



The Journey to Digital Government 5.0

Part 1: The Evolution and Characteristics of Mature Digital Government



www.pwc.com/me

Contents

Why Digital Government? An Introduction

03

The Evolution Towards Government 5.0

05

The Characteristics of Government 5.0

08

The Benefits of Achieving Government 5.0

15

Conclusion

17

References

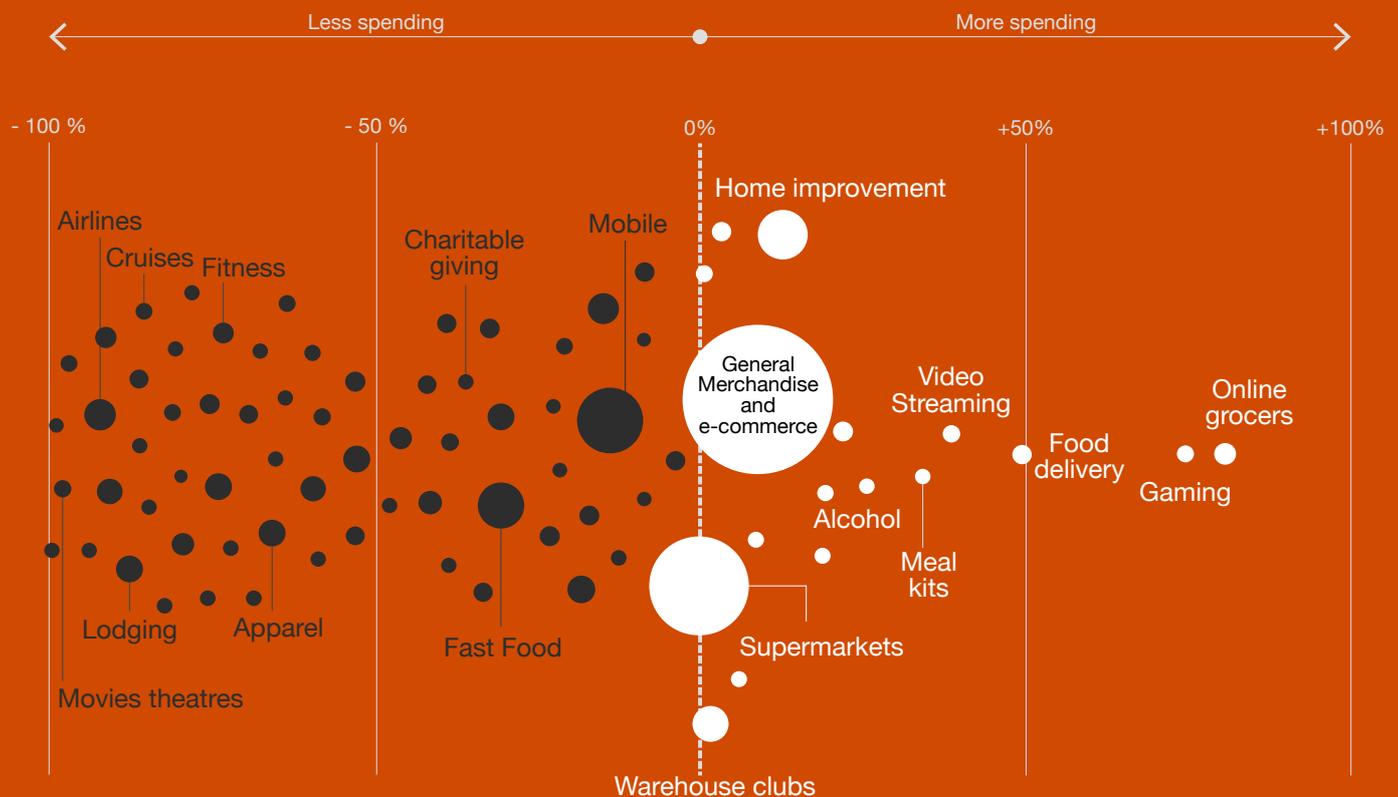
18

Why Digital Government? An Introduction

Digital government is defined as “the use of digital technologies, as an integrated part of governments’ modernisation strategies, to create public value”, according to the OECD Recommendation of the Council on Digital Government Strategies (OECD, 2014a).

The concept of digital government represents a fundamental shift in the way governments around the world are approaching their missions. From setting measurable administrative goals and making data-driven decisions to ensure greater accountability and transparency, governments are leveraging the power of information technologies in new and innovative ways. From automation and digital government platforms to IoT-connected-cities, governments are using technology to improve their services and the lives of their citizens. Governments have implemented digital platforms that allow citizens to access government services from the comfort of their homes and are using large quantities of data and sophisticated analytics to support decision-making and facilitate two-way communication with their citizens.

On a global scale, the COVID-19 pandemic has further strengthened the shift towards digitisation of the economy, forcing governments and the private sector alike to rethink their business models. The New York Times reported increased spending in digital businesses in April 1, 2020 as compared to the same week in April 2019.



Change in spending from 2019 for the week ending April 1. Bubbles are sized by industry size.

Despite the drivers towards digitisation, there are several challenges impeding the digital transformation of governments across the world. The OECD's Observatory for Public Sector Innovation (OPSI) and the UAE's Mohammed Bin Rashid Centre for Government Innovation (MBRCGI) have reported lags in the transformation of government-citizen service delivery and associated policymaking. Furthermore, the UN Data Revolution Report suggests that many countries continue to have poor data and issues with leveraging the value of their national data assets. Due to such challenges, governments' progress towards digital maturity is moving at varying paces.

In the first part of this two-series report, we explore the evolution of government services from Government 1.0 to Government 5.0 as well as the characteristics and benefits of achieving digital government maturity.

While the second part focuses on the GCC experience with digital government evolution, exploring the recent strides of GCC countries in digital government as well as related challenges.





The Evolution Towards Government 5.0

Over the years, digital government has evolved through key stages, transitioning from the digitisation of individual government services in Government 1.0 towards the development of a citizen-centric model that provides services centred around citizens' life events in Government 5.0.

1.0 Emergence



Individual service delivery | **Focus:** Service access

- Focuses on the **delivery of standalone services**
- While they might excel at quality and design services, **services are standalone**

2.0 Industrialising



Scaling service delivery | **Focus:** Value chain

- Shift **focus to digital divide and equitability to ensure comprehensive access** of government services
- Do not yet understand holistic impact of services

3.0 Automation



Efficient services delivery | **Focus:** Operating model

- Focus on **refining operating models** and on practicality of service delivery
- This helps realise the **benefits of aligning service delivery across the entity**

4.0 Digitalisation



Whole-of-government service delivery | **Focus:** Business model

- Efforts shift **toward whole-of-government alignment**
- One-stop-shops, proactive service delivery, and data sharing become the topics of focus

5.0 Personalisation



Whole-of-life service delivery | **Focus:** Citizen model

- Mindset shifts from the business model to the **citizen model**
- Governments **interact with citizens through life events** and tailoring services to citizens' lives

Governments at level 1.0 focus on the delivery of standalone services. While they might excel at ensuring high service quality or a superior user experience for individual services, the services are standalone and specific to an entity, and cross-department integration is not present. Thus, government departments provide digital services independently and communicate with citizens in a siloed manner.

When they evolve to **Government 2.0**, they start to focus on the scaled adoption of digital services, ensuring that they are accessible to everyone. At this stage, governments focus on digital inclusion and accessibility, However, government services continue to operate in silos and the holistic impact of government services is not yet fully or widely understood.

Government 3.0 focuses on refining operating models in order to enhance efficiency. This occasionally leads to a reduction in the number of government services and platforms available, but often initiates the journey to aligning service delivery across government agencies to achieve a more seamless and integrated digital government.

As a result, at **Government 4.0**, the efforts shift toward whole-of-government alignment and enabling citizens to interact with different government departments as a single entity, oftentimes through a single platform. At this stage, governments work on breaking down the barriers of interoperability, incompatible standards, siloed processes, and disparate data sets that have been hindering seamless digital government.

During this stage, governments will often realise that interactions with citizens are typically initiated by so-called life events i.e. changes in circumstances that trigger a need for a product or service. Such life events may include a birth, death, change of employment status, change of marital status, etc. Different life events trigger the need for different services, and most of these services require the intervention of more than one government agency. Thus, governments realise that, for true citizen-centricity, a whole-of-life approach is required.

Therefore, at level **Government 5.0**, governments shift their mindsets towards the citizen models, aligning their service delivery and government processes to citizens' lives, rather than expecting the citizens to fit into governments' processes. At this stage, services from different government agencies are structured around citizen life events in a seamless and predictive fashion, where minimal intervention and communication is required from the citizen. In the event of a certain life event, the various government agencies involved will be triggered to offer their different services to the citizen through a single channel. For example, a birth would trigger various ministries such as the Ministry of Health, Identity Authority and Public Insurance Authority to issue a birth certificate, trigger changes in identity documents and trigger changes in health and life insurance policies.

Within this framework, governments across the world are at varying levels of maturity. The GCC governments, explored in detail in the second part of this two-series report, sit broadly around Level 3.0 where they are currently focused on improving digital accessibility and improving efficiency. However, many GCC governments – Saudi Arabia and UAE in particular – have set their sights towards evolving to a whole of government and citizen-centricity within the next few years.

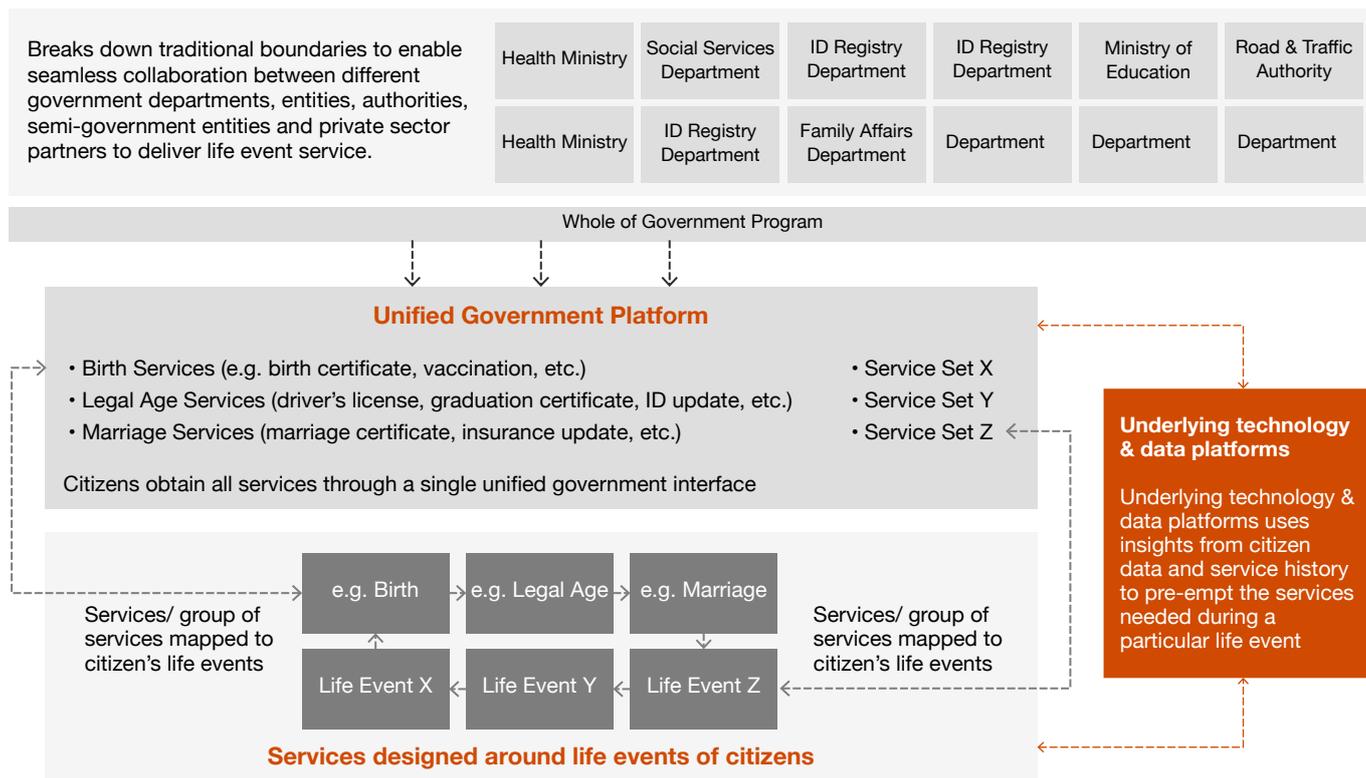




The Characteristics of Government 5.0

Digital Governments at 5.0 maturity exhibit a whole-of-government approach that emphasises the coordination across departmental boundaries to deliver seamless, citizen-centric services. The main concept of Digital Government 5.0 is to develop services centred around citizens' life events, accessed through a single interface, and enabled by seamless collaboration across departments.

Governments that have achieved a 5.0 maturity are able to coordinate the efforts of various government agencies seamlessly in order to break down the traditional boundaries between different government departments, entities, authorities, semi-government entities and private sector partners, to deliver services designed around the life events of citizens. One Government 5.0 example already underway is the Department of Having a Baby. The Australian Federal Government's Digital Transformation Agency is working to re-design services to remove the complexity of engaging with multiple different departments for this one life event, ensuring a consistent service delivery standard across the board.



A mature digital government that has achieved Government 5.0 maturity would exhibit several key characteristics:



Digital by Design

Establishes clear organisational leadership where “digital” is considered not only a technical topic but a mandatory transformative element.



Citizen-Centricity & Customer Success

Accords a central role to citizens’ needs and convenience in the shaping of processes, services and policies.



Built on E-Participation

Employs a holistic e-participation framework to define the methods, policies, roles, tools and metrics that drive up service usage and adoption.



Data-Driven

Values data as a strategic asset and establishes the governance, access, sharing and re-use mechanisms for improved decision-making and service delivery.



Government as a Platform

Deploys platforms, standards and services to help government teams focus on user needs in public service design and delivery.



Open by Default

Enable public access to government data and policy-making processes at no cost in order to improve government accountability and responsiveness.



Ease of Policy Formulation

Development of policies and regulations that are suitable for the digital age, widely accessible, and easy to comprehend.



Digital by Design

For the digital transformation of government to succeed, the public sector needs to be digital by design. According to the OECD Digital Government Policy Framework, this involves mobilising existing and emerging technologies to re-imagine business processes and re-engineer business models.

According to the OECD's E-Leaders Governance Handbook, an approach that is "digital by design" ensures, through clear leadership and effective coordination mechanisms, that "digital" is considered not merely as a technical topic but rather as a mandatory transformative element to be embedded throughout the various stages of the service lifecycle, while enabling multi-channel service delivery.

In addition to digital technologies, this approach necessitates a focus on digital skills enhancement and digital culture. The right skills, capabilities and organisation structure to innovate, design, develop, implement and enhance digital services are required to complement digital tools. It also involves developing the infrastructure and success factors required to drive adoption of digital services i.e. ensuring connectivity and access to services.

Over the years, several OECD states have exemplified "digital by design". In Norway, Portugal and the UK, services are seamless across different channels and the public sector continues to invest in and benefit from digitalisation by ensuring that no citizen is left behind due to uneven access or lack of digital skills. Another example of embedding digital is Estonia's X-Road government platform which supports service delivery and data sharing between over 900 organisations and enterprises nationwide.



Citizen-Centricity & Customer Success

The main concept of Government 5.0 is citizen- and beneficiary-centricity, whereby traditional boundaries between government agencies are overcome to deliver integrated services around the life events of citizens and residents (there are a considerable number of expat residents in the GCC countries who rely on the governments' services). To enable citizen-centricity, some governments have begun to adopt the principles of customer success and incorporated them into their digital transformation governance models.

Customer success is a cross-functional strategy that links functional processes to customer outcomes, ensuring customers achieve success in terms of their desired outcomes when using a product or service. This drives service adoption and, potentially, service renewals and expansion. For governments, it is centred around citizen-and-beneficiary satisfaction and ensuring that service usage is helping citizens transition from one success milestone to the next.

Although this concept finds its origins in the technology industry and specifically in software as a service (SaaS) business models, governments have begun to incorporate its principles into their digital transformations in order to ensure competitiveness of government digital services, superior service quality and high levels of citizen satisfaction.

Citizen success consists of several components, employed at different stages of the service lifecycle, from onboarding to relationship development and subsequently service usage and adoption, before culminating in service improvements and expansions. These components include:

Components of customer success:

01 Citizen segmentation
Segmentation of citizens and beneficiaries into logical groups in order to appropriately customise experience.

02 Citizen Orchestration
Manage citizen expectations during onboarding, define success milestones and design overall experience.

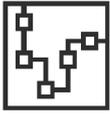
03 Intervention
Proactively intervene in the appropriate way for that citizen segment to move from one success milestone to the next.

04 Impact Measurement
Measuring the success of citizens as well as measuring the impact of the citizen success strategy in a holistic way.

05 Citizen Service & Communication
Proactive communication to guide citizens and beneficiaries or reactive communication to resolve an issue.

06 Citizen Analytics & Instrumentation
Collect data on the citizen's interactions with the government, across their lifecycle.

07 Operationalisation
Utilise the data collected during instrumentation, analyse based on the Government's citizen success strategy, and implement actions accordingly.



Built on E-Participation

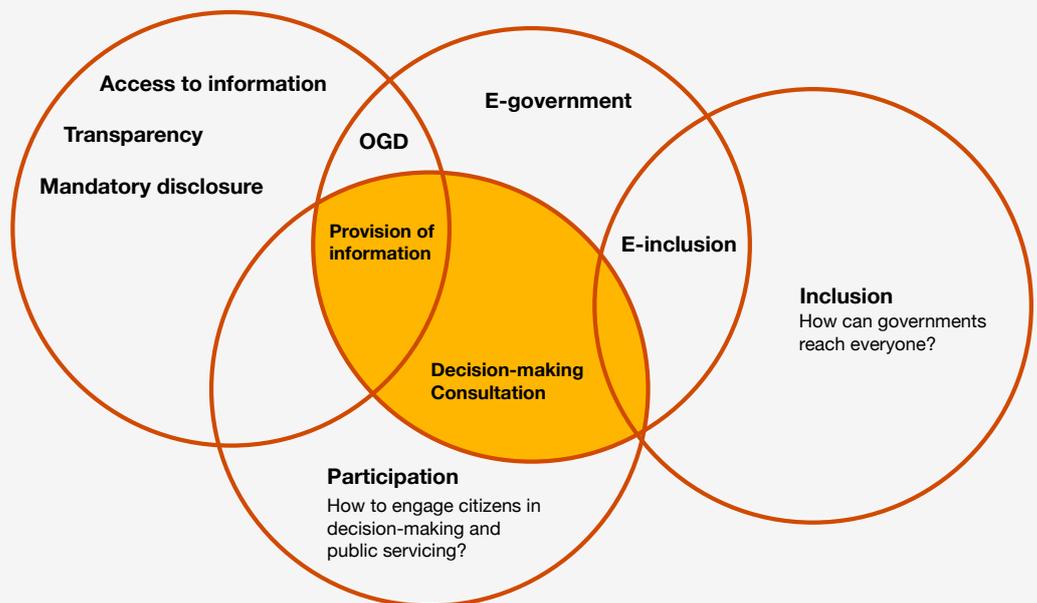
E-participation, as a concept, has been in the public domain for almost two decades. Growing evidence points to the rapid expansion of e-participation as a tool for engagement and strengthened collaboration between governments and citizens.

The UN defines e-participation as “the process of engaging citizens through ICTs in policy, decision-making, and service design and delivery so as to make it participatory, inclusive and deliberative”. Its objective is to improve access to information and public services as well as to promote participation in policy making, both for the empowerment of individual citizens and the benefit of society as a whole.

E-participation is not only a subset of participation and e-governance but is also closely related to other elements of governance such as citizen inclusion, transparency and accountability.

Relations among e-participation and selected governance concepts

 E-participation



Data-Driven

Another characteristic of mature digital governments is that they are data-driven, leveraging their national data assets to generate insights that improve decision making and develop advanced analytics and artificial intelligence use cases.

In the public sector, the role of data in ongoing digital transformation has come up against legacy technologies, skills shortfalls and legal obstacles. Some countries have made significant progress in strengthening their capacity to use data strategically to improve policy making, service delivery or performance management. (OECD, The Path to Becoming a Data-Driven Public Sector).

According to the OECD’s 2019 “Government at a Glance” report, most countries have either improved or sustained their performance in managing and leveraging data since 2017. There have been major improvements in countries like Ireland that have launched Open Data and Public Service Data strategies. Countries, including Poland, Latvia, the Czech Republic and Greece are catching up due to strong domestic political leadership and support from the EU.

A truly data-driven public sector recognises data as a key strategic asset with its value defined and its impact measured. Thus, mature digital governments provide a cross-government, coherent approach to data governance as well as a data architecture that reflects standards, interoperability and semantics across government agencies. In addition, mature digital governments are developing the necessary data regulations and the required data infrastructure to support the publication, sharing and re-use of data.



Government as a Platform

The term “Government as a Platform” is used to refer to a common core infrastructure of shared digital systems, technology and processes on which user-centric government services can be easily developed. This includes the whole ecosystem of shared APIs and components, open-standards and canonical datasets as well as the services built on top of them and the governance processes that maintain accountability.

This is a key characteristic of Government 5.0 and ensures that mature digital governments are:

Equipped with the right building blocks to improve the quality of citizens’ experiences.

Avoiding duplications and reducing costs.

Creating a shared digital infrastructure.

Designing end-to-end services around the needs of citizens rather than the organisational structure of the government.

Identifying the right burning platforms and focusing on the right challenges.

Maintaining transparency and accountability.

Preventing lock-ins due to dependence on one type of technology.



Open by Default

Mature digital governments are open by default, which means that government data, government knowledge assets and government policies and procedures are made publicly available to citizens and the private sector at no cost, unless there are privacy, security or legal reasons not to release the data.

An open by default approach describes the extent to which an agile and proactive government uses and shares digital technologies and tools to communicate, engage, collaborate with and build bridges between all actors in order to collect insights towards a more knowledge-based public sector (OECD, 2019).

The principles of open data support countries in their efforts to build more transparent, accountable and participatory governments that can restore citizens’ trust and promote inclusive growth.



Ease of Policy Formulation

Finally, mature digital governments have the procedures in place to formulate and roll out policies and regulations for the digital age. In the quickly evolving world of digital technologies, existing regulations and policies are often found lacking. Regulating for the digital world requires a fine balance between safeguarding personal privacy and democratic values while still encouraging entrepreneurship and not harming competition. Moreover, digital regulations need to consider the ecosystem at large and the needs of every player rather than just being single-sided. Therefore, regulating for the digital age will present unique challenges for both the regulatory bodies as well as for the economic players.

Mature digital governments are able to formulate policies and regulations that are built for the digital age, widely accessible and easy to comprehend. Effective digital policies should outline the mechanisms of compliance and should provide choices for government agencies, wherever possible, in terms of potential actions, technologies and engagement strategies, thus enabling government entities to make informed decisions with complete knowledge of the trade-offs.



The Benefits of Achieving Government 5.0

Governments that have achieved the whole of government approach, citizen-centricity, digital and e-participation characteristics are well-positioned to reap various benefits.

Such governments are positioned to achieve enhanced collaboration after breaking silos across government departments. This facilitates information sharing and improved efficiency, while allowing governments to leverage synergies across government agencies.

Governments with 5.0 maturity also understand their citizens better and achieve better outcomes. They are able to develop digital services that benefit from technologies used in private sectors such as banking, and commerce. This necessitates a process of constant technological evolution, where governments constantly assess current technologies and the value they provide as well as corresponding policy-making and regulatory challenges. Thus, mature digital governments are better positioned to find new solutions to policy challenges and to explore new business models.

Mature digital governments place increased focus on investment optimisation. Governments that have achieved digital maturity are often more adept at collating the procurement experiences of government agencies across the board, in order to optimise government spending and investment on digital initiatives.

This also has the added benefit of enabling further engagement with external partners to develop new delivery models. Outsourcing or delegating work to third party providers can sometimes be a better way to provide citizen services, often more efficiently and at a lower cost to the taxpayer.

Armed with innovation, investment-optimisation and agility, mature digital governments are well-positioned to commercialise some public services to develop fresh sources of revenue.

Furthermore, technology and digital will contribute significantly to economic growth. According to the OECD, increases in the Digital Ecosystem Development Index (which measures improvements in a nation's digital infrastructure, production digitalisation and digital regulatory frameworks among other factors) will improve GDP between 1-3% across different regions, as exhibited in the table below.

<p>Africa</p> <p>Increase in the CAF Digital Ecosystem Development Index 10%</p> <p>Change in GDP per capita +1.90%</p>	<p>Arab States</p> <p>Increase in the CAF Digital Ecosystem Development Index 10%</p> <p>Change in GDP per capita +2.49%</p>	<p>Americas</p> <p>Increase in the CAF Digital Ecosystem Development Index 10%</p> <p>Change in GDP per capita +1.90%</p>
<p>Asia-Pacific</p> <p>Increase in the CAF Digital Ecosystem Development Index 10%</p> <p>Change in GDP per capita +1.89%</p>	<p>CIS</p> <p>Increase in the CAF Digital Ecosystem Development Index 10%</p> <p>Change in GDP per capita +2.07%</p>	<p>Europe</p> <p>Increase in the CAF Digital Ecosystem Development Index 10%</p> <p>Change in GDP per capita +1.36%</p>

Conclusion

On a global scale, digital government is now viewed as the path towards enabling national agendas, achieving economic diversification and developing a more sustainable future. Digital government is considered integral in managing and directing the process of change and reform that will boost public confidence. Although governments across the world are at different stages of digital government maturity, all governments should be shifting focus towards citizen centricity and building services around citizen life events in the coming years. This would help governments enable more efficient business models, achieve higher citizen satisfaction, and reap various economic benefits. However, the challenges associated with this are not simple.

Governments struggle with reviewing their digital policies, legislations, and regulations to accelerate the transition to accessible e-government services. The digital regulation of the future must include an overarching policy to enable whole-of-government participation and drive a call to action for alignment with digital government strategic direction through policy focus areas aligned with strategic priorities.

Governments must also tackle issues of digital trust and foster confidence in the credibility and security of digital services. This is underpinned by having strong cybersecurity strategies and capabilities.

Robust and clear governance is needed to foster trust in digital public services and alter the relationship with citizens. This involves educating citizens on e-government initiation in order to ensure better participation and engagement.

Finally, citizen-centricity is key, and focus should be placed on quality assurance, speed, agility and adherence to service level agreements through an integrated customer management framework.

In recent years, GCC governments (Saudi Arabia, United Arab Emirates, Qatar, Bahrain, Oman and Kuwait) have embarked on various initiatives aimed at enhancing digital government services to citizens, residents and businesses both at the national level and at the GCC level.

The onset of COVID accelerated the scope and variety of digital government services in the GCC countries, where governments have played a particularly central role across a range of social services and healthcare delivery. Several GCC countries launched contact tracing apps such as the Kuwaiti “Shlonik”, used to monitor home-quarantined returnees, and the Emirati Dubai Health Authority app, covering testing and vaccination rollout. Saudi Arabia’s Ministry of Health’s “Tawakalna” app allows citizens to request and manage movement permits, notifies them of nearby cases, and facilitates reporting of suspected cases.

The second part of this report will explore the state of digital government in the GCC countries, diving into recent digital government use cases and initiatives, current and upcoming challenges to GCC government digitisation, and the recommended way forward for our GCC government clients.

References

- <https://www.worldbank.org/en/topic/digitaldevelopment/brief/digital-government-for-development>
- <https://www.undatarevolution.org/report/>
- <https://www.oecd-ilibrary.org/docserver/9789264251823-15-en.pdf?expires=1621744080&id=id&accname=guest&checksum=1E6B9F7CDE72059F0F115C181A27B6DE>
- <https://www.digitalpulse.pwc.com.au/government-5-0-whole-of-life-service/>
- <https://www.itp.net/601968-digitalization-of-govt-services-brings-wide-benefits-says-accenture>
- <https://gulfbusiness.com/explainer-the-shift-to-digital-governance-in-the-gcc/>
- <https://www.egic.info/digital-transformation-in-the-gcc>
- <http://www.ieomsociety.org/detroit2020/papers/445.pdf>
- <https://www.oecd.org/mena/governance/An-exploratory-look-at-public-sector-innovation-in-GCC.pdf>
- <https://www.tamimi.com/law-update-articles/data-protection-and-privacy-issues-in-the-middle-east/>
- https://www.zawya.com/mena/en/business/story/Data_security_biggest_challenge_for_GCC_companies_survey-SNG_162331285/
- https://www.researchgate.net/publication/260751250_E-Government_in_the_Gulf_Cooperation_Council_Countries_GCC_A_Comparative_Study/link/54ec6c650cf2465f532ee2ba/download
- <https://www.oecd.org/gov/the-oecd-digital-government-policy-framework-f64fed2a-en.htm>
- <https://www.oecd-ilibrary.org/docserver/f64fed2a-en.pdf?expires=1621790325&id=id&accname=guest&checksum=4F-27CA5CB90B66D709AF692B7719248C>
- <https://www.govloop.com/the-future-of-government-innovation-being-digital-by-design/>
- <https://blog.digis.im/conferences/digital-by-design/>
- <https://www.publicsectorexecutive.com/News-archive/digital-by-design>
- <https://gcn.com/microsites/2017/blackberry-digital-gov-snapshot/internal-pages/digital-by-design.aspx?m=1>
- <https://www.customersuccessassociation.com/library/the-definition-of-customer-success/>
- <https://publicadministration.un.org/en/eparticipation>
- <https://publicadministration.un.org/en/Themes/Participation-and-Accountability/E-Participation-News>
- <https://oecdonthellevel.com/2019/11/28/how-can-we-achieve-data-driven-government/>
- <https://www.oecd.org/gov/open-government-data-report-9789264305847-en.htm>
- <https://www.oecd-ilibrary.org/sites/059814a7-en/index.html?itemId=/content/publication/059814a7-en>
- <https://www.oecd.org/digital/digital-government/working-paper-a-data-driven-public-sector.htm>
- <https://gds.blog.gov.uk/category/government-as-a-platform/#:~:text=Government%20as%20a%20Platform%20is,%2C%20user%2Dcentric%20government%20services>
- <https://www.capgemini.com/2020/03/three-perspectives-on-government-as-a-platform/>
- <https://www.oreilly.com/library/view/open-government/9781449381936/ch02.html>
- <https://www.oecd-ilibrary.org/sites/bbd35cb9-en/index.html?itemId=/content/component/bbd35cb9-en>
- <https://www.pwc.com/gx/en/tmt/5g/global-economic-impact-5g.pdf>

Contacts



Fadi Komati
Technology Consulting,
Partner

fadi.komati@pwc.com



Joseph Abboud
Technology Consulting,
Director

joseph.abboud@pwc.com



Wassim Hassouneh
Technology Consulting,
Director

wassim.hassouneh@pwc.com



Sana Amin
Technology Consulting,
Senior Manager

sana.amin@pwc.com

Co-authors

Luv Nijhawan

Thought Leadership Research Manager

luv.nijhawan@pwc.com



At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 156 countries with over 295,000 people who are committed to delivering quality in assurance, advisory and tax services. Find out more and tell us what matters to you by visiting us at www.pwc.com.

Established in the Middle East for 40 years, PwC has 22 offices across 12 countries in the region with around 7,000 people. (www.pwc.com/me).

PwC refers to the PwC network and/or one or more of its member firms, each of which is a separate legal entity. Please see www.pwc.com/structure for further details.

© 2022 PwC. All rights reserved