



Becoming truly digital

Rethinking business models for a digital world

Winning with technology series

Piecemeal initiatives that provide a digital customer experience or digitize existing processes are merely scratching the surface. To unleash the true potential of digital, organizations need to reimagine their business models.

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The evolving scope of digital

The focus of digital started with the customer and is now moving to the operating model. However, its true potential lies in transforming future business models.

Digital disruption is on the agenda of every CEO today. Yet digital initiatives in most organizations continue to be confined to disparate projects that are usually disconnected from the 'core' business. While this approach may serve the purpose of taking the first steps, it is a long way from truly embracing digital.

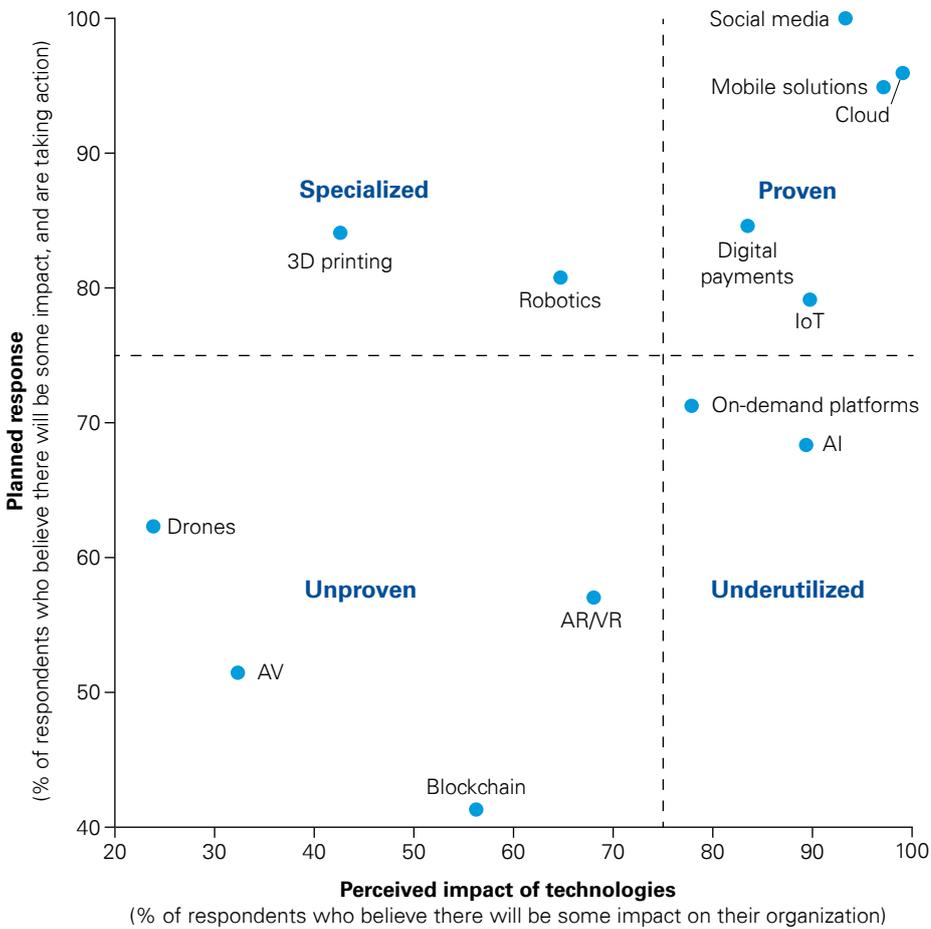
Though there never was an 'official' definition of digital, its scope seems to have grown considerably. What started as a new channel to enhance the customer's experience, improve ease of access, and expand reach, has now come to mean almost anything to do with emerging technology. Several new technologies are maturing at the same time (see Figure 1) – a few at alarming speeds – and are bringing new capabilities that can transform financial, business and operating models.

Figure 1: Key emerging technologies

-  **3D printing:** Process of making three dimensional solid objects from a digital file by laying down successive layers of material.
-  **Artificial intelligence (AI) and machine learning:** AI is about machines that can perform tasks that are characteristic of human intelligence. Machine learning, a branch of AI, refers to the ability to learn using practice data instead of pre-programming.
-  **Augmented reality (AR) and virtual reality (VR):** Augmenting physical environment elements with virtual information / creating virtual environments across multiple sensory modalities.
-  **Autonomous vehicles (AVs) and drones:** AVs refer to self-navigating vehicles; drones are unmanned aerial vehicles typically used for surveillance and delivery.
-  **Cloud:** Storing and processing data on online servers hosted by external providers who manage infrastructure and platforms to run the applications.
-  **Distributed ledger technology (e.g. Blockchain):** Decentralized databases that are publicly shared and synchronized over multiple locations eliminating the need for 'trusted' third parties.
-  **Internet of things (IoT):** A network of physical devices, vehicles, home appliances, etc. that are embedded with electronics, software and connectivity to exchange data.
-  **Mobile:** Development of mobile apps to connect with customers, suppliers, employees and other stakeholders.
-  **On-demand platforms:** Online platforms to facilitate the exchange of goods, services and ideas.
-  **Robotics:** Development of machines that are capable of carrying out a complex series of actions automatically.

Most organizations recognize the potential impact of these emerging technologies, and have started taking action (see Figure 2). We are seeing a shift in focus beyond the channel-focused aspects of digital to the middle and back office, with initiatives aimed at improving operating model efficiencies. But simply providing a digital customer experience or digitizing the operating model is not enough. We believe the true impact of digital will be the transformation and disruption of existing business models – reconstituting markets, reimagining product propositions, and redefining the customer. Organizations that fail to recognize this are likely to be eclipsed by existing competitors with greater agility and rendered increasingly vulnerable to disruptive startups.

Figure 2: Recognition vs. action¹



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The scale of the challenge

The rapid pace of digital advancement puts unprecedented pressure on businesses to adapt to the new reality.

While CEOs never had an easy job, the pace at which new technologies are evolving is putting them under unprecedented pressure. Digital capabilities are notoriously unpredictable in their scale of impact and speed to adoption, adding to the degree of ambiguity. What is certain, though, is that the lifetimes of winning models and strategies is shrinking, and CEOs must work out how to ensure their organization's future prosperity.

The biggest challenge will be for businesses that grew to scale in a previous era. Over time, these businesses will have adjusted to perfectly fit their circumstances, building on core strengths and protecting against vulnerabilities. Continuous improvement initiatives may well have sacrificed agility to eliminate waste and embrace efficiency, while basic assumptions will have seeped into processes and the company culture. Now, with digital reshaping every industry, these businesses may find themselves unfit for the new reality.

The challenge of digital transformation is this: how does a business that grew to scale in a prior era adapt and evolve to reach its next stage of growth in a digital economy.

– David Rogers,
Faculty at Columbia Business School and author of
The Digital Transformation Playbook

In part, the threat is from disruptive startups whose new-age business models are challenging conventional industry assumptions. New technologies also enable and underpin sector convergence, giving rise to new competitors from adjacent markets and industries. But one should not discount incumbents either: an increasing number of organizations are now looking to embrace disruption.

Amongst CEOs canvassed by KPMG in 2018²:



54% of the CEOs say they are actively disrupting their sector.



95% of CEOs see disruption as an opportunity.

The strategic imperative

Digital is about strategy, leadership, and innovative ways of thinking that are enabled by new technology.

Beyond technology

Accelerated change raises questions that go to the heart of strategic planning for businesses. They may need to rethink which markets they operate in, what problems they are solving for their customers and what roles they play in the value chain. They need to consider the new opportunities created by emerging technologies and evaluate the capabilities they need to realize those opportunities.

Importantly, this does not necessarily mean immediately building or acquiring expertise and resources in emerging technologies. Anthony Stevens, Chief Digital Officer at KPMG Australia commented; "In all the industries that I have experience with, the most successful digital innovators have focused on key business areas in the first instance. Technology is not one of those."

"Digital transformation is really not about technology," says Rogers. "It's much more about strategy, leadership and new ways of thinking. The hardest part for any organization is to step back and recognize how the strategy book they're playing by – with rules they might not even realize they're following – is now woefully out of date."

Digital is about strategy, leadership, and new ways of thinking (see Figure 3). Organizations need to cut technology out of their strategic change imperative – at least for now – and focus instead on strategy:

1

What is the corporate vision and objective? How do the financial, business and operating models need to evolve?

2

What will the digital enablers be? What new digital capabilities can be used to redefine financial, business and operating models?

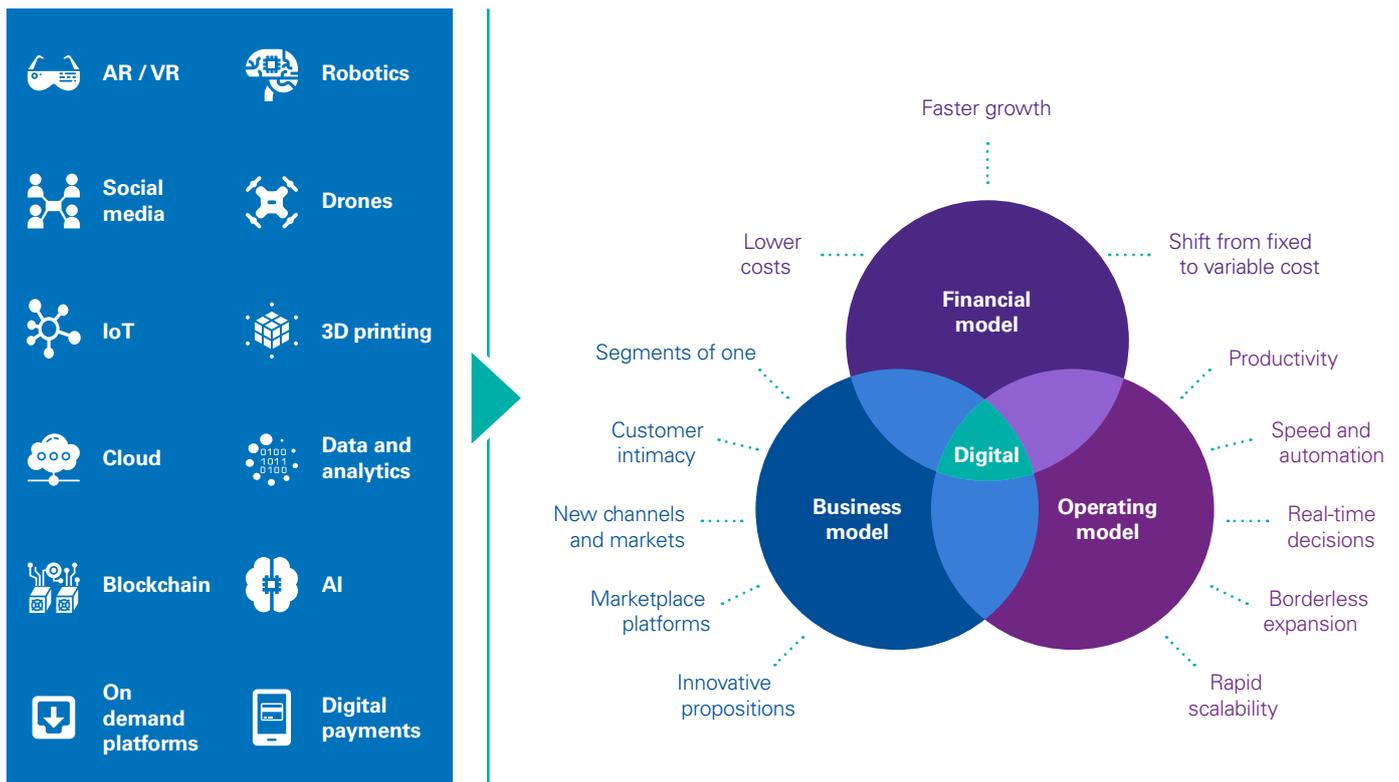
3

How does the business exploit its strengths as a large incumbent – its customers, cash flows, experience and networks? Incumbents have advantages over startups with their market access, existing technologies and strong balance sheets, for example.

4

How does the business become a 'Connected Enterprise' – across front, middle and back office? How can it align its fundamental capabilities across people, operations, systems and processes to capture business value?

Figure 3: Digital ways of thinking



Importance of a holistic approach

Companies have been quick to react and several are taking action. In our recent paper, *Decoding Disruption*³, we studied a variety of responses – ranging from internal innovation teams and skunk works programs, to sponsoring accelerators and incubators for startups, to corporate venture capital.

However, we find that digital initiatives are largely confined to piecemeal improvements at many organizations. These constitute stop-gap measures and small projects that have little influence on the core business. Achieving successful digital transformation requires a significantly more holistic approach.

The process of bringing piecemeal digital initiatives together within a strategic framework is what will underpin successful digital transformations.

It’s the all-pervasiveness that many senior executives struggle with. The tendency of businesses is to go for projects here and there, with no focus on the whole – the orchestration becomes critical.

– Peter Evans, Principal, KPMG in the US

To succeed, organizations must first answer the most basic questions about how digital initiatives can further their corporate vision and objectives. Only when an end-state strategic vision is in place does it make sense to drill down into the tools that will deliver it in practice.

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Recognizing potential – transforming business models

Over the past 10 years, digital initiatives have typically focused on the customer experience, with the emergence of new sales and engagement channels. Increasingly, organizations are exploring ways of digitizing the operating model and harnessing emerging technologies to improve the way they run their business. But few organizations recognize that the true potential of digital lies in transforming business models of the future.

Operating model improvements are interesting and useful, but it's just doing what you've been doing better. Developing new business models and tools will be the game changer.

– Andrew Sohn, Senior Vice President of
Global Digital and Analytics, Crawford & Company

A KPMG proprietary survey of more than 100 senior executives in large organizations highlights this finding – there is greater recognition of the need for change in the operating model than there is in redesigning business model elements. Executives have lower expectations on emerging technologies, forcing a change in the way they go to market, price their products, or define their value propositions (see Figure 4).

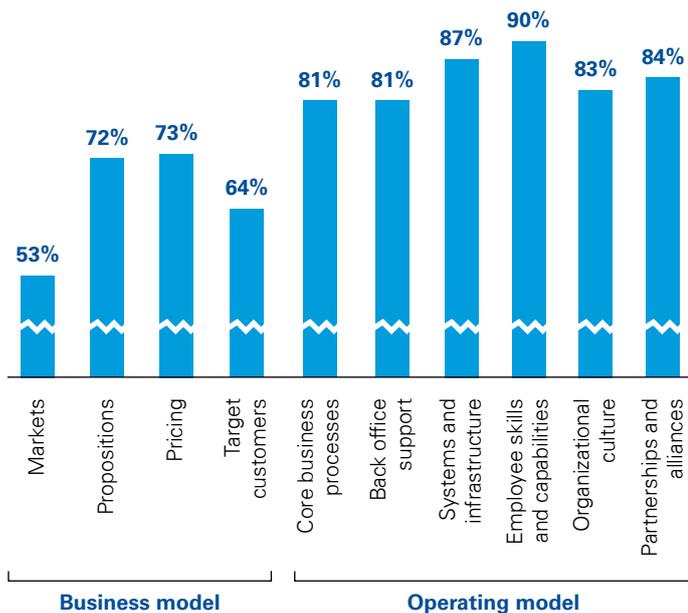
This may be a dangerous underestimation. Many organizations have not yet fully grasped the scale of the challenge they now face. “The problem you have is that people will often try and automate what they’ve got today, rather than focusing on where the model is going to go,” says Shamus Rae, Partner, KPMG UK. “Actually, it’s your business model that needs to flip.”

And time may be running out for large organizations to ‘flip’ their business models – their most disruptive competitors are already using technology to rethink the very essence of what they do.



Figure 4: How the C-suite sees the need for change⁴

Degree of change required in business and operating model elements (% of respondents who think moderate to full redesign is required):



Digital business models: India's first online-only insurer⁵

Acko, India's first wholly digital insurer, plans to launch a direct-to-consumer auto insurance product and follow it up with additional products in areas such as travel. Its entire distribution model will be digital.

While the business will make considerable savings by operating without a bricks and mortar presence, the greatest gains will come from the customer data Acko will be able to employ for real-time underwriting. With greater customer knowledge in a market where most policies are sold offline with flat pricing, Acko will be able to price policies far more accurately than incumbents. According to founder Varun Dua, this could translate to a discount of about 30% to 40%, before accounting for cost savings by operating without a physical presence.

"The incumbent businesses have got stuck," says Dua, who says they are held back by consumer apathy and the high cost of traditional distribution. "We will look at the business model as a whole and see where technology can enable it."

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Rethinking business models

Three categories of innovation will drive digital business models of the future.

To understand the digital potential and disruptive challenge to existing business models, we believe three categories of innovation should be considered:



Product propositions:

Leveraging digital to create innovative new propositions that make current market offerings obsolete.



Customer:

Customizing the product and service experience through in-depth customer knowledge, resulting in a 'segment of one'.



Markets:

Providing a marketplace platform that enables scale and broader participation from suppliers and buyers, unlocking value from inefficient siloed or physical marketplaces.



Creating innovative product propositions

For many organizations, the greatest potential for digital lies in making their propositions more compelling to customers – either by significantly enhancing existing products and services or launching new innovative propositions that are enabled by emerging technologies.

“Look at auto manufacturer Daimler’s car2go car sharing service – that’s a new business model for the company,” says George Westerman, Principal Research Scientist with the MIT Sloan Initiative on the Digital Economy. “Or insurance companies, such as Cuvva in the UK or Tokio Marine in Japan, that are selling insurance by the hour or the day rather than by the year. “Incumbents need to consider whether their traditional business models still fit every customer, and whether they need to try new models before their competitors do,” adds Westerman.



'Fitbit for cars' promises to save drivers thousands

Several companies are battling for supremacy with tools that connect drivers' vehicles with their smartphones and alert them to potential problems developing in the engine before a full fault emerges that is expensive to resolve.

A connected device that plugs into a port installed in most vehicles provides constant feedback on the engine to an app on the driver's smartphone. By providing timely alerts, the device enables preventive maintenance and reduces chances of major engine faults.

The multinational oil company, Shell, has developed a similar tool called Fitcar⁶. It hopes to have this installed in a million vehicles by the end of 2018. Trials of Fitcar with 3,000 US drivers last year show an increase in visits to Shell's network of service stations, with drivers instructed to change their oil or carry out routine maintenance.⁷



Using customer data to personalize the experience

Access to data enables businesses to understand their customers better, equipping them with information for effective targeting, customizing propositions, and providing a superior, personalized experience. While recent cases of customer data misuse are all too familiar, new regulations such as the General Data Protection Regulation (GDPR) should help to rein in potential abuse, bringing customer profiling into the mainstream.

Marriott International is one example of a company making innovative use of customer data, relying on a constant feedback loop to build customer-centric experiences in its hotels. The company has developed a universal guest ID that connects data on the customers from previously unconnected systems ranging from the hotel check-in desk to the call center. Armed with this data on individual customer preferences, Marriott can personalize the stay or create and design events they know people will want.⁸

Businesses can use this model to drive customer loyalty and exploit new tools in data and analytics to gain competitive advantage from their knowledge of their customers.



Personalizing health advice for grocery shoppers^{9,10}

DNANudge is a British startup pioneering the use of customers' DNA to offer personalized dietary advice. The company's web or app-based solution is used online, or in supermarkets to read barcodes of individual products, and nudge shoppers towards some foods and away from others, based on what it knows from their DNA about their susceptibility to conditions such as diabetes.

The company uses sophisticated DNA technology in a simple and easy-to-use format, processing a saliva sample in store in less than 30 minutes to create the customer's individual DNA profile.

Once DNANudge has the shopper's profile, it uses the information to power the app's recommendations to customers, delivering personalized shopping advice about how to stay healthy. Another key feature is the ability to shop for family and friends with NudgeShare, which finds products suited to family needs by sharing shopping recommendations.

Customers shopping online or using their mobile or wearable in store get a thumbs-up or a thumbs-down suggestion on every item they are considering.

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Redefining markets

Emerging technologies offer organizations the opportunity to find innovative new ways to bring together supply and demand elements and unlock inefficiencies of a physical marketplace. This could mean access to customers in geographies which were previously inaccessible or better utilization of assets and resources.

Across sectors, platform providers are emerging that help connect supply and demand elements in their respective markets. Aggregator sites have been the pioneers in this area, and today there are marketplaces that allow customers to compare, contrast and select offers for pretty much everything, ranging from dog-sitting to financial services. While marketplace platforms derive value primarily through the volume of traffic, making it possible for smaller players to participate effectively, they can deliver significant benefits in the form of network effects, bundling and combinations, customer reviews, and buyer / seller analytics.

In some instances, organizations may themselves create and manage their own platforms for very specific use cases. Ken Fraser, Global Chief Client Officer at Crawford & Company points at one such example: “We have invested in WeGoLook, an ‘Uber-like’ enterprise, with a network of over 40,000 ‘lookers’ who carry out field inspections when an insurance claim is made. This will help in speeding up the settlement process, transforming the customer experience with faster payments and providing the carrier with lower cost claim resolution.”

Crawford’s Andrew Sohn also points to the development of an industry-wide consortium for insurance to streamline the management of claims. This collective endeavor could “help build faster, agile and better cost models”; he argues. Several startups are already working in this space, with shared data having the potential to reduce costs for all parties in the process, and Blockchain-enabled smart contracts offering a means to automate policy underwriting and claims settlement.



Gelato democratizes printing¹²

“Everyone in the print industry sees the solution in terms of hardware and print machines. We don’t need more printers. What we need – and what Gelato provides – is a print cloud that connects the world’s printers to creators who need to print their creations as close to the final destination as possible,” explained Henrik Müller-Hansen, CEO and Founder, Gelato. “We are moving the print industry from an offline and offset model to an online digital software model.”

By connecting the world’s printers through cloud-based software, Gelato is democratizing printing. The company enables anyone, anywhere to access high-quality print machines – with an average cost of US\$1.5m per machine – by sharing their print orders with owners of underutilized print machines across the globe. Once a design is uploaded to Gelato’s platform, it is automatically routed to the printer in Gelato’s network closest to the final destination, where it is printed and shipped locally, and most often delivered within 72 hours.

Gelato aims to offer benefits to all parties, explains Henrik. “All participants in the marketplace must end up as winners,” he says. “Assuming companies move their total print spend to Gelato, costs can be reduced up to 50%. For our printers, we represent higher efficiency and profitability; using Gelato’s software can reduce the time printers need to spend on each job by up to 90%. The power for professional print houses is two-fold: they get access to jobs they normally wouldn’t have access to and they achieve strong profit margins because of the efficient workflow.”

Towards a digital ecosystem

Over time, digital ecosystems will evolve, with a few organizations becoming the centers of gravity, around whom the rest of the players will revolve. Such digital ecosystems will cut across sectors and the most powerful roles will be the ones that are closest to the customer. While all organizations may not necessarily aspire to become the center of gravity, they will need to identify with whom to align.

The home automation market is showing signs of such evolution. With several of the world's biggest businesses vying for the customer, there is a realization that whoever controls the 'access point' – the device that customers interact with, to access services such as heating, lighting and home entertainment – will set the standards for the rest of the ecosystem to follow.

KPMG's Peter Evans points to the automotive sector, where future value may lie in services other than manufacturing, as another industry that is grappling with these issues. "The auto companies are basically working out how not to become component manufacturers in someone else's ecosystem."



Emergence of digital health ecosystems in diabetes care

Digital health players, such as Glooko, Livongo and Welldoc that provide app based services for diabetes patients and healthcare providers, are aggregating data and connecting different stakeholders along the diabetes care value chain. This is driving increased integration of activities across the value chain from transmitting and sharing data to analysis, forecasting, and care provision.

To drive long-term growth, healthcare companies must identify what roles they can take up in these emerging digital ecosystems – they may leverage current scale to establish exclusive / preferred contractual relationships with key payers and providers, integrate other data points for diabetes and related conditions, look at extending scope of services to clinical care and interventions or explore innovative new monetization models such as bundled revenue streams and subscription pricing.

Plan the journey, but be flexible

As organizations rethink their business models to become 'truly digital', they need to set their vision, identify fields of play, and plot the course for the journey.

But as is well known, implementing change, especially fundamental shifts in the business model, is extremely challenging. The status quo could feel comfortable, especially if the disruptive threats are not perceived as imminent, and inertial to maintain the current course and speed could be considerable. But making the leap is essential. Organizations must overcome the hurdle and commit to change.

"The fear of taking risks holds many organizations back from innovation," warns Sonja Moosburger, Managing Director of MediaMarktSaturn's innovation unit N3XT. "People don't like change. They would rather have the business model like it is now, and they'd rather run their processes like they used to."

Effectively managing the change agenda requires senior leadership commitment, careful planning and management of culture transition, as well as a robust approach to connect front-line innovators to the C-suite through a shared view of destination, journey and associated project economics. Change plans should be based on business cases that not only outline economic value for change, but also ensure initiatives suggested are feasible to implement and all unintended risks and consequences have been considered.

With new technologies emerging at pace, organizations must be prepared to experiment and learn. Investments in emerging technology need to be treated differently from classic long-term IT projects. Apart from assessing economic value, implementation feasibility and associated risks, a well thought through digital strategy should be agile – it should allow for optionality to change course if transformation unfolds in unexpected directions, flexing to the most economically attractive models as they emerge.

We need to have agility in the strategy, because it may need to change regularly. Large organizations need to understand that the newer organizations will be built like that.

– Shamus Rae, Partner, KPMG in the UK

Getting started

Time is short. Failure to shift to a business model that is tuned to the digital future could see many organizations falling behind. Leaders should look to get started on their journey by considering the following initial steps in their digital evolution:

1

Define what digital means for the business

- Consider which disruption themes are most suited to the business model
- Create the digital vision and identify key digital enablers and capabilities for the future organization
- Understand the digital ecosystem of tomorrow and the organization's position within it

2

Chart the digital journey

- Define the future digital profile and identify relevant digital interventions
- Assess adequacy, feasibility and robustness of planned interventions
- Assess the value case to implement change

3

Start moving and remain agile

- Build in optionality
- Monitor commercial performance against original objectives and targets
- Prepare to experiment, learn and adapt



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