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HOW TO SUPERCHARGE YOUR NATIONAL DIGITAL TRANSFORMATION

By Rami Riad Mourtada, Stephanie Habib, Frank Felden, Alexander Türpitz, and Miguel Carrasco

DIGITIZATION AT THE NATIONAL level is a high-stakes endeavor that countries cannot afford to get wrong. BCG estimates that e-government programs have the potential to deliver efficiency benefits of up to \$50 billion a year globally by 2020, but 70% to 80% of public-sector digital transformations either fail outright or achieve disappointingly limited success. (See “How Governments Can Get Technology Transformations Right,” BCG article, June 2016.)

Though large-scale digital transformations at the national level have many moving parts—and rely on different approaches—they tend to falter in predictable ways. To accelerate national digital transformations, government leaders must avoid the missteps that have hampered past efforts.

Five Ways Digital Transformations Fall Short

Though many things can derail national digital transformations, five serious problems are both common and avoidable.

Too Much or Too Little Centralization of Power. Governments vary widely in their approach to digital transformations. Some take a command-and-control approach, in which power and funding flow through a single entity. Others take a decentralized approach, delegating decisions and digital capabilities to the local government or to individual public entities. Too much centralization can result in unduly rigid implementation, while full decentralization can lead to inconsistent standards, lack of coordination, and unpredictable outcomes.

In successful digital transformations, government leaders adopt a nimble approach, inspiring from the top, governing through the center, and engaging on the ground. Leaders begin by defining a unified vision for the transformation and establishing a set of broad goals and specific outcomes to drive continuous alignment with broader national priorities. Then they engage with digital stakeholders in the public and private sectors to detail the steps involved in executing the transformation on the ground, and they explore and test innova-

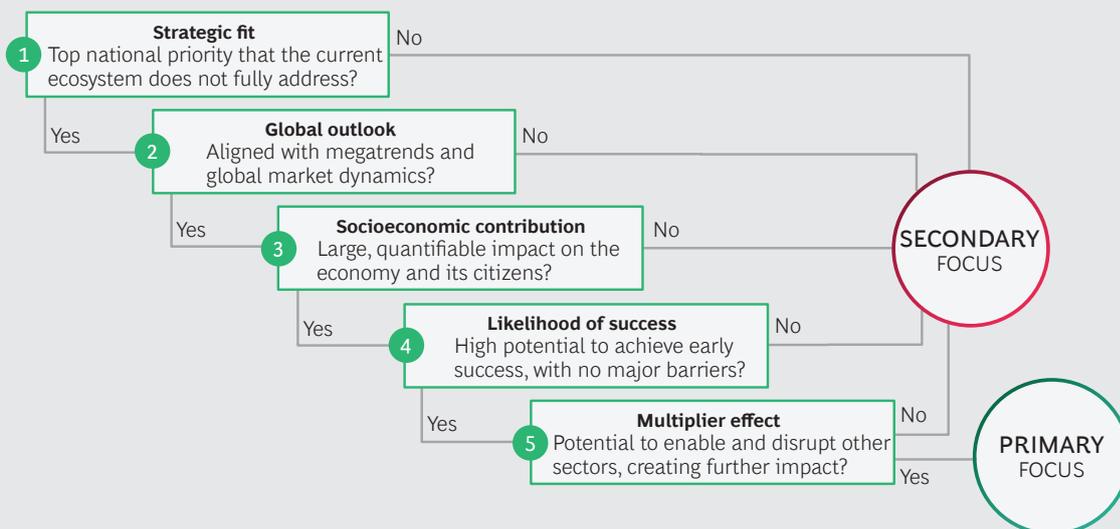
tive concepts with topic and industry experts. At a minimum, a government needs to select a centralized unit to coordinate its transformation efforts. In some countries, such as Sweden, a single entity within the government leads the transformation. Other countries go a step further, setting up a standalone organization with a mandate to coordinate, enable, and partially execute the transformation; Denmark’s Agency for Digitization and the UK’s Government Digital Service are examples of standalone organizations responsible for driving digital transformation.

Disruption of Everything at Once. When designing a digital transformation, leaders may be tempted to overhaul all economic sectors at once, but trying to do too much at the outset can undermine the process. A winning strategy will focus on sectors that have the greatest potential to unlock value. The appropriate first step is to identify no-regret digital enablers—such as core digital infrastructure, cybersecurity, digital identity, and payments—that can scale up across multiple sectors. The next step is to identify and select a small number of industries that will deliver the greatest economic and societal benefits from digitization. To identify the most promising industries, leaders should ask several questions: Is the industry integral to national strategic priorities and objectives?

To what extent can digitization of the industry unlock social and economic productivity for maximum impact? Will digitization address urgent gaps? Is there potential for a multiplier effect in other industries? One method of organizing these questions and answers involves adopting a decision tree approach. (See Exhibit 1.)

In 2016, when Germany launched its 2025 Digital Strategy, the nation’s leaders focused on building a world-class infrastructure as a core national enabler. They provided a gigabit fiber network, supported by strong data security and smart networking, and they made manufacturing the priority sector for modernization. To support innovation and use of its high-performance digital infrastructure, the strategy also called for the government to help startups and small and medium-size enterprises to participate in Industry 4.0 initiatives by providing support in key areas, such as hiring digital talent, obtaining financing, and navigating taxes. By building a robust digital infrastructure and removing obstacles to innovation, the government has enabled entrepreneurs to maximize the possibilities of the digital economy. Today, more than 200 digital applications and test beds in manufacturing are live, according to Germany’s Industry 4.0 platform. Germany is also the first country to have published a standard architecture for Industry 4.0, pro-

EXHIBIT 1 | A Decision Tree Can Help Identify High-Potential Sectors for Digital Disruption



Source : BCG analysis.

viding businesses with a uniform framework and supporting the interoperability of applications.

Excessive Caution in Pursuing Digital-First Initiatives. Citizens go online—and stay there—only if they can manage all of their transactions from beginning to end, without printing out documents or visiting a service center, and if they see a concrete benefit or incentive for doing so. In prioritizing digital-first initiatives, governments should target nondigital services that are most expensive for the government to provide but also are in highest demand from citizens.

According to BCG’s Digital Government Services Survey, the three most widely used digital services across 21 governments are real-time transportation information, tax returns, and job searches. (See “Digital Government Services by the Numbers,” BCG article, April 2017.) To create a seamless experience for users, agencies should overhaul the digital journey of high-priority services from end to end and should strive to eliminate all mandatory paper forms, phone calls, and nondigital interactions. Once the online process has become fool-proof and user-friendly, governments should offer citizens tangible incentives to use it. These may be both positive (tax breaks and rewards for using digital services) and negative (higher prices or longer processing times for nondigital services), leading to the ultimate goal of phasing out nondigital services altogether.

As part of an aggressive push toward a cashless economy, the government in India has demonetized high-value currency notes and has used a combination of discounts, free add-on services, and tax breaks to incentivize digital payments for government services. For example, citizens receive a 10% discount and free accident insurance when they purchase railway tickets online. In one year, the Reserve Bank of India says, the government increased digital payments by 33% in volume and by 59% in value.

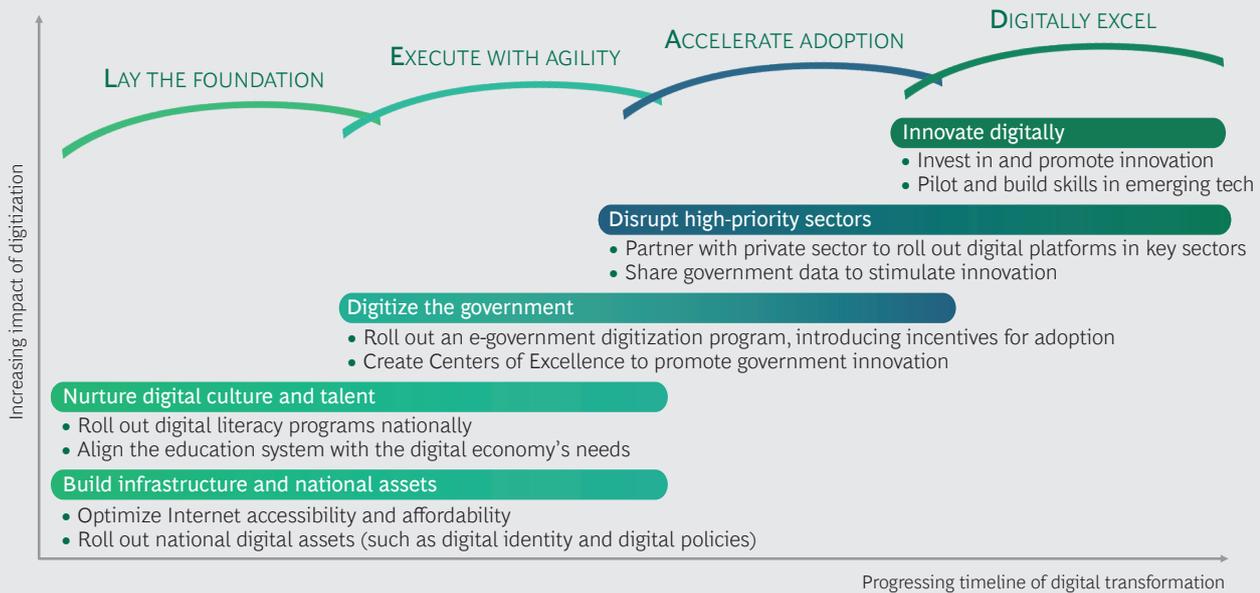
Failure to Keep Pace in Fostering a Digital Culture. In an era in which consumers expect to make purchases, transfer money,

or schedule a doctor’s appointment with a single click, the bar for digital transactions is very high. Digital natives—young people who grew up with digital everywhere—expect government services to be seamless, intuitive, always available, and optimized for mobile. To meet these expectations, government agencies are creating new smart channels and services to communicate directly with digital natives. For example, the Australian Tax Office (ATO) developed a 24/7 intelligent virtual assistant called “Alex” to answer general questions about taxes. Alex understands conversational English and continues to improve with every interaction, reducing the high volume of call center inquiries and enabling consumers to serve themselves. In the first 18 months after its release, Alex engaged in 2 million conversations and had a first-contact resolution rate of 81%. The ATO has begun to use Alex in other government agencies as well, making it easier for citizens to resolve issues on the spot.

To understand digital natives’ expectations and to deliver high-quality digital experiences, governments need to take a different approach to hiring than they did in the past: they must actively recruit and develop digital talent. This means up-skilling existing staff and building an organizational culture that attracts innovative and entrepreneurial thinkers. Governments should also assess the digital readiness of the overall population and use targeted programs to improve the nation’s digital savvy across the board.

Fixation on a Master Plan. It is common in developing large-scale projects to construct a multiyear master plan, punctuated with hard deadlines. However, leaders should avoid making these plans too rigid, detailed, and precise with regard to formulating specific solutions. Technology and users’ needs are changing fast. Digital initiatives must be nimble, flexible, and quick to pivot if the strategy fails to deliver real-world impact. A digital transformation should aim to achieve sustainable results by following the LEAD approach. (See Exhibit 2.) This approach consists of four steps:

EXHIBIT 2 | A Four-Step (LEAD) Approach Enables Nations to Digitally Excel



Source: BCG analysis.

- Lay the foundation by building a strong digital infrastructure and identifying initiatives that will deliver quick wins.
- Execute with agility by launching high-priority pilots and iterating rapidly.
- Accelerate adoption by giving users incentives to go online and stay online.
- Digitally excel by optimizing end-to-end services and involving the public sector where appropriate.

Three Key Foundational Elements for Avoiding Pitfalls

Digital transformations require new ways of working, not just new digital solutions. To sustain the transformation, governments must shape a more innovative, entrepreneurial culture—and this requires establishing a solid foundation in three areas.

Run the transformation like a business. A digital transformation is not just a matter of putting forms online or launching new apps. It also entails addressing unmet needs in the marketplace and pursuing business opportunities to fill those needs. To better understand citizens' wants and needs, more and more governments are appoint-

ing or hiring a chief customer officer (CCO) to analyze how businesses and citizens interact with the government, to seek innovative ways to radically improve citizens' digital experience, and to ensure transparency and consistency in broad government initiatives. In the US, five federal agencies—the Bureau of the Census, the Department of Veterans Affairs, the Export-Import Bank, Federal Student Aid, and the General Services Administration—have already appointed CCOs. Many other US agencies are looking to follow suit.

In addition to bringing in a CCO, governments can respond to disruptive opportunities by partnering with the private sector, particularly in areas where the government's internal capabilities or know-how are lacking or where partnerships can support rapid economic development. Public-private partnerships enable governments to access world-class resources so they can scale up initiatives quickly. These partnerships can be tricky to navigate, so governments must proactively identify obstacles that discourage companies in the private sector from partnering, such as intellectual property rights and market openness, and must devise innovative, win-win solutions. Governments should especially seek out partnerships with small and medium-size

enterprises—a growth engine for most economies. (See the sidebar, “South Korea Leverages Its Private Sector to Develop Seoul as a Digital City for Citizens.”)

Don't just ask for funding—raise it. Instead of requesting additional budget allocations to fund the digital transformation, governments should think creatively about how to self-fund the journey, from their current operating budget or from cost savings that result from digitization. In some cases, governments may be able to use dedicated innovation funds, but only to support highly creative or experimental concepts that would otherwise go unfunded—and they should award these competitively to teams that propose high-quality concepts that align closely with strategic objectives.

In 2014, Denmark created Innovation Fund Denmark (IFD) to invest in new initiatives that have the potential to generate growth and employment in Denmark. This competitive fund focuses on highly strategic, innovative, and early-stage projects. Although IFD does not require that funded projects give it a stake in the project or that they repay the funding it provides, IFD follows the project closely from start to finish to ensure that it is creating knowledge,

growth, or employment to benefit Denmark and Danish society. If a project fails to fulfill these objectives, IFD ceases to support it. In 2018, IFD will invest approximately €190 million in promising projects.

Position a digital unit at the center. A centralized unit dedicated exclusively to the national digital transformation can play a critical role in setting a clear digital agenda, filling skill and resource gaps over the short term, and ensuring that fundamental enablers are in place to make the transformation happen. This unit should have the freedom and autonomy to work independently and make decisions unhindered by lengthy and complex government processes. It can drive critical areas of the transformation, such as incubating new digital opportunities, developing policies to accelerate digitization, removing obstacles to swift progress, and guiding adoption of emerging technologies. The unit can also pursue digital white spaces—untapped opportunities, such as the gig economy, that don't fall into the domain of any government entity. And the centralized unit can experiment with partnership models to outsource short-term needs, such as system design, architecture, and implementation, while simultaneously ramping up internal

SOUTH KOREA LEVERAGES ITS PRIVATE SECTOR TO DEVELOP SEOUL AS A DIGITAL CITY FOR CITIZENS

As part of its Seoul Digital 2020 initiative, the South Korean government invested in Smart City technologies and launched Internet of Things (IoT) test beds. The initiative started in 2015 in Bukchon village, a popular destination that attracts more than a million visitors yearly. These visitors create major inconveniences related to littering, parking, and noise pollution that local residents have to deal with. The government invited 30 startups and global companies to pilot IoT initiatives to address these local problems, offering the companies the infrastructure, administrative, and financial support needed to address residents' needs.

Adopting a public-private partnership (PPP) model, Seoul provided the core infrastructure, including free Wi-Fi, sensors, closed-circuit TV, and application programming interfaces. Using this infrastructure, the private sector developed and commercialized services; and the government decided, on the basis of residents' feedback, which services to continue and which to discontinue.

The PPP led to a 64% increase in IoT companies in South Korea between 2015 and 2016, a 43% reduction in waste collection costs in Bukchon, and the creation of 17 smart services in 100 areas.

capabilities in core areas, such as portfolio management and customer journey development. Initially, the unit should have a broad mandate, but the mandate should scale back as the digital ecosystem matures and becomes more self-sufficient.

IN TODAY'S DIGITAL society, governments cannot afford to drag their heels when pursuing a national digital transformation. A digitally savvy government simulta-

neously improves citizen's lives and fuels economic growth. This calls for investing in initiatives that have a multiplier effect across industries and maintaining a flexible, forward-thinking approach to digitization. The digital landscape is constantly changing—and while digital leaders continue to innovate, digital laggards fall farther behind. Governments must act quickly to stay ahead of the curve.

About the Authors

Rami Riad Mourtada is an associate director in the Dubai office of The Boston Consulting Group and a member of the Technology Advantage practice. You may contact him by email at mourtada.rami@bcg.com.

Stephanie Habib is a project leader in the firm's Dubai office. You may contact her by email at habib.stephanie@bcg.com.

Frank Felden is a senior partner and managing director in BCG's Cologne office. You may contact him by email at felden.frank@bcg.com.

Alexander Türpitz is a partner and managing director in the firm's Dubai office. You may contact him by email at tuerpitz.alexander@bcg.com.

Miguel Carrasco is a senior partner and managing director in BCG's Canberra office. You may contact him by email at carrasco.miguel@bcg.com.

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