
Dr. Mahen Soobron,
Acting Director
Central Informatics Bureau
30 August 2018
Central Informatics Bureau

- Created in 1989, CIB operates under the aegis of the Ministry of Technology, Communication and Innovation
- To promote e-Governance through:
  - Provision of project management,
  - Consultancy and;
  - Advisory services to Ministries and Departments
- Mission
  - To enable Government harness Information and Communication Technologies (ICT) to enhance productivity and provide customer-centric services.
### What do we do...

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultancy Services</td>
<td>• Assist Ministries and Departments in identifying opportunities for improving their respective services through ICT</td>
</tr>
<tr>
<td>Project Management</td>
<td>• Management ICT projects with the collaboration of end-users</td>
</tr>
<tr>
<td>Technical Specifications &amp; Evaluation</td>
<td>• Assist the Civil Service in ICT-related procurement by drawing specifications and evaluating project proposals</td>
</tr>
<tr>
<td>Standards and Quality Assurance</td>
<td>• Specify standards, quality assurance schemes and procedures for project implementation</td>
</tr>
<tr>
<td>Post Implementation Monitoring</td>
<td>• Post-implementation evaluation and enhancements of existing information systems</td>
</tr>
<tr>
<td>Maintenance</td>
<td>• Advise Ministries/Departments on the renewal of Hardware/Software Agreements and enhancement of systems</td>
</tr>
</tbody>
</table>
Sectors of Intervention

- Involved in E-Government Projects across all social and economic dimensions e.g.
  - Health
  - Education
  - Transport
  - Tourism
  - Agriculture
  - Law and Order
  - Financial Services
  - Gender
  - ICT among others
Major e-Government Projects

- Land Administration, Valuation and Information Management System (LAVIMS)
- Mauritius eRegistry Project (MeRP)
- Crime Occurrence Tracking System (COTS)
- Digital Court Recording System (DCRS)
- e-Procurement System
- Treasury Accounting System (TAS)
- Fleet management system
- Blood Transfusion System (BTS)
- Companies and Businesses Registration Integrated System (CBRIS)
- e-Parliament System
- Video Conferencing System (VCS)
- Automatic Fingerprint Identification System (AFIS)
- Border Control System
- NTA - The Integration of Private Vehicle Examination Centres
- Building and Land Use Permit System
- Forensic Laboratory Information Management System (Forensic LIMS)
- TradeNet system
- Government Intranet System (GINS)

- Government Online Centre (GOC)
- InfoHighway System
- Document Management System
- National Open Data Portal
- Mobile Apps
- E-Services, E-Payment & Data Sharing Services
The Strategy proposed a number of initiatives to be put in place for improving effectiveness and efficiency of Ministries and Departments, with emphasis on enhancing service delivery to citizens, businesses and government constituents.


Overall implementation status of strategy’s recommendations

Ranking of Mauritius in UN e-Government Development Index from 76th to 58th
Some of the major E-Government Initiatives Completed

**Citizen Convenience**
- Open Data Portal with 100 datasets
- Helpdesk on Portal and e-Services
- New e-Services on Government Portal
- Job portal (mauritiusjobs.mu) operational
- Crowdsourcing platforms for engaging with Citizens (e.g. Mauritiusbudget.com, Vision2030, CSU.mu)
- Online publication of examination results (SC & HSC)
- Application for driver’s license
- Citizen Support Portal handles citizens’ complaints and requests online
- Electronic payment for Government services
- Mobile App Platform with 3 Mobile Apps launched

**Business Facilitation**
- e-Judiciary at Commercial Court
- Computerised Library System at Judiciary
- e-Procurement System operational
- e-Work Permit System operational
- Single Window for trade facilitation operational
- Online Building and Land Permit (BLP) implemented
- End-to-end systems e.g. e-Registrar-General, e-Work Permit, e-Procurement
- Use of Digital Signatures in newly implemented systems such as e-Registrar-General and e-Procurement
- Online filing of objections at Assessment Review Committee

**Government Efficiency**
- Open Source Strategy
- Open Data Policy
- Open Data Readiness Assessment
- Reforms Steering Council set up and e-Government related meetings held
- Data Sharing Policy, Data Architecture & Business Registration Act to facilitate data sharing
- InfoHighway data sharing platform
- Project Management Manual for ICT projects
- E-Government measurement metric
- ICT courses by E-Learning Portal
- Physical Assets Management System (Stores Package)
- Social Media Guideline
- InfoHighway data sharing platform
- Project Management Manual for ICT projects
- E-Government measurement metric
- ICT courses by E-Learning Portal
- Physical Assets Management System (Stores Package)
Digital Transformation of the Public Sector

Governments are increasingly facing:

- rapid digitalisation of society and the economy
- growing demand for tailored and citizen-driven services
- quest for openness of government operations and decisions

Analogue Government

Closed operations, internal focus, analog procedures

E-Government

Greater transparency, user-centered approaches, ICT enabled procedures

Digital Transformation

Open and user-driven approaches, process and operational transformations

Digital transformation of the public sector entails Strategic use of data and technologies to capitalise on digitisation and openness

- Recognising the positive impact of digitisation in the development of Mauritius, the Central Informatics Bureau has formulated a Digital Government Transformation Strategy 2018-2022 (DGTS), which:
  - sets the course for accelerated public sector digitisation efforts in its digital transformation journey.
  - makes recommendations that culminate into better policies and services that are simple, smart and seamless
  - charts the direction for increased operational effectiveness and efficiency, and better service to citizen, business and government constituents.
METHODOLOGY

- The Digital Government Transformation Strategy framework stands on pillars which are in line with the OECD recommendation on digital government strategies.
Process for Formulating Recommendations

Digital Government Pillars

**Strategic Direction**
- Situational Analysis
- Data Insights from Surveys
- Digital Synergies Analysis

**Best Practice**
- Benchmark against policies from institutions (OECD, World Bank, UN, WEF, Gartner, McKinsey, Forrester, etc.)
- Success Stories from Mauritius
- Success Stories from countries around the world

Recommendations for Digital Government Pillars
Needs-Centric Approach

- A Digital Government Survey was conducted to harvest inputs through:
  - Three online questionnaires (Government to Citizen - G2C, Government to Business - G2B and Government to Government - G2G) and
  - A Government to Citizen field survey in collaboration with Statistics Mauritius (around 880 households spread around the island).

- Feedback was also sought from stakeholders through Digital Mauritius 2030 consultative workshop, focus meetings, circulars to Ministries and Departments and advert in the press.
Data Insights

DATA DRIVEN CULTURE

- 83% of G2G survey respondents view data as an important asset for decision-making, yet only 42% say that government is using data to improve processes and service-delivery.
- 70% of G2B survey respondents say they are willing to retrieve data from Government systems to facilitate transactions with their customers.
- 52% of G2C survey respondents see Open Data initiative as high priority.
- Citizens have stated the Once-only principle as the top-most priority project to be implemented by Government i.e. request data only once and re-use in subsequent transactions.
- Paperless transactions are rated among top priority projects by both citizens and businesses.

AWARENESS, CITIZEN ENGAGEMENT & E-PARTICIPATION

- 84% of G2C survey respondents are on Social media.
- 71% of G2C survey respondents cite lack of awareness as the main reason for not using e-Services.
- 66% of G2C survey respondents say they never had interaction with Government online regarding policy issues while 57% say they never participated in online consultation with Government.
Data Insights

**MOBILE USAGE**
- 81% of G2C survey respondents prefer accessing Internet via their smartphones.
- Online portal and mobile platforms are seen as most cost effective and traditional paper documents as least cost effective for transacting with Government.

**E-BUSINESS STRATEGIES AND SERVICE-DELIVERY**
- 96% of G2G survey respondents think business process reengineering in Government agencies will lead to streamlined and simplified processes.
- 94% of G2G survey respondents say strategic application of ICT in Government will yield more benefits than piece-meal implementation of ICT.
- Over 80% of G2B survey respondents recommend internal efficiency and effectiveness and service delivery as main areas Government should transform.
Data Insights

DIGITAL SAVVY LEADERSHIP AND GOVERNANCE
• Half of G2G survey respondents think Senior Management in Government agencies lack understanding of digital trends and lack sufficient skills to govern digital transformation
• Majority of G2G survey respondents stress that digital projects do not receive the right priority and commitment from key stakeholders

FUNDING AND ICT INVESTMENT
• 54% of G2G survey respondents say there is a mismatch between funding and digital priorities
• ICT investment in national budget amounts to less than 1% of GDP

FUNDING AND ICT INVESTMENT
• 54% of G2G survey respondents say there is a mismatch between funding and digital priorities
• ICT investment in national budget amounts to less than 1% of GDP
DIGITAL CAPABILITIES

- Increasing number of initiatives (policy support, strategies for eGov development, legislative/regulatory development)
- Open Data Portal and Policy
- Open-Source Policy
- Data Sharing Policy
- Secure IT infrastructure
- Government Data Centre
- Government Fibre Network interconnecting Government agencies
- Experience in implementing key Digital Government Projects

DIGITAL GAP

- Limited use of social media by Government agencies
- Mismatch of funding and ICT priorities
- Need for ongoing awareness of services and other digital initiatives
- Low ICT investment as % of GDP
- Inadequate ICT staff to support Digital Government
- Digital not yet in the DNA of Government
- Government agencies do not always participate actively in projects across policy domains
- Some government agencies are reluctant to share data

DIGITAL OPPORTUNITIES

- Sustainable Growth (High GDP)
- Citizen well-being
- e-Participation
- Digital end-end services
- Business Facilitation
- Data-driven decision-making
- Paperless transactions
- Mobile friendly services

DIGITAL SYNERGIES

- Transparency
- Digital inclusiveness
- Openness
- Enhanced Public service delivery
- Agile delivery
- Digital and innovative mindset

DIGITAL THREATS

- Citizens outcry and low trust in Government
- Office hopping and queuing for availing services
- Insufficient staff capacity to support ICT systems and operations resulting in recurrent breakdowns in service delivery
- Insufficient actions to foster ICT development
- Obsolete, redundant and inefficient system environment

- Authority to decide on budget approval for ICT projects should rest with central body coordinating ICT
- Few end-to-end services
- Low experimentation with latest technologies
- Digital Government projects not given enough priority and commitment by key users except when they are driven by high ranking Ministries
- Slow adoption of iterative development and agile methodologies
- Ministries and Departments cannot make distinction between ICT operations and ICT projects and are unaware of the roles of ICT organisations

- Lack of competitive and high skilled local labour force
- Privacy Concerns
- Change in Government vision
- Low uptake of existing services by citizen and industry
- Declining e-Government Development Index
- Legacy applications not responding to evolving needs
- Lack of interoperability between systems
- Siloed organisations
Key Recommendations & Quick Wins

- **Digital-by-Default Services**
  - Provision of services via the digital channel by default while at the same time assist users with limited digital skills in using digital services via support desks.

- **Once-Only Principle**
  - Capture data only once from citizens and stakeholders and reuse the data (e.g. copy of IDs, proof of address, birth/marriage/death certificate) if it is already available within government.

- **End-to-end Services**
  - Transformation of existing services into transactional services which are end-to-end, paperless and do not require physical travel or office hopping, through cross-agency collaboration, interoperability and data sharing between systems.
Key Recommendations & Quick Wins

- **Data Driven Culture**
  - Integrate use of data for informed decision-making, policy formulation, monitoring and continuously improving quality of services.

- **Open Data-by-Default**
  - Establishment of mechanisms to ensure regular release of non-personal and non-sensitive data of public interest in an open and anonymised format by Ministries/Departments and engagement of public for co-creation of open data-driven apps.
Key Recommendations & Quick Wins

- **E-Business Strategies**
  - Formulation of e-Business strategies at Ministries/Departments level for streamlining and simplification of their business processes and modes of operation with a blueprint to address key elements of digital transformation.

- **E-Participation**
  - Provision of digital platforms for integrating citizens and other stakeholders’ views in government decision-making processes.
  - Engagement with public and dissemination of information by Ministries/departments on social media channels.

- **E-Procurement-by-default**
  - Adoption of “e-Procurement-by-default” principle and provision of training and support to both public bodies and suppliers.
Key Recommendations & Quick Wins

- **Digital Inclusiveness**
  - Provision of online services, which are easy to use for people with varying abilities.
  - Provision of mobile-friendly services that is the preferred channel of most citizens.
  - Tackling uptake of government services through awareness campaigns using digital marketing channels.

- **Agile Principle**
  - Adoption of an iterative way of implementing services through harvesting user feedback and improving services until fully operational.
Key Recommendations & Quick Wins

- **Digital Skills**
  - Review national digital skills programme to cater for digital natives and digital immigrants.
  - Empowerment of public officials and service owners with digital skills and capabilities to use technologies and support digital service delivery.
  - Foster digital savviness in high-ranking executives to lead the digital transformation through executive trainings.
  - Continuous and customised capacity building programmes and industry exposure on technology and business domains to ICT staff supporting the digital ecosystem.

- **Framework Agreements**
**Today's Pains**

Interaction between citizens, businesses and Government require processes to be re-aligned with evolving digital needs of stakeholders.

**Leveraging Digital Revolution**

"Digital-by-Default" government services to transform public service delivery.
<table>
<thead>
<tr>
<th>#</th>
<th><strong>Openness, Transparency and Inclusiveness</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1</strong></td>
<td>Review existing legal and regulatory frameworks to enforce “open by default” standard regarding non-sensitive government data</td>
</tr>
<tr>
<td><strong>1.2</strong></td>
<td>Sensitize Government agencies on the importance of releasing Open Data as a means to achieve transparency in public sector operations and empower Government agencies to continuously release Open Data to foster creation of innovative solutions</td>
</tr>
<tr>
<td><strong>1.3</strong></td>
<td>Organise public engagement campaigns on the use of Open Data via hackathons, web cups, and mobile apps competitions that improves quality of life, solve social development problems or enhance public service delivery</td>
</tr>
</tbody>
</table>
| **1.4** | Digital Government systems should cater for stakeholders with different needs and include:  
a) Responsive mobile-friendly services  
b) Mobile Apps  
c) SMS-based notifications  
d) Help material provided in the form of audio and video for increased accessibility  
e) User friendly interfaces designed with user or customer experience in mind  
f) Assisted digital support desks for clients preferring counter services |
<p>| <strong>1.5</strong> | Review and adapt national digital skills programmes to cater for the varying needs of digital natives and digital immigrants |
| <strong>1.6</strong> | Conduct capacity building programmes for government employees to strengthen their skills and capacities to use technology and support e-Service delivery |
| <strong>1.7</strong> | Government agencies should be present on social media channel to connect with the Public and to communicate governments’ decisions, programmes, etc. |
| <strong>1.8</strong> | Create awareness on digital initiatives implemented for the public with strong emphasis on digital marketing channels |</p>
<table>
<thead>
<tr>
<th>#</th>
<th>Engagement and Participation in Policymaking and Service Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>Sensitize Government agencies on the importance of releasing Open Data as a means to achieve transparency in public sector operations and empower Government agencies to continuously release Open Data to foster creation of innovative solutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Creation of Data-Driven Culture in the Public Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Data and analytics e.g. data-driven dashboards, service usage statistics, among others should be leveraged upon by top management in government agencies to monitor and continuously improve quality of digital services and enhance decision-making and policy formulation</td>
</tr>
<tr>
<td>3.2</td>
<td>Enforce once-only principle in Government where citizens and businesses provide information only once to Government and the information is re-used for delivering services</td>
</tr>
<tr>
<td>3.3</td>
<td>Promote high degree of interoperability in systems and enhance sharing of data especially registers such as citizen, company, property, address, etc.</td>
</tr>
<tr>
<td>3.4</td>
<td>Instead of requesting copies of government-issued documents e.g. copy of IDs, proof of address, birth/marriage/death certificate, etc., during transactions, data should be sourced from Government via InfoHighway, and any identification and/or verification be conducted electronically</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Protecting Privacy and Ensuring Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Develop partnerships with the private sector to collect data (e.g. through honey nets and other tools) on security incidents and privacy violations</td>
</tr>
<tr>
<td>4.2</td>
<td>Work in co-operation with international organisations in the development of strong assessment and performance indicators regarding security and privacy</td>
</tr>
<tr>
<td>4.3</td>
<td>Implement a National Authentication Framework, which will allow both public and private sector to authenticate citizens in the delivery of digital services</td>
</tr>
<tr>
<td>#</td>
<td>Leadership and Political Commitment</td>
</tr>
<tr>
<td>----</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>5.1</td>
<td>Digital government initiatives, with high public impact, should be championed by Ministers to show high political support and gain executive endorsement</td>
</tr>
<tr>
<td>5.2</td>
<td>Agreements should be contracted between key stakeholders to ensure digital government projects are given the right priority and level of commitment</td>
</tr>
<tr>
<td>5.3</td>
<td>High-ranking executives should be empowered with digital skills to lead the digital transformation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Coherent use of Digital Technology across policy areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Maintain electronic inventories of digital assets such as information systems, digital services, data repositories, and licenses</td>
</tr>
<tr>
<td>6.2</td>
<td>Reinforcement of policies and standards regarding the use of ICT in public sector</td>
</tr>
<tr>
<td>6.3</td>
<td>Government should adopt the “Digital-by-default” principle where agencies proactively transform their services, using digital technology while at the same time ensuring assistance is provided to those who need help in accessing government services online</td>
</tr>
<tr>
<td>6.4</td>
<td>Ministries and Departments should ensure that they have a digital strategy (e-Business plan), which includes business process reengineering and provides a blueprint to achieve digital transformation of their services and processes</td>
</tr>
</tbody>
</table>
### Effective Organizational and Governance Frameworks to Co-ordinate the Implementation of Digital Government Strategies

<table>
<thead>
<tr>
<th>#</th>
<th><strong>Effective Organizational and Governance Frameworks to Co-ordinate the Implementation of Digital Government Strategies</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1</td>
<td>Establishment of oversight and reporting mechanisms e.g. a High Level Digital Government Task Force, preferably chaired by the Prime Minister, who has the authority to engage stakeholders and make things happen in the implementation of technology-led national strategic objectives such as Digital Government Transformation Strategy 2018 – 2022 recommendations, integration and interoperability between agencies</td>
</tr>
<tr>
<td>7.2</td>
<td>Minister-led committees should monitor implementation of digital transformation projects at the level of line Ministries/Departments and progress should be reported to and reviewed by the High-Level Digital Government Task Force</td>
</tr>
<tr>
<td>7.3</td>
<td>Funding for digital government projects should be governed at the level of high level digital government task force and funding decisions should be aligned with the priorities set by overall Digital Government Transformation Strategy</td>
</tr>
<tr>
<td>7.4</td>
<td>Government investment in ICT should be increased such that digital priorities be given adequate funding to match the vision of a high income and smart country</td>
</tr>
<tr>
<td>7.5</td>
<td>New funding mechanisms should be put into place to accelerate digital transformation that promotes innovation, cross-department collaboration, public welfare and end-to-end service delivery among others</td>
</tr>
</tbody>
</table>

### Strengthen International Co-operation with Other Governments

<table>
<thead>
<tr>
<th>#</th>
<th><strong>Strengthen International Co-operation with Other Governments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1</td>
<td>Strengthen international/regional co-operation with other countries, and operationalise existing MOUs, through charters on priority digital themes</td>
</tr>
<tr>
<td>8.2</td>
<td>Government agencies involved in digital government should affiliate with international bodies to improve their digital delivery capability</td>
</tr>
</tbody>
</table>
### Development of Clear Business Cases

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1</td>
<td>Government should define key performance measures and measure tangible and intangible benefits derived when going digital</td>
</tr>
<tr>
<td>9.2</td>
<td>Develop capabilities in the public sector to use business cases for evaluation and monitoring of the impact of projects</td>
</tr>
<tr>
<td>9.3</td>
<td>Government should engage with relevant stakeholders (from the public and private sectors, as well as from the service users’ community) in the design and development of business case for national projects</td>
</tr>
</tbody>
</table>

### Reinforced Institutional Capacities

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1</td>
<td>Identify and address functional gaps, optimise the operating effectiveness of, and simplify relationships between, each Unit/Department in the digital ecosystem</td>
</tr>
<tr>
<td>10.2</td>
<td>Review staffing requirements and prioritise recruitment at each unit or department delivering digital functions to address significant underinvestment in human resources and inadequate delivery capability</td>
</tr>
<tr>
<td>10.3</td>
<td>Conduct continuous and customised capacity building programmes and industry exposure on technology and business domains to ICT staff supporting the digital ecosystem</td>
</tr>
<tr>
<td>10.4</td>
<td>ICT departments similar to other functions such as procurement, finance, human resources, registry, should be created with dedicated personnel to support Ministries and departments’ daily functions and journey to digital transformation</td>
</tr>
<tr>
<td>10.5</td>
<td>Leverage on service providers managed services to support in house day-to-day ICT operations in each Ministry/department</td>
</tr>
<tr>
<td>10.6</td>
<td>Empower service or business owners who are in charge of services and systems at line Ministries/Departments with digital capabilities and skills to design services around citizen needs and within customer journeys</td>
</tr>
</tbody>
</table>
### Procurement of Digital Technologies

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.1</td>
<td>Catalogue of Information Systems and Services should be published so that Ministries and Departments can identify possibilities for re-use</td>
</tr>
<tr>
<td>11.2</td>
<td>Review existing legal and regulatory frameworks to allow for replication of successful applications across Government</td>
</tr>
<tr>
<td>11.3</td>
<td>Government should adopt the “e-Procurement-by-default” principle and provide training and all necessary support to both public bodies and suppliers</td>
</tr>
<tr>
<td>11.4</td>
<td>Government should develop and publish an open database of supplier performance for ICT projects</td>
</tr>
<tr>
<td>11.5</td>
<td>Use framework agreements in the procurement of selected digital products and services</td>
</tr>
<tr>
<td>11.6</td>
<td>Procurement rules need to be reviewed to facilitate procurement of technology products and services that embrace Agile methodologies</td>
</tr>
<tr>
<td>11.7</td>
<td>Government needs to support agile development in Ministries/departments through capacity building and appointment of agile coaches</td>
</tr>
</tbody>
</table>

### Legal and Regulatory Frameworks

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1</td>
<td>Analysis and review of existing legal and regulatory framework to support digital transformation</td>
</tr>
<tr>
<td>12.2</td>
<td>Legal expertise to be sought for drafting of specialised legal agreements (e.g. Service Legal Agreements)</td>
</tr>
</tbody>
</table>
Way Forward

- Finalisation of the DGTS together with an action plan for implementation following this validation workshop
- Submission of the DGTS to Cabinet for Approval
- Public release of the DGTS
- Engagement with Ministries/Departments for implementation of the recommendations
- We welcome further feedback at egovstrategy@govmu.org
Thank You