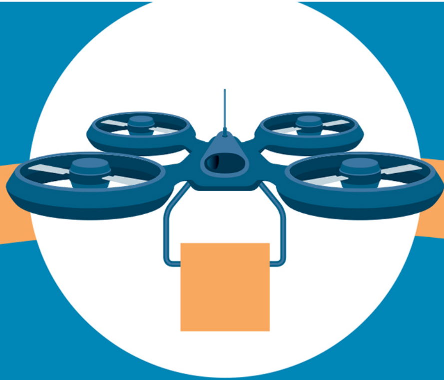

THE DIGITAL TRANSFORMER'S DILEMMA

How to Energize Your Core Business While Building Disruptive Products and Services

Karolin Frankenberger, Hannah Mayer, Andreas Reiter, and Markus Schmidt

WILEY

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TO ALL DIGITAL TRANSFORMERS

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Introduction

THE DIGITIZATION OF YOUR CORE BUSINESS IS NECESSARY, BUT THE FUTURE OF YOUR COMPANY LIES IN ITS NEW, DISRUPTIVE BUSINESS

YOUR BUSINESS MUST TRANSFORM TWICE TO SURVIVE

This book starts with a bit of bad news (which you already know) and some good news. The bad news, of course, is your legacy business is like a dinosaur, and threatened with the same fate—extinction. New start-ups, powerful tech companies, and other game changers are threatening the existence of every successful organization (see Figure 0.1). The good news is that firms (unlike literal dinosaurs) can prepare for drastic changes. This book is designed to help organizations prepare to meet the threat and succeed, by guiding them along the path of transformation.

The take-home message is, you actually have to transform twice: legacy firms need to transform their core, legacy-driven business while in parallel setting up new, disruptive (digital) businesses. That is, *all* firms. Irrespective of their industry, geography, or size, companies will need to strike that balance between two very different worlds. Large, well-known companies – like Michelin, Volkswagen, AB InBev, Nestlé, Novartis, and BNP Paribas – are just as much affected as smaller, hidden champions – such as Ohio-based manufacturer of precision instruments Mettler-Toledo, Swiss-based diversified tech conglomerate Bühler, or BTPN of Indonesia. We interviewed all of these – and many more – only to find that there is no safe haven for any particular kind of organization. Our apologies.

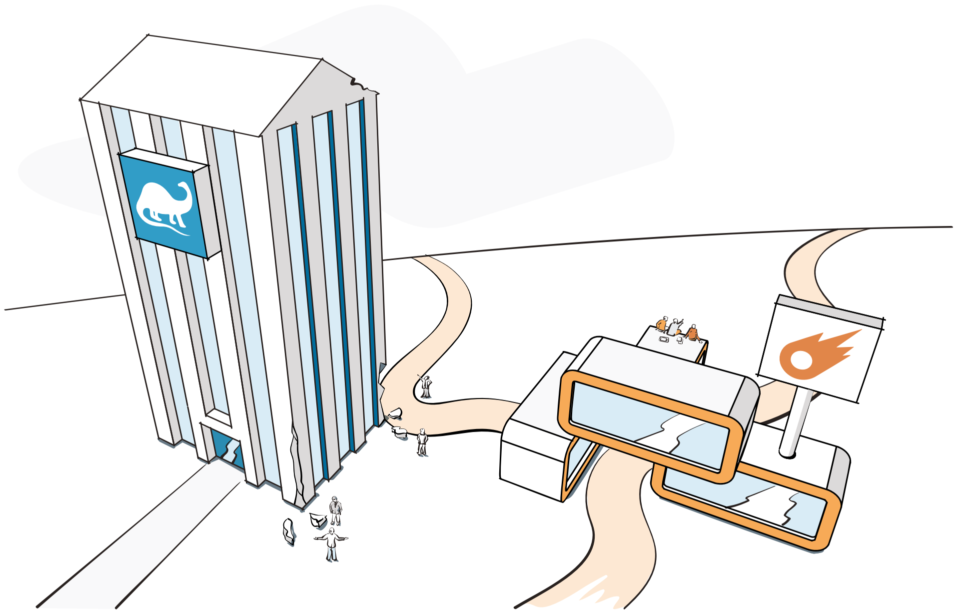

Figure 0.1 Dinosaur companies won't survive

Why is that, though? In essence, it's wrong to distinguish based on size or geography when it comes to digital transformation. Though some differentiation based on industry is possible due to differing sector maturity and the resulting differences in urgency to transform, the most relevant distinguishing factor is the age of the organization in question, making this a "start-up versus legacy firm" competition. Start-ups can launch disruptive innovations more easily than legacy firms because they are not bogged down by past (infra-) structural or mindset baggage. Legacy firms, on the other hand, cannot act as quickly because the organizational realities they face are more complex and harder to overcome. For them to continue to be successful in the old world while at the same time succeeding in a new world is a challenge no holistic consultant model captures – so far. We are trying to tackle the problem in this book.

The good news is, the digital world order that organizations need to brave is not as dystopian as one might think. On the contrary – it bears great potential that firms can tap into when they open their minds to disruptive innovations, including business model innovation paired with or based on the use of artificial intelligence, platform-based businesses, product-as-a-service, digitized customer journeys, and many more of those all-too-well-known buzzwords. We go beyond the buzzword hype, though, to illustrate how organizations not only can understand but can master the challenge of creating a radically new business which will rely on fundamentally different success factors than the core business.

Avid management literature readers will know that some books and concepts have addressed the necessity for disruptive innovations already. Think Blue Ocean Strategy, which talks about how companies can create new demand in previously untapped market spaces rather than fight over a shrinking profit pool with fierce competitors. Or think Three Horizons, which depicts innovation as occurring on three time horizons, with these time horizons gradually shortening, thus disadvantaging bureaucratic incumbents and advantaging nimble attackers well positioned to act swiftly. Yet one thing is missing: a concrete guide to the differing success factors in the core business versus those in the new disruptive business, particularly as relates to the implementation of such a transformation, and to how the tension inherent in the coexistence of these two businesses can best be managed. This is where we come in – the book at hand guides digital transformation practitioners from all sorts of organizations and across all career levels along the implementation of a holistic, two-tier digital transformation.

SOFTWARE IS EATING THE WORLD – AND COMPANIES STILL DON'T KNOW HOW TO ADAPT

Digitization is complicated and exciting and perilous. The possibility of autonomous cars has led automotive players to make huge investments in radically rethinking mobility – like Daimler and BMW, which have formed a joint venture covering new-generation services.[1] Now you can schedule a doctor's appointment via your phone while riding the subway to work. And don't we all value being able to search property listings online instead of having to drive to dozens of properties? On the more negative, perilous side of digitization, besides the much covered collapse of Nokia[2] and Kodak,[3] you may remember Nike halving the size of its digital unit, Lego defunding its Digital Designer virtual building program, and P&G not being able to achieve its ambition of becoming "the most digital company on the planet."[4] And, if nothing else, you have surely wondered how jobs, including your own, will be affected by digitization – especially given that 60% of occupations have at least 30% of constituent work activities that could be "automated away" and because significant skill shifts are expected as a result of automation and digitization.[5] It's understandable then that individuals and sometimes entire occupational groups fear digitization.

Digitization affects how we live, work, communicate, and consume products and services. It has enormous effects on how organizations operate – because established rules and best practices of doing business now have a rapidly approaching expiration date.[6] Also, established firms are being threatened by emerging start-ups and diversifying tech players, at the same time that traditional industry boundaries are falling. (Think about Google entering the healthcare and biosciences field by venturing into cancer detection and diabetes diagnosis.) Digitization also brings with it challenges like increased competition from China (Alibaba's possible expansion into North America and Europe), drastic shifts in customer preferences (TV's shift to streaming on demand), and new digital phenomena like ecosystems and platforms (can you think of a mobile operating system that is not a platform for thousands of third-party software developers?).

All these trends have gained momentum over the last few years. Nevertheless, we find that surprisingly few established firms have a clear view on how to best navigate the change brought about by digitization. All of them will, however, need to rethink their business if they want to ensure sustainable success. The bad news: sprinkling a bit of "digital glitter" over incumbents' core businesses does not suffice. Instead a fundamental overhaul of the business is necessary – a *digital transformation*.

It feels intimidating but transformation at this scale is actually nothing new. Think about the fundamental changes to ways of working as part of the industrial revolution in the 18th century. Digital transformation will have similarly wide-ranging effects. Arguably, transformations happen all the time across many organizations. But digital transformation is unprecedented in pace and impact, and thus drives profound changes in our economy and society.

From a fundamental economic and business perspective, the beauty and power of digitization comes from the fact that any digital representation can be perfectly replicated and transmitted at almost no marginal cost to a practically infinite number of globally dispersed customers.[7] Savor this slowly: virtually no marginal cost. This basic fact means that when a digital technology replaces an analog technology, the change it brings with it will be comprehensive, to say the least, thus fundamentally affecting the organizations and industries the technology touches. The organizations that can reap the most benefits from this are the digital pure players who lose any limit to scale and whose costs to scale are decimated. Meanwhile, some companies will continue to be bound by constraints rooted in the non-digital nature of their assets (for instance, physical constraints to cloud computing), though they may still be able to take advantage of the power of digitization (see the surge in demand for cloud computing).

It is this re-architecting of the nature of business that enables digital transformation to give rise to a wave of new opportunities for firms to take advantage of. And, generally speaking, it is exactly this fundamental disruption that makes a digital transformation structurally different from your typical plain-Jane business transformation, like cost-cutting transformations that have become commonplace for managers and employees alike.

In other words, a real digital transformation is not simply the deployment of information technology to aid traditional business models. Instead, a two-tier transformation is necessary: (a) careful thought needs to be given to how the traditional core of your organization can benefit from digitization and, at the same time, (b) you need to explore and capture new (digital) ways of creating value for your customers. This implies a fundamental re-architecture of an organization's business, which, post–digital transformation, needs to follow a dual business approach.

Historically, digitization has had an important, yet somewhat restrained impact on firms because it was introduced almost as a kind of "window dressing" on top of existing organizational systems, still reflecting typical processes. Most organizations did not drastically rethink their business model. By contrast, a business whose operations are founded on digital assets, structured around the ubiquity of data and information flows, would have profoundly different processes and constraints (this is a fundamentally new, digital business). While the former – the digitization of the core business – is vital for any digital transformation, the future of the business lies in the latter – the digital business. For instance, think of the extreme case of online pure players that operate solely in the digital space: there is no required human involvement when a price is changed at Amazon. Similarly, no human checks whether a new user should be allowed to join Facebook. The result: the absence of an organizational growth bottleneck and virtually no traditional limit to the scalability of these organizations. While we will not focus on such digital native companies or start-ups in this book, their business models and strategy certainly bear learnings and provide ample food for thought for established businesses, especially for how they may think about establishing their own digital business, thus venturing onto uncharted digital territory.

THE DIGITAL TRANSFORMER'S DILEMMA: ENERGIZING THE CORE BUSINESS WHILE BUILDING DISRUPTIVE NEW PRODUCTS AND SERVICES

Being the attentive reader that you are, you may wonder: none of this explains anything about a digital transformer's dilemma. Correct, the dilemma only arises once companies have understood there is a necessity to act across two businesses. Once they have embarked on their digital transformation journey, the dilemma they are all bound to face is: How can they maintain profitability in their legacy-based, core business activities (which we call the 1st S-curve) while reaping the full potential in a radically new, disruptive (digital) business (which we refer to as the 2nd S-curve)? In other words, how can the pursuit of the digitized 1st S-curve and the development of the innovative, digital 2nd S-curve best be reconciled in one organization, ensuring adequate links between the two? Put even more simply, how can firms digitize their core while reinventing their future (not just at the senior strategy-setting level but on the operational level as well)? That is the essence of the digital transformer's dilemma (see Figure 0.2).

The reality is that companies often struggle with striking that balance between 1st and 2nd S-curve efforts, often leading to animosities between the two.

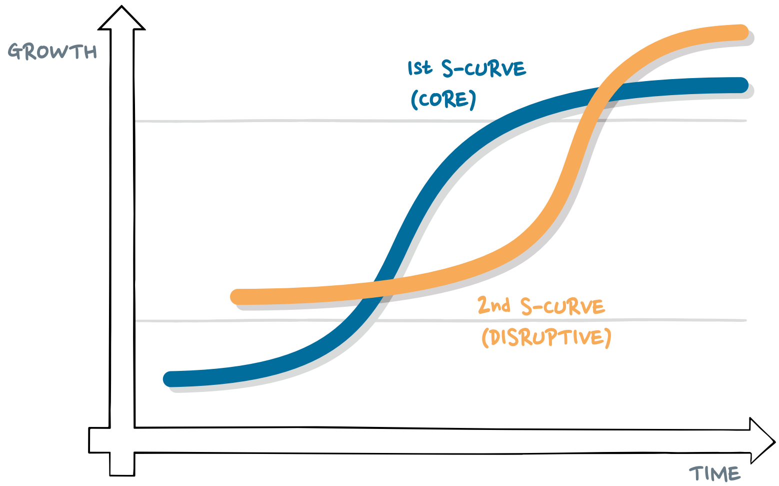

Figure 0.2 Two S-curves

Source: Adapted from Gabriel Tarde. *The Laws of Imitation*. New York: Henry Holt and Company, 1903.

Think about it: the 1st S-curve will continue to generate the majority of the top line revenue for the time being and now also has to cover for the 2nd S-curve, which is bound to break even only later in the process. (It's a kind of sisterly rivalry, with a tendency of the 1st S-curve to be portrayed as the ugly stepchild.) Still, however, the 2nd S-curve will often be marketed both to the outside world and internally as a showpiece and token for visionary innovation. No wonder the 1st S-curve might feel undervalued and unjustly treated; similarly, no wonder that the 2nd S-curve might feel superior (many siblings would probably be able to attest to that). Managing the tensions between the two siblings . . . umm . . . S-curves is indispensable for the success of the digital transformation as a whole. The key to achieving that is for management and staff to internalize that the success factors on both S-curves differ significantly and that only through a well-orchestrated interplay between the two can the maximum digital transformation potential be realized.

If "The Digital Transformer's Dilemma" sounds familiar to you, you may have heard of Clayton Christensen's work. In his 1997 bestseller, *The Innovator's Dilemma*, he argued that successful companies can do everything right and still lose their market leadership position in the face of newly emerging competitors that pioneer disruptive technologies. Although his book dates from the 1990s, we believe a lot of the premises from *The Innovator's Dilemma* are experiencing a resurgence in importance today, including (and especially) in the digital transformation context. Decades of widely accepted principles of good management have become only situationally appropriate if not obsolete. Meanwhile a new set of rules and practices needs to be established to guide innovative (as Christensen argues) or transformational (as we argue) efforts.

WHAT OTHER DIGITAL TRANSFORMATION BOOKS DON'T TELL YOU

Many publications center around the "why" of digital transformation, convincing C-level executives of the role a digital overhaul plays for the continued success of a company and evangelizing there is a need to act to begin with. The "why" certainly is important because, arguably, knowledge is the first step to improvement – and admittedly it is also what we just dedicated the first few pages to and what we will dive into more in the next chapter as well. But we aspire to something more. To date there has been very limited guidance on the "how" of running a digital transformation. This book is the first practitioner-oriented roadmap on how to execute a digital transformation in real life. We present a set of actionable steps, highlighting how to avoid common pitfalls and address and overcome barriers along the way. This book is for all those who encounter digital transformation in their daily lives, not just the select few at the top but mid-level managers and staff as well. For the former, Parts 1 and 2 – where we describe the reasons for embarking on a digital transformation and how to go about strategy setting – will be particularly insightful. For the latter, the essence of our book – Part 3 describes in detail how to go about running a digital transformation and Part 4 is dedicated to success measurement – will be most relevant.

We want to entertain you, inspire you, and, most importantly, set you up for success when running *your* digital transformation with the tools you need to launch a digital transformation yourself. We introduce you to all facets of the dilemma, tell you how to manage the tension between the 1st and 2nd S-curves, and outline action plans for how to best address these challenges. To do that, we use an innovative format, showing a host of brand-new, in-depth case studies based on over 100 interviews with executives from a broad set of industries and geographies.

While the Alibabas and Amazons of the world may be prime examples for navigating the digital world, they never had to deal with the requirements of transforming a legacy business. Instead, we focus on those companies with a long legacy to showcase how they can transition into the digital age while keeping their core intact – maintaining their traditional business activities on the 1st S-curve while reaping the full digital potential on the 2nd S-curve. We explore how to best tackle the interaction between the two S-curves while making sure to strike a balance between maintaining profitability in the core and at the same time establishing the new, disruptive (digital) business. This holistic look at the two S-curves instead of just zeroing in on 2nd S-curve champions is a departure from what others have written. It would be grossly negligent to disregard growth opportunities in the core business that can be taken advantage of when digitization is introduced. In many industries and business lines, it is imaginable that the 2nd S-curve eventually becomes the 1st S-curve and the original 1st S-curve ceases to be a considerable top-line revenue contributor. But these are natural, longer-term developments. Even when that happens, though, a new 2nd S-curve will be waiting around the corner. Striking a balance between two very different worlds will remain a central topic for organizations even in the future.

To set you up for success, we also provide you with a load of practical tips and all the tools you need to succeed in real life. In the “Resources” section you will find interactive tools for guiding the strategizing and implementation of your own digital transformation alongside a set of actionable steps. On our website (www.thedigitaltransformersdilemma.com) you will find an even bigger repository of materials to make use of.

WHY AND HOW WE WROTE THIS BOOK

We hold ourselves to the same standards that we suggest companies follow, in keeping with the motto: You want to talk about transformation? You have to live transformation!

First, we saw the need to fill a gap: despite much literature on the "why," there's a lack of "how"-oriented digital transformation guides. We devised an initial experimentation phase: inspired by some of the textbook ways of working utilized in digital transformation, we first established a minimum viable product (MVP) of the book. We used that to test our vision with leading digital transformation minds (C-level executives, company owners, thought leaders, and scholars) and digital transformation practitioners (project managers, business unit heads, individual contributors). We incorporated their feedback, making frequent iterations before establishing a prototype of the book as early on as possible (following the motto "fail fast, fail cheap").

Eventually we needed some meat on the bone. A vision and an MVP are good and all, but you can't make something out of nothing. So, we assembled 100+ different corporate case studies based on interviews with leading executives and operational managers leading digital transformation initiatives in companies that managed to Uber themselves before they got Kodak'ed.[8] This informed our digital transformation how-to framework. We kept iterating this framework with various test audiences and made sure to incorporate their input.

Finally came the finishing touches, which, in author lingo, means writing up the whole thing. Well, as you can see, we did that, too.

But then something happened.

PANDEMIC MEETS DIGITAL TRANSFORMATION

Life – regular and business – around the globe changed abruptly and unexpectedly in spring 2020 with the outbreak of a novel Coronavirus, introducing new norms related to social distancing, reduced mobility, remote work, homeschooling, the (near-)shut-down of entire industries (and the sudden surge of others), expansive lay-offs, and haphazard stock markets. Companies found themselves in the field of fire, torn between the demands of radically new realities imposed by the virus and the deep-rooted necessity (and oftentimes, long-prepared ambition) to digitally transform. As COVID-19 brought with it a transformational impact on the nature of work, the structure of firms, and the economic realities of people, businesses, and countries, many questions emerged, some of which related to digital transformation: What does Coronavirus mean for digital transformation and how can the two be reconciled? Specifically, what are repercussions of the virus for the 1st S-curve, the 2nd S-curve, and their interplay? Who ends up a winner, and who ends up losing in this nexus of transformations?

We have no crystal ball to answer these questions and predict long-term effects of COVID-19 on digital transformation with certainty. This includes whether post-pandemic effects will reshape life fundamentally in the long run and alter the rules of the game completely, or whether it is only select parameters that will change and we'll largely be able to go back to business as usual. In the absence of such certainty, we would caution everyone to take our views with a grain of salt, as they reflect our latest thinking as of April 2020 based on the information available at the time and our own opinions. But one thing is undisputed: Coronavirus and digital transformation are intimately linked. Here's what this means.

One, the pandemic is like a benchmark to past digital transformation efforts and bears learnings on how well companies have digitally transformed

The COVID-19 pandemic is not unlike a stress test to a firm's digital transformation to date, able to unveil any flaws inherent in (digital) business models quicker than they would have otherwise surfaced. Those firms whose digital transformation across both S-curves was well underway before the COVID-19 outbreak are at an advantage in times of Coronavirus, as are firms that managed to swiftly rally digitization efforts at the onset of the crisis to rapidly bring about digital value propositions. Organizations that missed their ticket onto MS Digital Transformation (before and at the beginning of the crisis) are poised to be left behind. This means that companies whose value-add is generated and rendered through digital means (or that have managed to morph into this profile quickly) will, on average, weather the Corona storm better than those whose value generation lies purely offline. Though in a global recession, which economists agree we are headed into,[9] none are real but only relative winners. The question is not so much who ends up a winner but rather who will lose the least.

Naturally, digital pure players are well positioned to reap the benefits of a virtually powered economy, particularly when they don't rely on human involvement to complete transactions. Think, for instance, of ZOOM, which has managed to grab a large share of the delicious and oh-so-topical virtual conferencing pie, with shares surging 63% in three months.[10]

Foot traffic, unfortunately, is equal to a Corona-infested death bed: when there's no feet, there's no business. Companies that have adamantly focused only on their 1st S-curve operations hence are at a disadvantage. They will find themselves cash-strapped after the crisis. Traditional firms relying on in-person interaction to render services are thus hit the hardest, though if they manage to entertain or quickly set up a digital channel, they may be able to dampen negative effects.

One such example is Domino's, where delivery makes up 55% of total orders. Domino's is thus well positioned to thrive during Corona, as proven by its call to hire 10,000 workers due to increased demand[11] while millions of US workers file for unemployment.[12] It is one of the only big chains that refuses to work with outside delivery apps such as DoorDash or Grubhub, which promise to boost restaurant sales but take a cut of that money. Having its own delivery app, drivers, and pickup infrastructure – and thus full control over value chain and customer service – is a winning strategy for Domino's in times of social distancing. A focus on the Corona-minded customer who cares about contactless delivery[13] paired with increased profits thanks to cutting out middlemen proves a viable strategy to accelerate digital (2nd S-curve) as opposed to dining-in (1st S-curve) business.

Even among those entities that are system-critical, the digitally transformed ones will do best. One example is governments, which are center stage amidst the crisis, alongside select essential firms. Countries like South Korea were praised early on as flagship nations to have brought the spread of the virus under control, harnessing surveillance-camera footage, smartphone location data, and credit card purchase records to help trace the recent movements of coronavirus patients and establish virus transmission chains.[14] These countries have long been able to monitor and analyze such data, and may be expanding such tools, practices, and know-how into Western jurisdictions, though with adaptations to ease privacy concerns.[15] Known as digital frontrunners, some Asian countries have remarkable transparency over individual citizens' details, including not only their own whereabouts and movements but relationships to other patients. The widely hailed digital transformation of such administrations[16] serves their people well, now more than ever.

Two, while digitally transformed companies will, on average, weather the Corona storm better, some of the digital transformers will win more than others

Among the digitally transformed organizations, some will take away big chunks of the overall smaller pie that's being generated now, owing to their business model or industry.

For instance, subscription-related digital business models will likely fare better than ads-based ones because when a recession hits, companies typically reduce ad spending to a significant degree while individual consumers likely will still splurge on that US$9/month Netflix subscription.

Also, diversification away from the core product or service (particularly if that is eliminated in times of Corona) is a strategy worth aspiring to, if possible – and it's best combined with low fixed costs. Consider ride-hailing services. When people are staying home, they don't exactly need rides – a painful truth Uber, Lyft, and other ride-hailing companies know all too well. Uber, however, is in the position of being able to hedge some bets more favorable to a Corona-ridden economy. Think Uber Eats for food delivery, Uber Health for scheduling healthcare-related rides, or Uber Freight for shipping.

Industry-wise, the Corona crisis is summoning a bifurcation of economic sectors, where some are at a disadvantage because demand is eradicated and others are at an advantage because demand is relatively unaffected or even boosted. Among the losers is the travel and hospitality industry, with cruise ships and airlines taking the hardest hit. But even the digitally transformed players in that sector that even enjoy low fixed costs (such as Airbnb, which doesn't pay rent for its property listings) are hit hard because when travel is discouraged or altogether banned, demand and bookings plunge.[17] Among the winners are, for instance, grocery retailers, though sales of higher margin products (such as clothing) have declined sharply and been substituted for lower margin shopping (think toilet paper). Still, this is their moment. Walmart is doing particularly well, with investments in its ecommerce infrastructure paying off.[18] Besides the winners and losers, there are also some double-edged swords, where the pandemic is favoring one party of a typical two-party deal and adversely affecting the other. Consider the start-up scene and investing. This is not a terrific time for start-ups – at least, not for some. As a result of the overall economic downturn, start-up valuations dwindle and overvaluations are becoming a thing of a past.[19] While some start-ups struggle, this may just be the moment for PEs (private equity firms) and VCs (venture capital) who have ample dry powder[20] – unspent capital on their balance sheets ready to be invested[21] in ventures which they might be able to snap up at bargain prices. (And it is not just start-ups, but many industries hit hard by the crisis.) The relatively low valuations of entrepreneurial and other ventures paired with the availability of cash on the part of PEs and VCs will make for an interesting investing landscape, poised to favor the most disruptive, digital businesses. The Corona crisis may thus be a déjà-vu of the 2008 crisis, in the aftermath of which a number of now-unicorns hatched, including Uber, Dropbox, and Spotify.

Three, the pandemic spurs an increased push toward digital transformation for all firms

Efforts to accelerate both digital business and digital work will become more commonplace, following extended periods of time where all parties involved have become used to new practices and offerings.

On the digital business side, even beyond Corona, customers will appreciate the new digital value propositions and channels that are becoming standard. At the same time, organizations are well advised to continue to maintain and extend these digital offerings and sales channels, building on learnings from the Corona crisis and knowing that customers have morphed into digital aficionados. Think gym classes: luxury workout chain Barry's is keeping people engaged with free online gym classes (2nd S-curve) until in-person Barry's workouts return (1st S-curve).[22] But would there be a reason to discontinue online gym classes even when gyms have reopened? Probably not, given this is turning into everyone's daily routine.

Similarly, Walmart e-grocery delivery accounted for only a fraction of the turnover, but it's probably here to stay. Ping An's "Do It At Home" offering launched in February, allowing customers to access a series of financial and non-financial services on the Ping An Pocket Bank app, including lending, credit cards, FX, medical counselling, doctors' appointments, and auto services.[23] There's a good chance consumers will continue to value this well beyond Corona. If there was ever a time to digitize the core business or fast-track the disruptive digital business, then this is it.

On the digital work side, continuing to allow people to work remotely after extended periods of time where they have become accustomed to that will make sense. It stands to reason that we are at the onset of new work realities. With leading management consultants now advising their clients remotely, will strategy consulting as a whole become more accommodating to remote work? With the NYSE closing its trading floor,[24] will electronic trading become the new norm? With schools and universities bringing their curricula online in a matter of days,[25] will remote learning supersede (or be on par with) in-presence classes? With much experience in doing all of this in tow, businesses will likely hold on to these practices post-Corona, catapulting them all several years forward in their evolution toward digital transformation.

SUCCESS IS NOT SUCCESS – THE RULES ARE DIFFERENT IN THE OLD AND NEW WORLDS

Based on our research and practical experience consulting with many different firms, we found there are several success principles legacy companies must internalize as they navigate a minefield of digital transformation traps across the two S-curves. The key is understanding that the core business (1st S-curve) needs to be refined and digitized while a new, disruptive, digital business (2nd S-curve) is being established. The success factors for these two S-curves differ strongly, yet the two S-curves must be integrated with each other and not be operated as two standalone worlds. Particularly the success factors of the 2nd S-curve – and the 2nd S-curve business in general – will gain in importance, as disruptive digital products and services are key to making up for losses incurred in the traditional business in the aftermath of the Coronavirus pandemic.

Digital strategy needs to be part of a holistic company strategy – but the challenge, really, is not strategy; 2nd S-curve activities must not be based on lengthy analyses and philosophical deliberations; instead, quick-and-dirty implementation trumps extensive planning. The 1st S-curve should then take inspiration from the 2nd S-curve, using some of their principles where appropriate. Meanwhile the 2nd S-curve should rely on proven 1st S-curve success factors when it comes to scaling the new digital business. Both hard and soft factors matter for the success of the implementation, with soft factors revolving around talent and mindset and hard factors revolving around (infra-) structural elements. Once underway, performance needs to be measured on both S-curves, using different, S-curve-specific metrics, so as to keep track of the transformational progress.

To best illustrate how the success principles pan out holistically, we cast these insights into a four-part framework (see Figure 0.3). This framework lays out how the interplay of the two S-curves takes effect over the course of a digital transformation. Its dimensions (Why, What, How, Where) and sub-dimensions make up the structure of this book.

WHY: We investigate reasons for embarking on a digital transformation to begin with and explain why a dual business that allows exploiting traditional business activities (1st S-curve) and exploring ways of reaping the full digital potential (2nd S-curve) is necessary. We also look at why so many companies have failed to act timely and get it right.

WHAT: We describe how to develop an overarching strategy that includes a strategy for the core business, a strategy for the new, disruptive (digital) business and a plan for how to marry the two and adequately manage the interactions between the two. We also provide advice on how to develop a business model rooted in novel ways of value creation and value capture to bring the strategy to life and guide practitioners on how to go from strategy to business model.

HOW: While it's indispensable to go through the Why-What process, great thinking is only the beginning. The real challenge lies in the nuts and bolts

The Way Out of
The Digital Transformer's Dilemma

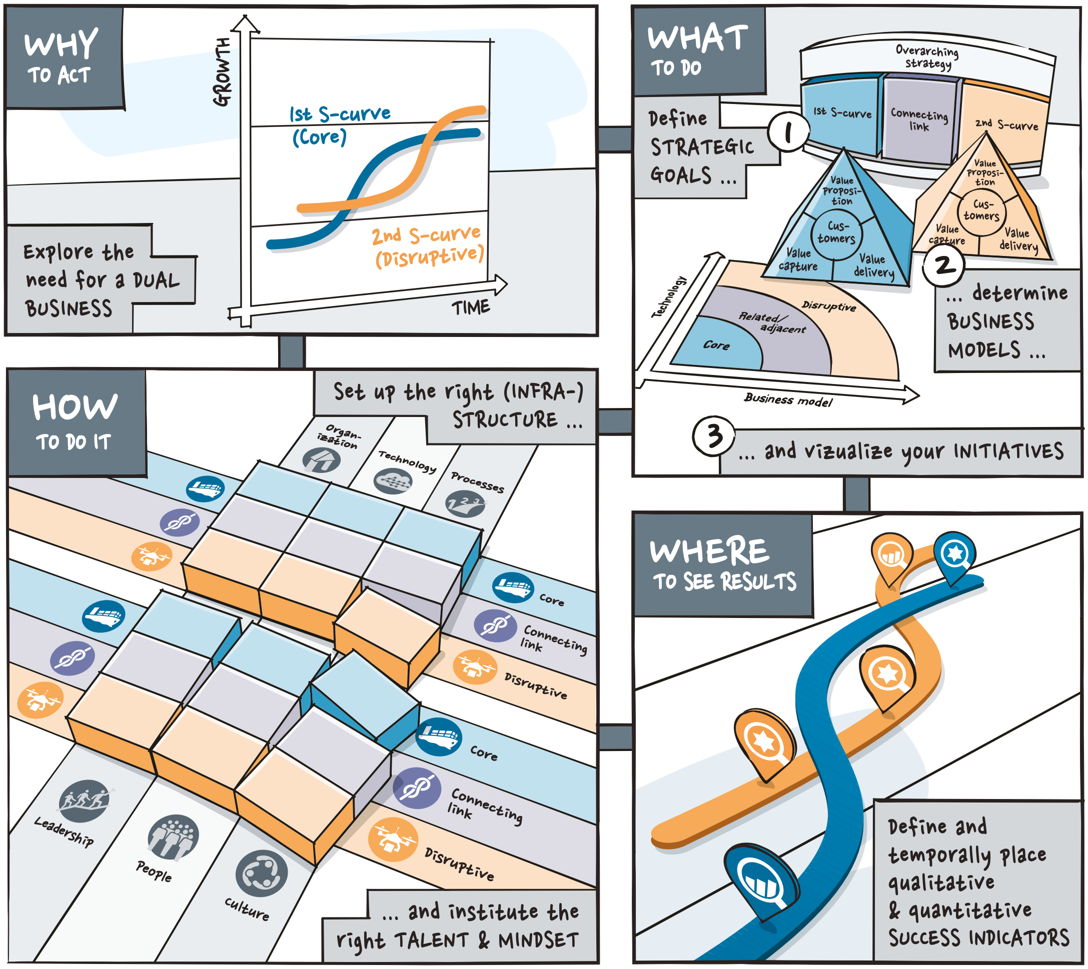

Figure 0.3 The Digital Transformer's Dilemma

Source: Business model components adapted from Oliver Gassmann, Karolin Frankenberger, Michaela Csik. *The Business Model Navigator*. 1st Edition. ©2014. Reprinted by permission of Pearson Education. S-curves adapted from Gabriel Tarde. *The Laws of Imitation*. New York: Henry Holt and Company, 1903.

of getting the transformation done – and this is what this book focuses on. To make sure the implementation goes smoothly, we explain how to set up the right (infra-) structure (organization, technology, processes) and institute the right talent and mindset (leadership, people, culture).

Organization: Adding digital roles to the organization is not enough. Instead, fundamental changes to the organizational setup are necessary. We start by outlining the different places the digital impetus can originate from both on the 1st and 2nd S-curves, and move on to portraying archetypes of where and how to best anchor the new (digital) business in the overall organizational setup, depending on the respective company's level of digital maturity and the similarity to the core business. We close by suggesting how to bridge the organizational gap between the two worlds.

Technology: Throwing around technology buzzwords like AI, machine learning, IoT, and big data is in vogue these days. Start-ups already combine the use of these trends with real business models. We tell incumbents what the most relevant technologies for them are and point out implementation success factors. We also deep dive into IT and explain to best combine the old and new IT architectures.

Processes: To run a digital transformation, it takes the right processes. We detail what an ideal stage gate development process looks like, following relevant best practices from the start-up scene and a lighthouse project-oriented approach. We also talk about the governance bodies it takes to support this processual setup, how budgetary allocation should take place, and where funding should come from.

Leadership: Leadership styles on the 1st and 2nd S-curves vary substantially. We talk about what specific leadership attributes are most conducive to digital transformation efforts on both curves, and how these attributes can be built. We also detail how the coexistence of these differing leadership styles in one company can best be managed.

People: The essence of a digital transformation is the people executing it. We showcase what the skills are that employees should be bringing to the digital transformation table and provide guidance on how the workforce of the future, contributing those skills, can be built.

Culture: Although the term "culture" may seem elusive to some, we define it quite strictly as the beliefs and behaviors determining how members of a company interact with each other. The question we then answer is, how can new beliefs and behaviors that are necessary for digital transformation be fostered in keeping with the organization's mission, vision, and values, which may remain unchanged. We speak about the kind of changes in beliefs and behaviors necessary and illustrate how to orchestrate this cultural change.

WHERE: Let's not forget that also in a digital transformation does the age-old saying hold: only what gets measured gets done. Measuring impact is therefore quintessential. We illustrate how to go about measurement across and specific to both S-curves, balancing qualitative and quantitative KPIs (key performance indicators). We also make sure to mention how to set objectives, assign accountability, and ensure transparency vis-à-vis the relevant stakeholder group.

As you read this, we hope this appears logical and makes intuitive sense. Conceptual logic, however, does not always translate into real-life practice. Meaning, in reality, the individual dimensions of this framework are often not as clear-cut. Instead there is a multitude of interdependencies between them. For instance, a change in your **WHAT** will have game-changing influences on almost all of your **HOW** sub-dimensions; any impact you track in your **WHERE** may in turn have repercussions on your **WHAT**. This implies that the four framework dimensions are not typically passed through in a strictly consecutive order but that there can (and will and should) be loops. When was the last time you rode a rollercoaster? Well, time to get ready for some head-over-heels action again.

This is not to say that the framework presented here is not realistic, though. Simply what it means is that our framework is the depiction of the ideal state. Many (though, in this case, not all) roads lead to Rome. Companies can and have been successful with a variety of different approaches. But from our interviews, we have isolated the most promising ones and compiled them to form an ideal state framework. For those companies that have already begun their digital transformation, this means they can deep-dive into the elements and sub-dimensions that matter to them while sticking to their own strategy in others if they so wish. For those companies whose digital transformation journeys have yet to begin, we suggest following the ideal path we depict. It is based on the learnings of so many other enterprises and it may just save them a few gray hairs.

Even as the business world is changing in response to the COVID-19 pandemic, the guidelines for running a digital transformation remain just as relevant, with the only difference being that the importance of 2nd S-curve attributes is accelerated and those become the new norm more quickly. Firms not only need to manage the organizational ambidexterity of the 1st and 2nd S-curve but also need to balance the duality of having to manage the Corona crisis in the short term while preparing for a post-Corona world in the mid-term. New technologies are being introduced more quickly now than before. Think ZOOM, which has become the work-from-home communication medium of choice in no time, standing in for formal in-person meetings, informal catchups, watercooler chit-chat, and even superseding phone calls. Processes need to be expedited so as to take advantage of opportunities online – the new standard marketplace. 1st S-curve staff are being trained and repurposed to support on 2nd S-curve initiatives. Leaders need to demonstrate now more than ever their ability to lead within a VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) world, demonstrating courage, resilience, entrepreneurial drive, and an aptitude for swift decision making. More networks, fewer hierarchies, more and quicker learning, fewer silos, and more agility are becoming the new cultural norms much quicker now than they would have if it weren't for Coronavirus. So, while COVID-19 goes down in the history books as a disastrous public health crisis, it did accelerate digital transformation significantly.

A real-life caveat to our ideal state framework is that there will be back-coupling effects between the two S-curves. Particularly, the 2nd S-curve will have implications on the 1st S-curve. Consider, for example, the **WHERE**: positive performance on your 2nd S-curve may lead to spill-over effects onto your 1st S-curve. Say the new (digital) business is achieving stellar growth rates and gets a lot of favorable press coverage. This will surely translate into increased investor confidence and potentially rising share prices, which are typical 2nd S-curve indicators. At the same time, the added speed the 2nd S-curve champions in their own business will likely spill over to the 1st S-curve, making operations and the use of resources in general more efficient, thus contributing to traditional 1st S-curve KPIs, such as Return on Assets (ROA). Remember the rollercoaster you were getting ready for earlier? We would imagine the rollercoaster to have multiple lanes such that, as you – a 1st S-curve rider – are sitting in your own seat in a carriage with your fellow 1st S-curve riders, other riders may be creeping up behind you on a separate lane headed toward the 2nd S-curve and giving your whole carriage a boost as you head further down your own path.

A final piece in our framework-rollercoaster logic is the inexorable truth that even if you have mastered the four elements and survived the ride, this is not the end. Eventually your 2nd S-curve might just become a 1st S-curve again as the original 1st S-curve ceases to represent any value to customers. And then the whole cycle starts anew. The conditions then may be different; the underlying technologies may have changed; your customers may have fundamentally new mindsets; or a global pandemic may have pushed you to introduce new digital products and services more rapidly than planned, with a resulting need to think about new frontiers beyond the original 2nd S-curve sooner than anticipated. But the reality of companies having to transform themselves yet again, and to do this in parallel to continuing to pursue what will have become their core business by then, remains unchanged. As Ginni Rometty, former CEO of IBM, correctly pointed out, "The only way to survive is to continuously transform."[26]

You will find this book to be lined with many more anecdotes from executives willingly riding that rollercoaster and owning it. Most are ruling select bits of the ride; a few have mastered them all. Certainly, all of them know the highs and lows associated with a rollercoaster. Let's turn to one thrilling example.

WASTE. TRASH. GARBAGE. SCRAP. RUBBISH. DEBRIS. REFUSE. JUNK.

When it comes to digital transformation, waste management may just feature some groundbreaking insights not only for the savvy environmentalists but also for the aspiring digital transformers among us.

SAUBERMACHER

Launched in 2016 in the quaint Austrian city of Graz by waste management company Saubermacher, "Wastebox" – an app-based waste disposal solution – announced in 2018 that globally leading resource management conglomerate Veolia of France had acquired a minority stake in the venture and would help facilitate its international expansion, beginning with Germany and France. Veolia joined to get access to a highly promising concept: a customer- and supplier-friendly solution for coordinating waste management via a digital platform, connecting construction companies with waste disposal firms to optimize construction waste logistics. A mere two years after its inception, Wastebox had garnered a significant valuation and Saubermacher was wooed by one of the global industry leaders to engage in a partnership with them. That's impressive by any account.

Let's rewind to see how they got there.

The notion to build a new digital business at Saubermacher was originally rooted in two senior executives', including Chief Market Officer Andreas Opelt, musings on where new (digital) industry entrants could potentially and most easily force their company out of the market. The waste management business basically consists of two sub-components: (1) logistics and (2) treatment. Treatment being a very capital-intensive business, logistics is more prone to offer room for digitization, and thus more threat for new entrants. The senior executives considered how their own waste logistics business – which can be seen as a web of taxi rides of large waste containers and skips between waste disposal firms and customers – was doing. Despite this in principle being a straightforward business, it was at the time characterized by low margins, opaque processes, and low customer satisfaction due to a poorly engineered business model. This is **why** they saw an opportunity to improve their own offering by proposing a radically new digital business model – preemptively before any new entrant could do so.

To determine the details of **what** to do, meaning of the digital strategy and underlying business model, they conducted an international screening in search of whether comparable solutions already existed. They found only one firm in North America with a similar idea that had attracted significant funding, which was a positive indication for them to assume that pursuing this path would present a viable business opportunity. Although they originally considered not building a product from scratch themselves, they couldn't find a suitable partner. So they sat together internally and conducted a textbook exercise on business model innovation: they used the Business Model Canvas[27] to think about the value proposition, cost structure, revenue streams, and so forth and hence developed a first proposal to become the "Uber of waste disposal logistics." They then had this challenged by an internal committee in a "Dragons' Den" style and made adjustments accordingly.

Once they had established the basics of the idea and stress-tested it with the "Dragons," several structural issues needed to be addressed. They opted to run the **organization** as a separate unit, quite disconnected from the parent company, which allowed them to operate very freely. In fact, they eventually formed a standalone legal entity called "Pink Robin," which continues to contain Wastebox and to be run as a 100% subsidiary of the parent company, Saubermacher. **Technology** was another key aspect of infrastructural decisions to be made. The key here was not to allow any requirements from the parent company. The only requirements were set by the new business itself: they wanted only what the "Googles and Facebooks" of this world would use, allowing for instant releases, native design, and so forth. Specifically, the **process** they followed entailed the following steps: in the first half year, a core team with around five members with cross-functional backgrounds was set up and jointly performed the Business Model Canvas exercise and developed the first mockups. At that time the entity was still embedded within the parent company but physically separate in their own co-working space. The following months saw more rapid prototyping and fast iterations of the product whose MVP launched about 15 months after the birth of the idea. This is when more sales associates were onboarded. About 21 months into the journey, the digital business was officially spun off from the parent company. Two years after inception, it had already turned into the largest construction waste disposal logistics provider in their home country, Austria. This is when the intent to internationalize kicked in. Following a number of partnership talks, including with a global waste management leader, a franchising model was agreed on according to which Veolia could use the model in exchange for a minority stake in the business. Three years after inception, the business is live in three markets across Europe and is steered by a team of 40 people.

At least as important as structural decisions were talent-related matters. For their **leadership** profiles, they were looking for people who would embrace a failure culture, who would have high risk tolerance, and who could be transformational leaders who inspire others to follow their vision. Most importantly, they were looking for people who, based on their expertise and experience, were able to relate to both the traditional business and the digital business world. In terms of the operational staff who were going to be part of the new digital business, they were looking for some **people** with a sales background to help the new product gain momentum quickly, some who had experience in the waste disposal supply chain and some with IT skills. Luckily, they were able find someone in-house who would later become the key IT mastermind of the new digital business. Others were hired and some redeployed. No retraining efforts were undertaken. For some specifics (for example, the app itself), they also relied on outsourcing to contractors (they worked with agile software development agency Denovo of Austria) although this was marked by an intense, very close cooperation given the centrality of the app itself to the business model and, ultimately, the success of the venture. Having assembled the team, a key point was to overthrow the traditional hierarchy-driven **culture**. In fact, the new digital business model has an official mandate to be a testing bed of new ways of working rooted in agility, cross-functional cooperation, and rapid prototyping. This was so successful that these ways of working have now been carried back into the core organization.

In terms of **where** to measure impact, transparency was considered key. It was ensured that the key performance indicators (KPIs) – for example, number of customers, number of transactions, number of participating partners – were transparently accessible to all key stakeholders. Learnings were obtained particularly with regard to objective setting. Initially, highly ambitious benchmarks were striven for. When it became clear that these were too ambitious to reach, they were adjusted to a reflect a more realistic, yet still ambitious aspiration level. That flexibility to reflect an updated knowledge of the market and its potential was deemed very important.

And it didn't stop there. In addition to developing a new digital business model, Saubermacher made sure to feed Wastebox learnings back into the core organization. Processes have been digitized using the Wastebox ways of working. Wastebox standards have started to be introduced as company-wide standards. Meanwhile, as Wastebox continues with its international expansion, it relies more and more on established ways of doing business during its scale-up phase. So not only are effects of the successful digital business now pervasive in the core but the new digital business is also starting to rely on proven success factors from the core. The two S-curves at Saubermacher thus do not live in isolation but cross-fertilize each other.[28]

The success Saubermacher experienced was not thanks to a lucky streak. You don't know it yet (and maybe they didn't know it at the time) but they followed the textbook recipe for running a digital transformation. Welcome to the recipe book.

Part 1

WHY TO ACT

chapter 1

ACT OR DIE, PRETTY SOON

In this chapter we investigate different reasons for embarking on a digital transformation and analyze why so many companies have failed to act timely and get it right. We also explain why a dual business that allows exploiting traditional business activities (1st S-curve) and exploring ways of reaping the full digital potential (2nd S-curve) is necessary (see Figure 1.1).

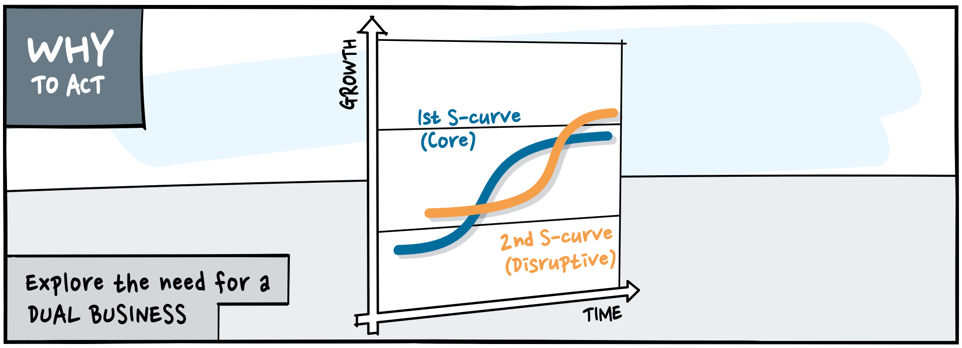

Figure 1.1 Key visual with focus on Why
Source: S-curve graph adapted from Gabriel Tarde. *The Laws of Imitation*. New York: Henry Holt and Company, 1903.

REALIZE THE "WHY" CHALLENGES YOUR COMPANY MUST TACKLE

Incumbents that aim to digitally transform their businesses face the dilemma of maintaining profitability in the core business and at the same time establishing a new (digital) business. What might sound trivial and like an intuitive approach is a challenge for many organizations, even before incumbents get to work on the transformation. Before they dive right in, they need to reach an agreement about the importance of a dual business approach. This requires them to build up awareness for the environmental factors that threaten their current business and any emerging opportunities for a new business model. Hence, incumbents need to ask themselves: How does digitization affect the core business in the short-, medium-, and long-term? Who are the players, and what are opportunities and threats that need to be considered?

While the need to act and transform the core business is often straightforward, things are not always so clear on the 2nd S-curve. Hence managers might also ask themselves: How can they reach alignment and clarity about the need to act on both S-curves? What needs to be done if management and supervisory boards do not agree on the importance of the new (digital) business? In fact, concerns around the current business often overwhelm other efforts that focus on new (digital) business opportunities. That's how numerous firms end up focusing most of their transformational efforts on the existing core business, putting insufficient emphasis on future growth opportunities. This begs the question: How can incumbents avoid ending up with an unbalanced approach and conflicts between the two S-curves? Prior to that, why should incumbents act at all if their core business is still doing well? And even more importantly, how should managers convince their boards to prioritize the new (digital) business, when their core business is struggling and requiring all available resources? And how does the urgency differ between industries? These questions should be answered at the very beginning of every digital transformation.

Once the organization has reached agreement about the need for a dual business approach, new questions emerge. For example, what are the common pitfalls that need to be considered in this phase? Why do so many organizations struggle to act timely and transform successfully? Lots of organizations have already tried to transform themselves, so is there something to be learned from past failures of others, and how can these mistakes be avoided? Many more could be asked and we are just at the very beginning of the transformation. But don't worry – we have you covered.