systems from the ground up. New regulatory requirements in 2010 pushed for a single view of customers, necessitating a major digital transformation.

Instead of improving on current systems, the bank wanted to do away with antiquated solutions and set about replacing core banking infrastructure. If successful, this project would have been the first time a full-service UK bank replaced its core banking systems.

Unfortunately for the bank, the transformation was too complex and it simply didn't have the required capacity to orchestrate such a major project, especially as prominent

members of the IT leadership team changed during the initiative and other senior staff didn't engage fully.

As a result of these challenges, the programme was abandoned in 2013. Sir Christopher Kelly was tasked with chairing an independent review into the events leading to the bank's £1.5-billion capital shortfall and he placed part of the blame on the digital transformation failure.

Sir Christopher writes that the transformation was beset by "poor co-ordination, over-complexity, underdeveloped plans in continual flux and poor budgeting. It is not easy to believe that the programme was in a position to deliver successfully."

It's clear that the bank needed to improve its aged banking systems, but the decision to rebuild from scratch was too ambitious and proved to be unachievable. Managing large-scale change also requires constant scrutiny of progress to ensure goals are reached, which proved difficult as chief information officer Gerry Pennell, who played a key role in the decision to undertake the transformation, left the bank in 2008.

General Electric

Like other large multinational corporations, American conglomerate General Electric (GE) struggled with bringing about a digital transformation. Then-GE chief executive Jeff Immelt decided against focusing on individual digital initiatives or projects in different parts of the company and in 2015 created a separate business unit called GE Digital. It was hoped this new endeavour would not only allow GE's in-house operations to make better use of their data, but also turn GE into a more technologically focused enterprise.

Despite GE pumping billions of dollars into GE Digital, the fledgling business has failed to stop the collapse of GE's stock price and the organisation looks on course for continued losses. Predix, GE's industrial internet platform, faced delays and technological issues, which meant it was unable to compete effectively with rival services.

Current chief executive John Flannery now plans to refine GE's digital operations, telling investors last year: "We are still deeply committed to it, but we want a much more focused strategy." As part

of this new strategy, implemented after the digital transformation failure, GE is selling GE Digital and ditching plans to become a major player in the software space.

Modernising business operations and opening up new revenue streams through digital transformation is a laudable goal, but by failing to concentrate on a single area of improvement, large companies like GE will find it almost impossible to succeed in implementing a widespread transformation strategy.

Tasking GE Digital with this overwhelming undertaking spread the unit too thin and ultimately led to its sale. A further issue with GE Digital was its need to provide quarterly performance updates and a profit-and-loss statement, which restricted its ability to commit to long-term value creation and pushed the digital arm to focus on short-term goals.



Nike

Sportswear giant Nike is now a leader in digital business, but the retailer faced digital transformation failure. Nike launched a new business unit called Nike Digital Sport in 2010 to take the lead on digital initiatives and create new technological capabilities across the company.

Two years after the development of Nike Digital Sport, the firm released its innovative wearable FuelBand, which initially proved popular with customers. Thanks partly to the work of Digital Sport, the activity tracker could provide wearers with detailed statistics and made Nike a leader in wearable devices.

However, by 2014, it was reported Nike would be cutting the Digital Sport workforce by 70 to 80 per cent and discontinuing FuelBand after being unable to exploit data generated, alongside poor margins and difficulty finding enough skilled engineers.

Nike clearly learnt lessons from this setback and moved

04

away from manufacturing hardware in-house to focus on its software offering, further building on the Nike Plus digital brand.

Companies considering undergoing a digital transformation should ensure they don't repeat Nike's misstep, by having a well-defined transformation plan in place and not launching a digitally enabled service or product, like FuelBand, without an adequate data analytics platform to support its rollout.

With research from database developer Couchbase finding 90 per cent of digital projects fail to meet expectations, it's important to have a realistic and achievable target outcome for transformation or there is a strong possibility that enterprises will end up unhappy with the final result.

Ford

American multinational Ford has a long and successful history of selling vehicles around the world, but this 115-year old company had trouble bringing about a digital transformation that was able to change its prospects fundamentally.

In 2014, then-chief executive Mark Fields announced grand plans for the company to become a "personal mobility" business and put innovation at its centre. But rather than fully implementing digital solutions in its core business, Mr Fields opted to develop new digitally enabled cars and innovative mobility solutions in a new segment called Ford Smart Mobility, located thousands of miles away from Ford headquarters.

The siloed Smart Mobility spin-off was too slow in driving forward digital transformation, with Ford seeing its share price fall by almost 40 per cent. Mr Fields stepped down as chief executive in 2017, with executive chairman Bill Ford Jr saying he wanted

05

to focus on how digital innovation can be applied at all levels of the company.

"Should we sharpen our message? Absolutely," Mr Ford Jr told a press conference after Mr Fields left the company. "To be able to sharpen your message, you need to have clarity of strategy and a clear sense of alignment behind that message."

When digital transformation goes wrong, it's vital companies seek to not just understand the reasons for the failure, but also ensure future digital initiatives are not doomed to repeat mistakes. The failure at Ford shows the importance of a unified approach, especially at companies with diverse business segments, as well as the need to embrace transformative strategies in every part of the organisation. ♦



Datacentres are transforming the cloud and organisations

At the heart of any digital transformation is looking at how you handle your data

A 2017 Cloud Industry Forum study found that 76 per cent of organisations have already implemented or will implement a digital transformation strategy within two years.

Nearly every organisation (92 per cent) said cloud was an important factor, offering flexibility, scalability and security without additional capital expenditure.

Crucial to cloud, and often overlooked, is the datacentre. If it is not fit for purpose, you can forget transformation.

The popular view of the datacentre is a hangar, humming away in a desert. You sign up and forget about it. Organisations are increasingly realising that this gives away vital control.

A company called Blue Chip is changing perceptions. It started primarily as a provider of third-party maintenance on IBM hardware, but has expanded into disaster recovery and hosting customer systems. Now it specialises in providing private and hybrid cloud solutions on multiple platforms, including x86 (Windows/Linux), Z Systems and IBM POWER.

With more than 700 clients, Blue Chip provides the ecommerce backbone for several retailers and manages 10 per cent of the UK's banking traffic.

Blue Chip owns its own tier IV and III design datacentres in the heart of England. They sit in a goldilocks zone of being far enough away from risk sources, but in a place where power and telecoms links are reliable and accessible.

70%

of enterprises will use a multi-cloud strategy by 2019 compared with less than 10 per cent in 2017

75%

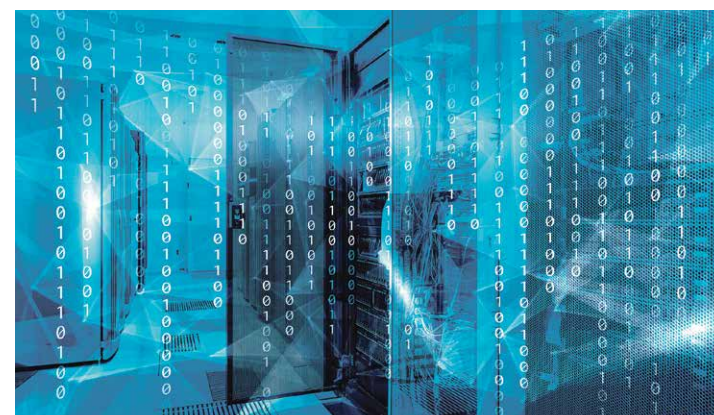
of Global 2000 enterprises that seek to implement a hybrid cloud model will require software defined datacentres by 2020

The Future of the Data Center in the Cloud Era, Gartner

47%

of chief information officers say they need new skills to implement artificial intelligence

Insights from the 2018 Gartner CIO Agenda Report



Head of sales and marketing Chris Smith says this helps deliver excellent customer experience and is a differentiator when many cloud providers use third-party datacentres.

"If something goes wrong with these providers that do not own their datacentres, who are you going to call?" he asks. "If a system goes down, they have to speak to their third-party provider, introducing significant supply chain risk and delays. A high street name using one of these recently had a 17-hour outage when they could not gain access to their datacentres and could not process orders or make deliveries."

In 2010, Blue Chip transformed the sector by delivering infrastructure-as-a-service using IBM POWER. It continues to innovate and, in 2018, the company moved to a software-defined approach. Blue Chip can now guarantee provisioning of new IBM POWER infrastructure within 48 hours.

The company's datacentres have the highest security accreditations available – ISO 27001:2013, PCI DSS service provider level 1 and SOC2 – vital for mission-critical systems.

"We monitor 10,500 datapoints dynamically and our preventive maintenance checks are second to none. We go beyond tier IV," says Mr Smith. "We can change things on the fly in a live environment, delivering operational best practice."

The datacentres run at an average PUE (power usage effectiveness) of 1.13, far below the industry average of 1.56, thanks to environmentally friendly free-air cooling, with resilience provided by traditional CRAC (computer room air conditioning) units.

With datacentres seen as a growing source of carbon emissions, being green is vital. Blue Chip is helping a local carbon offset scheme towards its goal of planting five million trees in a former industrial landscape where 20 per cent of Britain's bricks were made.



Chris Smith
Head of sales and marketing
Blue Chip

While environmental credentials are nice to have, it is flexibility and control that Blue Chip's customers really want.

"They want to be able to flex up for peak periods and shrink for quieter times, while reducing the risk of placing corporate data in the cloud," says Mr Smith. "Owning our own centres is fundamental to that."

The company also provides advanced artificial intelligence and data analytics services based on IBM POWER and Nvidia GPU systems.

"Analytics uses your company's most precious data. As we host both the data and the analytics software in our own centres, it never has to leave the perimeter."

In an uncertain world, the combination of security, control, engineering excellence and customer experience that Blue Chip provides is a welcome change.

For more information please visit
www.bluechip.co.uk



Win-win for private equity investors

Embracing digital transformation not only improves internal business processes, but also helps private equity firms identify the best companies for investment

JOEL CLARK

The private equity business is built around the concept of investing in the most promising companies. They may not have the best financials at the time of investment, but they need a viable strategy for continued revenue growth. Having a digital strategy is central to this. Without clear plans to automate manual processes and bring business online, most companies are unlikely to merit much attention.

Ironically, many private equity companies have not yet managed to digitise their own internal processes properly. They might look to invest in companies that demonstrate an understanding of advanced technologies and the benefits of automation, but they often rely on manual processes to assess prospects, engage with

staff and counterparties, and process transactions.

“Every sector in the business world either has already been digitised or is going to be digitised very soon. Private equity is an industry that also needs to embrace digitisation, both in our own firms and equally importantly in the investments we make,” says Christian Sinding, deputy managing partner and head of the equity advisory team at EQT, a global private equity firm.

Opportunities for digital transformation exist across all aspects of private equity investment. In a recent survey by KPMG, respondents suggested fund accounting, risk and compliance, portfolio risk management, and big data analytics were the areas most amenable to digitisation. Other functions that might also benefit include due diligence, client onboarding and customer relationship management.

Every firm is different, of course, and some are more advanced than others, but it is generally recognised that the digital transformation of private equity could not only bring internal efficiencies and improvements, but should also help individual firms to become more adept at identifying and investing in companies with the greatest digital potential.

“Effective digitisation should enable private equity firms to support businesses of all sizes and in all states of health through their individual growth stories. Firms that have invested in their own digital capabilities have the expertise to help struggling businesses to identify the best ways to use digital to

reduce costs and increase revenue,” says Mike Mills, deal advisory partner at KPMG.

Most sectors have now passed the stage where being digitally advanced was simply a competitive advantage and it is now very often an essential attribute for survival. For the private equity industry, this is particularly important not only because firms must look to digitise their own processes, but also because they may want to avoid investing in companies that don’t have digital ingrained in their DNA.

At EQT, the digital transformation of private equity is now well underway with the transition to cloud-based working over the past two years and adoption of widely used tools such as Dropbox for document-sharing and Slack for team messaging. The firm’s greatest innovation is Motherbrain, an advanced system that enables it to sift through large numbers of companies to find possible investments.

“Motherbrain leverages big data and machine-learning to identify those companies that are gaining traction and being disruptive before they become widely known.

It has allowed us to become a much smarter investor and to outperform our competitors through very robust automated due diligence on every single investment,” says Mr Sinding.

Examples of proprietary systems such as Motherbrain are still few and far between in the private equity world, but they show how the use of advanced technologies can help to bring internal efficiencies while also making sure the most digitally advanced companies are quickly identified for investment.

Following its recent survey, KPMG suggests private equity firms should begin their digital journeys with an assessment of where they sit on

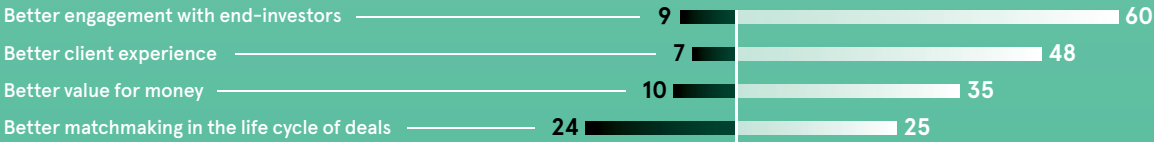
Firms that have invested in their own digital capabilities have the expertise to help struggling businesses to identify the best ways to use digital to reduce costs and increase revenue

Impact of digitisation in the alternative investment industry

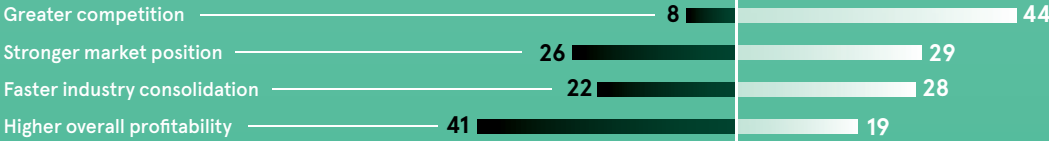
Percentage of global investment managers who think the following future impacts of digital innovations on their industry are likely or not likely

Disagree Agree

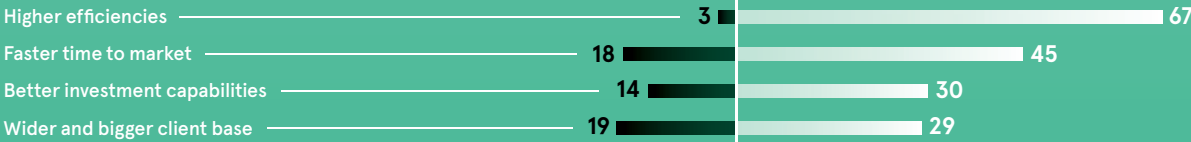
Benefits for end-users



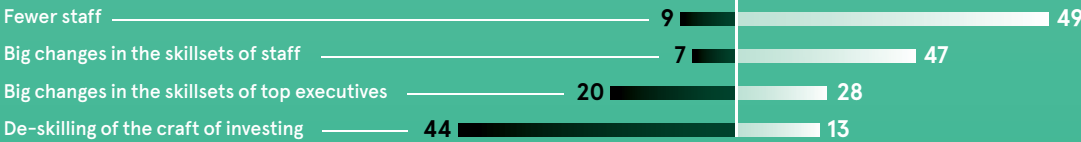
Competitive dynamics



Business model changes



Skills changes



KPMG/CREATE-Research 2018

the digital spectrum and development of a digital strategy. Core functions, such as investment selection as well as the management of portfolio companies, should then be upgraded with digital capabilities.

KPMG believes a talent strategy should be developed to ensure a firm’s staff has appropriate digital expertise in place. At EQT, for example, a 15-strong team has been built up to support the digitisation of portfolio companies, help with due diligence and train the firm’s staff to understand digital signals in the market.

“Digital transformation is vital and it is increasingly clear that all businesses should consider it. There are a small number of private equity firms that have teams dedicated specifically to digital transformation, while others are just starting to address the digital agenda,” says Mr Mills.

“There are now so many opportunities to reduce costs and make greater advances through robotics and artificial intelligence, but there is still a way to go to deliver the true power of digital transformation across many private equity firms.” ♦

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'Instead of inching towards tomorrow with incremental digitalisation, step boldly into the future by truly transforming'

The next round of organisations to fail in the wake of disruption will do so not because their leaders didn't see the future coming, but because they failed to see their own organisation's place in it.

I'm talking about companies that manufacture products as demand shifts to services, that focus on ownership as their customers demand access, that maintain their pipelines but lose ground to platforms. This is not because they don't see these shifts happening around them, but because they can't imagine what their company would look like if they actually leaned into these shifts to reinvent from within.

Arguably, this has always been the case. Blockbuster, Kodak, Nokia, Sony and Xerox had early access to the innovations that would ultimately challenge their legacy lines of business. These innovations would have given those companies a glimpse of a different future, but may have seemed like little more than digital distractions from their cash cows.

Perhaps they were looking at technologies before their time, but the real problem lay in their inability to imagine what they could do to ensure their own organisations could thrive in a world where these innovations had rendered their core business obsolete.

The difference, though, is that their vision of the digital future would have been fuzzier than yours is today. Even if you can't predict exactly what your market, industry, economy or the world will look like in ten years' time, you're undoubtedly well past the point of questioning the importance of digital transformation as a survival strategy for your own organisation. You know that today's exponential technologies will serve as basic building blocks for tomorrow's thriving businesses.

So, you're "doing digital". You're innovating at the edges or digitalising the core. You're tapping into technology to build a leaner, meaner, faster or better version of the company you are today.

However, I'd suggest you're focusing on the wrong things. For many businesses, these kinds of initiatives are necessary, but they're not enough. They amount to little more than shoring up the past at a time



Greg Verdino
Business futurist

when every business should be staking a claim for the future.

Too often digital evolution is rooted in the assumption that your same old business can be extended into a novel new future. It's the kind of unchecked assumption that causes established businesses to double-down on legacy models and structures, outmoded practices and risk-averse cultures, even if those things come to appear futureproofed by a bit of digital polish.

Despite looking more digital, your business remains stalled in its present or mired in its past. Then tomorrow's reality sets in: the way you've always done business becomes the way you go out of business.

What if, instead of inching towards tomorrow with incremental digitalisation, you were to step boldly into the future by truly transforming?

This deceptively simple change in perspective can have a profound effect on the way you think about digital transformation. Rather than merely identifying all the ways in which digital can optimise your business as it operates today, imagine what your company would look like if it were born with digital DNA. Viewed through this lens, the future of your business will bear little resemblance to today's steady state.

The decisions you make and actions you take will extend well beyond digitalising the things that got you where you are today. Instead of starting with a laundry list of technology projects, start with a reason why, draw upon innovative business models, breakthrough strategies and entirely new forms of value, and end with a winning formula for thriving in the future and playing a vital role in creating it.

Unlocking people premium in the world of new media

Brands that put people premium at the heart of their business will build shareholder value and long-term engagement in the digital economy, says **Christine Removille**, global president at media agency network Carat

The digitisation of advertising has created a paradox for many chief marketing officers (CMOs). Advertising is more effective and accountable, but expectations of short-term return on investment have risen sky high. There's a risk that longer-term brand premium is undermined.

In our recent global survey of 1,000 CMOs, securing long-term investment was identified as the number-one barrier to successful marketing strategies. And yet it's clear that strong brands still deliver long-term shareholder value. Intangibles are growing on balance sheets and investors are all too aware of the value that brand premium can command.

Disruption of media and marketing, driven by the digital economy, makes it dangerous to assume that brand value still works the way it used to. Of the ten largest businesses in the world by market capitalisation, seven are built on heavy investment in technology and platforms that connect people. It's clear that people premium is now just as influential in

unlocking shareholder value through digital as brand premium.

The digital economy is a growth certainty in an uncertain world, but when we look at the bigger picture, people often feel that digital isn't working for them. Our Digital Society Index suggests that digital engagement in the UK – a measure of how positive people feel about the impact of digital as a force for good – stands at just 40 per cent.

There's an obvious read across for business: put people premium at the heart of digital transformation and you can build a real and sustainable advantage, but to do this successfully requires focus in four key areas.

First, developing the capability to capture data across every touchpoint with customers and, critically, bringing this together under one platform.

Second, making sense of that behaviour through real-time insights. This not only requires dashboarding and historical data analysis, it's about predictive analytics that can identify patterns and understand, for example, if there are new segments to target or new influences on people's decisions.

The third element is around performance measurement. The role of media has been transformed as customer loyalty is tested by instant access to information, and the time-frame between media strategy and activation shrinks. To enable the speed required to create new digital services, content and segments, brands must embrace more entrepreneurial, test-and-learn approaches, adopt more agile methodologies and a sprint mentality.

The final step is to create closer alignment between media and content, underpinned by human intelligence. A seamless learning environment is critical in building both people and brand premium, while making sure the rest is automated.

These imperatives are changing the way agencies like Carat operate. As part of the Dentsu Aegis Network, we share its M1 platform as the backbone for human intelligence and are able to leverage better insights, smarter planning and targeted media activation against real people.

Digital is no longer just another communication channel, it's everywhere. Every business will be a digital business and every one of us is

Digital engagement according to the Digital Society Index

45%

Global

41%

United States

40%

UK

going to be impacted. Unless companies embrace this reality with a people-first approach, they risk becoming more and more disconnected from consumers with serious implications for their brand premium, sales and shareholder value.



Christine Removille
Global president at media agency network, Carat

For more information please visit carat.com

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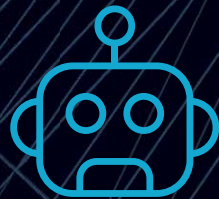
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