



**How does digital transformation
help government solve some
of its most pressing problems?**



Drivers Licence
Vehicle Testing
Centres



Home Affairs –
self service
smart ID kiosks

Multiple
possible
futures.
Hidden in
the present



Access to
Health Care +
UIF



We know the future
we want.
How do we get
there?

Policy Background

1995	White Paper on Transformation of the Public Service.
1997	Batho Pele White Paper released – framework for implementation of transformation of public service delivery.
1998	Presidential Review Commission identified ICT challenges. DPSA given administrative responsibility for ICT in government.
1999	Thusong Service Centre programme initiated to extend government services and info. to rural and underserved communities
2001	DPSA produces e-Gov public service policy document and v1 of minimum interoperability standards.
2002	Electronic Communications and Transactions Act promulgated.
2004	DPSA establishes e-Gov Batho Pele Gateway, a publicly accessible, central government services information portal
2007	DPSA releases Information Society and Development Plan adopted.
2011	NDP introduces a single cohesive strategy for ICT.
2012	SITA develops e-Gov Framework
2014	Establishment of DTSPS and transfer of e-Gov mandate from DTSPS and SITA of Gov Chief Information Officer
2015	Gauteng and W Cape develop provincial e-Gov strategies.
2016	National ICT Integrated Policy White Paper. National e-Gov Strategy and Roadmap developed.



Problem Statement

- **Customer interface disempowering and not user-friendly** | inefficient, time intensive and often with limited functionality. Impedes service delivery and the reputation of the public service.
- **Governance is weak, with dispersed accountability** | e.g. DPSA (data and cloud for gov), DCDT (digital strategy). SITA is slow. Limited standards and policies for government on data sharing, privacy, IT and database maintenance, interoperability and digital identity. Fears around protection of information and cyber attacks.
- **Limited integration and co-ordination of digital technology and information** | Need to prevent double dipping and ensure the right people are benefiting. Need to be able to push services when there are gaps and pull services
- **Cost and skills for digital procurement** | tenders, supply chain, contract management as each area procuring and developing in silos. Government sometimes buying technology and systems that they cannot use. Not leveraging economies of scale.
- **Digital literacy, awareness and leadership** | the foundation for digital adoption is patchy, and often very limited. Digitisation often regarded as automation and digitization of records, when it can be so much more. There are skills deficits.

International Best Practice



GOV.UK



- Martha Lane Fox's report into digital governance in 2010
- GOV.UK was created. More than 2,000 other websites were fully migrated to the new single publishing platform.
- 25 of the highest volume services chosen as “exemplars” of digital transformation and a programme established to deliver
 - Examples: register to vote, student finance, visas. Focused on user experience.
- From the centre of government, they are positioned to identify common needs for products, platforms and services.
- By building centrally they can do the heavy lifting to allow departments to focus on building services, rather than having to reinvent the wheel. A simple, joined up, personal service. As at 2021 - staff of 800 people & budget of £90m a year. 60% of budgets go to supporting existing platforms maintenance and provide services that:
 - can only be delivered by the centre
 - should be built once, and reused widely

2021 - 2024

MISSION 1

GOV.UK as the single and trusted online destination for government information and services - available and secure

MISSION 2

Joined-up services that solve whole problems and span multiple departments e.g. single sign on for all services & central repository of information

MISSION 3

A simple digital identity solution that works for everyone e.g. if no fixed address.

MISSION 4

Common tools and expert services e.g. avoid PDF forms and do online submission of information

MISSION 5

Joined-up data across departments – ‘tell once principle’



International Instruments and Examples



Rwanda Digital Transformation Centre focuses on startup directory and matchmaking for the Rwandan tech ecosystem – agriculture and retail.



India Brings people into the system with any grant



Kenya leading on cybersecurity



New Zealand 'Realme' authentication to access all gov services.



Estonia Family benefits system – updated via the population register of births and deaths each night, validating information for access to the 10 family benefit types.

Italy, US & Canada adopted approach similar to UK – led by the Presidency

OECD Recommendation of the Council on Digital Government Strategies 2014

Enables a fundamental shift from citizen-centric approaches (government anticipating the needs of citizens and businesses) to citizen-driven approaches (citizens and businesses formulating and determining their needs in partnership with governments).

- Secure leadership and political commitment to the strategy
- Ensure coherent use of digital technologies across policy areas and levels of government
- Establish effective organisational and governance frameworks to co-ordinate the
- implementation of the digital strategy within and across levels of government
- Strengthen international co-operation with other governments

Digital Priorities – a centre of government approach



Broadband access / Infrastructure



Digital economy and services

Growing market and sector locally



Digital culture, skills and literacy

Build capacity within government to implement, need specialist skills, partnerships, basic education, change management and access to IT infrastructure.



Policy Coordination

Digital identity and onboarding
Interoperability data and system with each department custodian of own data
Distributed ledger tech (for Deeds office, tax collections etc)
Standards for data and systems interface
Policies – cloud, storage, data interoperability

First Movers – Frontline Services



- **Payment systems** (SASA, DBE teacher assistants, CIPC, UIF and COIDA)
- **Deeds Office** - distributed ledger tech (DLT) to register 1 million unregistered subsidised housing R240 bn in debt assets
- **Land reform** - Link land reform claims, to deeds office, water rights, CIPC, GIZ, SARS
- **Health** - secure, confidential and interoperable patient records + automation of SAPHRA applications
- **Agriculture** - automation of registrar functions relating to product approvals and biosecurity
- **Transport** - licencing (some trials are in process).
- **Justice and Security Cluster**
- **Local government systems**
- **Port, rail and related freight management** - integrated approach with DTIC, SARS (customs), staff and customers to enhance efficiency, and manage unpredictable situations dynamically.
- **Home Affairs** (in progress), Basic Education, Small Business Development, Public Works
- **Water use licence solution** (currently under implementation)



Who are the key drivers of this agenda?

- **Co-ordinated by the Presidency** (DG oversight, DPME, Policy and PMO)
 - **Interdepartmental task team** working with DPSA, DCTD, DSI,
 - SITA (shared services), NT, DTIC
 - Lead customer facing departments DHA, DEL, NDOH, etc (people, households and business)
 - Operation Vulindlela (broadband access and employment)
 - Partnerships: academia, business, and research organisations
 - Fintech working group (World Bank funded - Reserve Bank, BASA, PASA looking at UIF and SASA)
 - National School of Government, P-SETA - building awareness, literacy and capabilities.
 - **Connects to Digital Work Accelerator, 4IR, Masterplan, e-Gov**
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- **Use cases, & rapid prototyping; willing coalitions; coordination.** Need 2-3 years to develop & test with customers
 - **Demystify and de-risk**
 - **Sequenced policy reform**



Agriculture and Agri-Business

Problems

- **Logistics** | rail & ports operations & efficiency
- **Regulatory functions** | to authorise product inputs (fertilizer, seeds & animal remedies etc)
- **Access to market** | Small holder farmers
- **Land + water information**
- **Traceability**
- **Export linking supply & demand**
- **Land reform**
- **Scientists + high level skills**
- **Climate change**

Digitech Solutions

- Drones + satellites to **secure rail and ports**, and **scheduling and booking systems** to enhance efficiency.
- Integrated, live databases on **land ownership** (working with BASA), and **livestock tracing** for bio-security (in masterplan), and carbon capture.
- **Ethical trade** – traceability and blockchain.
- Match **Agri careers and future Agri-careers** study to match skills development, and online Agri education, and increase employment.
- Use tech to leapfrog **start-up challenges** e.g. Khula!.
- **Digital literacy** in rural areas.

Enabling Policies

1. Affordable connectivity and cheaper data for rural areas.
2. Digitise agri regulatory functions, including drone licencing.





Health – Systems and Products

Problems

- **Patient master index**
- **Electronic medical records** |with remote access
- **Staff scheduling**
- **Healthcare capacitation**
- **Supply chain** |procurement and stock control
- **SAPHRA med tech licences**
- **Outstanding payments** |to providers

Digitech Solutions

- **Online SAPHRA** licencing applications + listing of licenced products and medicines (SAMRC has been asked to develop).
- **Care connect** (health information exchange just launched by a small group of funders and hospitals to share patient information.
- **Public private sector interoperability**
- Central **med-tech procurement and stock management** system and database of usage and outcomes.

Enabling Policies

1. POPIA
2. Cyber Security Bill
3. Connectivity
4. Big data management





Retail

Problems

- **Stock loss systems** | management and stock takes
- **Ethical, sustainable retail goods.**
- **Logistics speed to market**
- **Skills in retail**
- **Spaza Shops**

Digitech Solutions

- **Vuleka** ordering and delivery platform for spazas, bulk buying from wholesalers and build credit profiles and access loans.
- **Drones** for deliveries in rural areas/ townships.
- **Smart shelves** to accurately report on demand and also to use for stock takes.
- **Barcode APPS:** to check pricing and ethical standards.

Enabling Policies

1. Affordable connectivity and cheaper data for rural areas.
2. POPIA
3. ICASA processes to be more efficient to promote access





Transport and Logistics

Problems

- **Product security**
- **Goods handling at Ports**
- **Queuing** traders, trucks, vessels
- **Delivery co-ordination**

Digitech Solutions

- **Single Window System** use blockchain for information to assist traders to use a single mechanism to declare cargo.
- **Smart logistics and vehicle tracking systems** to improve efficiencies.
- **Integrated port terminal and rail systems for real-time planning** infra & terminal capacity.
- **Artificial Intelligence** to anticipate challenges & enable dynamic scheduling.
- **Digital freight & 3-commerce brokerage** services: Load-matching platforms.
- **Staff scheduling systems**

Enabling Policies

- Digital Service Policy (including digital trade for customs).
- One-Stop Border Post Policy.
- Cybersecurity, big data and cloud.



- Co-ordinated **digital transformation delivery unit** within government, led by the Presidency with an interdepartmental task team (including DPSA, DCTD, DSI), customer facing departments, partners, etc.
- A **trusted partnership** with DCA & Presidency Steering Committee to co-create solutions e.g digital identities
- Build **digital literacy** in government and sectors
- Prioritised and sequenced **digital policy agenda**
- DCA Identify opportunities for members to strategically support:
 - best practice sharing and research
 - rapid prototyping and use cases
 - sector transformation interventions
 - skilling efforts within the state.



We know the future we want – how do we get there?

A coherent digital transformation agenda within government, with key partners - contribute to solving some of our most pressing challenges, as well as contributing to achievement of our developmental objectives.