

Focus

Roland Berger

The digital dilemma | Why companies struggle to master digital transformation



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Digital
Value
Creation

MANAGEMENT SUMMARY

Companies have been talking for years about how to succeed with their digital transformation – turning their entire enterprise into a single, digital entity in which employees, production machinery, vendors, products and customers are interlocked in a single, data-driven ecosystem.

For some, this is already a reality. But many more are still trying to reach the promised land, despite considerable investments of time and money. In a survey of 50 Board-level executives from leading companies across a range of industries, more than two-thirds of our respondents said that their current experience did not live up to the shiny, digital future they had expected. Some 60 percent described their current IT landscape as complex, and three-quarters of this group said it was so complex as to be unmanageable. Without the necessary technology skills to make progress on their digital transformation, these companies are stuck in limbo – unwilling to move backward but unable to move forward.

We call this the digital dilemma.

Our research suggests that the digital dilemma does not exist because of technological limitations, but due to companies' organizational and strategic shortcomings. They fail to understand how they need to change in order to achieve a digital transformation. They fail to design the right digital future for their business. And they fail to put the right people and processes in place to execute the necessary changes.

In this report, we examine what leads to companies being caught in the digital dilemma. We then present key insights offered by the executives we interviewed. Using this information and our experience supporting companies in various projects, we look at what distinguishes firms that successfully achieve a digital transformation and identify a number of essential building blocks for regaining strategic freedom. Finally, we make our recommendations: Five key steps to escape the digital dilemma.

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1 / The digital dilemma

A COMMON TRAP FOR COMPANIES

Despite years of work and millions in investment, many companies are still waiting for their promised digital transformation to materialize. Now, short on resources and long on potential projects, executives find themselves caught in limbo – under pressure to move forward but unable to do so.

According to one executive, his team had identified more than 230 potentially valuable digital initiatives that they had been unable to prioritize, fund or execute.

In many corporations, digital initiatives never make it beyond pilot project status. Lacking internal champions to articulate their potential value, they fail to attract the resources needed to bring them to scale. One executive we spoke to, for instance, said that his team had identified more than 230 potentially valuable digital initiatives that they had been unable to prioritize, fund or execute. This had triggered many new problems, further complicating the company's digital transformation.

This digital dilemma is familiar to companies all over the world – across industries, countries and cultures. It is highly destructive, tying up valuable resources within companies and obstructing a wide range of innovations. Executives know that they need superior digital capabilities in order to attract digital talent, differentiate their company from the competition and drive top-line growth or bottom-line savings. But knowing what you need and getting it are two different things.

One common problem is that the company's pilot projects are successful, but scaling them up is difficult due to the existence of legacy systems. Or the management's focus is on introducing digital business models, but the IT department is unable to keep up with the innovations.

Pinpointing the causes of the digital dilemma is only of limited interest to decision-makers, of course. After all, corporate strategists are not coroners. The question companies really need to address is how do we get unstuck? But before we attempt to find an answer, it is revealing to hear what top managers have to say – the industry perspective on the problem and what further challenges the future may bring.

2 / Insights from industry

FIFTY TOP MANAGERS SHARE THEIR EXPERIENCE

To find out more about the digital dilemma, we interviewed 50 Board-level executives at leading companies across a wide range of industries. We asked them 30 questions – both open questions and multiple choice – covering six different topic areas. What did we discover? More than two-thirds of respondents feel trapped. They say that their current experience does not live up to the shiny future they were promised – a future of better business models, more efficient processes, greater customer orientation and deeper insights from technology and data. After a decade or so of investing enormous amounts of time and money, they have still not reached their goals. We examine key insights from the interviews below.

DIGITAL DISRUPTION IS HERE TO STAY

Technological innovations are triggering disruptive changes at an unprecedented rate. Nearly all of our respondents thought that digitalization would continue to rapidly reshape industries for some time to come. The pandemic in 2020 and 2021, extreme weather events and now the unexpected invasion of Ukraine have all sped up the pace of change and the need to act.

Most of the executives we spoke to thought this rapid pace of digitalization would continue indefinitely, driven by technological advances and unforeseeable events. This will impact four areas in particular:

Revenue: E-commerce will continue to find new ways to focus more closely on the customer, through both online and bricks-and-mortar channels. Companies will use the data that they gather on customer behavior to deliver personalized recommendations and to identify new opportunities, further enhancing revenue.

Efficiency: Operations will become increasingly scalable thanks to software and new digital business models. Process efficiency will grow, driven by automation, virtualization, artificial intelligence and end-to-end data consistency across the entire supply and value network.

Leadership: Flat, flexible, multifunctional teams will increasingly become the dominant organizational design. These teams will grow more and more independent and self-organizing, dynamically adapting to changing requirements. Leaders will focus mostly on maintaining agility, and recruiting and retaining talent.

People focus: Aided by greater access to data, companies will find it increasingly easy to shape offers on the fly, tailoring them to the preferences of their customers, business clients, their own employees and other stakeholders. Some players may even make these individuals part of the team so they can participate in product development and design. The key advantage of such a human-centric approach is that it fosters customer loyalty and employee happiness at the same time.

Most of the executives we interviewed agreed that staying competitive in this new environment means adopting new strategies and practices. In fact, most see technology as not just an efficiency driver but also a key enabler of better customer understanding and business models. A few respondents even went as far as to say that they were on their way to becoming a technology or data company – “not a food company using technology, but a Google producing food,” as one executive put it.

Nearly all the respondents were of the opinion that their IT organization would have to change in order to manage the digital transformation. But they had different ideas when it came to what the new organization should look like exactly. The majority foresaw one of the following four scenarios as a possible for their IT function:

IT abolishes itself. IT is replaced by XaaS ("everything as a service"). As IT becomes a ubiquitous commodity like electricity, IT services are completely standardized and third parties are able to offer economies of scale, high quality and skills on demand.

IT grows lean. IT units survive, but their role is simply managing complex, integrated service providers, making limited strategic contributions and acting almost as a procurement unit.

IT becomes an innovator. IT becomes an equal partner, driving innovation. It comprises interdisciplinary teams led by a strong CEO/CTO, who becomes a major force behind the CEO.

IT is assimilated. Traditional silos break down and IT is completely integrated into the business.

No one-size-fits-all solution exists, of course. Various elements from the different options above can, and indeed should be mixed to form a tailored approach. After all, different organizations and industries face different challenges and must find unique responses.

In practice, today's IT units typically find themselves somewhere between the two poles of efficiency and innovation. On the one hand, the company wants IT to be a cost-efficient support unit, providing the expected services at the lowest possible cost, while continuously improving efficiency. On the other, they want IT to be a value-generating innovator, driving innovations

that move the business forward and developing new, distinctive products and services.

The increasingly difficult macroeconomic environment also affects the transformation of IT. Budget constraints, shifts of focus, stiff competition and the rapid pace of innovation mean that IT's room to maneuver is often considerably restricted.

BUSINESS, DIGITAL AND IT ARE DRIFTING APART

Many of the executives we spoke to complained that the various functions within their company were drifting apart. Although they see their future organizational setup as one of ever-shifting, self-organized teams, they also believe that the road ahead is currently blocked by uncoordinated decision-making processes. The lack of central governance means that decisions are not made in a timely fashion. They also complain of a lack of alignment between functions and the absence of end-to-end responsibilities.

Most respondents stressed the necessity of developing a more collaborative, integrated approach to the governance of digital initiatives. Over 70 percent said that the company had achieved some level of strategic alignment, but the job wasn't quite done yet. In the meantime, business units were fighting with each other for resources rather than focusing on customers.

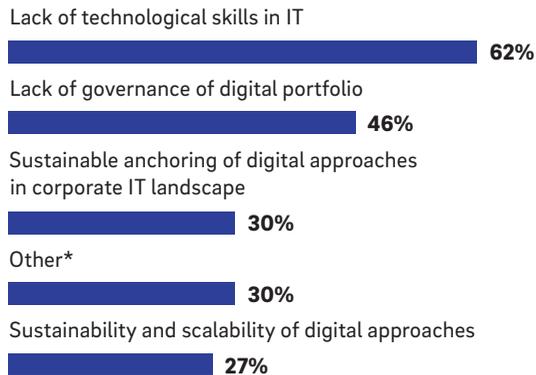
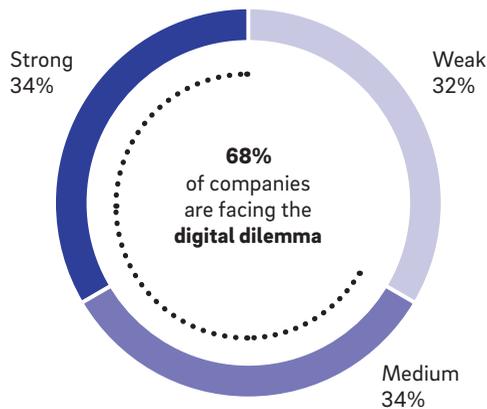
In our work supporting companies, we often see problems arising from weak governance. For example, we find digital projects implemented in an uncoordinated manner with no consideration of the interdependencies between them, new technologies implemented without alignment between different silos, and changes made with unclear value to the business or the customer. Critically, we also see weak governance leading to strategically important projects being postponed due to a lack of resources or focus.

This lack of resources also frequently means that IT ends up focusing exclusively on its core tasks and has

no capacity for carrying out structural changes. A clear prioritization of initiatives is also often lacking. Where top management lacks a clear guiding vision, or fails

A: The digital dilemma

Strength of impact on companies and areas affected



* Including:
 Different forms of working
 Technological maturity and skills of top management
 Sensitivity of the business side towards IT

Source: Roland Berger

to communicate this vision to the workforce, a lack of motivation among employees and no buy-in from middle management are almost guaranteed. → A

At Roland Berger, we find that one approach that can help foster alignment is to establish an IT initiative portfolio management system. This helps ensure IT projects are ranked according to their potential to add value to the business, and resources allocated accordingly. Top-down management can be helpful for encouraging the different business units to cooperate on this portfolio management system. For example, the CIO of a leading health insurer that we supported found that implementing the system worked better when he made a clear business case for it to the management board.

But the devil is in the details. Some executives told us that drawing up such business cases is not always easy. One respondent commented as follows: "We look at qualitative metrics – including customer satisfaction – and also classical quantitative metrics such as price comparisons, availability and scalability to assess the value contribution of IT against the investment. However, most of the metrics are difficult to capture or calculate." Another systemic weakness noted by respondents was a lack of follow-up on how much value the completed project had created.

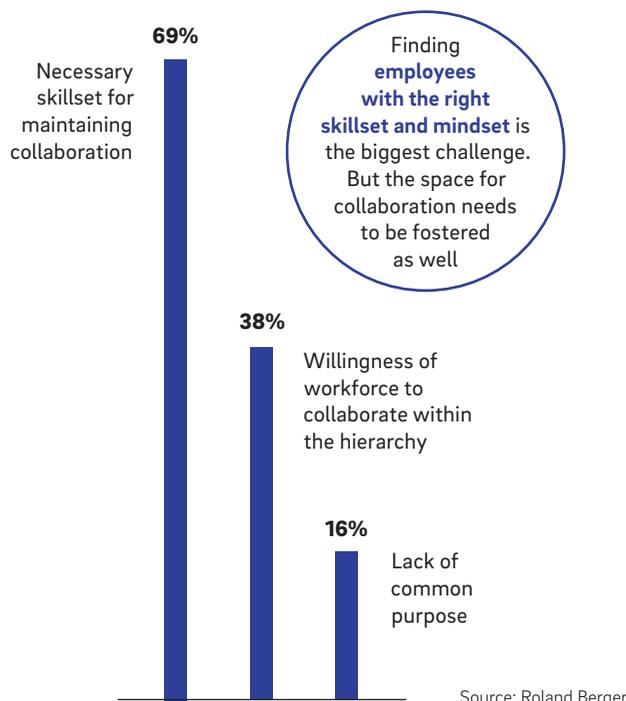
AGILE IS FAILING TO SCALE

Lack of agility is a barrier to digital transformation. As many as 69 percent of respondents said that their employees were unable to collaborate with other departments. "Digital people know their job and their tools very well, but they don't look enough at customers, the business and other stakeholders," said one. According to another, "IT cannot work with other departments – not because of a lack of skills but because of a lack of IT resources. It is occupied with its day-to-day business and has no additional capacity to handle cross-functional activities."

The survey found that in 38 percent of the cases, the IT department was able to collaborate with other departments but chose not to. One executive blamed the mentality of considering IT a pure service provider rather than a driver of change and an equal partner. Some blame the culture of their organization: "A culture must be created in which the organization is willing to share knowledge – is happy to do so and recognizes the added value of doing so." Others see incentives as part of the problem: "The incentive structure of different units is too heterogeneous, in some areas even contradictory," said one executive. → [B](#)

B: Can't – or won't?

Challenges for collaboration



More than half of our interviewees told us that they had started to introduce digital business models, digitalized processes or digitalized governance but had not managed to make them scale or take root in the company. One reason for the failure, they said, was that agile had not been implemented throughout the organization. Instead, the methodology began and ended at team level. Overall, it appears that managers still struggle to develop the frameworks and KPIs (key performance indicators) that they need in order for agile to succeed. For example, many budget processes still require precise planning at the beginning of the year and tend to be quite inflexible if reprioritization is called for. → [C](#)

Clearly, in a multi-functional project, collaboration is not optional. Companies that have been able to escape the digital dilemma have generally implemented a strong change management system. In our experience, such a system needs KPIs to ensure sustainable change, and feedback loops to help fine-tune change management throughout the program. The company should also identify and then use internal opinion leaders as ambassadors for the program.

COMPETITION FOR TALENT IS GETTING EVEN FIERCER

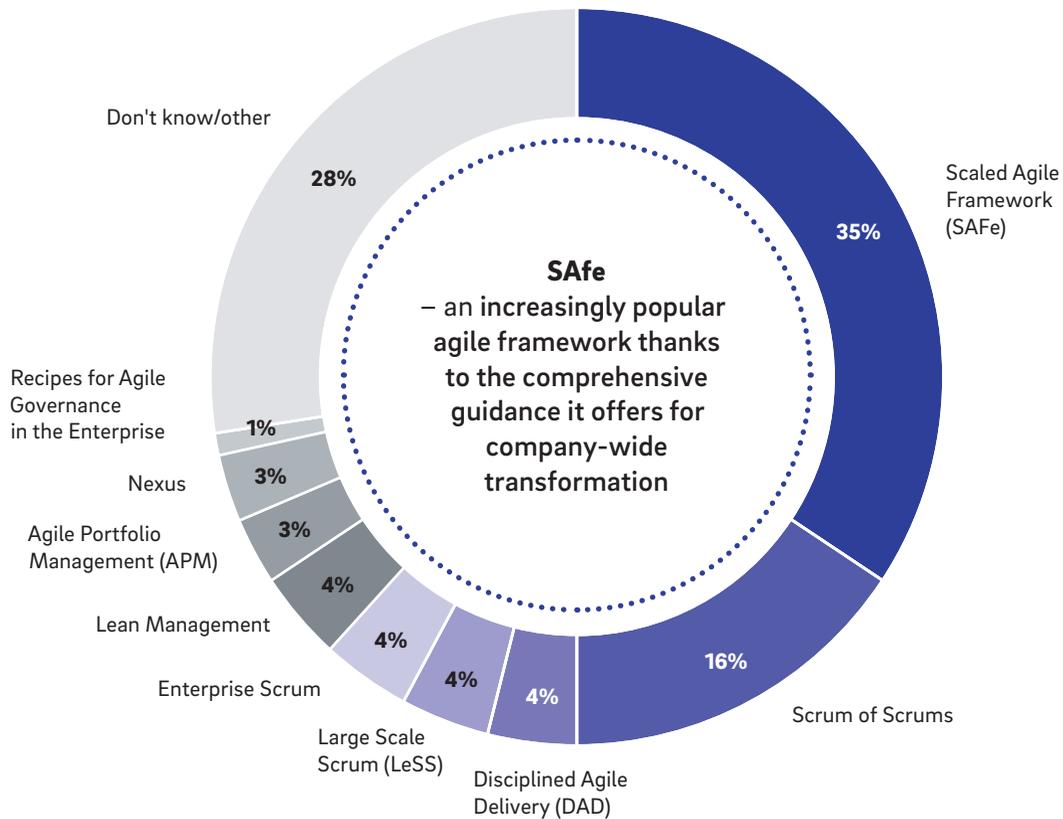
The war for talent is now not only global but also cross-industry. As companies become more and more tech-focused, they are making greater efforts to ensure they have the people they need to build their digital future. Supply is tight – and getting tighter, according to our respondents. Moreover, many candidates, particularly members of the Millennial generation, are now focusing strongly on their work-life balance. They expect greater flexibility than in the past both with regard to when they work and where they work, as shown by the popularity of "work-from-anywhere" jobs. In some cases, demand for shorter working hours is even leading companies to hire two employees for a role once performed by a single person.

Almost 70 percent of our respondents said that their company lacked the technological skills they needed to drive the digital transformation forward. With the rush to digitalize accelerated by the COVID-19 pandemic, companies are struggling to acquire employees with the

right skillsets and retain them long term. The situation is exacerbated by high staff turnover rates, problems integrating external IT providers, internal challenges communicating with non-native employees and the need to adapt to old and new systems.

C: A wide range of options

Awareness of different frameworks for agility



Source: Invensis; Roland Berger

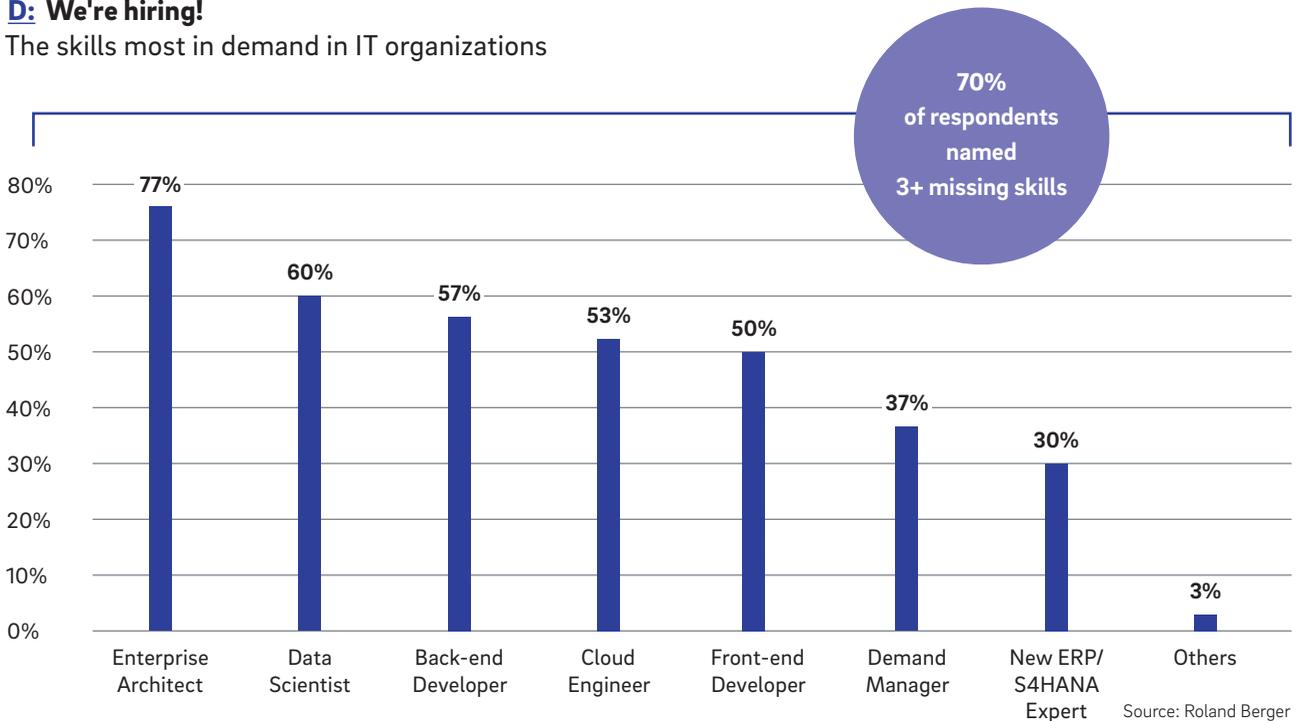
The skillsets required of staff are also wider than ever before. Today's employees need a broad knowledge base in order to collaborate effectively with their coworkers, combined with deep technological expertise of a specific field. New trends require new profiles – cybersecurity, for example, is no longer an optional extra for companies but critical for their image and success, and companies need experts in this field. The types of skills in demand have also changed: In the past, analytics, applications and coding skills were in short supply; today, companies are particularly keen to hire architecture and cloud specialists.

Looking ahead, most executives said they thought that the talent war would get even worse, as more and

more companies compete for technology specialists and the need grows for people with interdisciplinary profiles – product owners and demand managers, for example. Topping over two-thirds of executive wish lists were enterprise architects, data scientists and cloud specialists. Thus, 77 percent would like an enterprise architect to walk through the door. "Architects are not available on the market. Instead, internal guys have to be reskilled," said one executive. And despite automation, data scientists are still in short supply and cloud specialists nowhere to be found. Not only that, many executives worry about retaining the technical talents they already have on staff. → [D](#)

D: We're hiring!

The skills most in demand in IT organizations



CLOUD-FIRST APPLICATIONS ARE COMPLICATED TO IMPLEMENT

In the survey, 60 percent of respondents described their IT landscape as complex, three-quarters of those going as far as to say that it was no longer manageable. Over time, their IT requirements have grown to keep up with the business, and new stakeholders with different objectives have been added to the network. Other kinds of complexity have increased as well, the result of conscious decisions to address other needs first, such as IT security or vendor independence. → **E**

This combination of factors has led to a rise in operating risk, an increase in maintenance and operating costs, and a loss of flexibility in the face of change. This, in turn, raises development costs and slows down time to market. Some executives argue that it also limits their pool of available talent: "Soon there will be no new employees who can and want to operate the legacy systems," explained one executive.

In the past, the best-case scenario was a partial hacking away of complexity with the installation of a new generation of software, followed by a regrowth of complexity over time. Today, many executives are optimistic that cloud-first applications will break this cycle. A total of 63 percent of respondents have signed up to a cloud-first strategy.

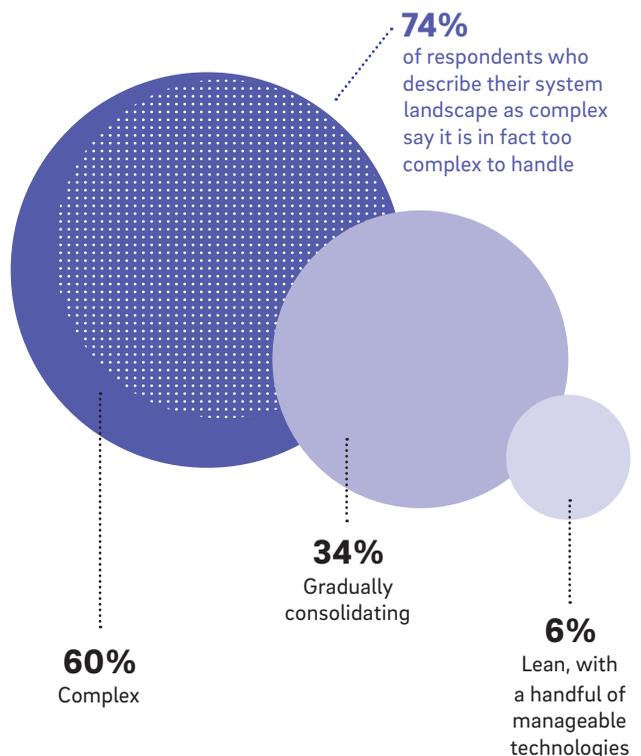
Getting there is not easy, however. Cloud-first applications tend to be expensive. They are often not implemented in a strategic way, either – particularly in firms where there is no enterprise architect in-house. Companies frequently fail to think through an efficient cloud operating mode or the difficulties that cross-border data movements can create for global businesses. As one of our respondents put it: "Cloud-first strategy is limited by national legal requirements."

In practice, companies' expectations of what the cloud-first strategy will deliver go beyond mere scalability and cost reduction. They want to see shorter innovation

cycles, less complexity, and access to expertise that is not available or cannot be built up within the company. They also hope for innovative products and services for their own business, without high capital expenditure requirements. In reality, rather than achieving the expected cost savings, many companies actually see their costs rising – exactly the opposite of what they were hoping for.

E: Out of control

Complexity of current IT system landscapes



Source: Roland Berger

3 / Regaining strategic freedom

BUILDING BLOCKS FOR DIGITAL TRANSFORMATION

Based on our experience supporting companies and our many in-depth conversations with industry experts and insiders, we believe that it is possible for companies to escape their digital dilemma. The solution needs to be constructed around four building blocks: a joint business and digital/IT strategy, an effective operating model, savvy people policies, and lean enterprise and data architecture.

Each of these building blocks functions on its own, but only by combining all four elements is it possible for companies to regain the strategic freedom they need, while at the same time fostering greater alignment between business, digital and IT functions. Together, the blocks add agility – and keep complexity to a minimum.

As the economic outlook worsens and competition intensifies, solving the digital dilemma is becoming even more important.

A JOINT BUSINESS AND DIGITAL/IT STRATEGY

Developing a common strategy for the business, digital and IT teams effectively ensure a uniform set of initiatives among stakeholders. But this won't happen of its own accord. To succeed, senior IT staff must be involved in the strategy development process, silos within the company must be broken down systematically, and a set of KPIs must be agreed upon and pursued. Finally, this vision needs to be shared across the entire organization.

AN EFFECTIVE OPERATING MODEL

To become agile at scale, the organization needs to align everything: the business, digital and IT processes; roles and structures; governance; and capabilities. The key here is to first develop portfolio management boards with the authority to allocate resources and manage all digital, business and IT projects. The organization as a whole will need to be divided between multifunctional agile teams that are ready to innovate and stable teams that are focused on serving as the backbone of the enterprise. Management must ensure that incentives are aligned and a strong change management system is in place, making ongoing evolution a part of the business.

SAVVIER PEOPLE POLICIES

This building block begins with the company drawing up a Human Intelligence (HI) map – a kind of employee census that identifies the current state of talent in the organization, analyzes it against the needs in the industry and the projected supply and demand for those roles, and assesses where gaps and opportunities will arise. Updated yearly, the HI map is then used to keep hiring and training focused on where the company needs to be. People policies should focus on the activation, acquisition and retention of staff. Companies must set themselves a twofold target: On the one hand, the goal of acquiring and retaining employees – the key to winning the war for talent; and on the other, the goal of anchoring the

digital transformation and instilling a digital mindset in the organization – the key to achieving cultural change. Other actions can also help companies escape the digital dilemma. This includes implementing personalized hiring strategies, such as using current employees as hiring ambassadors – for example, recruit-a-friend schemes. Firms can boost overall organizational flexibility by allowing different career paths, part-time work models, temporary leave based on personal needs, job rotation and the like. They can track employee satisfaction using appropriate KPIs. And they should also invest in lifelong learning, on-the-job and off-the-job training, reskilling and upskilling for staff members.

LEAN ENTERPRISE AND DATA ARCHITECTURE

Complexity is the enemy of agility. Preventing its growth requires the development of a modular structure that allows for continuous improvement. For the best results, companies should begin by introducing architectural principles, standards and patterns, and pursuing a cloud-first strategy. This strategy will only be successful if it is precisely tailored to the needs of the company and steered cross-functionally – for example, using a Cloud Cost Cockpit based on real-time data.

AN AUTONOMOUS DRIVING OEM IS TACKLING THE DIGITAL DILEMMA

A recent Roland Berger project involved supporting a German OEM (original equipment manufacturer) that was building parts of the software for autonomous driving. The project entailed helping the company implement Scaled Agile Framework (SAFe) principles in its existing agile teams, with the aim of optimizing time to market.

The first step was to help the OEM carry out a detailed stocktaking exercise of its existing agile methods, processes, roles and responsibilities, and pain points. This allowed us to set the baseline and identify any gaps. We then helped the company choose the right framework – in this case SAFe – and align the team, leadership and all the interfaces.

A key success factor for the project was the fact that decision-makers and corporate interfaces worked together to define the vision and the mission. Using these as a basis, the company could draw up a transformation roadmap and create a training platform, so that the relevant individuals could grow into their new roles and responsibilities within SAFe. We also defined a strong set of KPIs to manage progress and ensure transparency, aligning them with the Board and all members and other interfaces in the new SAFe setup. SAFe implementation was then launched, supported by coaches and experts and underpinned with feedback loops. In addition, the company implemented a lifecycle management system to ensure proper integration between the new software and the relevant hardware, and to synchronize interaction points.

4 / Recommendations

FIVE KEY STEPS FOR MANAGERS

As competition intensifies, escaping the digital dilemma is becoming an increasingly pressing task for companies in all industries. Enterprises that want to thrive in the new digital era need to act now. Digital transformation is never a one-time project – there is no single end that needs to be achieved. It is therefore vital that the organization becomes able to engage in continuous change.

Based on our interviews with executives and experience supporting companies across different industries, we have identified five key steps that companies can take to get the ball rolling. We look at each step in turn below.

Step 1 – Be transparent and honest about your digital capabilities

To begin with, you need to be realistic about the strengths and weaknesses of the digital capabilities in your core business. Once you understand the current situation, you will be able to see how you need to develop in order to move forward with your digital transformation.

Step 2 – Develop a long-term strategy, a clear direction and purpose

Next, develop a strategy that aims to fill the gaps identified in step 1. This strategy should connect your IT capabilities, business strategy and digital capabilities.

Step 3 – Iterate, iterate, iterate!

Your strategy must be more than simply a preview of coming attractions. Break it down into manageable steps that employees can begin to execute. Small, successful projects will help build experience within the organization and create momentum for change. Simultaneously, clear KPIs (lag and lead measures) should be implemented, tracked and continuously improved ("build-measure-learn" process).

No company is in a position to plan its digital transformation precisely from the outset and follow a linear approach. New technology, changing requirements and internal constraints mean that you will have to adapt your approach again and again. Successful companies accept this reality and apply agile approaches.

Step 4 – Appoint a taskforce of top employees

Strong managers with good interdisciplinary and cross-functional skills and experience managing large-scale projects are needed to lead the projects. Finding these leaders can be challenging. Often, the right people are either already busy elsewhere or may be working for another company altogether. Freeing up a solid team, complemented by external resources where necessary, is key for a successful digital transformation.

Step 5 – Remember that a digital transformation requires a human transformation

A digital transformation always starts with top management making a strong public commitment to making the necessary changes. At the same time, middle managers also need to be convinced of the necessity of the transformation. They, in turn, need dedicated team members working to engage other employees to help drive the change forward.

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Roland Berger has built its digital platform around the most critical expertise needed to face the digital dilemma and turn transformation into success. Our expert teams are helping companies drive large digital and IT transformations; build agile organizations at any scale; create value through data analytics; and build solutions, services and platform ecosystems as well as green ventures. To enable this, we empower our teams with human-centered research, digital product design and innovation frameworks to complement our in-depth industry expertise. Our clients can also benefit from plug-and-play SaaS products, our global network of select partners and our very own digital innovation hub, Spielfeld. Get in touch with us to find out how we can help.

Visit our website to find out more about our consulting services and expertise.



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comments and suggestions

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