SPURRING INNOVATION IN GOVERNMENT TO DRIVE ECONOMIC GROWTH AND DEVELOPMENT

INDEX

INTRODUCTION

THE NEED FOR GOVERNMENT INNOVATION IN A CHANGING WORLD

People around the world are demanding that their governments deliver more and spend less. As tax burdens rise, citizens ask why government agencies aren't as responsive as organizations in the private sector, from Amazon to Google. Indeed, governments need to innovate to keep pace with rapid change, adjust to slow economic growth, attract industry and talent and drive economic growth. But they tend to move slowly; governments rarely face the competitive pressures that compel businesses and even social-sector organizations to innovate.

Some visionary governments do recognize the need to innovate, however, and are moving quickly to meet their people's rising expectations in a changing world. The governments making the most progress are borrowing approaches from innovative business start-ups, established companies that are innovative, and other governments. All are pioneers, since few if any public sector institutions have a long history of innovation. Not surprisingly, some governments' attempts to innovate come up short. But regardless of where it is in its innovation journey – whether it is just beginning to build capabilities or already rolling out innovative services – every government can learn and take news steps toward a better future.

In this brief report which was prepared for the World Government Summit 2017, we discuss the powerful trends forcing governments to innovate; three ways they can respond to the pressure to do more with less; and how they can spur innovation to drive economic growth and development, all illustrated with case examples.

DRIVERS THAT DEMAND INNOVATION FROM GOVERNMENT

Governments around the world face a wide range of serious and pressing challenges that will require innovative responses. A century ago, a much larger share of the world's people worked in agriculture and saw their governments as remote and mostly irrelevant in day-to-day life. Few looked to central authorities for education, medical care or retirement incomes, for example, and few had contact with senior officials.

Today, billions of people count on their governments from cradle to grave for transportation, electricity, water, food and drug safety and many other vital services. In our research, five drivers that demand innovation from government stand out: access to technology and an increasingly connected world; rising expectations from citizens demanding greater accountability; global competition for talent and brain drain; growing financial constraints as populations age and economic growth remains sluggish; and urbanization and changing resource landscapes that are forcing governments to rethink traditional development and management models.

1
Access to technology
and an increasingly connected world

2
Expectations from citizens
to participate in government and public decision-making, and expectations of accountability from their leaders
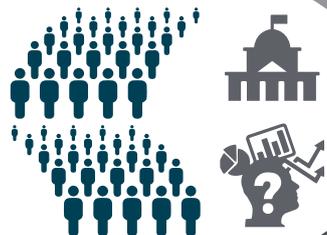
3
Global competition
for talent and brain drain

4
Growing financial constraints
putting pressure on government to limit their spending, raise taxes and change their ways

5
Increases in urbanization
and changes in resources landscape, putting pressure on public infrastructure

- **Access to technology and an increasingly connected world.** New technologies allow leaders to gather support – or lose it – faster than ever before. In his successful run for US president in 2016, Donald Trump connected with his more than 15 million Twitter followers almost every day, bypassing traditional gatekeepers in print and TV media. Turkish president Recep Erdoğan responded within hours to a coup attempt in July 2016 with a video chat on his iPhone. As the video went viral, leaders around the world condemned the coup, the Turkish people took to the streets and the rebellious soldiers surrendered. Around the world, the electoral battleground has moved to social media online forums and endless platforms invite citizens to openly comment and discuss the policies of their government and share their opinions.

- **Expectations from citizens to participate in government and public decision-making, and expectations of accountability from their leaders.** Hundreds of millions of people now know what choice, convenience and efficiency look like, having patronized highly responsive companies from Baidu to PayPal. They're used to contributing information to "crowd-sourced" services from Waze to Wikipedia. And in many countries, they're wondering why government is are so far behind the private sector in responding to their most basic needs.

- **Global competition for talent and brain drain.** Elon Musk, a founder of PayPal, SpaceX, SolarCity and Tesla Motors, has said he had to leave South Africa to pursue his dreams. He's not alone. More than half of the United States' tech startups valued at 1 billion USD or more have at least one immigrant founder and immigrants head two of three of the largest U.S. companies: Microsoft and Google. In the developing world, the pace of the global brain drain has more than doubled in the last ten years. In 2015 alone, 350,000 people emigrated from Russia, ten times more than in 2010. Even India, a powerhouse of innovation and economic growth, faces serious challenges in keeping some of its most talented scientists and engineers.

- **Growing financial constraints putting pressure on government to limit their spending, raise taxes and change their ways.** Global public debt has more than doubled in the last ten years and now stands around $60 trillion (all figures in US dollars except where noted). Even the wealthy Middle Eastern countries have to face new budget constraints under lower oil price scenarios. Longer life expectancies and falling birth rates will strain social welfare systems. In China, ten years ago, just over 200 million people had pensions, mostly in the cities; now, almost 700 million are covered. By 2030, the world's population aged 65 and over will double to a billion – and fewer young people will be working to help pay their retirement and medical expenses. India, Pakistan and many other developing countries have a growing youth bulge that will require enormous investments in education and training to prevent sharp spikes in unemployment.

- **Increases in urbanization and changes in resources landscape, putting pressure on public infrastructure.** In 1990, ten of the world's metropolises qualified as "megacities" with more than ten million people each. Today, 25 cities meet the definition, and most of them are surrounded by slums that are home to a billion people. Most have also have grown faster than their governments can expand basic infrastructure, from roads and sewerage to power grids and hospitals. Indeed, water shortages – which can lead to food shortages – are likely to become more common as climate change accelerates and populations and wealth rise. Expanding global energy requirements will also strain resources and hinder pollution-reduction efforts.

Clearly, governments need to innovate to manage scarce resources wisely and meet people's needs in a changing world. Agencies of all kinds need to overcome the inertia plagues every large organization but is especially powerful in the public sector, where success metrics are opaque and leaders tend to be wary of taking risks or making changes that may make them more accountable. Even the courageous leaders who do attempt multiple radical reforms can create unstable environments where positive impacts are hard to see or measure.

Leaders looking for courage – those attempting to preserve the status quo as pressures mount – should recognize that doing nothing is not an option. Around the world, citizens who want change are prepared to take their demands to the ballot box or, failing that, to the barricades.

THREE WAYS GOVERN-MENT CAN INNOVATE TO SERVE PEOPLE BETTER

To do more with less, governments can innovate in at least three ways: enhance local competition to improve global competitiveness; harness the skills, knowledge and energy of the entire nation, not just of government employees; and scale up existing resources and strengths rather than trying to build new ones from the ground up.

BECOME MORE COMPETITIVE GLOBALLY BY RAISING LOCAL COMPETITIVENESS

In a world where information, capital and talent can cross borders more easily than ever, governments must compete at a global level. For example, multinational companies looking to open new offices and build factories consider a range of factors in each potential location, including taxes, regulatory and bureaucratic hurdles, energy and transportation infrastructure, and the cost and availability of skilled workers and managers.

Some countries are improving these and other important metrics by imposing new requirements on government agencies and their workers. Georgia, for example, ranked 137th out of 153 countries in the World Bank's ease of doing business index in 2008.[1] The country set about addressing the situation by creating five "one-stop shops" – brick-and-mortar centers that each delivered more than 250 government services. Citizens could now register a business in four working days with $29, down from a month and an "unofficial" $150 fee.

The government also began monitoring employee performance and creating competition among employees and agencies, collecting data on error rates and wait times for each "customer," conducting customer surveys and fielding "mystery shopping" teams. By not only monitoring those metrics at an individual level, which few to none government had dared to attempt, those results were also made public for employees to compare their performance with others. These and other efforts dramatically raised transparency and accountability at the level of the individual government worker.

In addition to celebrating and rewarding top performers, Georgia televised the trials of government officials, even policemen accused of bribery, taking public transparency and accountability to a new level. Petty bribery was so ubiquitous among the traffic police, in fact, that president Mikheil Saakashvili fired all 16,000 in one night in 2004.[2] The government adopted new recruiting and promotion procedures and improved salaries and working conditions. It also installed traffic cameras, made spot checks to make sure police were following the rules, and set up a 24-hour hotline for citizens to report requests for bribes.

Using this kind of transparency and explicit competition, including rewards for progress and consequences for failure, Georgia broke down many of the government's "monopolies" on public services. Transparency International's 2010 Global Corruption Barometer showed that Georgia has the world's least corrupt police force after Finland.

Today, the former Soviet republic ranks high in many GII categories: #6 in ease of starting a business; #7 in ease of getting credit; #12 in gross capital formation as a share of gross domestic product; and #10 in net inflows of foreign direct investment as a share of GDP.[3] In 2016, the World Bank ranked Georgia 16th out of 189 countries on overall ease of doing business, ahead of Germany, Canada. Malaysia and France.[4]

The message for other countries is simple: Using data to drive accountability works, but only if leaders have the courage to act on what they find. That may include for example publishing transparently data that may hold the government accountable for not delivering on its promises.

[1] The World Bank Ease of Doing business Report

[2] "Fighting Corruption in Public Services. Chronicling Georgia's Reforms," World Bank, Washington, D.C., 2012

[3] https://www.globalinnovationindex.org/gii-2016-report#

[4] http://data.worldbank.org/indicator/IC.BUS.EASE.XQ?year_high_desc=false

HARNESS THE SKILLS, KNOWLEDGE AND ENERGY OF THE PEOPLE

Around the world, even people who not employed by the government are eager to make life better in their communities and their countries. Many share the same goals, from finding and filling potholes to preventing crime, and they are willing to work towards those goals without pay.

Governments can do more with less by tapping into these valuable sources of information and labor. The possibilities are enormous, especially with modern computing and communications technology. Wikipedia now features 40 million articles in 293 languages[5], all submitted and edited by volunteers and fewer than 300 staff members and contractors.[6]

Consider public safety, for example. Governments can install cameras on every street corner, but the equipment and data analysis are costly. Many citizens watch their own streets for free, however, and are willing to report traffic violations, vandalism and uncollected garbage using telephone hotlines and mobile apps.

In Indonesia, for example, a citizen can send a text message to report an unrepaired bridge. The message appears on a public website and informs the relevant ministry, forcing it to provide a public response and creating accountability. In the United Arab Emirates, people can use a higher tech app-based system to upload pictures and report crimes and traffic accidents to the police.

A few governments are using crowd-sourcing to tap into the brains (and not just the eyes) of citizens. In Austria, government officials and the public can submit new legislative proposals, review current proposals and provide feedback and comments on an online portal called E Recht. In addition to enlisting some of the country's brightest minds, the portal saves about a million euros and 60 tons of paper per year.

Some governments are even asking citizens for "crazy ideas." The UAE, for example, offers a top prize of $300,000 for the student who builds the best app each year. The "Drive Now/Text Later" app, for example, reduces car accidents caused by texting while driving. In the US, any government agency can post a problem on challenge.gov, and the general public can submit solutions. The best entries receive prizes.

New York City was struggling to share transit information with riders to improve their notoriously long and complex commutes. The Metropolitan Transit Authority had mountains of useful data including real-time route schedule changes, service disruptions, station details and traffic updates. It launched an "app challenge" that attracted entries from more than 150 software developers. They created useful apps ranging from subway locators to push notifications of delays. Most of the apps are free to the public, financed through advertising, and citizens can download whichever app is most relevant to them.

Brazil opened its books to the public on a Transparency Portal, publishing a wide range of information, including the expenditures of federal agencies, elected officials' government-issued credit card charges, and companies banned from contracting with the government. Millions of citizens use the portal every year, including the media and activist groups who greatly amplify its impact. Open Accounts, a citizen-run group, trains reporters how to use the portal. They find it an indispensable resource for stories that can generate public outrage and swift official responses. In 2011, for instance, a magazine story on improper credit card use by government officials forced a government minister to repay $30,000 for inappropriately charging personal expenses, including vacation travel, to the government. Kenya, Spain, the US state of Indiana and organizations such as UNESCO have launched similar portals.

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[5] https://en.wikipedia.org/wiki/Wikipedia:Size_comparisons
[6] https://en.wikipedia.org/wiki/Wikimedia_Foundation

SCALE UP EXISTING RESOURCES AND STRENGTHS

Many governments are harnessing technology to deliver services better at lower cost. Faster computers, big data analytics and more sophisticated sensors are helping agencies around the world make great advances in everything from irrigation to law enforcement. But other governments are getting more value from systems already in place.

In the Philippines, corrupt officials were awarding textbook contracts to favored, and often unqualified, publishers who delivered textbooks months after the start of the school year – or failed to deliver them at all.[7] To address the problem, the Department of Education partnered with NGOs to monitor bidding, inspect the quality of textbooks and track deliveries. The process improved, but delivering textbooks to thousands of far-flung islands still presented huge challenges. Rather than build a new delivery system, officials asked themselves who had the best supply chain in the nation. The answer was Coca-Cola. The Department of Education enlisted the company to help deliver text-books and now reports 95% error free, on-time delivery.

Some countries are mixing and matching high- and low-tech approaches to serve end users. In Dubai, the Road Transport Agency is partnering with the Arabian Radio Network to improve road safety by providing all Dubai taxis with sensors to monitor speed and distance from other vehicles. When the high-tech system detects a risk, it sends the driver a voice message through the low-tech radio to slow down.

In Africa, the biggest challenges in reducing disease and mortality are in drug and vaccine inventories and supply chains. Governments are overcoming those challenges with "small data."

In Tanzania, for example, health workers are saving lives by giving the government access to more accurate and re-al-time information than ever – with nothing more than text messages. Public- and private-sector health workers in the program, SMS for Life, send texts to the central government database to update their antimalarial drug stocks.

Some governments are taking a page from the private sector to experiment with varying fee levels for different levels of service: fast-track services cost more, for example, application typing and filing services are available for a fee, and health care providers can pay a small premium to receive a two-year license and avoid an annual renewal.

This approach allows governments to generate revenues that would otherwise go to third parties or bribes, it pro-vides incentives to experiment with delivering better and faster service. One government in the GCC assessed all opportunities to segment services and found it could increase revenues by 10%.

The big lesson is that groundbreaking innovation doesn't always require supercomputers or armies of data scien-tists. Governments around the world are using what they have today to deliver better services at low cost and at scale. Those who can learn from each other and tap into the best ideas will move faster and have a better chance of keeping pace with demand.

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[7] Source: Princeton University, Innovations for Successful Societies

HOW TO SPUR INNOVATION IN THE PUBLIC SECTOR

Like the most innovative companies, governments can foster a "test and learn" environment to develop successful innovations. That means taking risks and investing in a diverse set of experiments and initiatives, acknowledging that not all of them will pay off. This approach cultivates a progressive culture where people see failure as a normal and necessary part of the innovation process. Leaders' roles include sharing a vision, setting priorities and removing obstacles on the path to innovation, such as narrow decision rights and fear of failure that can prevent employees from conducting even small experiments.

Like the best companies, governments that want to be successful innovators need to recognize and reward people for their innovation efforts and amend performance management processes to support innovation. Low-performing companies and governments tend to reward people for turning the gears of bureaucracy and punish those who try to improve or replace the machinery. Innovative companies like Google offer many incentives and awards to recognize and reward internal entrepreneurship, including "Google Founders' Awards" that can amount to millions of dollars. Government can also provide its workers and leaders with incentives, such as civil awards and public recognition, to innovate.

INNOVATING AT SCALE

Governments can start reforms with pilots and scale up innovative ideas that work. A disciplined approach includes explicit go/no go decision points, standard processes to learn from pilots to inform larger-scale operations, and a governance structure that speeds escalation and problem-solving as obstacles emerge.

Employees and citizens should be extensively involved during development and test phases to foster adoption of the new tools and approaches as they are rolled out. Pakistan, for example, has significantly improved attendance and learning outcomes in its public schools by piloting a range of initiatives in a few schools and refining them before launching them across the system.

Governments can set up public innovation agencies to deliver, coordinate and implement innovation and innovation policies. These agencies coordinate government departments to drive innovation, and finance, promote and foster entrepreneurialism and innovation. Some also drive initiatives in collaboration with public/private and tri-sector partnerships. Thailand created its National Innovation Agency in 2009, for example, under the Ministry of Science and Technology. The NIA pursues strategic innovation and sectoral-industry innovation to enhance national productivity, economic restructuring and social development. It provides financial and technical support to innovators and organizes exhibitions and conferences to promote and raise awareness about innovation.

Governments that want to make innovation a top goal need to prioritize innovation projects and balance investments among a portfolio of initiatives. Based on the agreed-upon national vision, leaders must make explicit choices about what innovation projects to pursue and at what scale, ensuring that they all link to the overarching goals. The

most effective innovation portfolios include a mix of initiatives with different risk profiles and timelines to impact, and spread the efforts across government departments. Not every experiment can be conducted; each initiative must have sufficient resources to succeed. High-priority breakthrough initiatives, the government's "big bets," require particular attention. Objective, cross-functional teams should review the portfolio at regular intervals, such as twice a year, and adjust priorities depending on internal and external developments.

CREATING A NEW MARKET FOR INNOVATION

Governments can partner with external organizations and experts to spark innovation. Leaders should take broad, strategic perspectives to identify which types of institutions, organizations and individuals would make productive innovation partners or sources of innovative ideas. These could include universities, think tanks, leading companies, start-ups and software developers. Once the partners are identified, government officials should communicate a compelling value proposition, perhaps offering unique assets that potential partners cannot find elsewhere.

India, for example, has partnered with Google to increase internet penetration in rural areas and deploy innovative rural solutions. Nigeria is working with Facebook to improve ICT connectivity in Africa. Around the world, governments are partnering with telecom companies to drive digital innovation. Estonian mobile operator EMT pioneered the mobile ID, which allows citizens to pay taxes, parking fees and train fares, collect wages and schedule doctor's appointments.

In conclusion, while there are broad principles of how governments can innovate, our research shows it is not a cookie-cutter approach. Each government needs to assess and evaluate the specific measures that will work for the context whether it is Coca cola trucks, digitizing services or public trials on television. However, governments would have much to learn from each other sharing success stories and even more so failures from past attempt in a transparent global forum in an effort to example each and everyone's library of tools and ideas. At the end of the day, one of the first principles of innovation is to look outwards and not inwards and that is the one thing governments that want to innovate need to start doing more of.

APPENDIX: ADDITIONAL CASE STUDIES

SINGAPORE: ATTRACTING AND RETAINING TALENT IN THE PUBLIC SECTOR

In the 1990s, Singapore saw two reasons to reform human resources in the public sector: globalization and global competition for talent were changing employee demographics and attitudes; and practices from colonial times, such as promotion based on seniority, were outdated. As the largest employer in the country, the government also faced the challenge of coordinating, integrating and managing an increasing number of agencies.

In 1995, the government launched "Public service for the 21st century," a movement to encourage officials to embrace change in their daily work and a platform for supporting organizational change in the government itself.

The government devolved HR management from the Public Service Commission (retained to serve only the most senior civil servants) into a system of personnel boards.

The Public Service Division, Singapore's central HR agency for public services, developed a meritocratic framework to appoint and develop civil servants who are collaborative, service-oriented and strong performers. The government gives high-potential students full scholarships to attend top universities, in return for which they must work for the government for several years after graduation. Members of the civil service can apply for sponsorship for postgraduate study as part of their career development.

Singapore's civil service has a strong focus on training, with officers receiving 100 hours per year. A dedicated training college, Singapore Civil Service College, offers more than 150 courses.

To ensure that the public sector retains a fair share of the nation's talent, civil service salaries are comparable to those in the private sector. Pay is also linked to performance, with bonuses for high achievement. The system is being adjusted so that pay progression is based not on fixed annual increments but on potential and performance assessments. Periodic salary reviews maintain market competitiveness with the private sector. In August 2014, for example, employees received a 5% pay increase across the board.

Impact

Singapore's civil service has been hailed as a model for the world in terms of meeting citizen's needs, despite spending levels as low as 19% of GDP. In a recent study, 56% of respondents expressed satisfaction with Singapore's public services, compared to a global average of 36%. Measured by the World Bank's Worldwide Governance Indicators, Singapore ranks almost best-in-class among countries for effectiveness, regulatory quality, rule of law and corruption control.

DENMARK: MINDLABS FOR RAPID PROTOTYPING AND USER FEEDBACK AT EARLY STAGES OF SERVICE DELIVERY AND DESIGN

Denmark's ministries for Taxation, Employment and Business and Growth set up an innovation lab to involve citizens and businesses in policymaking. They use targeted interviews, rapid prototyping and early end-user feedback to advise their parent ministries on policies.

From providing workshops on design-thinking to employees of the ministry, MindLab grew to become a facilitator for citizen and company involvement in public sector solutions.

Impact

The tax ministry considered developing a smartphone app to do taxes on the go, but focus groups revealed that few citizens wanted an app that held highly sensitive tax information. Scratching the project saved the ministry thousands of euros in product development – an example of "smart failure" in innovation.

MindLab produced several prototypes of services to assist the families of dementia, and tested their feasibility with families, civil servants and healthcare workers.

UNITED STATES: CHALLENGE GOV. TAPS NEW SOURCES OF IDEAS

In 2009, President Obama laid out a strategy for American innovation that called on government agencies to foster innovation by offering challenges and prize money.

Many agencies developed their own one-off contest web platforms, which created a need to reduce expensive duplication of efforts by forming a consolidated platform.

The US General Services Administration in 2010 set up an online challenge platform where any government agency can post online a specific problem the government must solve, and the general public submits solutions.

The best entries win prizes (often co-sponsored by private companies), but the government pays the prize money only if a winning submission fulfills all the contest criteria.

Impact

As of November 2016, more than 80 agencies have run about 650 competitions, and about 250,000 people have participated, winning prizes worth more than $220 million.

For example, the DOE/Progressive Automotive X Prize challenged the private sector to build a production-capable car that gets 100 miles per gallon. The $10 million prize yielded $100 million in investment.

UNITED ARAB EMIRATES: A STAR RATING SYSTEM TO IMPROVE SERVICE LEVELS IN THE PUBLIC SECTOR

Government entities heeded the UAE leadership's call to enhance their front-facing processes for citizens through the Star Rating Program which uses private sector standards for the quality of service delivery and private sector approaches to identify problems. Launched in 2011, the program has a detailed, measurable citizen feedback process that focuses improvements on the issues that matter most to them. Entities across the UAE are evaluated once every two years on eight criteria: strategic alignment, citizens, services, channels, citizen experience, service efficiency and innovation, people, and technology. The entities are given both a plaque with their classification and an evaluation report with recommendations to improve the level of their service delivery.

Designing such a system is the easy part; gaining acceptance from government entities was the much greater challenge. To overcome initial resistance, the central government held roadshows, workshops, and promotions that local and federal governments attended to get familiarized with the new system. A few entities volunteered to conduct pilots, rating themselves on the assessment. Finally, UAE's leadership reinforced the importance of the program and the need to rate all services with equal standards and transparency.

Impact

To date, all government entities have been rated between three and five with a roughly equal distribution and no entity has received the seven star rating. The criteria to obtain a seven-star rating are designed to be very challenging so that any entity that attains them is comparable to the best of the private sector. A seven-star rating means that the entity: innovated across all eight elements; maintained consistent citizen and center staff satisfaction of at least 95 percent during the last three years; and maintained a record low cost per service. His Highness Sheikh Mohammed Bin Rashid Al Maktoum has encouraged entities to work toward the highest rating, saying that "[even though] the centers with a five star rating are highly appreciated, we expect them to go for the seven star rating."

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