DEPARTMENT OF PUBLIC SERVICE AND ADMINISTRATION

NOTICE 2728 OF 2024

PUBLIC SERVICE ACT, 1994 (PROCLAMATION NO.103 OF 1994)

DRAFT DIGITAL GOVERNMENT POLICY FRAMEWORK

The draft Digital Government Policy Framework is made available for public comment.

The Draft Digital Government Policy Framework proposes to provide guiding principles to identify and develop policies required to transform the public service using digital technologies.

Electronic copies of the draft Policy Framework may be obtained from the DPSA website: www.dpsa.gov.za.

All interested persons and stakeholders are invited to submit written comments on the Draft Digital Government Policy Framework, within 30 working days from the date of publication of this notice by-

a) Emailing comments to: NtsimaneN@dpsa.gov.za or Tshifhiwa.Mudau@dpsa.gov.za

b) Posting comments to:

Director-General
Department of Public Service and Administration
Attention: e-Services Directorate
Private Bag X916
Pretoria
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Kindly provide the name, address, telephone, and email address of the person or the organisation submitting the comments.

DRAFT DIGITAL GOVERNMENT POLICY FRAMEWORK

MAY 2024

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1 INTRODUCTION

Digital transformation has widespread and complex effects across the economy and society. It impacts many policy domains and makes trade-offs between public policy objectives more difficult to navigate. For example, digital technologies played an indispensable role in holding civil society together as the COVID-19 pandemic emerged, supporting the provision of basic public services and fundamental services in the health, education, and safety and security sectors as in-person access to such services grew increasingly limited. The pandemic has amplified the importance of e-government and digital technologies as essential tools for communication and collaboration between policy makers, the private sector, and societies across the globe.

In South Africa, the Department of Health created an online COVID-19 information centre which shared data on COVID-19 monitoring board, provincial viewer, survey and data submissions and a platform for provinces to share different documents. The Department created a COVID Alert SA app to complement and strengthen the existing methods as a powerful tool to enable the instant notification of contacts following a positive test. The South African case is an example of how digital technologies were used to curb the spread of COVID-19

The advances in digital technology in recent years have created a wealth of opportunities for policy makers. With more and better data available about the world around us and dramatic improvements in connectivity and communication, policy should be better informed, more rigorously tested, more collaborative, and more responsive to external events and to the views and experiences of those it affects than ever before[1].

The National Development Plan (NDP), 2030, identified the following policy instability concern, namely that "A capable and developmental state requires leadership, sound policies, skilled managers and workers, clear lines of accountability, appropriate systems as well as consistent and fair applications of rules"[2].

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[1] policy-making-digital-world.pdf (instituteforgovernment.org.uk)
[2] https://www.gov.za/sites/default/files/gcis_document/202101/national-policy-development-framework-2020.pdf

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Therefore, this Digital Government Policy Framework (DGPF) is meant for government to develop policies that will help address the challenges and opportunities that the digital technologies bring, but also to address the policy instability raised in the National Development Plan within the context of digital transformation. The existing digital transformation related policies are dated and do not provide for the advancement in digital technology sufficiently. The DGPF will help government to identify key determinants for effective design and implementation of strategic approaches for the transition towards digital maturity in a coherent manner.

2   BACKGROUND

Since the dawn of democracy, the South African government has tenaciously led the country towards achieving socio-economic and political transformation as one broad outcome that reflects the new democratic political dispensation instead of the old racially skewed apartheid regime. This broad transformation agenda found expression through numerous policies and legislation, amongst other mechanisms.

Based on the National Development Plan (NDP) target 2030, Information Communication Technology (ICT) is expected to underpin the development of an inclusive dynamic information society and knowledge economy by developing a comprehensive and integrated e-strategy that reflects the cross-cutting nature of ICT. The current Fourth Industrial Revolution (4IR) era, epitomized by the pervasiveness of technology, has an opportunity to resuscitate the challenges of fear of transformation, poor coordination at various levels of government, poor alignment between technology and government goals, and others that faced the public service at the dawn of democracy.

In 2018, the President established a Fourth Industrial Revolution Commission (PC4IR) to identify possible challenges and opportunities that can advance transformation of the State to leverage digital technologies introduced in this era. The commission published a report in 2020 which recommended that the government should Invest in Human Capital, Establish an Artificial Intelligence Institute, Establish a Platform for Advanced Manufacturing and New Materials, Secure and avail data to ensure innovation, Incentivise future industries, platforms, and applications for 4IR technologies; Build 4IR infrastructure; Review and amend policy and legislation; and Establish 4IR Strategy implementation Coordination Council in the Presidency.

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In addition, after assessing the phenomenon of 4IR, the National Planning Commission Report 2020 recommended that the South African government develop a transversal digital policy far more comprehensive than one focusing on Artificial Intelligence (AI), machine learning, blockchain and drones (although these would be important forward-looking parts)[1]. Digital Government can play a fundamental role in inculcating pathways for structural inclusion, building effective, accountable institutions to support the National Development Plan (NDP)[2] and achieving service delivery that responds to Sustainable Development Goals (SDGs)[3].

3　THE CONCEPT OF DIGITAL GOVERNMENT

The 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 Organisation for Economic Cooperation and Development (OECD) Recommendation of the Council on Digital Government Strategies[3]. Gartner states, "Digital government is designed and operated to take advantage of digital data and technology to create, optimise and transform digital government services"[4]. Digital Government is a maturity in modern technology from the analogue procedures and systems.

The world bank has extended the OECD definition and come with the next step from digital government called GovTech. GovTech is a whole-of-government approach to public sector modernization and promotes simple, efficient, and transparent government with the citizen at the centre of reforms[5]. The diagram below shows the maturity of government from Analogue to GovTech.

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[3] https://www.pwc.com/m1/en/publications/documents/the-journey-to-digital-government-part-one.pdf
[4] www.gartner.com/en/topics/digital-government
[5] https://www.worldbank.org/en/programs/govtech/priority-themes

Figure 1: World Bank Digitech Model

Therefore, a digital government must focus on modernizing and integrating government management systems and public services to improve good governance and deliver public services that meet the needs of the people in a just, equitable, effective, transparent, accountable, and inclusive manner.

The DGPF takes into consideration the current level of maturity of government and thus focuses on the combination of characteristics of Digital Government and GovTech. Therefore, the definition of the path to take to transform government digitally should be based on the understanding of its level of its digital maturity.

4   PROBLEM STATEMENT

The DPSA conducted a Digital Government Maturity Assessment in 2018 whose aims was to find the existing and successful digitalisation practices; find missing aspects; and then set up an informed roadmap for government to be fully digital, found the public service's readiness towards to become digitally matured. The assessment was based on the Gartner Digital Government Maturity Model[6].

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[6] https://www.gartner.com/document/4007248

The following summary is the results of the assessment of the current state of readiness of the public service:

a. Service delivery models stay misaligned with the citizens' dynamic demands for public services. This includes public services designed and provided without citizens' input (non-adherence to Batho Pele principles).

b. Functions and tasks are not arranged sequentially, with associated business processes being manual, paper-based and disintegrated within departments and the public service. Furthermore, processes are not mapped, timed (measured) and are without process owners to ensure accountability for their continuous improvement.

c. Business operating hours combined with the location of service delivery points still largely decide access to public services by the citizens as they must come to these service points even for information physically.

d. Leadership involvement (political, executive, and senior management) is not effectively coordinated. The Corporate Governance of ICT Policy Framework (CGICTPF) is not implemented effectively. This results in failure to follow the ICT norms and standards when implementing projects. In the unlikely event of their involvement, decisions usually are left at the hands of a Government Information Technology Officer (GITO) or Chief Information Officer (CIO) exclusively, thus leading to weak or inadequate leadership sponsors.

e. Most of the core ICT systems are dated and non-interoperable and underlying hardware is obsolete, thus leading to systems unavailability and service outages. The inadequate or poor ICT connectivity capacity (bandwidth), to service delivery points, is another challenge facing the public service ICT environment.

f. There are clear instances of inadequate tools of trade leading to ineffective execution of work by public servants. In cases where they are available, they are seldom not fit for purpose nor available across the public service. Inspection services and or community-based workers across the public service glaringly depict the situation.

g. There is an increase in cyber security incidents accompanied by unauthorised disclosure of citizens' data, which is likely to continue, given the criticality of data in this

digital era. This situation has the potential to negatively affect the use of online public services owing to trust issues.

h. Data collection, storage and management remain disparate across the public service as departments hardly share "their" big data, thus translating to duplicate citizens' identities and an inability to provide public services in an integrated manner. Furthermore, there is the inadequate use of business intelligence tools to perform data analytics, leading to limited insight by the public service into the specific circumstances surrounding the citizens' needs; and

i. The current financial allocations for ICT expenditure are done per department and this is understandable because each head of department has a legal mandate to implement ICTs in their respective departments. However, the shortage of skills capacity in the departments leads no return of investment.

5   LEGISLATIVE FRAMEWORK

This DGPF is part of the broader programme of digitally transforming the public service, with various departments playing crucial roles owing to their mandates emanating from their respective pieces of legislation. Below is the summary of digital government related mandates for the various departments and agencies.

5.1   Policy documents

a) National Integrated ICT Policy White Paper of 2016: The white paper identified the following three pillars to achieve a Digital Society:

i. Digital transformation of Government aims to fulfil the Government's development objectives and increase efficiency across the public service. Digitisation of public services will drive up demand for Internet access and boost growth in e-commerce and other sectors.

ii. Digital access focuses on ensuring all citizens can actively participate in the digital society and realise the potential of ICTs to improve their quality of life (including e-skilling, development of digital identity verification systems and promoting trust and security) and

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      iii.   Digital inclusion intends to ensure that no South African citizen is excluded from the benefits of a digital economy and knowledge society.

b)   Electronic Government. The Digital Future: A Public Service IT Policy Framework February 2001: The Policy Framework identified four (4) focus areas that underpin the success of e-government initiatives:

      i.   Interoperability of systems is intended to "talk" to each other to allow automatic sharing and exchange of information and seamless government transactions.

      ii.   Information Technology Security for Government operates in an environment where information and IT systems are protected from cyber-attacks.

      iii.   Economies-Of-Scale is where the government must leverage its IT buying muscle to encourage compliance with other key IT focus areas.

      iv.   Eliminate duplication by the Government to abolish unnecessary duplication of similar IT functions, projects, and resources.

c)   White Paper on Transforming Public Service Delivery (Batho Pele) of 1997: The paper provides a policy framework and practical implementation strategy for transforming public service delivery. The white paper defines executive authorities' approach when delivering services. The process is described in the eight (8) Batho Pele principles.

5.2   Legislation

a)   Constitution of the Republic of South Africa, 1996 (Act 108 of 1996):

Chapter 10 S195 (1) provides that public administration must be governed by the democratic values and principles enshrined in the Constitution, including the following principles:

(b) Efficient, economical, and effective use of resources must be promoted.

(e) People's needs must be responded to, and the public must be encouraged to participate in policymaking.

b)   Public Service Amendment Act, 2007 (Act 30 of 2007): The Act provides for the Minister for the Public Service and Administration to establish norms and standards

for Information Management in the public service, electronic Government and transformation, reform, innovation, and any other matter to improve the effectiveness and efficiency of the public service and it service delivery to the public.

c) Public Administration Management Act, 2014 (Act 11 of 2014): Regulates the use of information and communication technologies in the public administration to procure ICT cost-effectively, ensure interoperability, eliminate duplication, enhance service delivery, and promote access to public services.

d) Electronic Communications Transaction Act, 2002 (Act 25 of 2002) Provides that as part of developing the national e-strategy, DCDT must determine all matters related to e-government services in consultation with the Minister for Public Service and Administration. The Act further provides that the e-strategy must outline the strategies and programmes for universal access.

e) State Information Technology Agency Act states that SITA may provide or maintain a private telecommunication network or a value-added network service in accordance with the Telecommunications Act, 1996 (Act No. 103 of 1996), provide or maintain transversal information systems, and provide data-processing or associated services for transversal information systems. SITA may also support departments implementing ICT infrastructure and Information Systems.

5.3　Other legislation related to digital government.

　　a) Public Finance Management Act, 1999 (Act 1 of 1999).

　　b) Protection of Personal Information, 2013 (Act 4 of 2013).

　　c) Cyber-Security Act, 2020 (Act 19 of 2020).

6　PURPOSE

The purpose of the DGPF is to provide guiding principles to identify and develop policies required to transform the public service using digital technologies. The DGPF will lead to a comprehensive and coherent approach to leverage digital technologies to deliver public services, improve the

efficiency and effectiveness of government operations, and foster a citizen-centric approach to governance. The DGPF also establishes a digital-first mindset across all government departments and government agencies, promotes collaboration and coordination among government entities, and ensure digital initiatives align with the government's overall strategic objectives.

7   OBJECTIVES

The objectives of the DGPF can be summarized as follows:

a. To establish and institutionalize the required governance mechanism for the digital transformation of the public service.
b. To entrench the roles and responsibilities to improve coordination towards the realization of an effective digital government programme.
c. To identify the required norms and standards that can help or support departments in their digital transformation journey.
d. To identify key technology interventions necessary to support the digital transformation of the public service; and
e. To give direction to departments on the key focus areas and pertinent matters they must address for them, and by extension the entire public service, to transform digitally. This is to ultimately ensure improved service delivery to the Citizens.

8   EXPECTED OUTCOMES

The successful implementation of the DGPF will result in government delivering services optimally, based on evidence and using innovative ideas. Consequently, government will realise the following:

a. Enhance citizen access to digital services: Develop and implement digital services that are accessible to all citizens, regardless of location or socio-economic status.

b. Improve efficiency and effectiveness of government operations: Streamline government processes by digital tools and technologies, reducing administrative burden and freeing up resources for other priority areas.

c. Ensure security and privacy of citizen data: Establish comprehensive policies and guidelines for data security and privacy and ensure compliance with relevant legislation and regulations.

d. Foster innovation and digital skills development: Encourage the adoption of emerging technologies and cultivate a culture of innovation within the public sector. Develop the necessary digital skills among government employees to support the implementation of digital services.

e. Enhance transparency and accountability: Utilize digital tools and technologies to improve transparency in government operations and facilitate citizen engagement and participation in decision-making processes.

9　INTERNATIONAL COMPARITIVE ANALYSIS

Internationally, countries are grappling with the transformation of their government using digital technologies but some including the following have made strides in that regard and offer examples that South Africa can learn from. These include the following:

9.1　Estonia

Estonia has a government-wide platform known as the X-Road which supports data sharing across public and private sector organizations and enterprises. The platform ensures the secure delivery of services to citizens and companies through access to databases, the creation and transmission of large datasets, and online searches. Digital identification mechanisms combined with a high-level log processing systems, encrypted data transfers as well as multi-level authorisation ensures security of the government platform. Thus far, the platform has adequately addressed the challenges associated with data ownership as it allows participating institutions to retain ownership of their data owing to the system's decentralized nature but allows them to share data or access data of other institutions when required or necessary.

9.2　Spain

The Spanish parliament passed Law 11/2007 enshrining people's right to communicate with the public service administration online. While the law formed the basis for Spain's e-government programme, it has numerous provisions to promote "the right to communicate digitally with the public sector" including the following:

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a. Guaranteed digital service provision, whereby public administration bodies ensure that all government transactions and services are fully available and updated online.

b. Right to choose among available service channels when communicating with public authorities with public administrators being required to provide both analogue and digital communication and service processes as requested by citizens; and

c. The right to equal access to public online services including by those citizens using non-electronic forms of communication and services.

Spain has ensured that additional laws and royal decrees have been passed to promote ongoing digitalization across all areas of government.

9.3   Rwanda

According to the International Telecommunication Union (ITU), the Rwanda's capital, Kigali, took several leaps forward in digital development, underlining the rapid momentum of the East African country. Rwanda launched the Rwanda Innovation Fund (RIF) to support disruptive and innovative companies that offer solutions to the region's challenges, through a public-private partnership between the government and investment manager Angaza Capital. The Swedish investment fund Norskie Foundation is expected to host 1,000 entrepreneurs in its first year of activity.

Rwanda's Irembo, a globally recognized e-government portal, offers over 100 government services to citizens. It streamlines access to essential services, demonstrating the positive impact of digital government on economic growth.

9.4   Mauritius

Currently ranked as number one in Africa on the global e-Government Development Index, Mauritius has a clear digital transformation strategy with a focus on the following key areas:

a. Digital government.
b. ICT Infrastructure.
c. Innovation.
d. Cyber security; and
e. Talent Management.

It is important to highlight that each of these focus areas had numerous specific and supporting targets, initiatives, activities, and deliverables.

10   DIGITAL GOVERNMENT GOOD PRACTICE AND STANDARDS

A few internationally recognised frameworks and standards on digital government such as the OECD Digital Government Policy Framework[7] which provides six (6) dimensions that define digital government and the World Bank's GovTech[8] four (4) focus areas in different projects, assessments, and policy dialogue to achieve digital government were references to identify policy domains required. The OECD provides a comprehensive framework which encapsulates the focus areas of the World Bank.

10.1   OECD Digital Government Policy Framework

The OECD framework is a policy instrument designed to help governments identify key determinants for effective design and implementation of strategic approaches for the transition towards digital maturity of their public sectors. The following figure depicts the dimensions of the OECD framework.
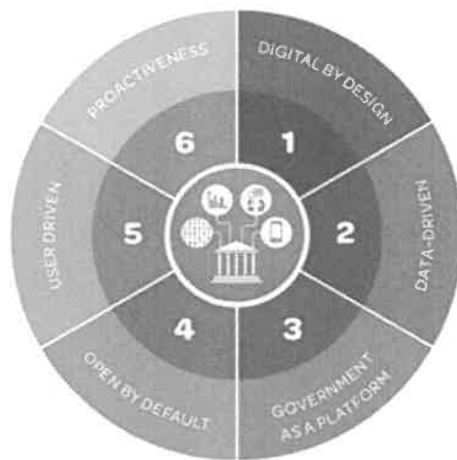
Source: Based on the OECD Recommendation of the Council on Digital Government Strategies (OECD, 2014n).

Figure 3: Six dimensions of the Digital Government Policy Framework

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[7] https://www.oecd.org/governance/the-oecd-digital-government-policy-framework-f64fed2a-en.htm
[8] https://www.worldbank.org/en/programs/govtech

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The following is the summary of these dimensions:

10.1.1 Dimension 1: Digital by design

Government govern and leverage digital technologies to rethink and re-engineer public processes, simplify procedures, and create new channels of communication and engagement with stakeholders. This dimension aims to strengthen co-ordination and skills to foster digital transformation. It establishes clear organisational leadership, effective coordination, and enforcement mechanisms. All policy processes must be embedded with 'digital' as a mandatory transformative element. The Digital by Design dimension is a guideline for departments to design and implement citizen-centred, agile, and innovative digital policies and services.

10.1.2 Dimension 2: Data-driven

Government is Data-driven when it values data as a strategic asset and establishes the governance, access, sharing and re-use mechanisms for improved decision-making and service delivery. Governments must adapt to citizens' expectations and harness the potential of the digital age. The data-driven dimension seeks to leverage data to enhance government services and inform decision-making. This underlines the importance of fostering a data-driven culture within Government by encouraging data utilisation for evidence-based policy formulation, improving service delivery, and promoting transparency and accountability.

10.1.3 Dimension 3: Digital Government as a platform

A digital Government acts as a platform when it deploys platforms, standards and services to help teams focus on user needs in public service design and delivery. It is a concept that brings up the Government and citizens on a digital platform where all the services of the Government are processed and carried out. It is the whole ecosystem of shared APIs and components, open standards and canonical datasets, the services built on top of them and governance processes that keep a more comprehensive system safe and accountable[9]. It creates a shared digital infrastructure that enables government departments, citizens, and the private sector to operate together as a platform rather than in silos.

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[9] Pope R, "Playbook: Government as a Platform" Harvard Kennedy School (2019)

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10.1.4 Dimension 4: Open by default

Government is open by default when it makes government data and policy-making processes available to the public, within the limits of existing legislation and in balance with national and public interest. It emphasises that government data and information should be made available to the public as the default position, without requiring individuals or organisations to request access. This principle promotes the notion that government information should be considered a public asset and open, accessible, and usable. It recognises that making government data more available and accessible can foster innovation, improve public services, and increase transparency and accountability.

10.1.5 Dimension 5: User Driven

Government is user-driven when it accords a central role to people's needs and convenience in the shaping of processes, services, and policies; and by adopting inclusive mechanisms that enable this to happen. The dimension emphasises the importance of designing government services tailored to the needs and expectations of citizens, businesses, and other users. It highlights the need for the Government to engage with users to understand their needs and preferences better and to use this information to co-design and deliver effective, efficient, and user-friendly services.

10.1.6 Dimension 6: Proactiveness

Government is proactive when it anticipates people's needs and respond to them rapidly, avoiding the need for cumbersome data and service delivery processes. This dimension utilises the five previous dimensions to create a service delivery experience that anticipates and address problems proactively instead of the fractured and reactive approach. A proactive government pre-empts requests from citizens, instead of providing answers or solutions to their needs through the adoption of push vs pull delivery models. Proactiveness represents the ability of governments and civil servants to anticipate people's needs and respond to them rapidly so that users do not have to engage with the cumbersome process of data and service delivery.

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11 POLICY DOMAINS

The following are the policy domains identified and based on the principles set out in the OECD policy framework. The background provides key considerations when implementing this policy framework.

11.1 Background on policy development

The following policy proposals were identified as priority to set the foundation for implementing the digital transformation and take two critical considerations which are that, in formulating policies are citizen participation, such that the policies are responsive to the citizens' needs and following the "Whole of government" approach to ensure coherence in designing capabilities for a digital government.

The digital government can be achieved by following an integrated approach towards digital transformation. Therefore, a "whole of government" approach should serve that purpose. Whole-of-Government Policies provide direction to departments on how they should approach aspects of digital and ICT investment, design, and delivery, including requirements when the policy must be applied and exemptions for certain circumstances. The DGPF provides a framework for the required policies and government should develop and implement policies with the "Whole-of-Government" approach mindset.

Chapter 10 of the Constitution prescribes that peoples' needs must be responded to, and the public must be encouraged to participate in policymaking. Therefore, the involvement of the public in policymaking is a constitutional obligation that government institutions must respect and institutionalise. Consultation with stakeholders should commence as early as possible before deciding on policy direction, including when identifying and conceptualising a policy issue.

Policymaking is complex and affects stakeholders differently. Thus, policymakers need to conduct stakeholder analysis so that stakeholders can contribute meaningfully to policymaking. The use of SEIAS IIA provides guidance on the types of stakeholders to be consulted, e.g. those affected by identified problems, those who will benefit when the issues are addressed, and those who will bear the cost of implementing the proposed intervention[10]

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[10] The South African Government has the National Policy development Framework 2020

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11.2 Digital Government Policy domains

The challenges identified in the problem statement earlier in the DGPF juxtaposed with the lessons from the above-mentioned international comparative analysis, and OECD and World Bank frameworks, provide the required insight on some key elements needed to digitally transform the government. Once in place, these elements would ensure a more focused and coordinated government in its endeavour to being digitally transformed, which would subsequently make the sector more effective and efficient in delivering services to the public.

11.2.1 Improvement of service delivery

11.2.1.1 Citizen Centric Government based on Batho Pele principles.

Batho Pele has eight principles developed to serve as acceptable policy and legislative framework regarding service delivery in the public service. These principles align with the Constitutional ideals of promoting and maintaining high standards of professional ethics, providing service impartially, fairly, equitably and without bias; utilising resources efficiently and effectively; responding to people's needs; encouraging citizens to participate in policymaking and rendering an accountable, transparent, and development-oriented public administration. The policy framework underpins the implementation of the eight principles by ensuring that ICT is an integral part of transformation and improves the policies, processes, systems, structures, and technologies of service delivery.

11.2.1.2 Digital services design in collaboration with the citizens.

Two key elements that support and facilitate digital transformation are the level of maturity of business practices of a department as well as the approach adopted when designing public services provided by it. The departments should design services informed by the insight of how citizen would want to access the services.

Public services are provided through business processes requiring each department to constantly review, improve and time (turn around and other relevant criteria) them (processes) including to automation as highlighted earlier. The services should be paperless, cashless, frictionless, personalised, presence less, and consent-based[11].

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[11] ITU Publications: Digital transformation and the role of enterprise architecture

11.2.1.3 Modernise business processes.

Government should institutionalise the Business Process Modernisation Programme which is aimed at the transformation of business processes using modern technologies and tools, and the adoption of new values and practices to solve business problems. The departments should have business process modernisation units tasked to implement BPMP with particular focus on the application of the Operation Management Framework. In addition, there should a structure that interfaces with ICT for collaboration in digital transformation of business processes.

The modernisation of business processes is inter-departmental and intra-departmental and therefore, will require effective coordination in departments and across the public service.

11.2.1.4 Use data for proactive delivery of services.

Government should use data collected from transactions to develop information through proper and deep analysis for reporting, establishing trends, predicting future scenarios and other functional purposes. The effective use of data requires the public service to invest in a centralised business intelligence capacity and capability for a quick win.

Departments should collaborate with citizens to formulate innovative ideas on how to resolve service delivery challenges. The current programmes of institutions such as Centre for Public Service Innovation (CPSI) and the Technology Innovation Agency (TIA) should use trends analysis and identify future service demands that citizens will have proactively. The findings from the analysis should inform the innovation to improve service delivery and design services such that they respond to the future needs when they are required.

11.2.2 Open government and citizen engagement

Open access & data, South Africa is an active member of the Open Government Partnership (OGP) and has committed to upholding the principles thereof[12]. The OGP principles are Accountability, Citizen Participation, Technology and Innovation, and Transparency. South Africa developed an action plan with seven commitments from a consultative process with civil society organisations to implement these initiatives.

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[12] www.ogp.gov.za

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One of the approaches to implement these principles is to make government data accessible to citizens for them to use for their own interests. This can be achieved by creating what is commonly referred to as Open Government Data (OGD). OGD allows citizens to monitor data streams, improving government accountability and transparency[13]. The government can make this data available through media platforms such as mobile apps, websites and other electronic media that are more flexible.

However, not all government data can be made accessible to citizens taking into consideration the limitation imposed by the legislation such as the POPIA Act and other State Security legislation. Therefore, government should develop an Open Government Data (OGD) policy which will provide a set of principles and guidelines that government entities use to establish, promote transparency, accessibility, and sharing of government-generated data with the public.

Government should promote the development of open-source software. Open source describes software with permission to use, copy and distribute, either as is or with modifications, which may be offered free or with a charge. The open-source way is a set of principles derived from open-source software development models and applied more broadly to additional industries and domains[14]. Therefore, government should develop open-source policies and guidelines to be used in the public service.

Public consultation, Consultation is one of the eight (8) principles of Batho Pele which refers to Government consulting citizens about the level and quality of public services. The OECD in turn refer to consultation as "encouraging engagement and participation of public, private and civil society stakeholders in policymaking and public service design and delivery"[15]. The participation of citizens to government programmes using ICT can be achieved with e-Participation. Electronic participation (e-participation) refers to the use of ICT in facilitating citizen participation in government-related processes, encompassing areas such as administration, service delivery, decision-making, and policy-making.

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[13] https://publicadministration.un.org/en/ogd
[14] https://opensource.com/open-source-way
[15] OECD (2022), OECD Guidelines for Citizen Participation Processes, OECD Public Governance Reviews, OECD Publishing, Paris, https://doi.org/10.1787/f765caf6-en

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11.2.3 Leadership and coordination

High-level coordination brings together ministers and highest-ranking administrative officials to extensively collaborate and align on the design and implementation of digital government data strategies and plans. This can take the form of steering committees, working groups and task forces[16]. The primary requirement to achieve this is to orientate both the political principals and the high-ranking officials on the benefits of digital transformation of the departments. Cabinet established the Inter-Ministerial Committee (IMC) for digital transformation to be functional and provide political direction. The IMC should establish a committee comprising Directors-General from national and provincial government and in turn, the latter committee should have task teams that focuses on each of the identified policy domains or as it may see appropriate. The Offices of the Premier should duplicate the same structures as mentioned above that is coordinated in the office of the Premier.

The following are some of the critical responsibilities of these committees:

a) Establish partnerships with identified retail shops, banks, the post office, and other organizations frequently visited by the public. The purpose of these partnerships is to ensure provision of identified public services through other equally capable third-party partners. Furthermore, all services provided through physical, face to face interaction with the public.

b) Ensure that services are provided through alternative online channels or the Internet to ensure ability to interact with the public service 24 hours a day thus convenience to the public.

c) Ensure that each department establish and keep a list of ICT connectivity targets for the relevant service delivery sites like schools, health facilities, police stations, TVET colleges and other types of sites. This is owing to infrastructure being the one of the required enablers to support the digital transformation programme. The department may have to implement their connectivity targets; however, such must always be aligned with the South Africa Connect programme.

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[16] The E-Leaders Handbook on the Governance of Digital Government, OECD Digital Government Studies, OECD Publishing, Paris, https://doi.org/10.1787/ac7f2531-en.

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11.2.4 Institutional /department Governance

The Government introduced the Corporate Governance of ICT Policy Framework whose purpose is to institutionalise Governance of ICT as an integral part of corporate governance within departments in a uniform and coordinated manner. Leaders in government should recognise the significance of emerging technologies such as artificial intelligence, machine learning and robotics technologies and incorporate them in policy development. The emerging technologies can generate improved human and organisational capacities for information and knowledge management, especially for service design, and favour more convenient and tailored delivery.

11.2.5 Data governance

The Minister for the Public Service and Administration issued a directive and determination on Knowledge and Data Management aimed at institutionalising the standardisation of implementation of knowledge management and data management[17] in departments individually. The current directive should be complemented by a "Whole Government Data Management Framework". The Whole Government Data Management Framework should provide for a comprehensive and standardised guide to manage data across all government agencies and departments.

Such a framework is essential to ensure data consistency, interoperability, security, and compliance with regulations and standards across the entire government ecosystem. This will require that government departments open and share data with others to enable the "Once only principle". This principle ensures that citizens, institutions, and companies only provide certain standard information to the authorities and administrations once.

Using collected transaction data, the government should convert such information through proper and deep analysis for reporting, establishing trends, predicting future scenarios and other functional purposes. The effective use of data requires the public service to invest in a centralised business intelligence capacity and capability for a quick win. Government should investment in data infrastructure such as data warehouses, data lakes, data analytics platforms, and data visualisation tools but should curb the misuse thereof with the controlling policies. Government should develop policies and procedures to protect personal and sensitive information from

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[17] www.gov.za

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unauthorised access or misuse. This can involve establishing data security protocols, access controls, and privacy policies.

11.2.6 Institutional arrangement

The current legislation should provide for the creation of the institutional arrangements that distinguishes the mandates of departments and agencies such that digital transformation is implemented effectively. In addition, government should establish a government component, whether as part of SITA or separate, that will support the implementation of the digital government transformation by building capacity, tools, guidelines, research and innovation and other systems required for digital transformation. This government component should also provide project/programme/portfolio management support to the departments. Examples of these are United Kingdom's Government Digital Service, the Agency of Digital Government of Denmark or the Digital Transformation Agency of Australia perform similar functions.

11.2.7 Legislation and policy

Legislation and policy, The DPSA, Department of Justice and Constitutional Development, Department of Home Affairs and the Department of Communication and Digital Technologies (DCDT) should collaborate to develop guidelines that will assist the departments to develop legislation that is digital ready. Digital-ready legislation means, for example, that in the future, the legislation should consider the impact of digital technologies when the provisions thereof are implemented. The legislation should provide for collaboration, improve the completeness, eliminate duplications, and contradictions. For example, the current e-Government provisions in the Public Service Act of 1994 and the Electronic Communication Transactions Act of 2002 should be revised to eliminate duplication. Government should develop a separate legislation that focus solely on Digital Government.

11.2.8 Procurement

As provided for in section 7.1 (b) of the SITA regulations, procuring ICT goods and services through the agency as a medium for departments and public bodies must ensure that all procurement results value for money, including if economically feasible, paying for usage only. Government should enhance current practices of e-Procurement, Framework Agreements and Open Supplier Database to make procurement more agile. The legal capacity of drafting contracts should be strengthened, and the Intellectual Property of Government should be

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protected. Government should also leverage the capabilities of the private sector and use their service delivery platforms to save the burden of acquiring goods and services.

11.2.9 Funding

Government should increase the funding of digital technologies to meet the vision of digitalised public service. The significant projects committee(s) required to consolidate government requirements for economic efficiencies. The budgeting and expenditure for all standard ICT optimisation and digital transformation requirements must be centralised. This will promote economies of scale and reduce the cost of digital technologies. In addition, the SITA pricing model of the goods and services should be transparent and easy to apply.

The government should also explore alternative goods and service acquisition forms, such as Public-Private Partnerships, to build the required digital transformation capabilities. Some service delivery platforms should be provided in private sector facilities to save government the burden of acquiring the necessary human resources, goods, and services.

11.2.10 Digital skills development

Cabinet approved "National Digital and Future Skills Strategy" through the DCDT and the various economic sectors must identify and develop the required skills to facilitate digital transformation. The strategy identified critical skills required to advance the country in the 4IR era. The Human Resource Development (HRD) Strategy of the public service should provide guiding principles for the required training for ICT support staff, department-wide staff, and the political and administrative principals. The figure below outlines the digital skills identified by the ITU (2018) continuum:

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Figure 5-1: Continuum of Digital Skills
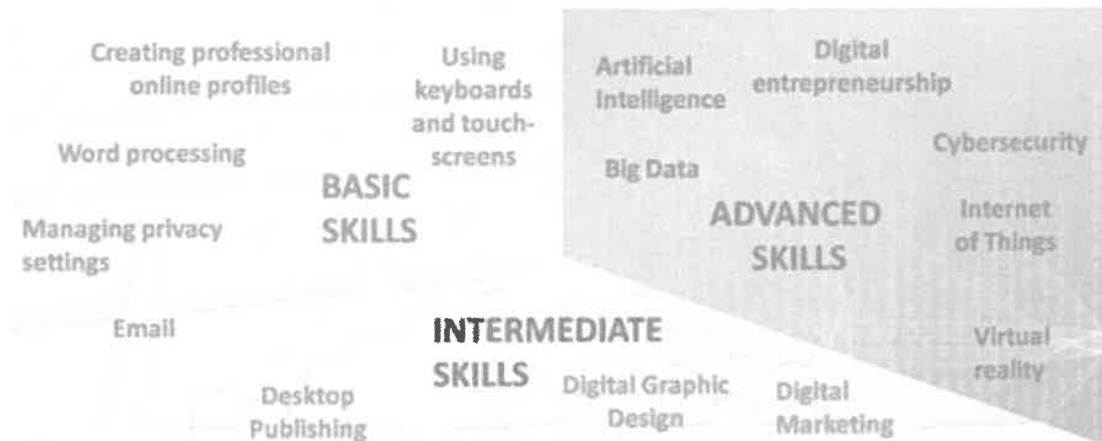
The public service wide skills audit process must precede identification of the required skills. Furthermore, these skills combined with targeted orientation and training interventions particularly to executive and senior management within the public service must form core of the Public Service Human Resource Development Strategy. Lastly, the enrichment of the current job profiles to incorporate data and information handling skills as well as management responsibilities is another important requirement towards the transformation of the public service.

11.2.11 Identity Management

The crucial feature of the digitalisation of government that ensures security when the citizens utilise the Citizen Experience Platform is the Identity and Access Management (IAM). Identity and Access Management (IAM) is a security and business discipline that includes multiple technologies and business processes to help the right people or machines to access the right assets at the right time for the right reasons, while keeping unauthorized access and fraud at bay. Digital identity forms part of the IAM and refers to the collection of data that uniquely represents an individual or entity in the online world. It encompasses both demographic information and behavioural data, including tracked online actions. Department of Home Affairs has a mandate to provide identity for the citizens and should play a central role to develop the digital identity.

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11.2.12 Modernise digital technologies.

Some of the major Information System in government are functional even though they are mainframe based and were implemented using old technologies. The aspiration of implementing modern Information Systems such as the Enterprise Resource Planning system is understood, however, it may not be feasible to implement them soon. This is due to the current budget constraint and their level of complexity. Therefore, government should identify achievable initiatives which when implemented will advance it to the higher level of maturity as identified in the Gartner model. The following are some of the areas for which guidelines and policies should be developed:

a. Collaboration in the sourcing, acquisition, processing, and storage of data. The POPIA, POSIA and ECTA provides for practices to follow to ensure data security.

b. Review of the procurement process of Information Systems to leverage modern technology including Software as a Service and reduce implementation of licence-based applications.

c. Invest in common digital Infrastructure: The Government must invest in shared infrastructure to service standard requirements across the public sector, including, amongst others, high-speed connectivity, Government private cloud services, Common data centres and collaboration technologies to underpin the development of new digital services and applications.

d. Development of a mechanism to keep track of the Information Systems developed across the public service.

e. Ensuring that the ownership of Intellectual Property Rights for systems/ data/ information developed/ collected by or on behalf of government must remain with it.

f. Sectors and/or clusters should have a common programme for digital transformation to achieve seamless integration of business processes and data sharing.

g. Investment in digital technology platforms (DTPs) to leapfrog stages of development and or maturity in respect of ICT systems and or use.

h. Prioritising the citizen-experience, value ecosystems, IT systems, Internet of Things and Data Analytics platforms.

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i. Fostering collaboration and partnerships between government departments and other stakeholders in the private sector and civil society to create digital platforms and applications that citizens can use to access government services.

j. Promoting open standards and interoperability to enable seamless integration and communication between different government systems, reducing duplication of effort and improving service delivery.

k. Implementing agile development methodologies prioritising user-centred design, experimentation, and rapid iteration in developing government services.

l. Developing a standard set of application programming interfaces (APIs) used by different government systems and applications to facilitate data sharing and integration.

m. Explore new business models and different forms of citizen engagement and introduce new value propositions.

SITA started to implement the Digital Government Technology Platforms (DGTP) which will leapfrog digital transformation by reducing the stages of development and or maturity regarding ICT systems. This will allow the public service to transform and or modernise its services quicker when compared with traditional disparate and legacy technology systems. Furthermore, the public service can then be integrated with partners, citizens, and suppliers, leveraging a single technology platform, thus improving operations and service delivery. The following table explains five areas of a DGTP and their purposes:

Platforms Areas	Purpose
Citizen Experience Platform	It provides interfaces and technologies and implements the policies and procedures for Citizen and business engagement. It also measures the experience of these users. These platforms include Digital identity,
Ecosystems Platform	It provides digital interfaces and implements the related policies and procedures for governments and ecosystem partners to exchange data and services.

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IT Systems Platform	This is the heart of what government IT does today. It provides the technologies, policies, and procedures for back-office systems.
Internet of Things (IoT) Platform	It provides the interfaces, data governance and context and implements the policies and procedures for collecting and processing data from IoT sensors.
Data and Analytics Platform	It provides advanced data analytics, geospatial and location analytics, and artificial intelligence capabilities for processing data collected or stored in any platform area. This is the core of DGTP.

Source: Gartner (January 2018)

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