

Approaching disruption

Charting a course for new growth and performance at the edge and beyond

A report from the Center for the Edge's *Patterns of Disruption* series

Deloitte Consulting LLP's Strategy & Operations practice works with senior executives to help them solve complex problems, bringing an approach to executable strategy that combines deep industry knowledge, rigorous analysis, and insight to enable confident action. Services include corporate strategy, customer and marketing strategy, mergers and acquisitions, social impact strategy, innovation, business model transformation, supply chain and manufacturing operations, sector-specific service operations, and financial management.

CONTENTS

Executive summary | 2

Introduction: In a world of continuous disruption, the catalyst for opportunity | 4

Uncertainty, denial, and the transformation dilemma | 6

Build awareness: What forces are reshaping the business landscape? What could the future look like? | 13

Focus efforts: Where do we want to go? | 24

Act for impact | 29

Learn, refine, monitor: How do we create a process of rapid iteration on our impact initiatives so that we can accelerate learning and amplify impact from these initiatives? | 32

Conclusion | 34

Endnotes | 36

About the authors | 39

About the research team | 40

Acknowledgements | 41

Contacts | 41

Executive summary

“**D**ISRUPT yourself.” Or don’t. It’s catchy and empowering. It’s also a good way to accelerate your own demise. Resist the urge.

Executives often can’t help viewing disruptive forces—even those inside the organization—as threats. Indeed, the biggest risk of disruption is that it tends to send corporate leaders into narrow, defensive stances. The nature of disruption is such that trying to respond directly can lead to actions that will challenge the core, awaken the corporate antibodies, and increase the risk of failure.

A better approach is to treat disruption as a catalyst to pursue the significant new opportunities for growth and sustained advantage that will inevitably emerge as a result of disruptions restructuring the landscape. These opportunities are at the edges of business as we know it: not in either our current markets or new versions of our existing businesses. Thus, we can pursue and develop them on the edge without confronting the core or threatening existing revenues, budgets, and resources in the short term. As long as we keep them on the edge, they avoid the same scrutiny and constraints that prevent effective response in the core. Thanks to exponential tools, the barriers to entry and scale are lower, allowing pursuit of new opportunities with little upfront investment and accelerated growth. Of course, that means the window of opportunity to take action is

more limited, too, and the advantage may lie with those who can act first.

There is a risk that leaders won’t take advantage of disruption—that they won’t move quickly and aggressively pursue the new opportunities opened up by disruptive forces. Even battle-tested executives may find that the speed of change in the digital age doesn’t afford them the same space they’ve had in the past to manage their businesses through the uncertainty surrounding disruption. Because others may also be targeting the new edge opportunities, companies that delay acting on them may lose the option. In fact, they can miss out on two levels: First, they may miss the new opportunity while another entrant develops it; second, they can lose the freedom to choose their future as the impending disruption decimates revenues and market share. Paradoxically, the profitable, successful companies that should have the most leeway to pursue new opportunities tend to lack the urgency required to take significant action.

In part 1 of this series, we laid out a framework for thinking about the different forms, or patterns, that disruption takes and that are likely to play out in specific markets. The patterns of disruption we identified in our [previous research](#) can help build urgency in the face of success. Most, if not all, mar-

kets are susceptible to at least one of the patterns of disruption, and many will be vulnerable to a series of disruptions, each laying the groundwork for the next. The patterns describe the ways markets will transform and the near-term pressures incumbents may face. For most companies—even or especially the successful ones—status quo is not an option, and the options are far better for those who act preemptively to embrace opportunities created by the broader forces reshaping our existing markets.

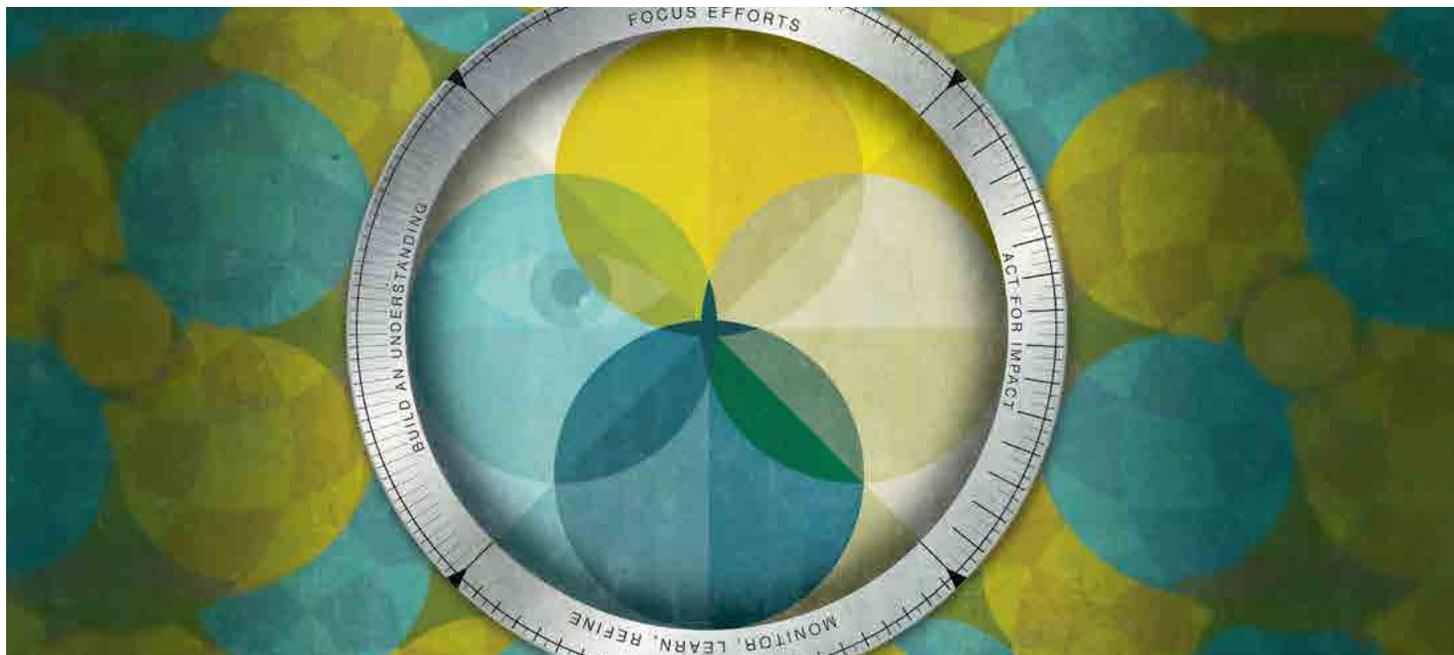
These new edge opportunities, beyond the core, have the potential to create far more value in the long term. In an environment where digital infrastructure and liberalizing public policies lead to a mutually reinforcing fragmentation of products and services and concentration of scale and scope-intensive businesses to support them,¹ these edge opportunities will likely center around one of three types of businesses: Infrastructure providers will manage routine, high-volume operational tasks; platforms will connect businesses with a growing range of third parties; and trusted advisers will build deep, trust-based relationships with customers.

The dilemma is that addressing these edge opportunities requires transformation—the businesses built

on these new types will look and operate fundamentally differently than the incumbent businesses of today—and conventional approaches to transformation tend to be time-consuming and have a terrible track record, yet each of these opportunities requires incumbents to act, now. The misconception is that businesses need to integrate the innovative edge back into the core or main business. Time and again, this attempt to reintegrate has mobilized the organizational antibodies to defeat the transformation.

Therefore, if companies are to embrace the opportunity posed by disruption, they will need a new approach—one rooted in hope rather than fear and focused to the edge rather than the core. The patterns can help shape and clarify the opportunity. They can also help target efforts to strengthen the core business, maintaining the revenue stream to fund transformation, while identifying where those efforts are misguided.

Ultimately, the key will be acting with a sense of urgency, avoiding both complacency and defensive reactions. Where a company is now matters less than understanding where it wants to be and needs to be and using disruption as a catalyst for action.



Introduction:

In a world of continuous disruption,
the catalyst for opportunity

BUSINESSES are under intensifying pressure. New approaches, enabled by exponential technologies and liberalizing public policies, are reducing barriers to entry on a global scale. New entrants can quickly scale businesses that once took incumbents decades to build. As a result, competition in many markets is increasing, and product life cycles are compressing. The environment is ripe for disruptive entrants—whether black swans, unicorns, or merely a swarm of upstarts—wielding new approaches with the power to interrupt the best-laid plans, predictions, and forecasts and the potential to unseat corporate giants. This is disruption.

Disruption is coming, in one form or another, for most large incumbents. In our previous research, we identified nine “[patterns of disruption](#),” enabled by broad long-term trends. Most markets will be vulnerable to at least one pattern, and many will be affected by several.² These disruptions accelerate us along the path of mutually reinforcing fragmentation and concentration in the economy detailed in *The hero’s journey through the landscape of the future*.³ In that environment, large companies will face strong competition and will have to be good—distinctively good—at the skills and practices needed to succeed in the concentrating parts of the economy to find sustainable growth opportunities. As a result, companies will focus on one type of business,

and leverage others for the capabilities they lack, to create new types of value for others and capture value for themselves.⁴ More frequent and rapid disruption and the likely impact of a series of patterns on a market make some business types more attractive than others. *Platform, trusted adviser, and infrastructure provider* businesses will offer potential for growth and sustained performance in the concentrating parts of the economy. Meanwhile, product and services businesses will tend to fragment, making the *product innovation/commercialization* type generally less attractive for large companies over time.

While this rapidly changing environment brings significant opportunities, capitalizing on the opportunities can require swift and aggressive action. In fact, once disruption is upon a business, it is generally too late. Whether incumbents try to replicate the disruptive pattern, to “disrupt themselves,” or double down on their existing assets with cost-cutting and incremental innovation, the actions tend to be insufficiently aggressive and can be detrimental to the company’s long-term sustainability if there isn’t a simultaneous commitment to transform the company for the future opportunity. Blockbuster’s attempt to launch a mail-delivery service in 2004⁵ and Borders’ increased investment in brick-and-mortar retail as a response to the rise in

Internet commerce⁶ provide poignant examples of how companies that don't transform can lose on two dimensions: squandering resources on a declining business while also missing the brief window of opportunity to take more effective action. Once disruption is happening, revenue streams come under attack and companies lose the freedom, and funds, to develop radical new opportunities.

Incumbents may struggle to recognize potential disruption and, having recognized it, will be challenged by the expertise, capabilities, and assets that brought them success. In particular, any actions that threaten significant current revenue streams, turn assets into liabilities, or require a different set of core assumptions may fail to gain traction.

But perhaps the first challenge for senior leaders is taking action when they are uncertain whether there is cause for response. Chalk this up in the category of denial, perhaps, but it is easier in retrospect than real time to identify where changes signify impending disruption that warrants not just a response but a radical transformation. In the moment, executives perceive the risk as taking action against a perceived threat that doesn't materialize and finding themselves in an entirely avoidable bad situation. They worry about destroying the core in pursuit of a disruptive future.

But this frames the decision too starkly: It isn't an either/or, destroy the core or abandon the future. Instead, companies can use an opportunity-focused approach, one that propels the company toward the long-term position (opportunity) while taking targeted actions that strengthen and maintain the core business in the near term in order to buy the time and freedom needed to further shape and understand the future business.

The patterns provide a starting point to help companies anticipate the changing competitive dynamics in their markets and perceive whether a signal is a temporary challenge or a long-term disruption. They also highlight the opportunities for companies that capitalize on these patterns. Developing a compelling opportunity on the edge can build

momentum for transformation and help to clarify a company's activities over time. These hopeful narratives counter the fear-based perspective and can ultimately serve as powerful guiding beacons to help companies reach their potential.

Although disruption is challenging, we have reason to believe that incumbents can succeed. Established companies will embrace business types that leverage their strengths in scale and scope to support fragmented parts of the economy. The same forces of disruption are creating potentially large opportunities—for those companies that have the urgency and vision to get ahead of disruption.

Beginning with a clear-eyed view of the challenges that stand in the way of transformation, we will outline a pragmatic approach for using disruption to mobilize transformation while minimizing risk in an environment of accelerating change. In this paper, we will explore the transformation dilemma and examine how one company, Apple Inc.,⁷ navigated multiple disruptions through focusing on the next opportunity. Building on this optimistic vision, we will outline a pragmatic approach for responding to disruption:

- a. **Build awareness:** Explores how patterns of disruption can be used to help challenge assumptions, anticipate near-term pressures, and catalyze action
- b. **Focus efforts:** Defines longer term opportunities that are likely to concentrate over time and considers how capabilities, vulnerabilities, and adjacencies affect which opportunities companies pursue
- c. **Act for impact:** Outlines the path for incumbents to move from where they are today to where they need to be, including how to develop and scale the edge, strengthen the business, and restructure to free up resources
- d. **Learn, refine, monitor:** Describes the ongoing, iterative process to effect transformation

Uncertainty, denial, and the transformation dilemma

RESPONDING to disruption by anticipating it, with a bias toward the longer-term opportunity, requires overcoming several challenges. For most incumbents, embracing the new opportunities presented by disruption necessitates transformation. Few, if any, companies are currently fully focused on one type of business—most are conflicted hybrids of product, infrastructure, and customer businesses that are already experiencing mounting performance pressures made worse by practices and structures ill suited for today’s accelerating pace of change. In such cases, companies may need a transformation, but conventional transformations tend to have a high failure rate, and the potential opportunity may rapidly diminish if others develop it first.

For incumbents, the first, overriding obstacles are lack of urgency and internal resistance to change. By the time the leadership feels fully confident of a

disruption, it may already be too late to react. With the academic, business, and popular media saturated with “disruption,” why do organizations lack urgency? A dysfunction occurs in times of mounting performance pressure. The perception of risk is magnified; the potential for reward is discounted. The perception of risk is further reinforced by fear-

based literature that terms disruption as “businesses’ worst nightmare”⁸ and “wreaking havoc on traditional business models everywhere.”⁹ Paradoxically, the constant noise does not build urgency but actually shortens the time horizon. In this dynamic, leaders tend to shift to extracting

immediate results in the short term. With limited resources for competing demands, leaders focus on the risks happening today or tomorrow and lack the attention or resources to consider the very uncertain potential rewards, or even risks, further on the horizon.

“I have not the smallest molecule of faith in aerial navigation other than ballooning.”

—Irish mathematical physicist Lord Kelvin, 1896, in response to request to join the Aeronautical Society

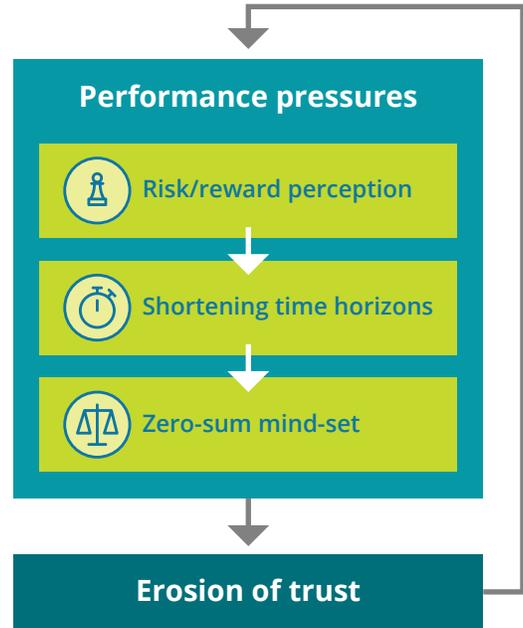
As the time horizon shrinks, other cognitive biases (see figure 1) may come into play in a self-reinforcing loop.¹⁰ Companies develop zero-sum mind-sets, as if the world contained a fixed amount of economic value, and neglect the possibility of creating new economic value. Zero-sum mind-sets narrow companies' focus to a threat-based narrative. This becomes a vicious cycle as short-term mind-sets drive zero-sum mind-sets, driving threat-based narratives and further magnifying short-term thinking. Shorter time horizons can also result in a false sense of certainty, anchored in what we know and our expertise in the present. The future is only an incremental future, an extension of today and tomorrow, so its possibilities are also only incremental. Shorter time horizons can limit the imagination and constrain companies' ability to act on opportunities they cannot imagine.

One challenge for senior executives is that their time horizon is based on their expected tenure. Tenure may artificially limit their ability to see possibilities or take action on a longer time horizon. Instead, they optimize on the short-term metrics and seek to contain perceived threats and minimize near-term pressures, avoiding failure or potential failure. As Jeff Bezos frames it in his December 2015 letter to shareholders, all decisions are treated as equally important and irreversible, requiring high levels of certainty and planning.¹¹ As a result, decision making slows, and executives prize certainty at the expense of the learning that could come from less consequential failures.

Apart from the challenge of building the recognition and urgency for transformation, there is the sobering fact that around 70 percent of organizational change efforts fail.¹² They fail in part because directly confronting the core often requires high upfront investment and time commitment—raising up powerful organizational resistance as antibodies fight to protect what they know best.

In addition, the same challenges, detailed in our prior research, that make it difficult for the existing business to respond effectively to a specific market disruptor—the desire to avoid cannibalizing revenue or to write off expensive assets and the inability to overcome core assumptions—can stand in the way

Figure 1. Cognitive biases reinforce threat-based narratives in times of high uncertainty



Graphic: Deloitte University Press | DUPress.Deloitte.com

of transformation. In particular, companies hold onto the same assumptions—about what customers value, how best to serve those customers, and how to capture value—that brought them success in the past. These unchallenged assumptions ultimately dominate a company’s focus and strategy.

Finally, large companies have the curse of scale that can lead to dismissing many new opportunities while over-resourcing others. A large company often has an evaluation hurdle that asks the question: Does this have the potential to be a billion-dollar business (or to sell a million units, etc.)? Focusing on something like a detailed market sizing, however, can have the effect of reinforcing assumptions about customers today rather than illuminating how their preferences might evolve. Even if an initiative is initially given leeway, the developing opportunity can be killed at any time.

All of this contributes to the transformation dilemma: This environment seems to require transformation, yet transformations tend to be time-consuming and have a high failure rate, and the opportunities driven by the patterns of disruption require incumbents to act quickly. The good news is that where disruption has not yet hit, patterns can help build urgency in the face of success, helping executives look ahead and around with some idea of what to look for. The bad news: Having that time breeds complacency. If today’s successful organizations—those that are in the best position to be able to “respond” proactively in anticipation of disruption—are to use their resources to their advantage, they’ll need to not only seek new lands but see with new eyes.

A new approach

One key message of Sun Tzu’s *The Art of War* is to avoid confrontation for as long as possible until the enemy grows weak and the champion grows strong, and battle is no longer necessary. In business transformation, the “enemy” is corporate antibodies: organizational inertia and denial as well as those individuals who actively fight against change. The pressure for results from shareholders can become another detractor for anticipatory transformation.

The challenges to mounting an effective response to disruption are real. However, the latitude for addressing the external disruptive challenges is greater before the company is under duress. An alternative to the traditional organizational change model is for would-be transformers to build and develop an edge opportunity without confronting the leaders and resources of the existing business in order to circumvent internal resistance. By acting early, in anticipation of disruptive forces, the edge opportunity has a chance to develop and become a compelling vision that generates a strong pull on the core by the time that core business is facing displacement. At the edge, the opportunity does not face the same scrutiny, assumptions, or expectations as the core business.

This approach, covered in greater detail below, offers some hope to companies that struggle between falling victim to small incremental changes that fail to address the problem fast enough and taking on big bets without guarantee of success. Rather than be constrained by the current business and market, leaders take an outside-in, future-back perspective and work backward to the implications for action in the present that can take advantage of the very social and technology forces that appear threatening today. It also stands in contrast to the notion that innovating with an eye to eventually pushing the innovations back into the core can stave off disruption. This only delays the inevitable resistance, as antibodies will quickly rush to crush efforts that challenge core activities and thinking, whenever they are introduced. Ultimately, the firm would still be bound by short-term thinking and the fear-based narrative—falling into the trap of responding in a narrow, defensive way to the disruptor rather than moving toward new white spaces of opportunity.

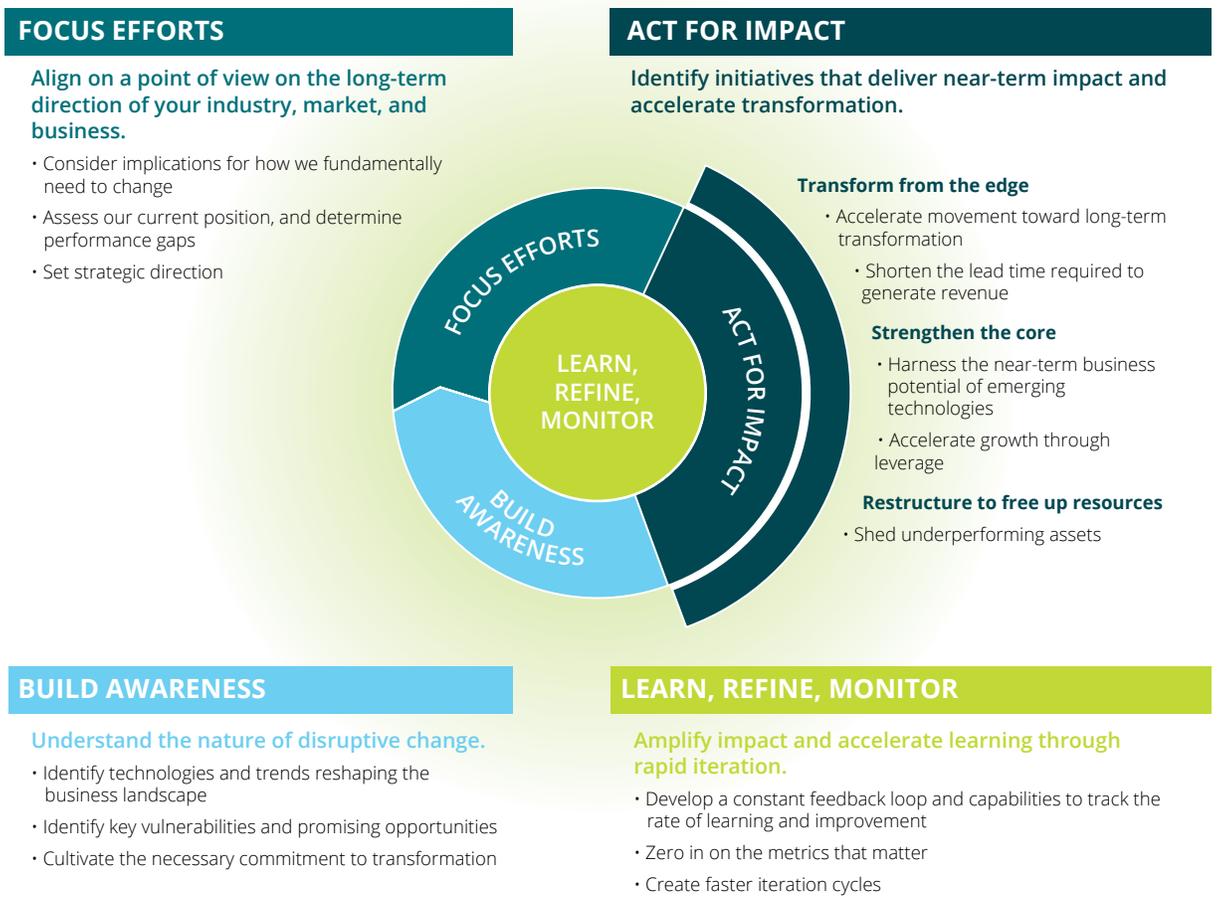
Approaching disruption this way allows you to begin taking action to position the business for the opportunities that disruption *will* open up before the pressures of disruption necessitate reaction and limit the ability to set or execute a transformative strategy. The key element is to pursue transformation into a new type of business in such a way that you increase its near-term attractiveness and likelihood of success. Equally important, it strikes a balance between mobilizing action (despite imperfect

information) and not exciting the corporate antibodies or triggering a fear-based mind-set, while using near-term actions to get better information.

There can be no single path to transformation, but this approach (see figure 2) takes an outside-in, future-back perspective to help leaders consider their opportunities through a new lens. A shared vision of the future frees them to challenge underlying or-

thodoxies and assumptions to agree on what type of business they should be in the future. But if they stop there, the vision has no relevance to the existing business. Too many scenario-planning exercises fail to work back to the implications for action in the near term. Each type implies its own set of questions to ask, assumptions to test, and near-term actions to take today, to make meaningful progress toward the future.

Figure 2. A transformation roadmap



Graphic: Deloitte University Press | DUPress.Deloitte.com

Apple Inc.: A case for focusing on the opportunity¹³

Disruption is challenging. Yet there are examples of companies that have not only persisted but thrived despite multiple rounds of disruptions. Apple is one such bright spot in what might seem a dreary outlook for incumbents. The company's progression over the past two decades is illustrative of the power of prioritizing the next opportunity—the one opened up by the shifting environment—rather than getting too distracted with defending the current business.

In 1997, Apple was operating at a loss,¹⁴ battling a host of competitors selling increasingly commoditized PCs to the consumer computer market. The company had remained relevant despite the bruising competition of the previous decade in large part due to the tight integration of software and hardware in the Macintosh^{®15} computer systems and innovations in form, creating a loyal following. However, the writing was on the wall for the low-end computing market.

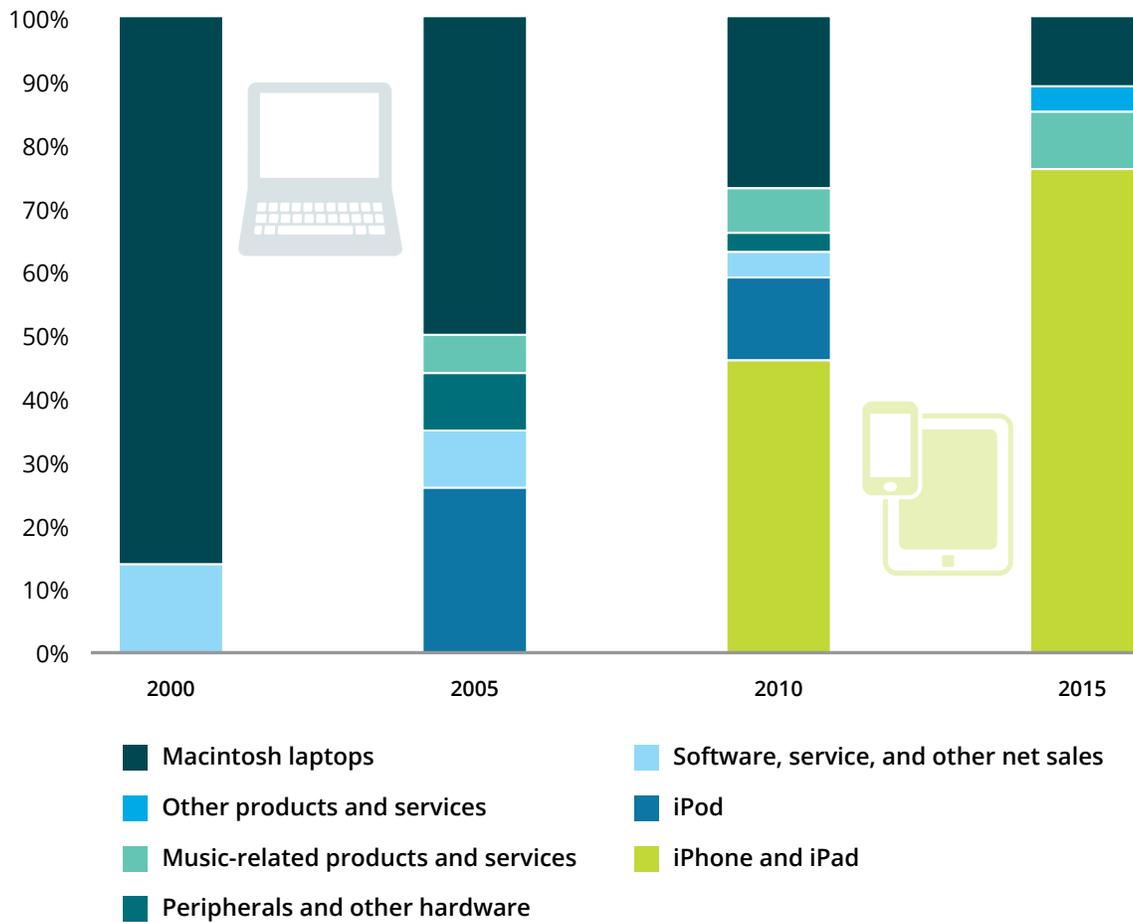
Under pressure, Apple ceded the bottom of the market and aimed directly at the high end, refocusing on the opportunities presented by computers connecting to the rapidly developing Internet.

At the beginning of this century, record labels still largely controlled music distribution. On the Internet frontier, peer-to-peer file-sharing companies such as Napster and LimeWire unleashed a new kind of piracy that threw the industry into turmoil. While labels and regulators sought to make sense of and contain the piracy, Apple brought forth iTunes[®] digital music software.¹⁶

With the original release of the iTunes program in 2001 (followed by the Apple iTunes Store[®] digital music marketplace¹⁷ in 2003), Apple built an aggregation platform that would leverage and further catalyze the disruptive pattern [unbundle products and services](#), which was already manifesting in the form of pirated files of individual songs. Users of this first legal digital marketplace for music could pick individual songs of their choosing without having to purchase an album. That meant you didn't need to buy Daniel Powter's entire debut album to be able to listen to "[Bad Day](#)." Within seven years, the iTunes Store was "the largest music retailer on the planet."¹⁸

Further aligning with the trends toward decentralization, empowerment, and portability catalyzed by the Internet and growing digital literacy, Apple disrupted the MP3 market with the iPod[®] digital music player¹⁹ in October 2001, using the pattern [distribute product development](#). Apple had taken its product, a high-performing device integrating specialized electronics, from initial approval to market in just nine months, a feat possible due to the collaborative creation nets organized by Apple's semiconductor contractor, PortalPlayer. Recognizing the limitations and conflicts of trying to develop this new device within its existing organization, Apple turned to PortalPlayer to mobilize a global network of leading technology companies to develop the core platform for the iPod mp3 player. In concert with the unbundling and aggregating power of the iTunes software and the iTunes Store, the iPod device put "1,000 songs in your pocket" and reshaped the consumer's relationship with the music industry. By 2005, Apple had sold more than 28 million devices, giving Apple 75 percent of the digital music player market.²⁰

Figure 3. Apple revenue by category as percentage of total (1998–2015)



Source: Deloitte analysis based on data from the following Apple Computer Inc. sources: 2000 10-K statement, December 13, 2000, <http://investor.apple.com/secfiling.cfm?filingid=912057-00-53623>; 2003 10-K statement, December 18, 2003, <http://investor.apple.com/secfiling.cfm?filingid=1047469-03-41604>; 2006 10-K statement, December 29, 2006, <http://investor.apple.com/secfiling.cfm?filingid=1104659-06-84288>; 2009 10-K Statement, October 27, 2009, <http://investor.apple.com/secfiling.cfm?filingid=1193125-09-214859>; 2012 10-K Statement, October 31, 2012, <http://investor.apple.com/secfiling.cfm?filingid=1193125-12-444068>.

Graphic: Deloitte University Press | DUPress.Deloitte.com

Despite its success with the iTunes Store and the iPod device, Apple remained vigilant in monitoring and responding to disruptive forces. As mobile devices (such as the BlackBerry) permeated the business world, Apple saw an opportunity to make them attractive to the wider consumer market. Anticipating the impending [convergence of products](#) around core mobile computing, storage, and connectivity components/capabilities, Apple launched an advanced touchscreen smartphone, the iPhone® mobile phone device,²¹ in 2007. The iPhone mobile device combined the mobile phone with various tools such

as GPS navigation, calculators, and cameras into a single product. Leveraging the existing iTunes Store, Apple opened up development on the newly converged product and operating system, effectively [turning the product into a product platform](#). The rapid development of applications spawned the “There’s an app for that” campaign²² and accelerated the adoption and functionality of the iPhone device. As a result, within 2.5 years the iPhone mobile device was the company’s new leading product.²³

Today, Apple has a wide ecosystem of products that drives customer loyalty and product adoption despite waves of disruptive forces (see figure 3). If company leaders had missed the opportunity to create a legal digital music marketplace and high-quality listening experience, we might never have adopted a smartphone from a computer company.

Key to Apple’s success thus far? Well, having a visionary founder/CEO helped. So did prioritizing the next opportunity rather than preserving the core. Each time, the new opportunity was aligned with both broader technological and social trends and Apple’s design-centric DNA. In each case, the company pursued the new opportunity as separate from the core—not a skunkworks or a change initiative to work back into the core but, rather, as an entirely new business, typically with its own, separate facilities and personnel.

Build awareness:

What forces are reshaping the business landscape? What could the future look like?

In a world of accelerating change, one of our greatest imperatives is to “unlearn”: to challenge and ultimately abandon some of our most basic beliefs about how the world works and what is required for success. Most strategies tend to focus on the industry and the company as each exists today. They tend to fall short in selecting a probable future *and* identifying the near-term initiatives that might be most useful in accelerating toward that future. Rather than looking from the present out to the future, we need to look from the future back to the present to determine which actions will have the greatest impact and create the most economic value over time.

Building awareness begins with understanding the different global trends and industry forces at play to develop a shared view of the future. Patterns can help build this understanding, and, more importantly, create a sense of urgency and conviction for change, even in the absence of strong signals that disruption is imminent. In this case, urgency derives from the perceived opportunity and the sense that it is too good to miss by letting someone else act first.

It helps to have the leadership embark on this journey together—ideally, continuously engaging

around the implications of deep, long-term trends and current technology developments. Beyond educating, part of the goal is to overcome the denial that is often blamed in retrospect when companies fail to act. While denial can take the form of explicit rejection of facts or data, as Richard Tedlow points out in his book on denial, often in business, denial is interpretive rather than literal, taking the form of *denial of implications*.²⁵ Thus the data facts are not in question, not really, but the recipient doesn't believe they really apply in this case: The business is so well positioned and has such good technology and such a dominant market share that it will be okay. Too often, the lone Cassandra, misunderstanding the form of denial, brings in more and more data and charts, to little effect. Part of building awareness is creating a felt need for transformation; for some this comes through data; more often, humans need to experience change more viscerally first, to shake the old assumptions enough to make space for new ones. Here, too, patterns have a role to play: They can begin to open the imagination to the possibility of a future market that doesn't behave in the same way or follow the same rules it does today. The goal at this point is to change how you view the world, rather than try to shape the world to your view.

Finally, no matter how compelling the data or experiences, getting the entire senior leadership aligned on a future vision is probably unrealistic. Instead, the building-awareness stage is an opportunity to identify the one or two senior leaders who have both the conviction and courage to drive the change. They can recruit an edge leadership team that will transition into the next phase.

What will the market or industry look like in 10–20 years?

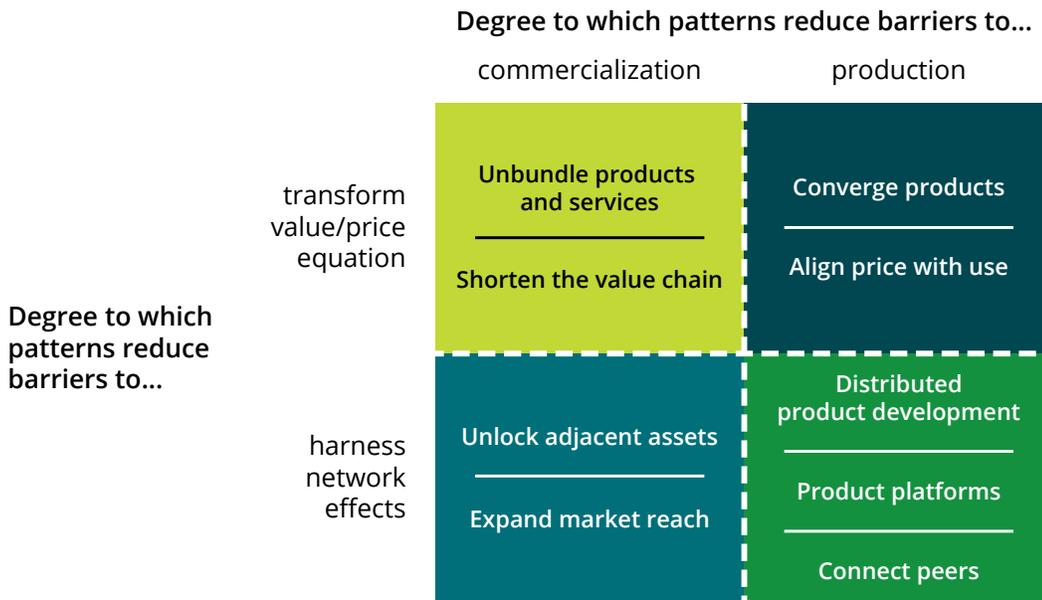
In our previous research, we identified nine *patterns of disruption* that describe how a new entrant can deploy a new approach to displace market leaders in such a way that the incumbent cannot effectively replicate or respond. These patterns provide a starting point to help companies anticipate and understand the changing competitive dynamics in

their markets and in markets where they have potential to participate. Although they are not universal, patterns are enabled by broad long-term trends.

We can roughly categorize the nine patterns as being disruptive to incumbents either by changing the price/value equation for customers or by providing the customer more, and more relevant, choice through a platform that becomes stronger and more valuable to participants as more participants join it. Patterns that create and benefit from network effects tend to change the competitive dynamic such that a new entrant that quickly gains a critical mass of participants can harness increasing returns to scale and redefine the very boundaries of the markets they participate in. As a result, patterns can increase competition by making things easier to make or easier to commercialize (see figure 4).

Most markets will be vulnerable to at least one pattern. Which patterns a market is vulnerable to depend on the characteristics of the product/service,

Figure 4. Nine patterns of disruption in markets



Graphic: Deloitte University Press | DUPress.Deloitte.com

the nature of the customer base, and the structure of the industry and competitive dynamics. For example, a market characterized by a diverse customer base in which each customer segment tends to use only a limited set of features on a standardized product that is expensive to produce or distribute is vulnerable to the *unbundle products* pattern, as happened to newspapers with the advent of specialized digital media such as [Craigslist](#) (classified ads) and [Bleacher Report](#) (sports). Meanwhile, a market characterized by highly standardized products, constrained supply, and historically high barriers to entry might be vulnerable to [unlock adjacent assets](#) pattern, which brought ridesharing to challenge taxis and room-sharing to challenge hotels.

While defining the relevant market is notoriously tricky, the point is to get a sense for what patterns your own and potentially adjacent markets are likely to experience and to use that as a way of better understanding how those markets will change, the near-term pressures those markets will experience, and the potential shape and dynamics of the market in the future.

These patterns of disruption are occurring at different paces in different markets and industries; some may emerge in six months, or six years. They may affect a market consecutively or concurrently, creating an environment where companies can benefit from focus and may be more susceptible if the business is split between multiple business types. If a company fends off one pattern in the short term but neglects to take a long enough view of the market, it will likely be marginalized as time goes on and more vulnerable to the next pattern. Consider Kodak, which was buffeted by consumers' switch to digital ([shorten the value chain](#)) in the early 2000s and then finished off a few years later by the widespread adoption of the smartphone ([converge products](#)). Now, eight years later, efforts to create modular, open-source phones (*turn products into product platforms*)²⁶ have hit technical difficulties but may yet challenge the smartphone market. Kodak reacted to convergence, trying to play catch-up by releasing a phone in 2015,²⁷ but imagine if the company had instead anticipated the move to product platform?

The patterns demonstrate that industries that traditionally have been safeguarded by barriers to production and commercialization may be reshaped. For example, the [expand market reach](#) pattern offers accessible distribution channels to new producers and sellers, allowing them to transcend geographic proximity. [Turn products into product platforms](#) invites third parties to develop an increasing number of product variants that can meet the needs of a wide range of customers. [Align price with use](#) makes the tools and capabilities of production and commercialization affordable to a wider market of potential producers. These patterns are compressing, and will continue to compress, product life cycles as they lower barriers to entry, increase speed of innovation, and accelerate product turnover. The compressed life cycles and increased speed to obsolescence driven by more direct market feedback and the ability to issue new releases are particularly noticeable for technology products, including software and electronics, but extends also to many consumer products.

Uncertainty about the timing and sequencing of patterns underscores the inadequacy of reacting to disruption. Instead, companies should concern themselves with moving to higher ground, identifying positions that will not only be less vulnerable but that will harness the trends and forces driving the disruptions. It is tempting to use patterns to inform a reaction, but the better response is to use patterns to frame the opportunity. Patterns can catalyze change; turned inside out, a pattern can be used as a strategy for developing a business opportunity or shaping a new market. In terms of framing future opportunities, the exact timing of patterns is less important than understanding the array and relative order they might occur. In the Apple story, at least four different patterns were at play, each pointing to different opportunities: *Unbundle products* separated the single from the album, creating the opportunity for an aggregation platform (iTunes music store); the need to rapidly develop a technology product in a crowded and competitive market pointed to creating a platform for mobilizing *distributed product development* (iPod digital music player); the learning and capabilities derived

from the digital music space created the opportunity to *converge products* (iPhone mobile device) for a customer base and industry that had become much more comfortable in the digital world; the converged product became much more robust, as a *product turned into a product platform*, when developers were invited to create apps that could be made available to consumers on the evolved iTunes app store.

When looking at patterns with an eye to opportunity, it can be tempting to focus on product or technology innovation. The question turns to: How do we come up with that great new product, get it to market, and drive adoption so that we can be the disruptors? We turn to products and the related activities because those are the stories we know and that are relatable—think Kodak and the digital camera displacing film. We're comfortable with the idea that disruption could have been avoided if a company had just made a better technology bet or gotten to market sooner. But, of course, that neglects the next part of the story, which is that just a few years later, low-end digital cameras themselves were displaced by widespread adoption of the smartphone.

The trouble is that not only is product innovation vulnerable to multiple disruptions—it has limited upside. Many 20th-century companies innovated on their products, capturing value through speed, bringing new products to market, and entering new markets as a competitive advantage. Consider Nokia's entry into markets as diverse as forestry, rubber manufacturing, electricity, mobile phones, and now network equipment. Corning, too, innovated on its core technologies to move from lightbulbs into kitchenware, windshields, LCD panels, and optical fiber. While Corning is somewhat unusual in that its product is tightly tied to its continuous production process—which doesn't lend itself to handoffs to other entities or collaboration along the way—in general, product innovation is becoming easier to replicate.²⁸ Broad technological and social trends are making it easier for new entrants to produce and commercialize, and reducing the benefits of scale, while specific patterns such as *distribute product development* and *turn products into prod-*

uct platforms will continue to reduce the time needed to develop better products and bring them to an eager customer base. As a result, speed is necessary but won't sustain market leadership.

In fact, patterns that focus on product are subject to diminishing returns. The more you shorten the value chain or unbundle a product or service, the harder you have to work to get that next increment of performance improvement that results in some form of reward.

The network effect patterns, however, tell a different story. These patterns drive significant increasing returns as a result of *network effects*.²⁹ The more customers, suppliers, consumers, and producers who participate, the greater the value to all of the participants. More participants mean greater choice and value for customers, different paths to consumers for producers, and greater opportunities for learning and performance improvement. Network effects allow a company to build a more sustainable advantage within a marketplace—and also to *shape* that marketplace. For example, Facebook has shaped the interactions between consumers, developers, and businesses while enticing us to come back for more because *everyone* is on it. Amazon and FedEx have created logistics networks with many ecosystem partners that enable us to receive shipments within an hour of a customer order. Emerging peer-to-peer platforms have the potential to further encourage co-creation and learning with and from the marketplace.

We talk about patterns affecting specific markets, but the patterns that benefit from network effects tend to reduce barriers to movement across markets. The new entrants that deploy them won't necessarily be limited to the market where they originate. If looking for new markets is key to avoiding disruption, network effect patterns allow you to do that more easily than others. Thus building network effects through a platform leads to the ability to “go horizontal” across industries. Consider Uber's forays into groceries, takeout, and short-haul delivery. Industry boundaries will continue to blur as the tools and technologies to operate seamlessly across platforms (for example, universal reputation man-

agement) drive more participants into more arenas. Incumbents cannot look just at their own industry because competition can come from anywhere (other large incumbents across geographies) and startups. However, network effect patterns may take more time to achieve critical mass and therefore become visible later than non-network effect patterns.

Fragmentation and concentration are reshaping the landscape

The patterns of disruption, combined with the ongoing trends of fragmenting products and services and concentration of infrastructure and other businesses that can support the fragmenting parts of the economy (described in our previous articles³⁰ and the Shift Index) help to paint a picture of how the business environment is changing, how markets and industries might be changing, and how a specific business might be affected. This leads to the fundamental question: What kinds of businesses *will* succeed in a future environment shaped by these forces?

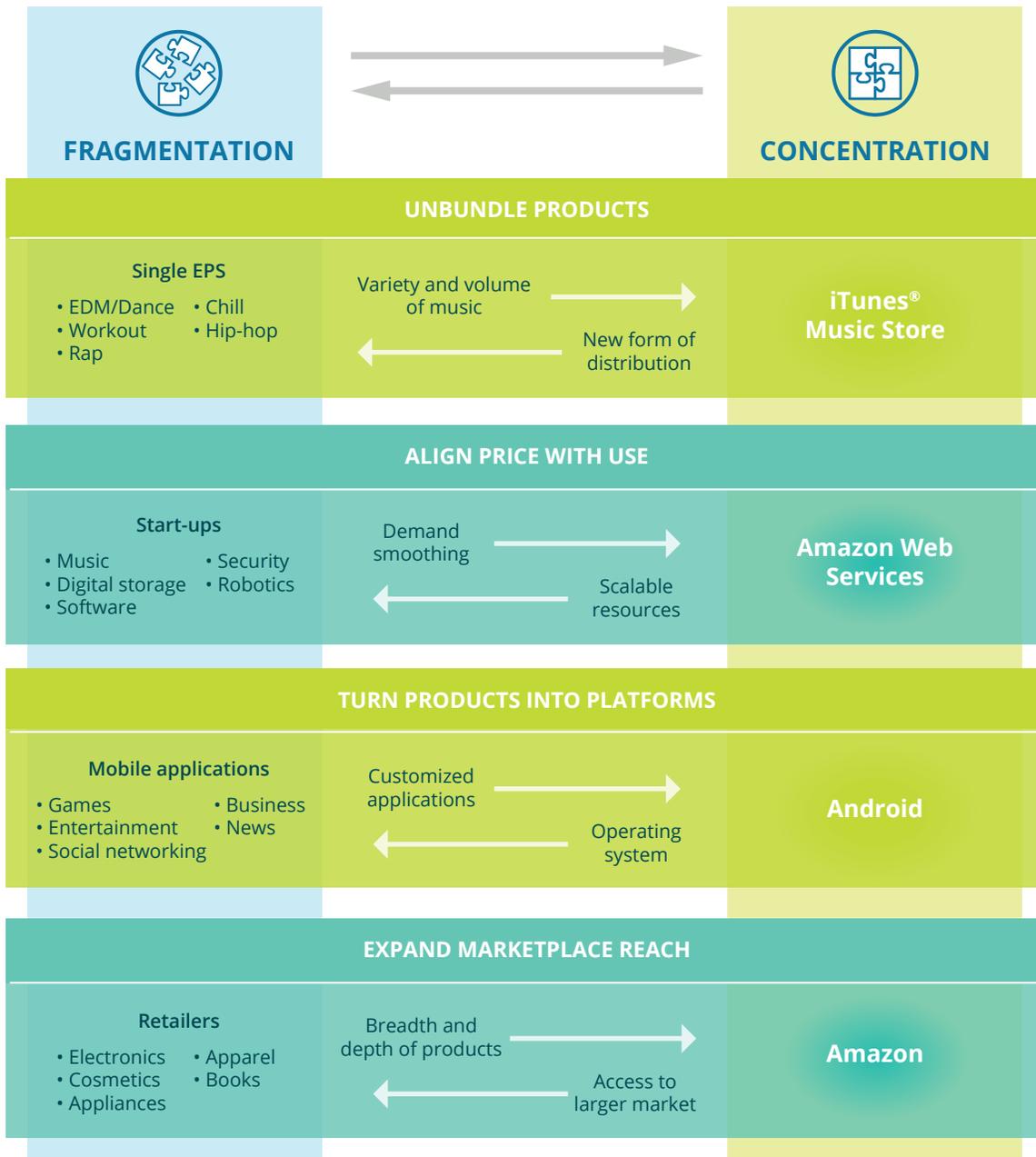
In this environment of more frequent and rapid disruption, position will matter. Companies that are able to focus on one business type can optimize their talent, metrics, financial structure, and operations to learn faster on those capabilities. These focused companies can accelerate their own performance relative to less-focused competition and leverage the capabilities of others to create new types of value for customers and partners while capturing value for themselves. Therefore, how and where companies position themselves within ecosystems for joint learning and leverage is critical. Trusted relationships with an ecosystem of partners can provide access to additional capabilities, fuel learning and improve awareness of signals, and enhance flexibility in rapidly changing environments. Focused businesses should also be more able to develop a deeper understanding of their customers' needs, incorporating that feedback into creating more value all the time.

Businesses may focus on one of four business types: trusted adviser, infrastructure provider, platform, or product innovation/commercialization. Our analysis of the patterns, and the likely impact of multiple patterns affecting a market over time, make clear that certain types are more, or less, attractive than others. For instance, large companies are likely to find the role of product innovation and commercialization less attractive because many product businesses will be vulnerable to a series of patterns in addition to the broader forces that will drive [fragmentation of products](#) (see figure 5 for examples of how specific patterns can drive concentration and fragmentation). This isn't to say there aren't growth opportunities in products, but large companies that choose to pursue a product role should understand the disruptive dynamics and make sure that they are not targeting a fragmenting market.

Fragmentation can result from multiple patterns. For example, as marketplace reach expands, more product choices are available globally. *Aligning price with use* decreases the barriers to entry for new companies, leading to additional market fragmentation. Connecting customers to available *assets in adjacent markets* may create a trust gap and requires a selection and verification process. *Distributing product development* creates a need to find the best collaborators and connect them with the product owner.

Trying to find growth and sustained performance in an arena that is fragmenting is a losing proposition for a large company, unless it facilitates or benefits from the growing number of small businesses that are creating the fragmentation. Anyone who can help businesses accelerate product development by providing a foundation to build on or help them reach a larger market has a role to play. Anyone who can help customers make sense of all the options without having to invest the time has a role to play. Anyone who can help make products and get them to market at a lower cost has a role to play. Anyone who can help us maximize the value that we realize from our products or who can increase the utility of our experiences or who can help us accomplish our goals has a role to play.

Figure 5. How patterns drive concentration and fragmentation



Graphic: Deloitte University Press | DUPress.Deloitte.com

Figure 6. Attractive business types in the future business landscape



Graphic: Deloitte University Press | DUPress.Deloitte.com

These business types (see figure 6) are attractive because they create and capture value in ways that take advantage of the broader trends in the business environment. Each has the potential for significant growth and concentration in the future. From a chosen type, new business opportunities can be shaped based on the industry, the target market, and the patterns of disruption that market may experience.

It should also be noted that, while some of today's businesses resemble these types, most are hybrids and are not organized and optimized for a business type and don't benefit from the accelerated learning and performance improvement that comes with focus. Thus, a focused business will look and operate very different from today's hybrids.

Types of opportunities

TRUSTED ADVISER

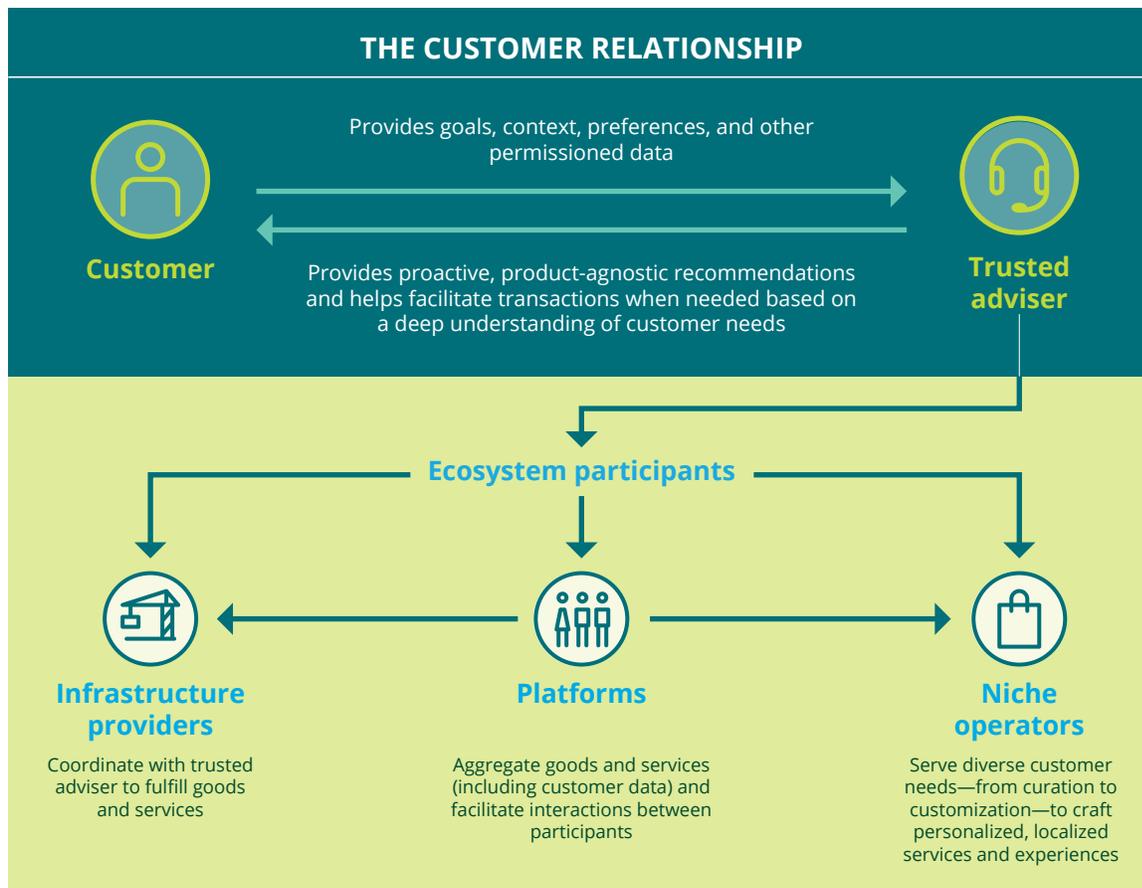
What is the type? The trusted adviser seeks to increase a customer’s return on attention, helping the customer get more value per unit of attention than the customer could on her own by proactively and objectively recommending products, services, and opportunities that help the customer meet her goals. The trusted adviser sifts through possible options to be helpful to the customer before and after decisions are made (see figure 7). For example, by

monitoring a customer’s online searches, grocery orders, and fitness devices, an adviser might be able to recommend health care appointments or lifestyle changes before the customer realizes she is in need and continue to monitor her progress and make recommendations over time. Although similar to today’s personal shoppers and financial consultants, technology and data make it possible to create a scalable service that is cost-effective for a broader population.

When is it attractive? Rapidly changing products and services, decreased customer loyalty and trust, and fragmentation of sectors or markets create the

Figure 7. How the trusted adviser works

The trusted adviser may take on some additional roles within the ecosystem to help facilitate market interactions, aggregate and analyze data, and curate offerings in the early stages, but advisers are likely to partner with infrastructure providers, platforms, and specialized service providers as their scope and scale expand.



Graphic: Deloitte University Press | DUPress.Deloitte.com

conditions for a trusted adviser. From a product perspective, product life cycles are compressing, leading to more options and more rapidly changing features for consumers. Over the past 15 years, the TV went from being a heavy box with poor viewing quality to a lightweight, mount-on-your wall, connected device with realistic pictures.³¹ Consider a similar scale of change across many more complex products and services. At the same time, customers increasingly expect on-demand service—in 2013, there were 117 on-demand companies with \$1.5 billion in VC investment.³² And while today, Amazon can provide same-day deliveries by loading goods onto trucks before orders are placed, delivery of non-subscription goods still require the customer to click through an order,³³ versus making proactive, personalized recommendations and decisions. In addition, as we report in the Shift Index, brand loyalty has been in decline across most categories,³⁴ making the consumer decision process more complex. Finally, as trust in institutions deteriorates, especially with respect to data security and privacy, customers may prefer not to have data such as credit card and social security numbers provided to or stored by a variety of retailers and agencies.

Fragmentation of businesses is also increasing the number of options for workers. With an estimated 70 million US workers independent by 2020,³⁵ both businesses and individuals need help understanding all of the options and matching the best resources to the need. Services such as [Upwork](#) match workers with employers' specific needs, making contingent hiring easy by providing transactional assurances and automatically (and publicly) documenting feedback and reviews.

INFRASTRUCTURE PROVIDER

What is the type? The infrastructure provider delivers routine high-volume processes and scale-intensive services through physical and digital mediums to meet demand for more affordable means of production and commercialization. Infrastructure providers will support the proliferation of fragmented producers (both B2B and B2C) with leading-class capabilities and have the potential to accelerate product proliferation, increase mar-

ket competition, and deliver sustainable business practices to participants across the ecosystem. In general, providers of physical infrastructure tend to scale linearly or stepwise, making capital investments in networks (for example, FedEx), equipment (for example, Flextronics), or facilities (for example, CBRE). They may also act as asset orchestrators across an ecosystem, owning some assets and aggregating others that can provide similar or adjacent services to enhance service and scale at a faster rate.

When is it attractive? This type of business is attractive where the potential customer market is fragmenting, or has the potential to fragment, and the infrastructure is capital-intensive to purchase or operate and/or the technology is relatively stable or changing predictably. As fragmenting product companies face pressure to bring innovative products to market faster, opportunities for infrastructure providers will extend along the value chain—from design and prototyping equipment to manufacturing and logistics to back-office processing and digital tech infrastructure, to serve other concentrated players as well as the growing ecosystem of small players. This type can also be attractive if it is a new market/new infrastructure in which the provider has a chance to learn the fastest, shape the market, and pass along that value to its customers. For example, Amazon Web Services just had its 51st price reduction—more than five price reductions per year of operation—while nearly doubling its operating margin year over year, from 12.5 percent in Q1 2015 to 23.5 percent in Q1 2016.³⁶ Finally, customer markets facing high volatility will value accessing infrastructure services rather than owning them. It is worth mentioning that although there are already many infrastructure incumbents that may have a significant advantage, there may still be attractive opportunities to provide infrastructure to new types of customers, such as start-ups that are more sensitive to capital expenditures than operating expenditures or rapid growth companies that may value higher degrees of flexibility over cost efficiencies. Thus, this business may be attractive not just for new types of infrastructure but for new types of customers, if they can be served in new ways that the incumbent might be unable to adopt.

PLATFORM

What is the type? The platform makes resources and participants more accessible to each other on an as-needed basis. Properly designed, platforms can become powerful catalysts for rich ecosystems of resources and participants. This role takes advantage of the proliferation of products and niche businesses to aggregate, facilitate, and coordinate market participants to fragmented resources, organizations, and products. Despite the gold-rush mentality that surrounds platforms—the declining costs and increasing power of the global digital infrastructure has enabled unprecedented scaling of participation and collaboration—platforms are not new. A platform is simply a set of protocols that determines who can participate, what roles they might play, how they might interact, and how disputes get resolved. Platforms can be thought of as layers of infrastructure that impose standards on a system in which many separate entities can operate for their own gains, such as the railway network or the phone network. Platforms can be classified into five types (see figure 8), each having the potential to create significant value for the platform organizer and for the participants, with the value increasing as more participants join through network effects. Although many platforms are transactional, each type, and especially peer-to-peer (P2P) platforms, has the potential to develop a learning component to bring participants together to share insights over time, fostering deep, trust-based relationships and providing participants the opportunity to realize more potential, faster by working together.

When is it attractive? Platforms will be attractive where proliferating producers and products create a need for aggregation and coordination. By reducing the commercialization and scaling costs for new businesses, platforms will further reinforce fragmentation. As markets continue to fragment and products flood the market, platforms have helped to bring together thousands of choices in a single place for customers. Because of the diverse types of platforms and their tremendous ability to aggregate markets, reduce search and transaction costs, and lower barriers to entry, commercialization, and learning, platforms are attractive under a variety of conditions, including in markets with: underserved customers and a wide range of hard-to-find-differentiated products (*expand market reach*) or standardized products that require customers to compromise across a diverse range of product use (*product to product platform*) or high-capital investments in either assets, warehousing, or product components that might be deployed to meet nontraditional demand in adjacent markets (*unlock adjacent assets*). In addition, markets with information-rich products that require a diverse set of specialized knowledge from third parties for development may benefit from specialized platforms (*distribute product development*). Finally, industries with centralized intermediaries controlling interactions and access to market information will be targets for P2P platforms (*connect peers*). Industries that have long relied on push models, non-scalable gatekeepers, and high barriers will continue to be attractive platform opportunities.

Consider...

What beliefs do we hold so deeply that they are often not ever articulated, much less examined?

What patterns of disruption are likely to play out in arenas in which we (want to) participate?

What can we learn from others who are on the edge today?

Figure 8. Types of platforms



Graphic: Deloitte University Press | DUPress.Deloitte.com

Focus efforts:

Where do we want to go?

HAVING developed a perspective on the future and a strong conviction that transformation is necessary, what next? The next step is to determine which business type the company is best suited for, given how the market is expected to evolve, and to further define the future business opportunity. This process is iterative rather than sequential: A few leaders, including a senior sponsor and the leadership of the emerging initiative, will identify likely markets in which they might want to participate and then use patterns to understand how those markets are changing and align on a probable future for those markets; as they begin to develop an opportunity that aligns with a chosen role and the patterns that will shape that market, they may discover the need to revisit what markets they are targeting.³⁷ Keep in mind, some of the most advantaged positions in the future landscape may not be part of today's landscape

and are likely to be shaped by powerful economies of scope and scale that will tend to play out quickly once critical mass has been achieved.

The ultimate goal is to describe the long-term destination with sufficient clarity to be able to guide decisions on what to begin, end, and strengthen—within the company as a whole—in the near term.

What business type should we be in the future?

How does a company go about choosing a type?

The team's informed beliefs about the future of the industry and broad markets should drive this decision, but the relative attractiveness of each type depends on the company's particular strengths, timing, what positions are already occupied, and other market conditions. Ideally, the chosen type leverages current capabilities

“You’ve got to be careful
if you don’t know where
you’re going because you
might not get there.”

—Lawrence Peter “Yogi” Berra

or initiatives that will give the company a relative advantage for transformation. At the same time, incumbents will have to avoid the “inside out” trap of being tied to the existing business’s significant profits, assets, and core competencies and trying to define a future in which they can all be brought to bear. Notice in the discussion below that “points of leverage” are not the same as what is traditionally thought of as core competencies.

WHAT ELEMENTS OF AN EXISTING COMPANY MIGHT MAKE IT A CANDIDATE FOR THIS TYPE OF BUSINESS? WHAT ARE THE POINTS OF LEVERAGE?

Trusted adviser: The trusted adviser requires access to different types of relevant data to understand customer preferences and behavior. A company that processes or has been passively accumulating a large volume of transactions across a variety of products and services (transaction intensity), such as a social network, might be able to extract detailed profiles of customer preferences and purchases that could be leveraged into insights—on, for example, wellness choices or personal financial strategies. Other potential points of leverage for the trusted adviser include brand breadth—for example, an insurance company that serves a wide range of client types has an advantage in understanding and meeting the needs of customers at varying levels—an emotional bond, such as a company, like Nordstrom, that is known and loved by its customers for always putting the customer’s needs first, starts from a position of high trust with target customers and other partners, even if that trust is currently based on a product or service. Of course, a company that begins from its own product or service may struggle to establish credibility as an objective adviser or, conversely, struggle under a new revenue model that no longer includes a product.

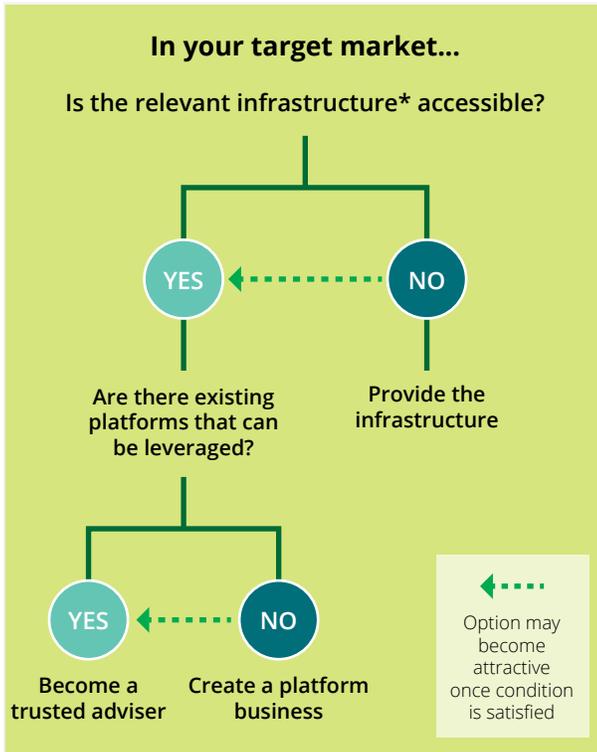
Infrastructure provider: This type requires assets and standardized processes that can be operationalized as a service. Large players with heavy investment in infrastructure can leverage those assets to realize economies of scale at a much faster rate than new entrants. For example, as a large-scale logistics provider, FedEx might decide to leverage

its network to expand into additional services in adjacent markets, such as armored transportation or intra-city courier services. However, start-ups could also be candidates, particularly where new technology is changing the nature of the infrastructure or the way it is provisioned, although they may be challenged to make large capital investments. For instance, if manufacturing becomes too specialized as a result of product proliferation and personalization, then the economies of scale of large-scale manufacturing plants might not be relevant to the new market of small producers, creating an opening for a different type of small-batch, specialist contract manufacturing infrastructure. In addition, companies that have significant underutilized assets or predictable operating expenses and liabilities might have an infrastructure opportunity to turn slack into an additional revenue by making the asset available to adjacent markets. For example, Office Depot realized that rather than just fill available in-store space with more products, it could use that space to drive greater in-store traffic (which had the potential to translate into higher sales of office supplies in addition to the incremental operating income) by providing the space and store services to USPS and other third parties who would offer specialized services that would appeal to small business customers. Of course, this is only a partial illustration because Office Depot didn’t transform the business to focus on infrastructure provision. As an example of a company that did focus on infrastructure provision, Amazon Web Services is said to have started because in the process of building infrastructure services for internal and third parties on the e-commerce engine, Amazon became skilled at building and running efficient, scalable data centers.³⁸

Platform: Any incumbent considering whether or not it is a good candidate to become a platform should note that many of the world’s most successful platform companies were new entrants. They didn’t have to transform because they were designed as platforms, and they grew powerful without any points of leverage. However, with some differences depending on the multiple types of platforms, there are some general potential areas of leverage. For any type of platform, attracting an initial user base and achieving critical mass can be challenging when the

Figure 9. Potential pathways to choose your business type

This decision tree is intended to provide an illustrative view of how incumbents might prioritize opportunities in the future business landscape.



*Relevant infrastructure can relate to physical infrastructure (e.g., manufacturing facilities), digital infrastructure (e.g., computing capacity), or specific business processes (e.g., back-office support)

Graphic: Deloitte University Press | DUPress.Deloitte.com

value to be delivered derives from having a robust set of participants. **Pre-existing relationships** with prospective users or an existing user base may be an advantage, provided those relationships have established a positive reputation in the market yet are not so tied up in a product or service that users won't be able to believe the incumbent could offer a platform that could create value for everyone rather than just push its own product. For example, Valve began as a game developer before creating the [Steam](#) platform and started a gaming ecosystem that began in its established gamer user base. A strong **track record** and high-quality offerings

create a level of trust with customers that will increase their odds of trying a new ecosystem or product while drawing in ecosystem partners who want to be part of that proven success in the marketplace. Relationships, not just with consumers but with other producers and potential partners, are critical. Finally, platform ecosystems often call for a new way of business. Consider how Airbnb changed how we travel. An incumbent that wields **influence** in an industry may be able to influence third parties to participate and support the new ecosystem.

Define the opportunity: What will be required for success in the envisioned future?

The future opportunity is based on the chosen business type, but this step goes deeper, to determine where and how to best capture value in that type. This step puts more detail around what that business might actually look like, what markets it would target, and what it would need to be successful. It is one thing to say, "We will be an infrastructure provider" and a very different thing to say, "We will provide flexible, reliable fleets of carbon-neutral vehicles for on-demand mobility services in developing countries." This is where patterns of disruption come into play. How and why markets and the broader business environment are changing shape the opportunities that companies decide to pursue. The opportunity should align with the long-term shifts in the market, including technological innovation, changing customer needs, and changes in public policy. Such alignment increases the potential for the edge to grow large and makes it more likely to succeed. Further developing that opportunity through exploring how the underlying business type creates and captures value and what its critical success factors are helps to define what capabilities the company needs to begin strengthening or developing today.

First, for the chosen type, how does it create value? How does it capture value? For example, one way the infrastructure role creates value is by providing flexible, cost-effective access to leading class assets that would otherwise be too difficult for a business

to replicate. How might it avoid competing efficiencies away in a race to the bottom against other scale providers? One way a focused, infrastructure business might differentiate itself and capture value is through scalable learning practices that accelerate its performance to provide far better service to customers.

Then, given that understanding, consider the likely disruptions coming for the market you are in and adjacent markets to home in on likely opportunities. Some patterns create more opportunity for a given type. For example, a pattern such as *expand market reach* that increases choices for consumers creates an immediate need for trusted advisers. Ideally, the defined opportunity has growth potential and value creation potential across most of the patterns that a target market is vulnerable to, and it may take some iteration to determine which markets have the conditions for the edge initiative to be successful over time.

As the future opportunity begins to take shape, start to identify the capabilities and resources that are needed to succeed. Consider which can be leveraged in the existing business and relationships and those that will need to be developed.

Can you envision your current business making the changes necessary to succeed in this type of business? The likely answer is no, in which case the opportunity is developed on the edge. What makes it an edge? An edge doesn't compete directly with the core business, for revenues or resources. It might target an adjacent market, at least at first. An attractive edge opportunity is constructed in such a way that it requires minimal investment to initiate yet has the potential to begin generating revenue. Ultimately, it has the potential to become the new core of the business by pulling resources into it. Developing and testing capabilities on an edge opportunity builds momentum and avoids the problem of the all-or-nothing, defend the core/abandon the core dynamic that leads either to inaction in the face of uncertainty and denial or action that triggers the corporate immune system and dooms itself to failure.

HOW DO THE TYPES CAPTURE VALUE?

Trusted adviser: To maintain objectivity, the trusted adviser cannot be paid by the product companies but instead must create enough value that customers are willing to pay a fee for the service, possibly as a subscription model, which would increase with the number of domains they cover. It benefits from **economies of scope** in two ways: becoming more valuable by learning from the patterns of other customers, and creating more value by getting to know an individual better such that it can make recommendations across more domains; think about styling service [Stitch Fix](#) moving into recommending activities to its users. As a result, trusted-adviser businesses have the potential to scale into very large opportunities as customers integrate them into more of the decisions made throughout their daily lives.

Infrastructure provider: Economies of scale let infrastructure providers offer customers lower prices, while scale and scope help these providers learn faster how to improve service and deliver more value from serving a diversity of customers. With flexible access to scale assets and services that would otherwise be unaffordable or difficult to replicate in-house, customer businesses can scale up or down cost-effectively. For example, the cost of cloud-based infrastructure has decreased such that cloud-based providers compete to offer more advanced technological capabilities or speed, or they lower the price. To capture value, it might use tactics around pricing, economies of scale, and channel similar to today's infrastructure providers, but a role-based business might also capture value through scalable learning practices that accelerate its performance, and that of its partners, to provide far better service to customers. For example, [Live-Ops](#), which provides cloud-based customer contact centers, uses dashboards and other tools to provide continuous feedback to its over 20,000 home agents.

Platform: The platform role increases in value to its users, and its organizer, as it grows and others choose to build products, services, or other offer-

ings that use the platform. The more interdependent and diverse the set of participants and the richer the connections between them, the greater potential the platform has to create value, and if enough value is being created for everyone, the platform owner will not alienate participants by also capturing significant value. Often platforms capture value on the interactions (either through a fee or through data) rather than through an access fee, although participants may pay for premium services. Fast-growing companies such as Alibaba, Facebook, Airbnb, and Innocentive have recognized that there is money to be made in providing layers of capabilities and standards into which other players in that market can tap and use to interact more efficiently. “Passive” participants such as advertisers are easier to capture value from because they derive far more value from the platform than they contribute; the danger is that they actually create negative value for other participants so platform owners have to balance how much negative value the users will bear and offset with other value. Platforms capture value by maximizing the number of different transactions. One way to approach this is by bringing on board additional participants that complement the initial product or service and ensuring that all participants

have quality interactions with them. For example, after building a consumer user base by operating as a book reseller, one platform owner created a much larger marketplace by inviting third parties to participate. The sellers brought an influx of products that helped the platform expand its footprint with the users and grow the number and size of transactions.

Capturing value, not just users, often requires locking them into one platform and off of other platforms, some sort of participation cost that helps tie a user to a platform and discourages participants being on multiple competing platforms. Of course, participants—both producers and consumers—are increasingly wary of and hostile to “lock-in” and platforms perceived to be overly restrictive or charging too high rents, opening the door to alternatives. Another way for platforms to “capture” participants and also value is by constantly increasing the value for all participants such that they will be far less likely to switch or leave the platform just on the basis of lower fees. Again, scalable learning comes into play, both for the platform owner to constantly learn from participant interactions but also to make it easier for participants to connect with and learn from each other.

Consider...

Are we focused on portions of the business landscape that are concentrating or fragmenting?

How will we win in this future?

What are the biggest emerging opportunities that we can target?

Act for impact

LEADERS will face the transformation dilemma as they juggle competing demands within the company. They should keep moving aggressively to build a new, very different, business for the future, while keeping the enterprise going and not exciting the organizational antibodies to attack. As a result, the company engages in four distinct efforts—to scale the edge, strengthen the core, free up resources, and learn and refine—to keep the company moving toward the new North Star. While these efforts proceed in parallel, the vision of the future and the chosen business role, defined as an opportunity, should provide the overarching guidance for decision making and prioritization.

Practically, this means that in order to buy time for the transformation and satisfy stakeholders who demand near-term results, senior supporters of the team should continue to work within the core while the senior sponsor focuses on the edge. Keeping communications about edge activities modest will further shield the edge from destructive organizational antibodies.

Scale the edge: How can we increase the likelihood of success of our transformation efforts?

With a clear vision of the future opportunity, the primary goal of the edge team is to *get started*. This may sound simplistic, but remember one of the greatest risks in responding to disruption is failing to act, or act quickly enough, to seize promising new opportunities. The team designs initiatives or projects that can be quickly implemented to build key capabilities and relationships while also testing the assumptions and understanding around the long-term vision. So a company developing a trusted-adviser role to homeowners might start with an initiative to provide valuable recommendations in neighborhood selection, to build trust and credibility with, at first, limited data. The goal is to address short-term capability gaps within the next 6–12 months, whether by repurposing existing business initiatives, leveraging the external ecosystem, or even acquiring a small company.



To stay under the radar and move quickly and flexibly, the edge initiatives won't have big budgets or a lot of resources from the core. The key is to leverage established external resources and infrastructures and to think creatively about how to leverage platforms and social networks outside of the company to accelerate growth. The team should seek disruptive technologies and tap into external ecosystems such as cloud computing, big data analytics, and social software to access additional expertise and participants to accelerate the growth of the edge.

The progress of these initiatives will be periodically evaluated to assess whether they are contributing in a meaningful way to the end state or if there are any new insights that enforce or challenge assumptions about the future. They can be designed around

the answer to the question: "In this role, what do we need to get right over time?" The trusted adviser, for example, succeeds or fails based on whether it is being helpful to the customer and whether it is becoming more helpful over time. Thus, the edge initiatives might be assessed against metrics such as number of proactive recommendations, percent acceptance of recommendations, frequency and length of use of recommendations, referral rate, and churn rate. It's important to resist the temptation to focus on financial metrics and, instead, identify operating metrics that can serve as leading indicators of the performance the edge is seeking to generate, even if they are marginal to the businesses' current performance. Similarly, an initiative's performance at any specific point in time is less important than its performance over time. High-priority initiatives will undergo quick iterations with constant feedback loops to deliver maximum impact and value.

By embracing short, iterative cycles, the edge can receive feedback faster to compress the time between investment and return. Instead of using the traditional two-to-three-year strategic plans, initiatives should leverage 6–12-month horizons so actions can be quickly refined to address changes within the market. Staging phased rollouts and establishing formal feedback loops between internal and external ecosystems will also help the team gather feedback in closer intervals.



Strengthen the core: How can we significantly improve near-term business performance?

The primary challenge at this stage is to increase the potential for short-term revenue and profit generation from the core business while investing in capabilities that have the potential to prolong the life of the core. This is where short-term mind-set actually is appropriate and an advantage. The goal of maintaining the core is to continue to support the business while the transformation is under way, not to defend the core business or to try to innovate it. Keeping the purpose in mind is key to avoiding funding large long-term investments with dubious payouts—remember, this part of the business is or will be subject to disruption. As the edge initiative is getting some traction and scaling, it can be tempting to try to rally everyone on board or to merge resources. Avoid this temptation—it will only excite the antibodies. Strengthening the core through deploying exponential technology platforms and leveraging external ecosystems will also help satisfy stakeholders who demand short-term results and prevent excess attention to the edge.

Restructure to free up resources: How can we mobilize enough resources to achieve significant near-term impact?

To further strengthen the core and scale the edge, transformation supporters can apply strategic cost reduction by systematically identifying and focusing on the top 20 percent of customers, geographies, facilities, and products that generate 80 percent of profitability. Aggressively shedding all other underperforming assets will help to bolster growth in ROI and ROA, although overall revenues may shrink.

As the edge initiative grows and more resources are drawn to it, some parts of the core business may be winding down. Rather than focusing on growth, the goal is to slow the demise of the business while at the same time maximizing value from existing assets. For example, Netflix transformed its business by pivoting the core from DVD rentals to streaming. Even as subscriber counts shrank for the mail business, Netflix continued to earn millions in profit per year by maintaining its core base of customers.³⁹

Consider...

How can we shed poorly performing products/
customers/facilities?

How can we achieve greater
focus within our company?

Learn, refine, monitor:

How do we create a process of rapid iteration on our impact initiatives so that we can accelerate learning and amplify impact from these initiatives?

In a time of accelerating change, learning is essential to success. No matter how fast things are moving, however, the more time executives take to reflect on the company's performance and trajectory, the faster their companies will be able to move. But this only works if there is a destination in mind—if leadership has an idea of where the company needs to be positioned in the future, then the organization may be able to profit much more from its near-term initiatives and assess how effective it is in accelerating its movement toward that destination. And the organization will learn a lot more about the destination as well.

Transformation is an ongoing, iterative process. Companies in this evolving business landscape may stay ahead of disruption by being in a continual state of learning, refining both strategy and execution, and monitoring. For the goal of transformation is not to achieve a stagnant place of being but, rather, to always be in a state of always becoming.⁴⁰ In the past, businesses have readily embraced scalable efficiency to produce tightly integrated, specified, and standardized environments. The new winners in this environment, by contrast, will likely be those who learn and innovate the fastest—from constantly

monitoring external trends to collecting knowledge among different participants, which will all contribute to continuously refining the strategy to leverage trends within the market.

The new model incorporates what is called scalable learning—the idea that seeks to accelerate and amplify learning among a growing number of participants. One method to incorporate scalable learning into an organization is through creation spaces—platforms that accelerate and amplify learning among a group of participants through real-time feedback. For example, iPod platform developer PortalPlayer leveraged a global network of leading technology companies to create different parts of an MP3 player. Every six months, the company would select the best component part among its network before releasing the product, providing rapid feedback to each participant.⁴¹ Creation spaces can also help companies not only learn about new ideas but quickly refine their strategy based on rapid feedback loops. The key is to carve out the time to reflect on what can be learned from the progress (or lack thereof) and to adjust accordingly.

Another method to ensure that the edge is agile to shifts in the market is by continuously monitoring and refining the view of the future and adjusting the edge strategy accordingly. Teams will continuously zoom out, zoom in, to ensure that short-term initiatives and direction are flexible to changes within the market. This begins with understanding and articulating the core assumptions that led the team to select their future scenario during the building-awareness exercise. These assumptions can then be converted into measurable indicators with set thresholds, which serve as flags on whether adjustments need to be made for short-term initiatives. Indicators will also be continuously monitored to inform if assumptions about the future need to be changed or adjustments to short-term initiatives need to be made.

Consider...

What are we doing to support the development of our talent to more effectively operate in an exponential world?

Are we participating in ecosystems that will help us to amplify the value that we are delivering to the market?

What are the most meaningful near-term milestones and performance metrics that we can track to determine if we are achieving the impact we anticipated and whether we are on the right trajectory?

Conclusion

DISRUPTION, particularly the more frequent and rapid patterns of disruption that we've described, challenge our well-worn mental maps for understanding and adapting to the world. Our tendency is to try to force-fit the current conditions and complexities back into the models and approaches that we do understand and to fail to admit that they don't fit. We desire resolution rather than live with ambiguity.

Responding to disruption requires us to embrace paradox, to become comfortable with the tension that comes from letting

contradictions and competing needs coexist rather than forcing resolution. In driving toward resolution, inevitably one priority, one business, one goal must prevail over the others. This forces us to think in terms of winners and losers, of either one or the

other, of right answers and wrong directions. In that narrow framing, no one wants to be the loser. Embracing paradox is about holding two truths at the same time and seeking to understand the dynamic and interplay between them in order to generate a higher level of insight.

“Times change.
Institutions resist
change.”

—Richard Tedlow, *Denial*

Here are some of the paradoxes with which we must learn to live as we address the challenges and opportunities of disruption:

Use patterns of disruption to broaden horizons rather than narrow them. But if we can anticipate the disruptions that could destroy our business, why don't we just focus narrowly on the best way to defend our position? Because we will miss other changes to the business landscape that may provide us with more options to continue to create value.

Redefine threats as catalysts to see opportunity. The very forces that are driving disruption are, at the same time, creating remarkable new opportunities for value creation. To be clear, this is not about "disrupting yourself." This is about seeing the exciting opportunities emerging in other parts of the business landscape that will not save the existing core business but, instead, provide the foundation for a more enduring business.

Focus where fragmentation creates opportunities for concentration. Sure, significant parts of the economy will fragment, which can be very threatening to large, established companies. But that fragmentation creates powerful opportunities for concentration. Those smaller, fragmented businesses are going to need to access the scale and scope advantages that infrastructure management, platform, and trusted-adviser businesses can offer. And addressing that need will be the driver of continuing growth for the scale and scope businesses.

Bet on the edge, but don't ignore the core. The edge is where your future lies, but your ability to scale that edge rapidly will hinge in part on insulating the core as much as possible from the mounting pressures that will erode revenue and profitability. If the core business hemorrhages too early, the immune system will tend to want to shut down anything that appears to be a distraction or diversion of resources. The more that the life of the

core business can be extended, the more likely that the scaling edge initiative will have the room to succeed. Just don't seek comfort in the notion that the existing core business will survive and become complacent about the edge initiative. The edge is your future.

Zoom out to more effectively zoom in. If you don't have a clear and aligned view about how your relevant markets are likely to evolve, it will be hard to focus and prioritize your near-term initiatives to get maximum impact. In the absence of that future view, the temptation will be to spread yourself too thinly across too many initiatives, undermining the likelihood that any of them will succeed.

Start small to get very, very big. We've described three types of businesses that will form the basis of any attractive future opportunity and will put companies on a fundamentally different trajectory than the path they are currently on. By starting small, you can minimize the risk that the immune system and antibodies will mobilize at an early stage to try to get back the money that is being spent on the edge initiative. You can also increase the incentive for the edge leadership team to aggressively mobilize third-party resources to leverage their own meager resources, helping them to accelerate the growth of the edge. The good news is that the very same exponential forces that are spawning the patterns of disruption can be leveraged to accelerate growth with modest investment. Starting small doesn't mean moving cautiously, since that may be the highest-risk approach of all. Move with urgency and be aggressive in accelerating the growth of the edge so that it can preempt others who may be eyeing the same opportunity space.

Life would be so much simpler if we could ignore or dismiss these paradoxes. But that quest for simplicity is illusory. Far better to embrace the paradoxes and use them to deepen our understanding of the increasingly complex world, focus our efforts, and propel us forward.

ENDNOTES

1. For more information about fragmentation and concentration, see John Hagel, John Seely Brown, Tamara Samoylova, and Duleesha Kulasooriya, *The hero's journey through the landscape of the future*, Deloitte University Press, July 24, 2014, <http://dupress.deloitte.com/dup-us-en/topics/operations/heros-journey-landscape-future.html>.
2. Each pattern describes how a new entrant can deploy a new approach to displace market leaders in such a way that the incumbent cannot effectively replicate or respond.
3. Hagel et al., *The hero's journey through the landscape of the future*.
4. For more detailed discussion of the trends leading to widespread fragmentation and concentration and why this implies the need for focused, "unbundled" companies in the future, see our prior research in Hagel et al., *The hero's journey through the landscape of the future*.
5. Martin Peers and Nick Wingfield, "Blockbuster set to offer movies by mail," *Wall Street Journal*, February 11, 2004, www.wsj.com/articles/SB107645765403826229; Rick Newman, "4 lessons from the demise of Borders," *U.S. News*, July 20, 2011, www.usnews.com/news/blogs/rick-newman/2011/07/20/4-lessons-from-the-demise-of-borders.
6. Newman, "4 lessons from the demise of Borders."
7. *Approaching disruption* by the Deloitte Center for the Edge is an independent publication and has not been authorized, sponsored, or otherwise approved by Apple Inc.
8. Steve Denning, "Business's worst nightmare: Big bang disruption," *Forbes*, January 7, 2014, www.forbes.com/sites/stevedenning/2014/01/07/businesss-worst-nightmare-big-bang-disruption.
9. FT Reporters, "Disrupters bring destruction and opportunity," *Financial Times*, December 30, 2014, www.ft.com/intl/cms/s/2/b9677026-8b6d-11e4-ae73-00144feabd0.html.
10. For further discussion of cognitive biases, see Timothy Murphy and Mark Cotteleer, *Behavioral strategy to combat choice overload*, Deloitte University Press, December 10, 2015, <http://dupress.deloitte.com/dup-us-en/focus/behavioral-economics/strategy-choice-overload-framework.html>.
11. Jeff Bezos, "2015 letter to shareholders," April 24, 2015, <http://phx.corporate-ir.net/phoenix.zhtml?c=97664&p=irol-reportsannual>.
12. Michael Beer and Nitin Nohria, "Cracking the code of change," *Harvard Business Review*, May 2000, <https://hbr.org/2000/05/cracking-the-code-of-change>.
13. *Approaching disruption* by the Deloitte Center for the Edge is an independent publication and has not been authorized, sponsored, or otherwise approved by Apple Inc.
14. Dawn Kawamoto, "Apple reports \$161 million loss," *CNET*, October 15, 1997, www.cnet.com/news/apple-reports-161-million-loss/.
15. Apple and Macintosh are trademarks of Apple Inc., registered in the United States and other countries.
16. Apple and iTunes are trademarks of Apple Inc., registered in the United States and other countries.
17. Apple and iTunes Store are trademarks of Apple Inc., registered in the United States and other countries.
18. Brandon Griggs and Todd Leopold, "How iTunes changed music, and the world," CNN, April 26, 2013, www.cnn.com/2013/04/26/tech/web/itunes-10th-anniversary/.

19. Apple and iPod are trademarks of Apple Inc., registered in the United States and other countries.
20. Low End Mac, "A history of the iPod: 2005 to present," August 11, 2013, <http://lowendmac.com/2013/ipod-history-2005-present/>.
21. Apple and iPhone are trademarks of Apple Inc., registered in the United States and other countries.
22. Doug Gross, "Apple trademarks 'There's an app for that,'" *CNN*, October 12, 2010, www.cnn.com/2010/TECH/mobile/10/12/app.for.that/.
23. Horace Dediu, "Turning up the volume: iPhone overtakes iPod," *Asymco*, October 21, 2010, www.asymco.com/2010/10/21/turning-up-the-volume-iphone-overtakes-ipod/.
24. Deloitte analysis based on data from the following Apple Computer Inc. sources: 2000 10-K statement, December 13, 2000, <http://investor.apple.com/secfiling.cfm?filingid=912057-00-53623>; 2003 10-K statement, December 18, 2003, <http://investor.apple.com/secfiling.cfm?filingid=1047469-03-41604>; 2006 10-K statement, December 29, 2006, <http://investor.apple.com/secfiling.cfm?filingid=1104659-06-84288>; 2009 10-K Statement, October 27, 2009, <http://investor.apple.com/secfiling.cfm?filingid=1193125-09-214859>; 2012 10-K Statement, October 31, 2012, <http://investor.apple.com/secfiling.cfm?filingid=1193125-12-444068>.
25. Richard Tedlow, *Denial: Why Business Leaders Fail to Look Facts in the Face—and What to Do About It* (New York: Portfolio), pp. 614–15.
26. Google's Project Ara is the most prominent of the modular smartphone initiatives, although the project appears to have been halted as of September 2016. At least two other efforts, PuzzlePhone and Fairphone, are less completely modular but appear to be exploring the boundaries of practical modularity in smartphones. Julia Love, "Exclusive: Google shelves plans for phone with interchangeable parts—sources," *Reuters*, September 2, 2016, www.reuters.com/article/us-google-smartphone-idUSKCN11806C.
27. Sarah Mitroff, "Kodak's phone debut is super-simple and runs Android KitKat," *CNET*, January 5, 2015, www.cnet.com/products/kodak-im5/preview/.
28. Other potential exceptions to the need to unbundle can result when regulations call for integration, learning occurs faster inside the company, and/or ecosystem players are unable to meet requirements.
29. *Network effects* is a term most often used in relation to digital businesses. It means that more value is created as more participants join the system (or use a service or product), with the effect accelerating as critical mass is reached—in these situations, the opportunity may quickly diminish for other players who don't scale and achieve a critical mass on their network. The concept of network effects is more broadly relevant now that most businesses, across all industries, have a digital component, with Internet of Things sensors making physical objects connectable and social media making individuals connectable. This increases the potential for platforms and makes many markets susceptible to increasing, winner-take-all network effects.
30. Hagel et al., *The hero's journey through the landscape of the future*; John Hagel et al., *The retail transformation*, Deloitte University Press, June 16, 2015, <http://dupress.deloitte.com/dup-us-en/industry/retail-distribution/retail-transformation-choice-experience-trust.html>; John Hagel et al., *The future of manufacturing*, Deloitte University Press, March 31, 2015, <http://dupress.deloitte.com/dup-us-en/industry/manufacturing/future-of-manufacturing-industry.html>.
31. Evan Ramstad, "Passion for plasma fuels creation of first 60-inch flat-screen TV," *Wall Street Journal*, August 30, 2000, www.wsj.com/articles/SB967587676614566981.
32. *Economist*, "There's an app for that," January 3, 2015, www.economist.com/news/briefing/21637355-freelance-workers-available-moments-notice-will-reshape-nature-companies-and.
33. Greg Bensinger, "Amazon wants to ship your package before you buy it," *Wall Street Journal*, January 17, 2014, <http://blogs.wsj.com/digits/2014/01/17/amazon-wants-to-ship-your-package-before-you-buy-it/>.

Approaching disruption

34. John Hagel et al., *The burdens of the past: Report 4 of the 2013 Shift Index series*, Deloitte University Press, November 11, 2013, <http://dupress.deloitte.com/dup-us-en/topics/emerging-technologies/the-burdens-of-the-past.html>.
35. MBO Partners, *The state of independence in America: Third annual independent workforce report*, September 2013, http://info.mbopartners.com/rs/mbo/images/2013-MBO_Partners_State_of_Independence_Report.pdf.
36. Alexei Oreskovic, "Amazon isn't just growing revenue anymore—it's growing profits," *Business Insider*, April 28, 2016, www.businessinsider.com/amazons-big-increase-in-aws-operating-margins-2016-4.
37. This zoom out, zoom in approach is a departure from most large firms' standard one-to-five-year operational plans but can be extremely impactful, especially in times of rapid change, in generating the necessary conviction and commitment to transition into this next phase. For more information about the strategy, see John Hagel and Gerald C. Kane, "The dark side of the digital revolution," *MIT Sloan Management Review*, January 29, 2016, <http://sloanreview.mit.edu/article/the-dark-side-of-the-digital-revolution/>.
38. Ron Miller, "How AWS came to be," *Tech Crunch*, July 2, 2016, <https://techcrunch.com/2016/07/02/andy-jassys-brief-history-of-the-genesis-of-aws/>.
39. Emily Steel, "Netflix refines its DVD business, even as streaming unit booms," *New York Times*, July 27, 2015, www.nytimes.com/2015/07/27/business/while-its-streaming-service-booms-netflix-streamlines-old-business.html.
40. John Hagel et al., *Pragmatic pathways: New approaches to organizational change*, Deloitte University Press, March 4, 2013, <http://dupress.deloitte.com/dup-us-en/industry/technology/pragmatic-pathways.html>.
41. John Hagel and John Seely Brown, *Institutional innovation*, Deloitte University Press, March 12, 2013, <http://dupress.deloitte.com/dup-us-en/topics/innovation/institutional-innovation.html>.

ABOUT THE AUTHORS

JOHN HAGEL

John Hagel, co-chairman of Deloitte Center for the Edge, has nearly 35 years of experience as a management consultant, author, speaker, and entrepreneur, and has helped companies improve performance by applying IT to reshape business strategies. In addition to holding significant positions at leading consulting firms and companies throughout his career, Hagel is the author of bestselling business books such as *Net Gain*, *Net Worth*, *Out of the Box*, *The Only Sustainable Edge*, and *The Power of Pull*. He is on Twitter at @jhagel and on LinkedIn at www.linkedin.com/in/jhagel.

JOHN SEELY BROWN

John Seely Brown, independent co-chairman of Deloitte Center for the Edge, is a prolific writer, speaker, and educator. In addition to his work with the Center for the Edge, JSB is adviser to the provost and a visiting scholar at the University of Southern California. This position followed a lengthy tenure at Xerox Corp., where he was chief scientist and director of the Xerox Palo Alto Research Center. JSB has published more than 100 papers in scientific journals and authored or co-authored seven books, including *The Social Life of Information*, *The Only Sustainable Edge*, *The Power of Pull*, and *A New Culture of Learning*.

ANDREW DE MAAR

Andrew de Maar, head of research at Deloitte Center for the Edge, helps clients make sense of and profit from emerging opportunities on the edge of business and technology. He has worked with a wide range of public, private, and nonprofit entities to help executives explore long-term trends that are fundamentally changing the global business environment and identify high-impact initiatives that their organizations can pursue to more effectively drive near-term performance improvement and large-scale transformation.

MAGGIE WOOLL

Maggie Wooll, head of eminence and content strategy at Deloitte Center for the Edge, combines her experience advising large organizations on strategy and operations with her passion for getting the stories behind the data and the data behind the stories to shape the Center's perspectives. At the Center, she explores the intersection of people, technologies, and institutions. She is particularly interested in the impact that new technologies and business practices have on talent development and learning for the future workforce and workplace.

ABOUT THE RESEARCH TEAM

This report and the pattern write-up series would not have been possible without the hard work of our research team, colleagues who tracked down case studies and cheerfully dug for data and more data on the way to understanding:

Shujaat Ahmad (research fellow, Deloitte Center for the Edge) is focused on exploring competitive advantage for firms through innovative alignment of their corporate, talent, and social impact strategies. As a manager in Deloitte Consulting LLP's Strategy & Operations practice, he has spent the last five years helping clients on both front-end corporate strategy and back-end supply chain and services excellence across a range of industries, including high tech and retail. Ahmad is passionate about strategic planning for disruption and about fair value creation through peer-to-peer business models.

Stephen Casscells-Hamby (research fellow, Deloitte Center for the Edge) is passionate about the intersection of analytics, strategy, and innovation as a way to anticipate change and shape new business opportunities. As a consultant in Deloitte Consulting LLP's Strategy & Operations practice, he has helped clients improve outcomes by integrating analytics into their strategic thinking. At the Center, Casscells-Hamby researches long-term opportunities for increasingly prevalent disruptive forces and the power of peer-to-peer connections as a driver for positive change.

Max Gerekht (research fellow, Deloitte Center for the Edge) is energized by the challenge of understanding and predicting the disruptions that shape our future. As a consultant in Deloitte Consulting LLP's Strategy & Operations practice, he has spent the past two years guiding clients to a deeper understanding of their consumers to redesign their products, services, and structures. Gerekht is passionate about exploring what causes particular business models to fail and others to succeed in their place.

Kinsey Hart (research fellow, Deloitte Center for the Edge) is interested in transforming how we work and learn in a constantly changing world. As a consultant in Deloitte Consulting LLP's Technology practice, she has spent the past two years helping clients across a range of industries, including high tech and financial services. Hart is passionate about developing strategy that empowers businesses to thrive in a world of disruption and that enables nonprofit growth.

Lucy Pan (research fellow, Deloitte Center for the Edge) is passionate about leveraging emerging technologies to accelerate the efforts of nonprofits and organizations focused on addressing society's most pressing challenges. As a senior consultant within Strategic Risk Services, she has spent the past three years working in a variety of industries to help clients discover and manage key risks to their strategy. At the Center, Pan's research focuses on how companies can transform to address disruptive forces in the market and the power of peer-to-peer networks in driving innovation.

ACKNOWLEDGEMENTS

This research would not have been possible without the generous contributions and valuable feedback from numerous individuals. The team would like to thank **Andrew Blau, Dan Simpson, Eamon O'Connor, Will Shepherdson, Laura Hall, Kate Fedosova, John Day, Jodi Gray, Blythe Aronowitz, Carrie Howell, Bradley Harris,** and **Duleesha Kulasooriya.**

CONTACTS

Blythe Aronowitz

Chief of staff, Center for the Edge
Deloitte Services LP
+1 408 704 2483
baronowitz@deloitte.com

Peter Williams

Chief edge officer, Centre for the Edge Australia
+61 3 9671 7629
pewilliams@deloitte.com.au

Wassili Bertoen

Managing director, Center for the Edge Europe
Deloitte Netherlands
+31 6 21272293
wbertoen@deloitte.nl

ABOUT THE CENTER FOR THE EDGE

The Deloitte Center for the Edge conducts original research and develops substantive points of view for new corporate growth. The center, anchored in Silicon Valley with teams in Europe and Australia, helps senior executives make sense of and profit from emerging opportunities on the edge of business and technology. Center leaders believe that what is created on the edge of the competitive landscape—in terms of technology, geography, demographics, markets—inevitably strikes at the very heart of a business. The Center for the Edge's mission is to identify and explore emerging opportunities related to big shifts that are not yet on the senior management agenda, but ought to be. While Center leaders are focused on long-term trends and opportunities, they are equally focused on implications for near-term action, the day-to-day environment of executives.

Below the surface of current events, buried amid the latest headlines and competitive moves, executives are beginning to see the outlines of a new business landscape. Performance pressures are mounting. The old ways of doing things are generating diminishing returns. Companies are having a harder time making money—and increasingly, their very survival is challenged. Executives must learn ways not only to do their jobs differently, but also to do them better. That, in part, requires understanding the broader changes to the operating environment:

- What is really driving intensifying competitive pressures?
- What long-term opportunities are available?
- What needs to be done today to change course?

Decoding the deep structure of this economic shift will allow executives to thrive in the face of intensifying competition and growing economic pressure. The good news is that the actions needed to address short-term economic conditions are also the best long-term measures to take advantage of the opportunities these challenges create. For more information about the Center's unique perspective on these challenges, visit www.deloitte.com/centerforedge.

Deloitte. University Press



Follow @DU_Press

Sign up for Deloitte University Press updates at DUPress.com.

About Deloitte University Press

Deloitte University Press publishes original articles, reports and periodicals that provide insights for businesses, the public sector and NGOs. Our goal is to draw upon research and experience from throughout our professional services organization, and that of coauthors in academia and business, to advance the conversation on a broad spectrum of topics of interest to executives and government leaders.

Deloitte University Press is an imprint of Deloitte Development LLC.

About this publication

This publication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or its and their affiliates are, by means of this publication, rendering accounting, business, financial, investment, legal, tax, or other professional advice or services. This publication is not a substitute for such professional advice or services, nor should it be used as a basis for any decision or action that may affect your finances or your business. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser.

None of Deloitte Touche Tohmatsu Limited, its member firms, or its and their respective affiliates shall be responsible for any loss whatsoever sustained by any person who relies on this publication.

About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms. Please see www.deloitte.com/us/about for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.

Copyright © 2016 Deloitte Development LLC. All rights reserved.
Member of Deloitte Touche Tohmatsu Limited