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DIGITIZING THE STATE: FIVE TASKS FOR NATIONAL GOVERNMENTS

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Public authorities cannot build great digital services on their own. They need national governments to provide the right conditions for them to succeed.

For some countries, the provision of comprehensive digital public services is no longer just an aspiration. In Estonia, for instance, the only services that still require a personal interaction with a civil servant are marriage, divorce, and real-estate purchases. In other nations, too, public authorities are building digital services that are just as compelling as the products of leading Internet companies. They have done so by focusing on customer needs and implementing the same agile “test and learn” development practices that online giants use.¹

But it's not enough just to change work flows and mind-sets within public authorities. Agencies and municipalities need the national government to provide the right conditions for them to succeed. Our research and global experience with digital transformations in the public sector suggests there are five core tasks that national governments could perform to facilitate the launch and uptake of digital public services: They could set an overarching digital strategy and targets, provide common IT platforms, define technical standards, facilitate change through legislation, and underwrite and support pilot projects that help public authorities build critical digital skills (Exhibit 1).

Our review of ten European nations² shows that when national governments do these tasks, and do them well, countries can achieve high rates of adoption for digital public services (Exhibit 2). A closer look at the most successful countries in this cohort reveals another important factor behind their strong performance: they have established central units to coordinate their efforts in supporting digitization of the public sector. The Danish Agency for Digitisation, for instance, has played a crucial role in shaping national strategy and supporting public authorities with their implementation of digital initiatives. In this article, we explore the five core tasks national governments have focused on to support digital innovation by these public authorities, and we consider the elements required to build a strong central digitization unit.

TASK 1: SET A CLEAR DIGITAL STRATEGY AND TARGETS

Governments can achieve three main benefits from digitization: improved citizen experiences, higher productivity and efficiency, and better policy outcomes.³ To create these benefits, governments rely on actions from a range of public authorities—each with its own priorities, capabilities, and timelines.

¹ Martin Lundqvist and Peter Braad Olesen, “From waterfall to agile: How a public-sector agency successfully changed its system-development approach to become digital,” March 2016, McKinsey.com.

² Our research sample is limited to ten European nations: Austria, Denmark, Estonia, France, Germany, Italy, the Netherlands, Poland, Spain, and the United Kingdom. The sample size is limited because there is currently no globally comparable data on user adoption of digital public services.

³ Bjarne Corydon, Vidhya Ganesan, and Martin Lundqvist, “Digital by default: A guide to transforming government,” November 2016, McKinsey.com.

Exhibit 1**National governments should focus on performing five tasks critical for launching digital public services.**

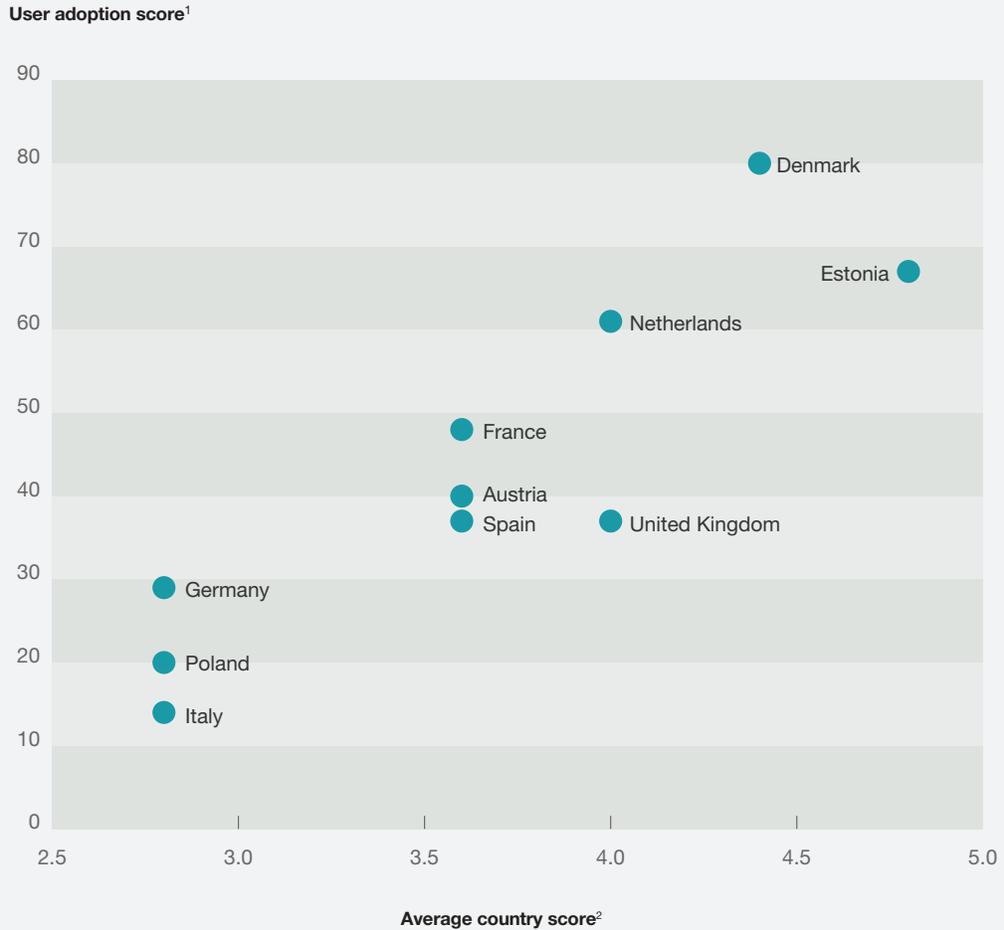
Task	Criteria for success
 1. Set a clear digital strategy and targets	Set ambitious but measurable goals; adopt a unified management approach
 2. Provide common IT platforms	Enable electronic identification, easy access to information, and seamless data exchange across public-sector institutions
 3. Define technical standards	Actively guide development of enterprise architecture, best practices in IT project management, and standardization of core IT
 4. Facilitate change through legislation	Make aspirational digital goals more formal; scan administrative rules to remove obstacles to digitization
 5. Incubate pilot projects and build critical skills	Support development of “lighthouse” case studies, strengthening internal capabilities in process

Source: McKinsey analysis

It is therefore useful for national governments to communicate to public authorities the overarching digital strategy and priorities for different time horizons. In this way, they can help to ensure that public authorities’ efforts are focused and synchronized. And when individual change efforts are linked to a simple, well-articulated, overarching vision, innovators in public authorities are more likely to overcome resistance from internal stakeholders and get things done.

The Danish government, for instance, made a strategic decision to move as many existing public services online as possible and worry about other digitization objectives later. It captured that goal with the following mandate: “No more printed forms and letters.” Many stakeholders in the process later noted that this simple statement played a big part in the ultimate success of the strategy. Once that initial goal was achieved, the Danish public sector could shift its attention to new priorities such as redefining the citizen experience and developing digital services that would promote priorities, economic growth.

Exhibit 2 When public authorities receive support from national governments, user adoption of digital public services increases.



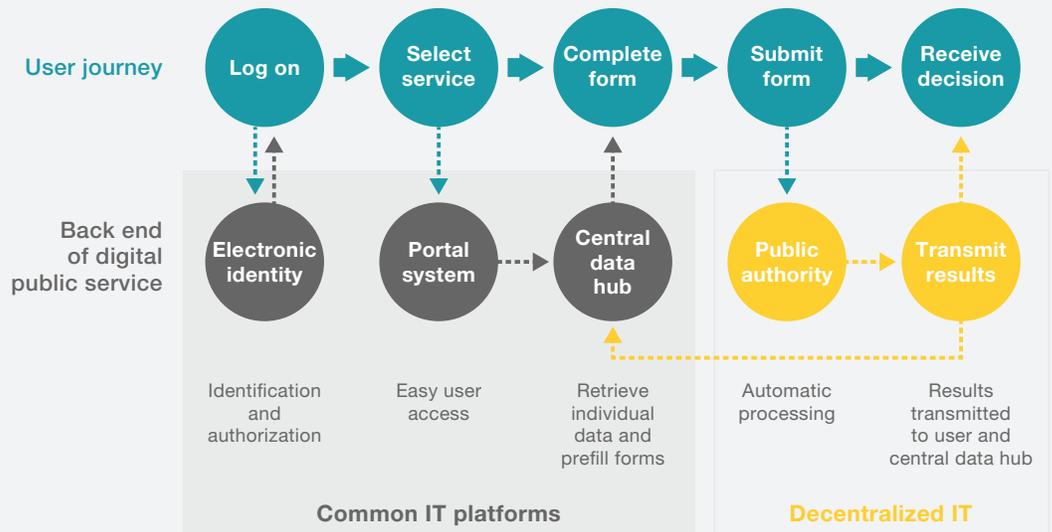
¹ Calculated based on share of citizens age 16–74 who submit public-service forms online (weight 2/3); and on share of citizens age 16–74 who get information about public services online (weight 1/3).

² Assessment of whether a country meets established criteria for success across five tasks; rated from 1 (not at all) to 5 (demonstrates best practices internationally).

Source: Eurostat, McKinsey analysis

National governments could also measure progress against goals and monitor the implementation of digital initiatives by public authorities. One of the performance metrics associated with the Danish 2016 to 2020 digitization strategy, for instance, is to reduce the administrative burden on companies by about 3 billion Danish krone (or about \$460 million)—an objectively measurable indicator. An interministerial steering committee continually reviews how Danish public authorities are performing against the stated timelines and goals.

Exhibit 3 To ensure success with digital public services, national governments need to provide common IT platforms.



Source: McKinsey analysis

TASK 2: PROVIDE COMMON IT PLATFORMS

Digital public services are easier to launch and manage when typical functions and components—for instance, the ability to securely log in to an online form—are available to all public authorities as “reusable building blocks.” Because of the cost and complexities involved, it is impractical for public authorities to build the necessary technology and management infrastructures on their own. National governments can instead help to establish common IT platforms that all public authorities can use. We believe that three applications, in particular, are important to provide: electronic identity management, easy access to digital services for citizens, and seamless exchange of data among public authorities (Exhibit 3).

Managing electronic identity

To receive a public service online, citizens and companies need to be able to identify themselves and provide a legally binding digital signature. The challenge for national governments is to set up a comprehensive system that is both secure and user-friendly enough to encourage widespread adoption. Germany, for example, initially saw low usage of its electronic identification (ID) system. Citizens needed to own a physical card reader to conduct secure online transactions using their electronic IDs. Few citizens had such a device, so public authorities had little incentive to incorporate the electronic ID into their digital services. To break the cycle, the government has released a smartphone application to replace the card reader. The hope is that the use of digital identifications and signatures will become as common in

Germany as they are in, say, Estonia, where two out of every three citizens regularly use a national electronic ID to perform online transactions.

Providing easy access to digital services

Public services are delivered by a multitude of public authorities at different geographic levels, all with their own presences online. Such fragmentation can thwart the creation of a simple and unified user experience, and can make it time consuming for citizens and companies to interact with the state. Some national governments have created centralized access points, or portals, dedicated to the most common service requests. Users can typically navigate these portals based on life events. So when a new parent selects from a drop-down menu “I am having a child,” he or she is automatically routed to the relevant online services—for instance, applications for child benefits.

The government of Denmark has established an online portal dedicated to citizen services and another one for corporate services; all public authorities are required to link their digital services to the respective sites. Under this model, individual accounts are created for citizens and companies so they can track their various online interactions with the government in one place. And officials in Denmark are now exploring ways to use search-engine optimization and other digital tools to make these digital services more visible to citizens, and therefore even easier to access.

Ensuring seamless data exchange

To process the case at hand, public authorities need to ask citizens and companies to share sensitive information. To determine whether they qualify for social welfare, for example, citizens may need to report household incomes, wealth, family status, and the like. Ideally, public authorities would ask for such data only once and make that information available in digital form to whichever public authority needs them to provide a service. However, for security, technical, and other reasons, data sets often are not shared among public authorities. Citizen information remains siloed.

National governments can facilitate seamless data exchange by providing a common technical infrastructure for exchanging data, rules governing the use of this information, and safeguards to protect sensitive data from unauthorized access. Estonia is the most advanced country with regard to seamless data exchange. Its State Information Agency has mapped all data owned by the national government and provides a standardized technical environment, called the X-Road platform, for secure information sharing with all users in the public and private sectors. To ensure that data are not used without proper authorization, transactions on the platform are logged, and citizens can check to see who accessed their information using individual online service accounts. In 2016, there were about 250 government databases and about 1,800 individual data services available through X-Road. Citizens and companies accessed this information about 575 million times throughout the year—a large number given that Estonia has only 1.3 million citizens.⁴ Research indicates that national governments could unlock massive productivity gains and higher quality of service if they could improve their data-exchange

⁴ Statistics about the X-Road, Republic of Estonia Information System Authority, ria.ee.

infrastructures and protocols. In Germany, for example, paper forms can be a big time sink for both citizens and public authorities: consider that citizens need to submit up to 17 documents along with their application for parental leave. If paper were eliminated from the most common service transactions, citizens could gain 64 million hours of free time per year, companies could reduce their administrative costs by €1 billion per year, and public authorities could save 59 percent of the work hours spent processing cases.⁵ In addition, public authorities might avoid costly errors resulting from incomplete or false information. By using data shared and verified by a range of public authorities, social-welfare agencies, for instance, may be able to spot fraudulent benefit applications earlier in the process.

TASK 3: SET TECHNICAL STANDARDS

National governments as a whole are typically giant users of IT, but their systems are, necessarily, dispersed across countless public authorities. Therefore national governments may be able to play a central role in ensuring interoperability—that is, identifying and managing the relationships and dependencies among different IT systems, and setting principles and guidelines for how systems are developed. The government of Finland, for instance, set up a national enterprise architecture function through a 2011 law.⁶ Since then it has developed a tiered approach to managing IT systems: the group has established principles and reference architectures for managing IT systems across the public sector overall, but it has also developed specific rules for managing IT systems in individual domains, such as healthcare, justice, or defense.

National governments may also need to define and disseminate best practices in IT project management. Public authorities struggle with large IT projects just as much as companies in the private sector do; the majority of these projects fail to meet budgets or schedules. Agile methodologies can help reduce project risks and ensure that outcomes meet user requirements. But public-sector institutions, with their formal hierarchies and bureaucratic cultures, often struggle to implement these new ways of working. National governments can help alleviate this problem by disseminating standard approaches for implementing agile in public-sector environments. The government of the United Kingdom, for example, publishes on its website extensive guidance about agile methodologies. It has also set up an “agile delivery community” for civil servants to exchange their ideas and experiences.⁷

National governments can furthermore help define guidelines for the delivery of core IT services. This includes creating standards for the use of end-user devices, software, and cloud infrastructure, as well as rules for procuring third-party technology services. Germany, for instance, is setting up a national private cloud service for its public-sector organizations. This will allow public authorities to take advantage of modern cloud infrastructure without having to share sensitive data with commercial cloud-service providers, most of which operate in foreign

⁵ *Mehr Leistung für Bürger und Unternehmen: Verwaltung digitalisieren. Register modernisieren*, October 2017, Nationaler Normenkontrollrat, normenkontrollrat.bund.de.

⁶ For more, see *Act on Information Management Governance in Public Administration*, World Wide Web Consortium, w3.org.

⁷ Agile delivery, GOV.UK service manual, gov.uk.

countries. At the same time, the government expects significant savings from consolidating the 1,300 data centers and server rooms that exist in the national administration today.

TASK 4: FACILITATE CHANGE THROUGH LEGISLATION

An important way to accelerate the digitization of public services is to give formal legal status to aspirational goals, such as the mandatory digital provision of certain services or the “once only” collection of citizen data. But enshrining these principles as laws is not enough. National governments can help to formalize digital objectives by translating them into corresponding changes in administrative rules; a public authority, for instance, may need explicit permission to use digital signatures in certain transactions, which may necessitate complex rule changes. National governments could help by scanning existing laws to identify problematic rules and suggesting appropriate changes, while also ensuring the “digital readiness” of new rules. Denmark, for example, has set up a standing committee to manage this task. Membership consists of representatives from ministries and national public authorities, as well as regions and municipalities. The committee is chaired by the head of the central digitization agency. Most recently, it has trained its attention on the European Union’s General Data Protection Regulation, which takes effect in May 2018. This regulation harmonizes data-protection rules across the European Union and seeks to give individuals greater control over how data relating to them are being used. The committee has studied how the regulation can be translated into national law without creating unnecessary obstacles for digital innovation by public authorities.

TASK 5: INCUBATE PILOT PROJECTS AND BUILD CRITICAL SKILLS

Top digital workers often steer away from jobs in government because of relatively low salaries, inflexible career paths, and bureaucratic work cultures. As a result, public authorities often depend primarily on resources from external service providers; their internal capabilities remain weak. National governments can alleviate this situation by helping to incubate pilot digital initiatives, building critical skills in the process. A good example of this approach is the United States Digital Service (USDS). This unit of the White House comprises more than 200 software engineers, user-experience designers, and product managers who work with federal agencies to launch digitization projects. The USDS recruits most of its staff from leading technology companies for a limited “tour of duty,” emphasizing its public-service mission when advertising open positions. With assistance from the USDS, a number of federal agencies have created “lighthouse” success stories—for instance, a mobile app that helps borrowers navigate the complex repayment process for student loans. Over time, public authorities that work with the USDS might improve their internal capabilities, as teams draw lessons from the unit’s experts as they work alongside them.

ELEMENTS OF A STRONG CENTRAL DIGITIZATION UNIT

Supporting the creation and management of digital public services is a politically challenging endeavor. It requires massive amounts of coordination and communication by numerous stakeholders across the public sector—not to mention significant resources to build a common IT infrastructure. Investments that politicians authorize today may pay off only after several years, perhaps after the leaders themselves are out of office.

It is therefore essential to establish a solid bureaucratic foundation for digitization efforts—lending some “administrative muscle” to a national digitization strategy. Our research finds that the countries with the highest levels of user adoption of digital public services have created central digitization units, wielding sizable staffs and resources, to perform the five tasks we have outlined. The Estonian Information System Authority, for instance, employs more than 130 people. The Danish Agency for Digitization has more than 200 staff. The leaders of such central digitization units can hammer out details, facilitate coordination with various stakeholders across public authorities, and hold everyone accountable by using incentives and sanctions to keep digital initiatives moving forward. These units should have a stable mandate that lasts beyond the next election. They should be staffed with both technologists and bureaucrats, and they should have control over—or, at least, some influence over—a large share of government spending on digitization. Perhaps most critical for building a culture of innovation, leaders in digitization units should report directly to a strong minister who is publicly committed to digitizing the state.



Today’s frontrunners in digital public services embarked on their transformation journeys because politicians linked the changes to an urgent national reform agenda. Denmark, for example, considered digitization a means to rein in the administrative cost of its welfare state and make it sustainable in the face of a global financial crisis.

Not all governments will feel an equally strong sense of political urgency. But one thing is clear: they can no longer be digital laggards without consequences. Citizens have come to expect great digital services from private companies. If they do not receive the same type of user experience from government, they may reduce their overall support for public institutions. For their part, companies facing increased administrative burdens because of outdated “analog” government services may perceive laggard countries as less attractive places in which to do business.

National governments’ role in promoting digitization is clear; the potential for impact has been established. Now is the time to make it happen. ■

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