Digital at Depth

Digital technologies at the heart of public service transformation and as a catalyst for economic growth and innovation
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>4</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>6</td>
</tr>
<tr>
<td>Recognizing the potential of digital at depth and how to achieve it</td>
<td></td>
</tr>
<tr>
<td>Global trends re-shaping public services</td>
<td>8</td>
</tr>
<tr>
<td>Effects of demography, productivity and resources</td>
<td></td>
</tr>
<tr>
<td>Why digital at depth</td>
<td>9</td>
</tr>
<tr>
<td>Impact of digitalization on growth</td>
<td></td>
</tr>
<tr>
<td>Needs of digital natives and digital businesses</td>
<td>10</td>
</tr>
<tr>
<td>Findings from the Accenture Digital Government Pulse Survey 2015</td>
<td></td>
</tr>
<tr>
<td>Digital businesses are directing innovation</td>
<td>14</td>
</tr>
<tr>
<td>Digitalisation is changing government-business interactions</td>
<td></td>
</tr>
<tr>
<td>Leading by example</td>
<td>15</td>
</tr>
<tr>
<td>Six characteristics of future-ready governments at the national level</td>
<td></td>
</tr>
<tr>
<td>Putting it into practice</td>
<td>16</td>
</tr>
<tr>
<td>A policy practitioner’s guide on next practice to develop the six characteristics</td>
<td></td>
</tr>
<tr>
<td>Launching a global network</td>
<td>29</td>
</tr>
<tr>
<td>Collaborating with digital pioneers at national, regional and city level</td>
<td></td>
</tr>
</tbody>
</table>
Foreword

In 2014, at the second Government Summit in the UAE, Accenture launched a report on ‘Digital Government: Pathways to Delivering Public Services for the Future’, which looked at the extent of digitalization across ten countries, in a comparative study. The study looked at dimensions of citizen satisfaction, digital service maturity and overall service delivery experience. The results confirmed that the topic of digital transformation is very much back on the agenda. The United Arab Emirates performed exceptionally well in the overall citizen experience scores, as it demonstrated a commitment to being responsive and engaged with their citizenry.

Past attitudes in public services towards digitalization saw it simply as a tool to enable governments to do more with less and perhaps provide a convenient veneer to citizens to access a host of different services. We are now at a pivotal juncture whereby governments have the opportunity to drive deep transformation in public services through digital technologies. Commercial organizations have already demonstrated disruptive changes to their business and operating models, enabled by digital. The micro entrepreneurs of Uber and Airbnb didn’t exist until a few years ago. It is time for governments to be thinking about that disruptive change.

Frontrunners are recognizing the need for innovation (with digital at the heart of it). Public service innovation labs or ‘living labs’ are mushrooming all across Europe (e.g. Mindlab in Denmark, Future Publique in France). Leading governments are constantly looking to adapt and experiment with new service models, and using design-led approaches to engage citizens. We see that Digital is becoming trendy in government.

This exclusive study titled ‘Digital at Depth’ forms part of Accenture’s ongoing thought leadership series—Delivering Public Service for the Future. In the study, we have also drawn on primary research via a global public service pulse survey looking at the changing needs of digital natives, what makes for a high quality experience and in turn would improve their perception of government.

At a national level, this study identifies six key characteristics of high performing governments, which, if upheld, will lead towards the successful delivery of innovative projects and digital transformation on a massive scale. It will help to address citizen demands (86 percent of citizens expect government to offer equal or better services than the private sector). It draws out lessons from the case studies of digital front-runners, who have used new technologies to elevate their levels of public service provision.

Frontrunners are recognizing the need for innovation (with digital at the heart of it). Public service innovation labs or ‘living labs’ are mushrooming all across Europe (e.g. Mindlab in Denmark, Future Publique in France). Leading governments are constantly looking to adapt and experiment with new service models, and using design-led approaches to engage citizens. We see that Digital is becoming trendy in government.

With the two papers that have been produced for the third UAE Government Summit, Accenture lays out a ‘How To’ guide with specific policy recommendations to point policymakers towards public service transformation, that will help drive growth and competitiveness, and build a platform for future prosperity.

An exciting perspective is also provided through collaboration with Nesta, a UK-based innovation foundation. Together, Accenture and Nesta are building a ‘CITIE’ framework that analyses 40 cities across the world, assessing their performance against nine policy levers. Once completed, CITIE will serve as a resource designed to help city governments develop policy to support innovation and entrepreneurship.

Bernard Le Masson
Global Managing Director
Public Service
Accenture Strategy

Dr. Majid Altwajiji
Managing Director—Middle East
Health and Public Service
Accenture Saudi Arabia
Executive Summary

Recognizing the potential of ‘digital at depth’ and how to achieve it

Policymakers across all levels of government would now agree that digital technology is at the heart of a modern public service. Digitalization has already delivered significant savings, in addition to giving citizens simpler, faster and more convenient ways of interacting with government. Its potential, however, has not yet been fully leveraged ‘at depth’.

Currently, digital strategies are largely focused on making services more efficient. While that is an important goal in itself, it doesn’t transform institutions, structures, processes and workforces, which are key to delivering public services in the future to digital natives and digital businesses.

In the latest Accenture Digital Government Pulse survey, at least 50 percent of the citizens surveyed see room for their government to improve satisfaction with digital services.

This Accenture study on the digital transformation of government—part of our Delivering Public Service for the Future series—examines how pervasive new technologies that have become commonplace for citizen-customers when it comes to shopping, banking, hiring cars and finding common interests, are also poised to transform the way we engage with government.

Public service providers need to become instigators of this transformation. Rather than being constantly disrupted, they need to become the disrupters when it comes to digitalization, acting as public entrepreneurs and partnering with new businesses. If they don’t, agile new players mobilizing digital technologies in bold and innovative ways will find a way to work around them. Uber and Airbnb, for example, have found ways to shrewdly navigate existing legislation in most of their key markets. They have disrupted the status quo in the taxi and private letting industry, empowering a set of micro-entrepreneurs to make an easy living, despite opposition from local lobbies. They are not alone. New digital entrepreneurs are creating significant challenges for government by virtualizing their centers of operations and avoiding regulatory compliance.

It is time for government to offer the Amazon experience to their constituents

It’s time for government to encourage and direct innovation, rather than inhibit it. First movers will gain a clear advantage, renewing the trust and confidence of their constituents, encouraging business investment and entrepreneurialism and providing a role-model for other governments.

In a recent study on the impact of digitalization, which is covered in this report, Accenture has shown that an increase in the pervasiveness of digital technologies in the economy is strongly correlated to higher GDP growth, increase in international trade and lower unemployment. The research demonstrates that growth can come from deploying digital at depth within public services and intelligent investment in promoting digitalization of the wider economy.

In the current publication, we have examined the best practices of digital leaders in public service and used them as a guide for potential innovators and practitioners at all levels of government—national, regional and city-level. Our investigations strongly suggest that six key characteristics distinguish digital leaders in public service—an engaged citizenry, a collaborative service ecosystem, government as a disruptor, an entrepreneurial and performance-driven workforce, open and insight driven services and resilient mission-critical infrastructure.

An engaged citizenry is established through leveraging mobile and social technologies to create an ongoing dialogue with constituents who are now constantly on the move. Active conversations where citizens have the ability to react instantly give governments the opportunity to receive immediate feedback on service provision and adapt accordingly. Digital transformation is already affecting the way parties operate—witness the appearance of network parties across Europe and online voting for Green Party European candidates—with decision-making based on online feedback from users.

The state of government finances worldwide, the impending aging population crisis, as well as the health of the economy, mean that it is unrealistic for administrators to be expected to solve all public sector...
challenges. However, a government that establishes a collaborative service ecosystem will enable many different actors, including the private and third sectors, to reach a shared goal through pooling resources and efforts. At all levels, governments can build common digital platforms and play the role of match-maker, partner, or facilitator, deriving benefits for administrations, businesses, and citizens alike.

Accenture analysis shows that half of all countries can create value from digital optimization and reduce their back-office costs by 25 to 45 percent.

Government as a disruptor directly stems from the ethos of government instigating digital change and promoting specific innovations rather than sitting back and ensuring conditions are right to allow innovation. By actively piloting new initiatives and launching new technologies, governments can accelerate both innovation and growth at their respective level. For this to be effective, leaders have to be greater risk-takers, much like how those in the startup world are.

Newly digitized businesses require digitally savvy governments to meet their needs. The increased virtualization of businesses and commercial centers has led to an erosion of the tax base, which is degrading public finances, so we need public administrators who can manage and address these complexities. On the opportunity side, legislators need to create the correct market conditions for growth and innovation for the new micro-multinationals. This will need a new mind-set and an entrepreneurial and performance-driven workforce.

We need public administrators who can manage complexities posed by the digital world. In recent years, tax receipts across the industrialized world fell to their lowest level since the early 1990s.

Open and insight-driven services will make governments more agile and adaptive. The 3rd industrial revolution, described by Jeremy Rifkin as the merger of Internet technologies (such as Big Data and the Internet of Things (IoT)) with renewable energy, is heralding a data revolution that governments can utilize to respond more quickly to emerging issues across their constituencies—and become more proactive in tackling them, drawing on intelligence-led processes and tools.

Finally, there is an urgent need to design resilient mission-critical infrastructure for key government services to remain ‘always-on’, responsive and designed to withstand a range of hostile attacks from state and non-state actors. Individual privacy and trust need to be top-of-mind with the exponential growth of open technologies and users need to be made more vigilant about the security of their personal data.

A government, at any level, that instills these six characteristics, all enabled by digital at depth, will be truly transformative.

There is widespread recognition of the need for transformation, but policymakers are still looking for guidance on the ‘How-To’. In this study, we have drawn from global best practice in digital innovation and an extensive repository of cases from our Delivering Public Service for the Future series to offer that guidance in clear next steps.

Policymakers are looking for guidance on the ‘How To’—this study highlights next practices in digital transformation.

We have also partnered on a joint study with Nesta (a leading innovation foundation in the UK) to develop a city innovation framework under the banner of CITIE—City Initiatives for Technology, Innovation, and Entrepreneurship. CITIE will provide a comprehensive online resource for municipal policymakers to promote entrepreneurship and innovation and help develop a community for ongoing collaboration, supported by a rich repository for policy action.
Global trends re-shaping public services

Effects of an aging demographic, declining productivity and resource constraints

1. By 2050 the number of adults over 60 will have doubled\textsuperscript{7}

The global population is gradually aging. As we near 2050, for the first time in human history, we are likely to have more adults over 60 than children. Due to this sway, dependency ratios are increasing worldwide, meaning that fewer citizens are contributing to growth, especially in OECD countries. A smaller working population leads to lower GDP, a lower national income, and further strains on pension budgets.

The fact that labour participation rates across the developed world are flat-lining is compounding the challenge posed by an aging population. Unfortunately, policymakers don’t have a wide arsenal of measures to address this issue without veering into heated political debates (e.g. on immigration) and fundamentally changing the fabric of their societies.

2. In many developed economies, average productivity growth has dropped below 1 percent p.a. over the past decade\textsuperscript{8}

Productivity growth has become a real concern for policymakers. The inefficient matching of jobs to skills has been identified as a key contributing factor to the shift, as market rigidities and stagnation in innovation have prevented the labour market from functioning productively. There needs to be a renewal of the market economy in order to seize the next wave of growth.

3. The required adjustment in structural primary balance in G20 high-income countries from 2010–2020 is 9.6 percent of GDP\textsuperscript{9}

Many developed nations are now in a policy environment where it is not acceptable to increase public spending as a straight-forward response to global challenges. While still recovering from the crisis of 2008, most leaders’ main concern remains fiscal stability.

The sizes of many budget deficits imply that there is no mandate for significantly increased spending on new public service programs. Administrators now have to balance addressing major global issues with cutting budgets and austerity measures. The resource straitjacket limits their ability to respond to aging populations and the decline in productivity growth.

Takeaways

The confluence of these 3 factors – 1/less people available to work, 2/output per worker in decline, and 3/lack of demand-side stimulus measures available to government is that traditional approaches to improving growth and competitiveness are rendered ineffective.\textsuperscript{10}

In this study, we focus on the role of government and the portfolio of measures available to Policymakers that could boost productivity, entrepreneurship and innovation in the economy, to jump-start growth.

In our view, a deep transformation of public services through digitalization or ‘digital at depth’ is key to the renewal of government. Only a digitally-savvy, forward-looking public service can unleash the power of the digital economy by opening up public data, collaborating with multiple actors and using its economic weight to catalyze innovation.

Figure 1: Global trends re-shaping public service
Why digital at depth?

Digitalization is key to economic growth, competitiveness and innovation

A study by Accenture into Achieving Digital Excellence has uncovered clear links between digitalization and growth, alongside other economic and societal developments. The level of digital maturity that a country displays is seen to have a direct impact on growth, productivity, labour market prowess and entrepreneurship.

In order to monitor the impact of digitalization on a country’s economic performance, Accenture conducted in-depth research across 30 countries and combined this with practitioner experience of working with global public service entities. Digital maturity was benchmarked against six criteria: economic competitiveness; public sector productivity; constituent satisfaction; citizen engagement; ICT development; and digital priority.

We modelled the effect of digitalization on GDP, the country’s key stakeholders to use ICT, and the usage of ICT among those stakeholders. Three of these data points are presented here, demonstrating the impact of digitalization on GDP, International Trade and Unemployment.

Now is the time for governments to assess how digital technology penetrates their key institutions, processes, workforce and critical infrastructure. This is what we call digitalization within government; however there is another key dimension — digitalization through government. In most developed economies, government is a major economic actor often accounting for nearly half of all economic activity.

Thus, practitioners have a significant opportunity to catalyze new digital economies and play the role of ‘market makers’ by creating the right regulatory environment, promoting innovative investment and connecting the ecosystem of digital actors.

Governments themselves need to be innovators in the realm of ICT. Too often, government actors have seen themselves as facilitators of change and are often playing catch up to technologies that have been widely embraced by private organizations. Rather, government departments should see themselves as innovation hubs; developing leading technologies and recruiting the best talent to work in the digital space.

There is a wealth of opportunity for digital transformation that does not require a significant budget commitment or installing big IT systems. For instance, embracing and accelerating new digital technologies like Social, Mobility, Analytics, Big and Open Data, Cloud or the Internet of Things will increase an economy’s and administration’s digitalization without making a large dent in finances.

figure 2: Effect of digitalization on GDP

We modelled the effect of digitalization on the World Economic Forum’s Networked Readiness index, which analyses the environment for ICT offered by a given country, the readiness of innovation hubs; developing leading technologies and recruiting the best talent to work in the digital space.

There is a wealth of opportunity for digital transformation that does not require a significant budget commitment or installing big IT systems. For instance, embracing and accelerating new digital technologies like Social, Mobility, Analytics, Big and Open Data, Cloud or the Internet of Things will increase an economy’s and administration’s digitalization without making a large dent in finances.

Figure 3: Effect of digitalization on international trade

Governments themselves need to be innovators in the realm of ICT. Too often, government actors have seen themselves as facilitators of change and are often playing catch up to technologies that have been widely embraced by private organizations. Rather, government departments should see themselves as

1% increase in digitalization

0.5% gain in Gross Domestic Product

0.86% increase in digitalization

1% increase in digitalization

1.9% gain in international trade

10% increase in digitalization

10% increase in digitalization

0.86% drop in unemployment rate

Figure 4: Effect of digitalization on unemployment

Yet the rate at which digital technology penetrates public services also depends on government characteristics such as openness, entrepreneurship, a collaborative culture and the quality of institutions and people. All of which makes it imperative that we establish which key characteristics a government needs to deliver public service for the future.
Digital natives are demanding next-gen services

Innovation in the private sector has led to the development of digital businesses and citizens with significantly higher expectations of government. Listening to them can help set the direction of public service transformation. We have drawn insights from the Accenture Digital Government Pulse survey conducted across seven countries (USA, UK, France, Germany, UAE, Singapore and Australia), between December 2014 and January 2015. Citizen results are based on a sample of 6,624 citizens who completed an online survey. Here is what our digital natives had to say:

How do you want your level of digital interaction with government to change in the coming year?

Figure 5: Pulse Survey insight—A significant portion of citizens want to increase their digital interaction with government. Many more citizens in the UAE and Singapore want to use their mobile device

Simpler, faster, cheaper

In order to ensure effective communication with digital natives, Government needs to provide simpler, faster and cheaper access to services. Citizens demand more mobile applications, simpler websites and greater engagement through social media. Now accustomed to high quality, private services as consumers, they don’t want to be held up by a bureaucratic maze when dealing with government services. In order to improve overall digitalization, public services need to be transforming at depth to meet these constituent needs.

A third or more of citizens surveyed indicate that their lack of awareness of what services are available digitally, and service-fragmentation is preventing them from increasing their use.

76 percent of citizens in the UAE are highly interested in increasing their digital interaction with government, and 86 percent want to access digital public services through their mobile devices.
Security and privacy

Though constituents have become digitally savvy, there are nevertheless areas where the government needs to take a protective and educative role. Citizens are not always aware of the implications of putting personal information on social media sites and online, more generally. A central role of the state is to protect its citizens, and digitalization simply extends this principle to the virtual world.

Policymakers need to be proactive in legislating to protect individual privacy and secure personal information as new technologies adopt an ‘open’ paradigm. Robust security infrastructure also needs to be deployed as there is an increasing incidence of hostile attacks on both private and public data, costing the exchequer millions.

Citizens across most countries agreed that awareness of digital services from government as well as more confidence in the protection of their personal information would drive improved satisfaction, with over 75 percent of citizens in every country surveyed citing these as the most important improvements government could make.

77 percent of UAE citizens believe that assurance of privacy and security is vital to their experience of digital public services, and most of them cite that concerns are the same or greater as they are for digital services from commercial organizations.

What is important to creating a positive experience when using digital services from government?

![Bar chart showing the percentage of the population with different attributes important to a positive experience with digital services.]

Figure 6: Pulse Survey insight—Citizens cited assurance of privacy and security, ability to get their questions answered definitively and personalizing information as the three most important factors contributing to a positive experience of government.
Quality services

Citizens’ regard for the incumbent administration will be influenced by the quality of the digital services it provides. Government should not only offer apps, but it should also ensure that the customer journey and overall service experience is truly positive. No digital native wants to fill out an extensive tax form on a mobile phone, nor do they want to trawl through a multi-layered website to book an appointment. Citizens expect the same or higher level of service than what they experience commercially: to have to provide their personal information only once; to have their questions answered definitively and accurately; to be able to see the live status of their requests so they know they are being dealt with appropriately and so they can hold public workers to account.

Citizens from most of the countries surveyed say that inaccurate search functionality, poor website organization and lack of clear answers to their questions are the top three obstacles when it came to perception of quality of digital public services.

About half the citizens in the UAE (50 percent) and Singapore (49 percent) have higher expectations of digital services from government than they do from digital services from commercial organizations.

Are your quality expectations for government digital services higher, the same or lower than your expectations for commercial digital services?

Figure 7: Pulse Survey insight—Across all countries, the majority of citizens expect the quality of digital services from government to meet or exceed the quality of commercial digital services.
Digital engagement

Citizens now expect information to be organized according to their personalized needs rather than in conformity with rigid departmental and agency structures. ‘Word of mouth’ is as relevant to the public service world and it is influencing buying decisions in the private sector. Citizens are looking for opportunities to drive much deeper engagement with government—on policy and programme design, on the performance of their elected officials, as well as connecting with other citizens through online forums and interest groups. We found that substantial segments of the populations surveyed want to increase their level of digital interaction with government, with 27 percent in the UK and Australia, 33 percent in USA, 40 percent in France and Singapore, 46 percent in Germany, and as much as 76 percent in the UAE.

More than 9 in 10 citizens from the UAE and more than 8 in 10 citizens from Singapore indicate that improvements to digital public services would positively impact their views of government across multiple dimensions.

Only 11 percent of UAE citizens are dissatisfied with digital public services, citing technology issues and a lack of awareness as the main factors preventing them from increasing their use of digital services.

Which of the following would change positively if government improved digital services?

![Figure 8: Pulse Survey insight—Improved digital services would positively impact citizens’ views of government across multiple dimensions, especially among citizens in the UAE and Singapore](image-url)
Digital businesses are directing innovation

Micro-multinationals
Large multinational companies are no longer a core feature of business. Indeed, running a global business ‘at one click’ is now the optimal business model. We call these the micro-multinationals. In OECD countries, small and medium sized-business account for over 95 percent of all firms, for 60–70 percent of employment and for a large share of new jobs¹⁷. Small and medium businesses are also predicted to overtake global multinationals in terms of productivity, efficiency and quality of services. According to Accenture primary research, 85 percent of citizens agree that young companies and startups are critical for creating jobs for young people¹⁸.

Virtualization of business
Advances in modern technology are disrupting the way business is conducted. Almost 75 percent of entrepreneurs that are planning to expand internationally say that digital technologies are important to their success¹⁹. The digitalization of commerce has also significantly reduced barriers to entry for new businesses, enabling the ‘try and fail fast’ formula. As 3D printing becomes more pervasive this trend is spreading to manufacturing.

This combined internationalization and virtualization of business has made it harder for governments to levy taxes and fees. Digital businesses offering a service find intelligent ways of disguising their revenue using transfer pricing loopholes, thereby making it a real challenge to pin them down on matters of tax.

Re-urbanization
As national governments empower cities and metropolitan areas, more and more businesses are choosing to move back into city centres. Cities are once again facilitating business growth by encouraging a collaborative environment through the provision of excellent transport and service links.

20 years ago the suburbs and business parks were the epitome of modern expansion, however now young workers and retired boomers are looking to invest in tight-knit metropolitan areas, where they have access to the right networks of customers, suppliers and partners.

Governments need to be seen as partners to customer–businesses in the future
Digital business can serve customers better because they can adapt, be creative and share the knowledge in real-time with their stakeholders. To serve the public better, governments must do the same through encouraging departments to digitalize, become more open to collaborating and sharing data and be focused on ‘mission productivity’.

Integrated digital ecosystem
Shared data platforms allow governments, businesses and citizens to benefit from their enhanced knowledge about each other. Young businesses, for example, want to get involved with government service programs so they can gain access to more customer information. As the online world grows, interactions between businesses, governments and citizens are becoming ever-more frequent.
Leading by example

Six characteristics of a future-ready government focused on re-building accountability and promoting growth and competitiveness

Investing in digital tools and assuming they will deliver growth and improve competitiveness will be a necessary, but insufficient condition for change. The impact of digital transformation on growth depends on the how bold the vision of a central, regional or local government truly is and how committed it is to seeing it through.

Accenture identified the above six characteristics after extensive global analysis and working with leading governments to harvest examples of which states are most successful at implementing digital transformation. In this study we have focused on the ‘How to’ dimension by developing a toolkit, curating case studies across the world and highlighting best- and next-practice for policymakers to embark on the journey to developing these six characteristics.

Of all citizens surveyed, a majority believed that their willingness to engage with government would increase if it improved digital services.

Engaged citizenry
Building a political culture where citizens are motivated and engaged with their representatives and co-design public policies

Entrepreneurial & performance-driven workforce
Setting the right incentives and conditions for entrepreneurs to thrive and for the public service workforce to be digitally-savvy and productive

Open & insight-driven services
Creating an ‘open-paradigm’ of government and leveraging Big Data to catalyse new digital economies, developing an intelligence-driven response capability

Resilient mission-critical infrastructure
Designing services that are ‘always on’ and robust to facilitate fast-paced technological change, as well as being highly secure, so citizens are assured of their personal data

Collaborative service ecosystem
Collaborating in new innovative ways with the private and third sector and experimenting with new models of public service delivery

Government as a disruptor
Establishing a bold, risk-taking culture of disrupting current infrastructures and processes for a step change in public services

Figure 9: Six characteristics of future-ready government
Putting it into practice

A policy practitioner's guide to developing the six characteristics of a future-ready government with global case studies and next practice

An engaged citizenry is not a characteristic which can simply be assessed by government popularity. ‘Engaged’ citizens are actively involved in the political process of their own volition. In a nation with an engaged citizenry, government and citizens communicate and collaborate in order to fulfil common interests. They also constantly assess and improve the political system together. By involving citizens in the political and executive process, leaders can better understand how to meet their needs. The impact of digital change is dependent upon a collaborative government-citizen environment.

A government that is truly engaged with its citizens also creates a live, online dialogue with its constituents. This goes beyond just the ability to vote digitally, but to be able to give people a voice in the design and delivery of public services, as well as express an opinion on the quality of services offered. What is perhaps most important for government is to demonstrate how they are acting on constituent feedback to continuously improve the service experience.

Only by engaging citizens can a government really re-build accountability

Next practice towards an engaged citizenry:

Establish an omni-channel dialogue—policymakers should be offering as many ways as possible for constituents to join in the electoral and executive process. The end goal should be omni-channel voting, not just pertaining to elections, but allowing citizens to vote or express an opinion on a range of public issues that concern them. They should also be enabled to provide feedback on the performance of their elected officials and offer them innovative solutions to solving major societal issues.

Co-create new policies and programs with citizens—constituent involvement in politics should not begin and end at the ballot box. Future-ready governments should enable citizens to submit ideas and give creative input into the design of policies and programs, thereby opening up the ‘legislative design space’. Leaders should also enable citizens to share ideas for new ways and means of delivering services and also mobilise citizen-groups and digital communities around key themes and issues (e.g. healthy aging, digital literacy) and to become a partner to government in the service ecosystem. Public leaders will be able to give people a say within their communities, their cities and ultimately at the state level.

Promote participatory budgeting—there is no more powerful a driver for re-building accountability than giving citizens the power to shape their own future. Participatory budgeting was first introduced in the city of Porto Alegre, Brazil in 1989, where as many as 50,000 people take part in the participatory process each year to decide on how to spend as much as 20 percent of the city’s annual capital budget. Since then, more than 1,500 cities have spearheaded participatory budgets across the globe. By digitalizing the debate over budgeting, public leaders will be able to give people a say within their communities, their cities and ultimately at the state level.

There is a 20 percent gap between participation rates of young and old voters in France, Germany and the UK.
Case Study 1— e-Estonia

Estonia has become a frontrunner for creating an engaged citizenry through their e-Estonia programme, which has digitalized every aspect of their government services; from monitoring healthcare to registering a new business. In 2005, they introduced i-Votes, allowing citizens to cast votes online for any formal election using their state-issued ID card. In the 2007 Parliamentary election, 5.5 percent of votes were cast online; by 2011, that proportion had risen to 24.3 percent. Not only have i-Votes saved over 11000 working days in processing paper votes, the electoral turnout has risen by 1.5 percent. Estonia has set up an omni-channel dialogue with its people where they feel involved in the political process. Citizen involvement goes beyond i-voting to being actively involved in the legislative process, reviewing white papers, listening to parliamentary meetings and submitting ideas on-line. Through presenting the electorate with many ways of communicating and interacting with the political and executive process, Estonia has without doubt set a leading agenda for building an engaged citizenry.

This national leadership has permeated down to municipal levels as well. In establishing a platform for digital engagement with government and setting a stance as a truly transparent administration, city halls have been able to do the same. Tallinn’s city council for example, now has a similar system to the national cabinet, where citizens can follow all council sessions online and comment on what was said. In addition, city legislation and other documents are available on the home page for citizens to review.
In the new digital world, future-ready governments need to embrace a new “open paradigm”. By playing the role of market-maker government could enable new digital economies powered by open and Big Data, for example. They could also bring in a host of other influencers, including developers, to shape these data sets, design relevant applications and propose service improvements. Governments should look to build its own service architecture on open source approaches, thereby creating a bridge across key public services, enabling seamless collaboration across agencies and jurisdictions, and providing a holistic view of the citizen. From the citizen’s perspective, access to a range of services, be it at city, state or national level should be completely seamless i.e. it shouldn’t matter which part of government actually delivers the service. As we learned in our digital government pulse survey, digital natives are looking for simplicity, ability to get their issues addressed definitively and providing a personalized service experience.

By leveraging the Big Data revolution, governments can derive a wealth of new insights on how people use services or the who is most in need, tailoring and targeting their services and using real-time information to improve organizational efficiency and mission effectiveness.

Next practice towards open and insight driven services:

‘Open up’ public data and systems—we are not recommending opening up sensitive information, but within a rigorous privacy and security policy, government can develop standard protocols, so this data can be discoverable, reliable and interoperable. In New York, this allowed the city leadership to get real-time feeds from 40 agencies, facilitated cross-agency collaboration, and improved resource efficiency.

Build analytics capability for proactive response—Future-ready governments will be enabled by the data revolution and powered by data analytics to become proactive rather than reactive. Combined with customer segmentation techniques, this would enable them to better understand constituent needs and preferences, propose more targeted interventions, forecast trends and proactively address issues key, (for example, tax evasion, and social fraud prevention).

Revolutionise the back office—In order to cope with an exponential increase in data, there needs to be wholesale change to the back office of government. Governments need to deploy the latest productivity enhancement approaches including lean, agile processes and look towards shared cloud-based services. The workforce needs to be upskilled to manage the new technologies and the demands of the digital natives and businesses. Back-office performance should be benchmarked against best in class in both the public and private sector as a useful diagnostic for administrators.

€330m–€550m generated annually in the new digital economy that can be directly attributed to open public data reuse\textsuperscript{24}
Case Study 2—New York City

The NYC DataBridge is a city-wide data sharing platform that assimilates data feeds from over 50 source systems, from roughly 40 agencies and external organizations. This data is merged to fit geographical information and is also used for cross-agency analysis. Readily available data and new cross-agency comparisons will help to encourage a deeper performance management culture, not only pushing agencies towards improvement, but also celebrating agencies that are performing exceptionally well.

Over the past four years, by harnessing Big Data, the DataBridge has directly resulted in: the location of structures at risk of catching fire; the accelerated removal of Hurricane Sandy debris; the identification of restaurants illegally dumping in sewers; and the prevention of illegal cigarette sales.

NYC has also created the ‘Analytics 101’ course for City government employees to provide them with an overview of available data and tools. As employees are gaining new digital skills, leaders can set performance management targets to fit alongside this training and the use of the DataBridge tools.

The city also shares its data with academic institutions, including Columbia University. This is another method of building trust and accountability as Columbia can freely conduct analysis of the data generated by government sources and the extent to which agencies are managing their responsibilities.
Arnaud Mourot, the European head of Ashoka—a leading social enterprise globally—suggests that in order to solve society’s current problems at the necessary scale and speed, it is essential to look beyond the traditional roles of the social, private and public sectors in order to co-construct and co-resolve these issues.

Digital natives, after all, expect a seamless high-quality service, but are agnostic as to who provides it. By working across different actors, the state can become more of a partner, enabler or facilitator, rather than sole provider. A future-ready government would actively seek these partnerships and explore a range of models with different risk and reward structures.

Extending this idea of a collaborative service ecosystem into the future, we could also think of ‘government as a platform’, an idea originally put forward by Tim O’Reilly. We need to think of government providing an open platform that allows both people inside and outside government to innovate. By building a system on open-source technologies, service-oriented architecture, specifying common standards for information exchange and allowing its systems to evolve, government can work with a range of private and third-sector providers to create a range of innovative solutions to address collective problems at a city, state, national, and even international level.

Collaborative service ecosystem

Next practice towards a collaborative service ecosystem:

Promote data sharing whilst ensuring security—Digital leaders will need to establish an effective and safe ecosystem for data sharing. Standardised exchange protocols would form part of the foundation for deep collaboration between sectors. But governments will also need to conduct a proactive analysis of security threats and set up a strong identity management system with ‘single sign-on’ capability. This should allow the user to be authenticated once and authorised to access the full range of services, based on their personalized profile.

Scale innovation through market-making—A lack of scale and limited knowledge of funding avenues currently constitute significant barriers for innovation-minded entrepreneurs and SMEs. But by playing the role of market- or bridge-maker, government can connect these players with suppliers, customers and potential investors. According to a study of young entrepreneurs in the G20, 5 percent of entrepreneurs will go on to create over 50 percent of new jobs, provided government creates the right regulatory environment.

Create networked innovation hubs—A collaborative ecosystem is not simply a digital platform which all involved can access online. It should also involve building physical working spaces and innovation centres where actors can meet and partner to create new products and services. Innovation hubs are office spaces where entrepreneurs and other self-employed workers can connect and offer tools and know-how that entrepreneurs are not likely to have themselves, so that they are presented with the tools to build businesses, share ideas and learn how to monetize them.

The OECD estimates that the value of internet transactions doubles every 12-18 months.
Case Study 3—
The City of London Procurement and Purchase-to-Pay Programme

In 2011, the City of London decided to take a transformative approach to procurement by designing a digital marketplace and collaborating across an ecosystem of partners and suppliers. Prior to the introduction of the new system, the Council used an out-dated service which favoured established businesses and was inefficient on resource-spend. SMEs found it extremely hard to compete because the City Council did not have the capacity to analyze the myriad of individual offerings. The new system however has centralised the procurement of 18 departments and has made the City one of the best local authorities to do business with—especially for SMEs.

The project has led to the creation of multiple e-Procurement tools: e-marketplace; e-invoicing; and an online ‘city buyer’ portal. This has opened up a procurement ecosystem, which has encouraged projects and proposals from the private sector to submit innovative solutions. Selection is based on meritocracy and efficiency, rather than prior work or company size. The unified platforms have helped the City to exploit the latest procurement techniques, such as category and demand management as well as negotiate better with suppliers. They are also wholly-inclusive, across departments, which has allowed SMEs to provide solutions for the Borough as a whole, rather than segmenting services based on departmental divisions.

Overall the new system allows private service providers to compete on a level platform from which the Council can reliably select the best candidate. The change in attitude, to digitalize procurement methods, has allowed the City to make substantial savings - by mid-2014, the Borough had already achieved £21.8 million in savings and was commended at the Public Procurement Awards.29

Figure 12: London
At the moment, governments are viewed as late adopters of innovations that have been tried and tested in the commercial world. They are viewed as neither especially creative, nor pioneering as most pursue a facilitator-type role. Yet Mariana Mazzucato, author of The Entrepreneurial State\(^3\) convincingly argues that major game-changing innovations in the private sector—from the iPhone to the green revolution in biotech—have only come about after the state has made the initial, high-risk investments. Future-ready governments will need to ramp up their risk-taking appetite especially on the digital agenda (e.g. wearables, Internet of Things) to create the next generation of game-changing public goods and services. This risk-taking appetite also needs to be coupled with bolder and more sustained investment in public service transformation if we want to see real impact. With the public sector accounting for nearly half of GDP in most of the OECD countries, government has a critical role to play as economic orchestrator and catalyse the digitalization of public services as well as the digital economy, more broadly.

The Infocomm Development Authority of Singapore has invested $500m into Small and Medium Enterprises’ innovation through information and communication technologies\(^{31}\)

**Next practice towards government as a disrupter:**

**Develop a bold digital strategy**—As in Singapore where leaders have a clear vision for the IDA, government leaders need to develop an ambitious digital strategy, based on such design principles as Digital by Default, Tell us Once, Openness, Agility, and Omni-channel Customer Experience. All relevant agencies should sign up to the overarching strategy and service outcomes targets. The strategy should be continually refreshed to keep in tune with the latest technologies.

**Create a lean, agile and adaptive operating model**—Leading governments will need to be much more disruptive when designing their future operating structures, processes and workforce. We can envision a much leaner (in terms of physical presence) central government, working across a diverse set of private, third sector and community actors. The policymaking process could be digitalized too (as it has been through e-legislation in Estonia), enhancing its ability to be agile and adaptive to new societal challenges. Public service workers will need to have digital skills with the ability to collect and analyze complex data with intelligence-based tools.

**Buy innovation within public services**—Public procurement is one of the key areas governments where government can pull levers to unlock productivity, streamline public spend, and shape economic activity. Here the state can play a true orchestration role using its own economic weight (e.g. across the EU, public procurement accounts for nearly 16 percent of GDP\(^{32}\)). Future ready governments can plant seeds by introducing innovation requirements in pre-qualification criteria, lowering the barriers for SMEs and creating an Amazon.com approach to buying (integrating vendors, consolidating supply chains, creating a digital platform).

A future-ready government will be one that drives innovation, rather than one that responds to it.
Case Study 4—Infocomm Development Authority (IDA) of Singapore

Singapore has a vision of becoming the world's first Smart Nation by bringing disruptive technologies into the public service. The Infocomm Development Authority (IDA), Singapore's dedicated digital authority, is pursuing many different avenues to set a digital agenda for the commercial sector to follow.

A Smart Nation Platform provides access to all public agencies, allowing all actors to connect and share information, and the government to dictate where they communicate and innovate. It is also re-designing the national web infrastructure to allow different actors to connect and understand one another, with the government heavily involved.

The IDA is now running trials in the Jurong Lake District to assess the use of new technologies in public services by partnering with over 20 companies and using 1000 active data sensors.

The IDA hasn’t simply enhanced Singapore’s prowess as a digital nation. It has also reached out to those in the poorest communities, by launching an Internet of Things initiative—IoT@Home—that connects poor households to the internet by offering easy-to-use tablets, smart devices and wearable technologies.

By working with mobile internet providers, the initiative seeks to connect all smart devices across homes in order to promote services such as home-based care and sustainable living. The elderly will be able to monitor their health on a wearable device that connects to their care provider. Overall, the IDA is making significant changes to internet provision in a bid to bring all citizens into the digital present.33
In this dynamic and borderless digital world, governments need to support citizens continuously, and ensure that all services are secure. Digital natives and firms expect to have IT infrastructure that is 'always on', as they are continuously interacting on digital platforms. Downtime for a government service could heavily impact productivity; result in citizen dissatisfaction and even lead to legal non-compliance measures. With Government handling increasing amounts of sensitive personal data (from health records to tax revenue data) it is vital that customer information is handled in a secure and transparent way. With growing digitization, data security and stability is a major concern for both citizens and policymakers, as we have also observed from our global pulse survey. However, its important that privacy and security not be used as a scapegoat for inaction. Citizens in our survey also cite that their concerns towards the security of digital public services are the same as those offered by commercial organizations. The reality is that citizens are now sharing a lot more information with their banks, retailers and even their taxi services so the focus just needs to be on creating the equivalent trusted environment for public services.

Only 12 percent of European web users feel completely safe making online transactions

Next practice towards resilient mission-critical infrastructure:

Introduce stringent security and privacy policies—Government legislation needs to be reviewed to ensure cyber security and data privacy laws are up-to-date. They need to ensure that the transparent and secure handling of citizens data is at the heart of all operations across all departments. Absolute clarity on who owns specific data and what abilities others have to see or use it is essential. Leaders should collaborate across borders to agree on a joint approach to security legislation.

Identify and proactively address threats and vulnerabilities—Threats are emerging from new sources that are harder to locate. Security services need to widen their searches to ensure that they accurately detect new emerging threats in cyber-space. With regards to vulnerabilities, with vital industries becoming increasingly digitalized, more targets are appearing. For the first time, essential private businesses such as water and energy suppliers are visible and accessible online and therefore government needs to put in place robust infrastructure with fail-safe measures to keep services mission-critical 'always on'.

Engineer to be a non-stop government—Government CIOs and IT leaders need to manage risk across the public enterprise by understanding which services are mission-critical and then prioritizing resilience. Once an organization has the technical solutions in place (highly skilled personnel, applications and infrastructure designed to detect early warning signs, security analytics, proactive quarantining, etc.), the most effective response is coordination among peers. This practice has been adopted by the financial services community as a response to repeated pattern of attacks—the victims share architecture recommendations, IP reputation scoring, and provide for continuity in relationships with law enforcement.

Cybersecurity was cited as the number one priority for 2014 in a US National survey, and security is one of the key goals on the Digital Agenda for Europe 2020.
Case Study—Altinn, the Norwegian online portal

Altinn, created in 2002 and updated as part of the Altinn 2 programme in 2010, is a 24/7 online portal that has significantly eased the burden of public reporting for businesses, citizens and administrators. The portal started out as a bottom-up, experimental initiative with limited funds. Now nearly half a million businesses do their statutory reporting through the portal and over 700 different public forms are available. Just three years after the introduction of online tax forms, 85 percent of businesses used Altinn to complete their tax reports, reflecting a strong user-focused design and trust and assurance features built into the system. Businesses can deal with all financial reporting through one single entry point rather than dealing with numerous agencies. The portal also gives businesses a better overview of their financial and regulatory information.

Altinn is designed for resilience, with a strong security infrastructure, providing restricted access to and treatment of data based on user-privileges. The robustness and productivity improvements provided by the portal have encouraged other users to join. It has evolved into a mission-critical service availed by several user groups: Businesses access information on financial regulation and submit data directly from their own systems; administrators engage in interdepartmental cooperation to reduce business burdens; and public authorities use it as a toolbox to produce their own forms and offer innovative services to businesses and the public.
Future-ready governments will seize the opportunity to drive the deep transformation of their workforce that digital natives and micro-multinationals demand. Tomorrow’s workforce needs to be highly responsive and supportive: a true public partner.

As well as up-skilling public workers in technical, managerial and digital skills, governments will need to re-think their career models, offering incentives and fast-track growth for high-performers, whilst empowering them to experiment (fail fast) and take decisions that achieve the best outcomes.

Entrepreneurial and performance-driven public workforce

Next practice towards an entrepreneurial and performance-driven workforce:

‘Govern through’ principle—tight at the centre, loose at the front—‘tight at the centre, loose at the front-line’—Francis Maude, UK paymaster general and minister for Cabinet Office, spearheaded this approach arguing that all discretionary public spend (e.g. spend on real-estate, outsourcing) should be centrally controlled, whilst enabling a diversity of different models (e.g. PPPs, Mutuals, JVs) to loosen the government’s grip on service provision, and allow for innovation in service delivery.

Enable digital entrepreneurs—Digital leaders within the public service can actively seek out digital disruptors and help catalyse innovation. They should identify industries with potential for transformation and high-growth and support them with an enabling regulatory framework. Working with these constituents will in turn create an entrepreneurial mind-set within the public service, which will lead workers to be empowered to take risks and continuously innovate.

Develop strong digital competencies—digital champions in government who are empowered to bring real change will ensure a re-framing of inbetween government culture into one built on digital foundations. In Germany, Italy, Belgium and Sweden, over 40 percent of the government workforce are soon due for retirement. This opens up an opportunity to refresh the current workforce with new talent, especially from other sectors. This needs to be combined with an immersive program to develop technological and managerial competencies within top-cadre officials to drive digital transformation within their agencies.
Case Study 5—Denmark’s ‘Free Municipalities’

Since 2011, the Danish government has empowered public service workers through its ‘Free Municipalities’ programme, which grants special ‘free’ status to nine of the country’s 98 municipalities. As such, a municipality can apply to the Ministry of the Interior to become exempt from a particular rule or piece of legislation. The local authority can then experiment with alternatives and innovative ways of solving a particular challenge. Exemptions can be applied across all key policy areas. Through this program, public workers have been empowered to seek out better solutions to public service challenges.

The fact that any municipality can apply for this free status generates healthy competition among local authorities, which is creating a market-style environment where efficient solutions are promoted. This is a good example of a state government working closely with city halls and effective digital governance across all levels of administration.
We have seen examples from all across the world for how innovation can enable nations to overcome the global challenges of the 21st century. Through establishing the six characteristics, a government will both be able to become a leader of technological change and will ensure effects of digitalization will directly affect growth and competitiveness. It is vital to remember that these principles can be maintained across all levels of government and are not solely intended for national leaders. As shown by our case studies, much of the value from creating an engaged citizenry, for example, is drawn out at the municipal or local level. National legislators should look to work with both international peers and public service workers on all tiers of government in order to transform their state.

Figure 16: Six characteristics of future-ready government
Launching a global network

Collaborating with digital pioneers at national, regional and city level

If Public Service Leaders want to establish themselves as frontrunners, they have to step away from the idea that they merely set favourable conditions for private innovators to operate in. Digitalization, as we have seen in our six case studies, can lead to exemplary public service provision, but only if it is directly endorsed and driven by government. In the cases of Estonia, New York City, London, Singapore, Denmark and Norway, governments have actively taken the initiative to make use of new technologies themselves. This is the future for delivering public services.

The six characteristics covered in this report: Engaged Citizenry; Government as a Disruptor, Collaborative Service Ecosystems; Entrepreneurial & Performance-driven Workforce; Open & Insight-driven Services; and Resilient Mission Critical Infrastructure present leading lights to facilitate this change in government attitude. Through the design of these characteristics, leaders will create a modern public service that is ready for the future.

As shown by the New York and London examples, these principles have a direct impact on city-level transformation. Accenture have also drawn insights from an ongoing project entitled CITIE, a partnership with Nesta (a leading innovation foundation in the UK) looking at what city administrators and Policymakers are doing to promote innovation and entrepreneurship. As part of the CITIE framework, the performance of 40 leading cities is presented across 9 policy levers that can be directly influenced or driven at the municipal level.

This study is not intended simply as a review or assessment. Instead it is designed to encourage leaders to come together and collaborate to inspire many future innovations in the digital space. The highlighted case studies are intended as a starting point for conversations between governments, yet the discussions should not stop there. The only way that digital transformation can become a reality and adopted at depth is through political commitment, peer dialogue and international cooperation.
Footnotes and references

1. Accenture Public Services Pulse Survey on 'Digital Government', January 2015
8. Accenture Citizen Survey, November 2013
16. Accenture Public Services Pulse Survey on 'Digital Government', January 2015
20. Accenture Citizen Survey, November 2013
21. Accenture Public Services Pulse Survey on 'Digital Government', January 2015
30. 'The Entrepreneurial State', Mariana Mazzucato, Anthem, 2013
47. 'The Entrepreneurial State', Mariana Mazzucato, Anthem, 2013
Acknowledgements

Credits

Project Sponsors
Bernard Le Masson
Global Managing Director
Public Service
Accenture Strategy

Dr Majid Altuwaijri
Managing Director—Middle East
Health and Public Service
Accenture Saudi Arabia

Lead Authors
Gaurav Gujral
Global Lead
Delivering Public Service for the Future
Health and Public Service
Accenture UK
Matthew Beer
Team Associate
Delivering Public Service for the Future
Health and Public Service
Accenture UK

Research Team
Lotte Frach
Research Manager
Accenture Germany

The team would also like to thank Nicolas Monsarrat, Steven Hurst, Dr Khalid Al Yahya, Pallavi Lal and Giju Matthew, Giacomo Buonpane, Daria Chetverikova, Caroline Burger, Joanne Veto and Jehan Abdulkarim for their inputs and support.

Legal Disclaimer

This report has been published for information and illustrative purposes only and is not intended to serve as advice of any nature whatsoever. The information contained and the references made in this report are in good faith. Neither Accenture nor any of its directors, agents or employees give any warranty of accuracy (whether expressed or implied), or accepts any liability as a result of reliance upon the content including (but not limited to) information, advice, statement or opinion contained in this report. This report also contains certain information available in public domain, created and maintained by private and public organizations. Accenture does not control or guarantee the accuracy, relevance, timelines or completeness of such information. This report constitutes a view as on the date of publication and is subject to change. Accenture does not warrant or solicit any kind of act or omission based on this report
Contact Details

Bernard Le Masson
Global Managing Director
Public Service
Accenture Strategy
bernard.le.masson@accenture.com

Dr. Majid Altuwaijri
Managing Director—Middle East
Health and Public Service
Accenture Saudi Arabia
majid.altuwaijri@accenture.com

Gaurav Gujral
Global Lead
Delivering Public Service for the Future
Accenture
g.gujral@accenture.com

About Accenture

Accenture is a global management consulting, technology services and outsourcing company, with approximately 319,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world’s most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US$30.0 billion for the fiscal year ended Aug. 31, 2014. Its home page is www.accenture.com.