



GOVTECH  
SINGAPORE

# Ministry Family Digitalisation Guide

Internet Version







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## **About the Ministry Family Digitalisation Guide**

This handbook comprises suggested approach, key principles and other reference resources that will serve as a guide to Ministry Family Chief Digital Strategy Officers (CDSOs) and relevant officers involved in developing digitalisation plans for their agencies.

This version is adapted from the guide given to Chief Digital Strategy Officers for formulating their Ministry Family Digitalisation Plans.



# 1.0

## WHAT IS DIGITALISATION?



Digitalisation and the  
impetus for a  
digitalisation plan

# 1.1

## WHAT IS DIGITALISATION?

BUSINESS MODEL CHANGES + DIGITAL TECHNOLOGIES = DIGITAL TRANSFORMATION

*Digitalisation is the means,  
Transformation is the end goal*

### DIGITALISATION

Value creation:  
Changes business  
model

Use Digital  
Technologies

Exploit  
Data

*"The use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business" <sup>1</sup>*

### DIGITAL GOVERNMENT

Transform  
government services,  
Citizens' experience

Use Digital  
Technologies

Exploit  
Data

*"Digital government optimizes, transforms and creates new public services by maximizing the value of its information assets." <sup>2</sup>*

<sup>1</sup> Source from Gartner, IT Glossary, "Digitalization" <https://www.gartner.com/it-glossary/digitalization>

<sup>2</sup> Gartner, Transitioning to Digital Government Primer for 2018 – by Rick Howard, Rick Holgate, 9 Jan 2018

## 1.2

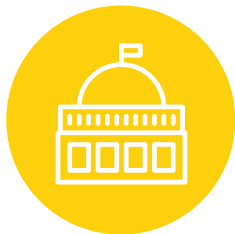
# DIGITAL DISRUPTION IS ALL AROUND US



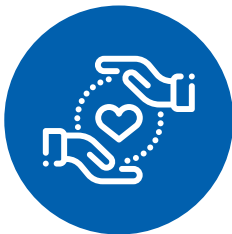
Media Services



Automobile



Government Services



Hospitality



Healthcare



Retail



Transportation

# 1.3

## WHY DIGITALISATION IS IMPORTANT

Rising  
citizen  
expectations

Optimise cost  
of service  
delivery

Digital  
Technologies,  
new  
opportunities

Government needs to transform  
At Individual...  
At Agency...  
At WOG...  
level





## 2.0 DIGITAL PRINCIPLES

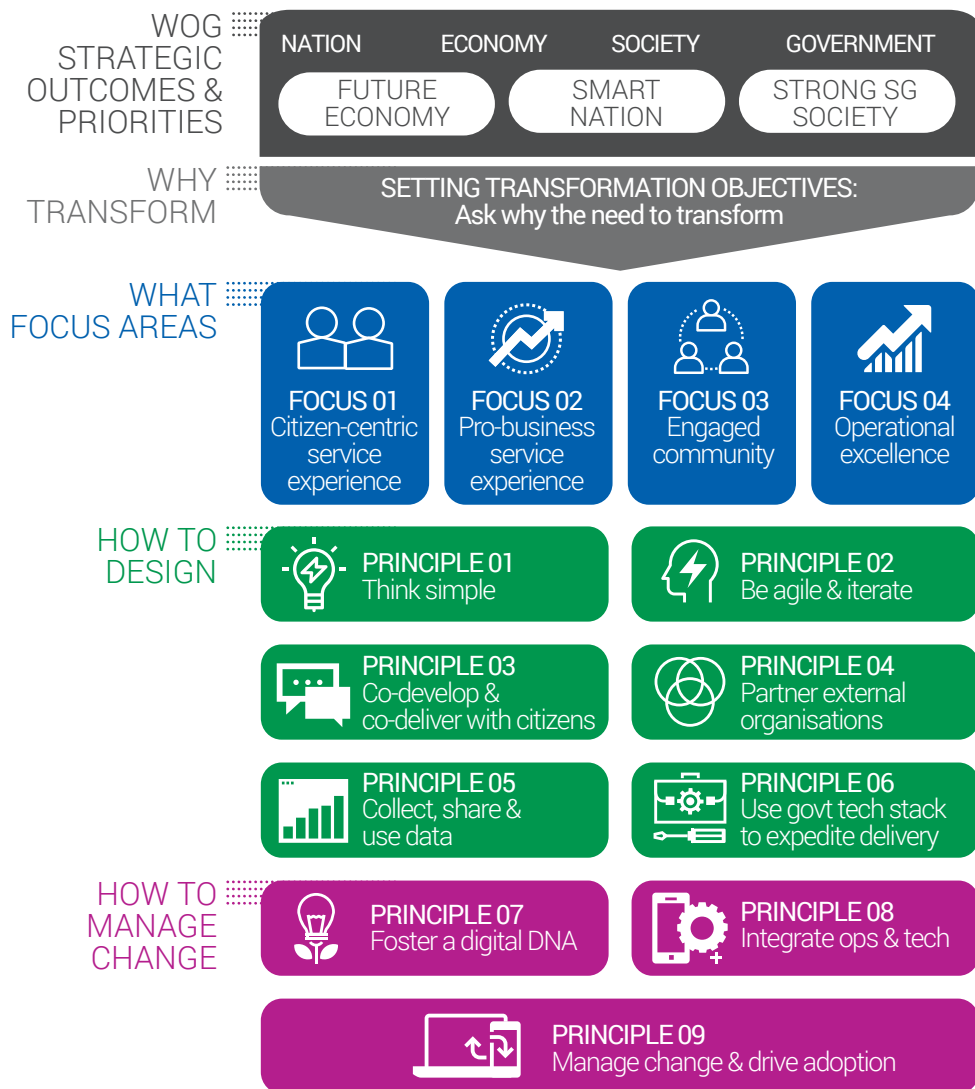


Key principles for  
digitalisation

*...a set of principles to leverage digital  
technologies to transform  
the way we think, work and  
serve citizens & businesses...*

## 2.1

# OVERALL FRAMEWORK





## BEFORE YOU START...

# Ask why the need to transform

- Examine if your organisation's business, operating models and service delivery are still relevant and if they might be disrupted by digital technologies.
- Determine how digitalisation can help optimise internal operations or public service transformation.
- Aligned to business goals, set clear digital strategies to address impact on organisational design, processes, business model and personnel.

# FOCUS 01



## Citizen-centric service experience

Be obsessed with your users.  
Understand their needs, not just  
based on what they say.



Focus on user experience, not  
only the user interface. The user  
experience should be end-to-end,  
covering physical and digital  
touch points.



## FOCUS 02

### Pro-business service experience



Businesses frequently interact with the government mainly for regulations or for partnerships. By creating business-centric services and lowering the barrier to operate a business in Singapore, this will foster a more vibrant and competitive economy.

Government needs to review existing service models with businesses, and leverage digital technologies to create a pro-business service experience.

## FOCUS 03



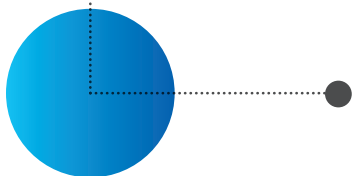
### Engaged Community



Digital technologies open up opportunities for the community to be more connected, engaged and involved.

Through the use of digital platforms to connect Government and citizens, as well as citizens with fellow citizens, a “digital kampung” spirit is kindled by bringing people together to help each other.

This fosters a sense of belonging in the community and enables greater social cohesion.





## FOCUS 04

### Operational Excellence



Operational excellence involves optimising and transforming business processes and operations. It is not only about doing more with less. It is about effectiveness, not just efficiency. It requires a review and redesign of various aspects of operations, in the face of tech disruption.

Don't just automate manual processes, think about transforming processes and operations through innovative use of technology, potentially moving towards zero-ops where minimal or no human intervention is required. Find synergies across teams, organisational units, agencies and external partners.



## PRINCIPLE 01

### Think simple



Simplify services and streamline processes to serve citizens effectively. Organisations need to review all the processes and interfaces to identify areas that can be simplified.

Simplicity is not simple – it requires good judgement of what really matters, and a bold decision to focus on them. Resist the temptation and old belief of needing to be “comprehensive,” as it does not enhance user experience.

#### Case study: Parking.sg

- Without complex IoT sensors, URA & HDB implemented mobile app for parking within a few months.



## PRINCIPLE 02

### Be agile & iterate



With rising expectations for faster delivery and increasing number of digital natives in our population, Government needs to be agile and highly adaptive. Take an outside-in, iterative approach in developing services, starting first with a minimum viable product (MVP), and improve progressively with feedback to get to the final implementation. New features will be prioritised and progressively added in each iteration.

#### Case study: MOM FDW

- MOM implemented Foreign Domestic Worker's work pass system with multiple releases over 12 months, with a Minimum Viable Product (MVP) within 9 months.

Being agile will require user executives to be fully involved in the design and development process along with tech developers.



## PRINCIPLE 03

### Co-develop and co-deliver with Citizens



#### Case studies: SCDF MyResponder & Data.gov.sg

- SCDF crowdsource citizens as 1st responder for cardiac arrest emergencies via myResponder.
- Public can access Government data and APIs from Data.gov.sg to develop innovative apps.



Government does not always have the best answers to all the issues. Involve stakeholders to co-create the solutions. Beyond ideation at Hackathons, digital technologies such as open data APIs make it easier for citizens to build applications that could benefit them, as well as help solve some of the problems Government faces.

Digital platforms have also made it possible to mobilise citizens to co-deliver services to the community they belong. Co-developing and co-delivering with citizens catalyse innovation beyond Government and empower citizens in new ways.



## PRINCIPLE 04

### Partner external organisations



Partner external organisations to tap into capabilities, resources and talent beyond the public sector. Such collaborations will enable development of new products and services, and enhancements of existing ones.

Digital platforms are needed for connection to external organisations. Government can own such digital platforms or connect to platforms operated by other organisations.

#### Case study: National Trade Platform

- Through the National Trade Platform, Government partners the private sector to develop and offer services to the trade and logistics community.



## PRINCIPLE 05

### Collect, share & use data

Collect useful data to ask the correct questions and make better-informed decisions.



Sharing meaningful data enables Government agencies to collectively offer a more citizen-centric service delivery.

Analyse and use the data insights to make better, “smarter” and quicker decisions to drive policy, planning, service delivery and operational excellence.

#### Case study: LTA PLANET

- PLANET enables LTA planners to tap on public transport data for planning and policy making.



## PRINCIPLE 06

### Use government tech stack to expedite delivery



#### Case study: Business Grants Portal

- Business Grants Portal leveraged Government Tech Stack to shorten delivery time

Accelerate product delivery by leveraging government tech stack for common services, platforms and infrastructure.

The government tech stack comprises common tech building blocks that let you integrate easily, reuse many times and build applications securely.

Similarly, reuse WOG standard products and solutions without having to re-invent the wheel.



## PRINCIPLE 07

### Foster a digital DNA



Digital transformation requires a mindset and cultural change within the organisation, emphasising values such as agility, boldness, innovation and collaboration.

Top leadership plays an important role in driving and sustaining this cultural change, fostering the values amongst all the people in the organisation, and embedding them into every aspect of work.

#### Case study: DBS

- DBS inculcates and nurtures a digital and innovative mindset among all its staff.

## PRINCIPLE 08



### Integrate Ops & Tech



#### Case studies: NEA IFOS & MOM iOSH

- The Integrated Field Operations System has helped NEA to seamlessly integrate operational workflows, sensor systems and analytics.
- Mobile iOSH empowers safety inspectors to perform effective enforcement anytime, anywhere.

Tighter integration between Operations and Technology is essential for digital transformation. An agency's Ops can include frontline / backend operations and business processes. Ops-Tech integration needs to begin from the early stages of planning and conceptualisation. Digital initiatives should be jointly managed, executed and owned by both Ops and Tech teams.

Ops-Tech integration can enable new business models by bringing together operational considerations and new technological possibilities.



## PRINCIPLE 09

### Manage change & drive adoption



#### Case study: IRAS e-Filing

- IRAS drives successful implementation of multiple generations of e-Filing transformation amongst taxpayers.



With new digital products and services, Government cannot assume that mere implementation will ensure public adoption. To help citizens and businesses embrace the new products / services, there should be public communications and campaigns to raise awareness, and demonstration of clear benefits of these new products / services.

Work within the organisation should also be adjusted to support the new ways of delivering the digital products and services.



## 3.0

# Developing Ministry Family Digitalisation Plan



Steps and deliverables in developing the Ministry Family Digitalisation Plan

## 3.1

# DRIVERS FOR MINISTRY FAMILY DIGITALISATION PLAN



## MINISTRY FAMILY DIGITALISATION PLAN

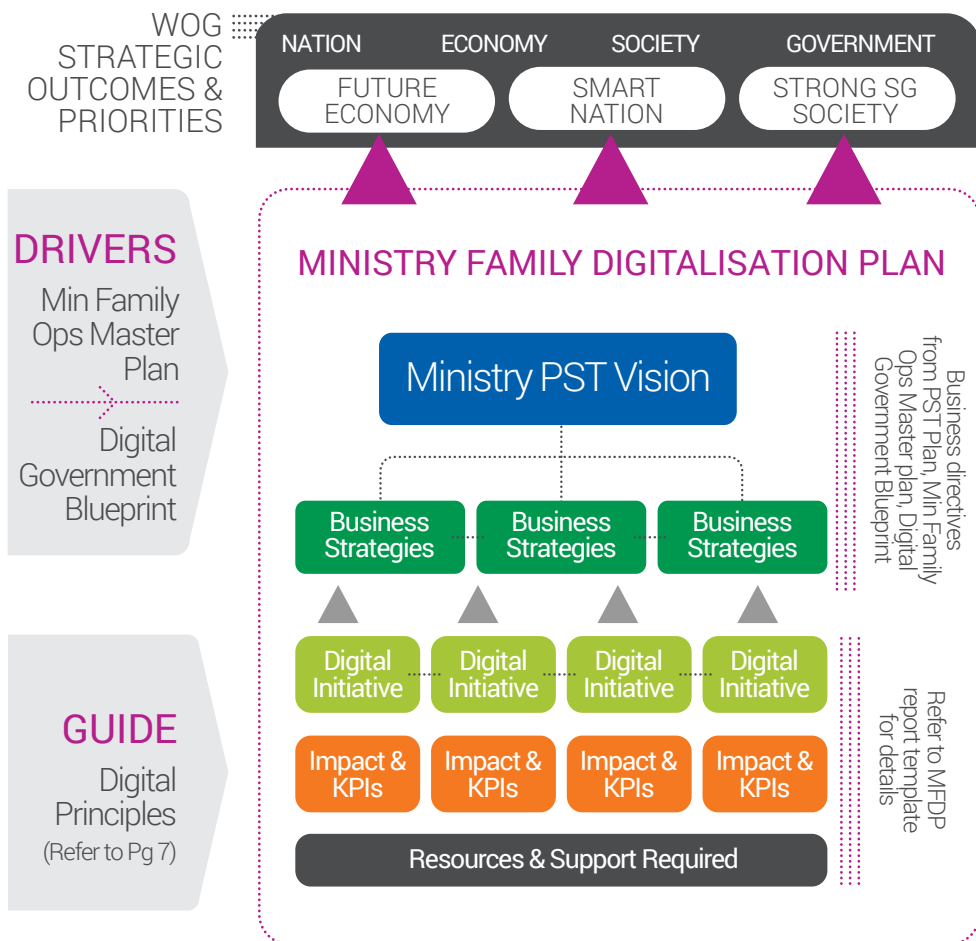
### CONSIDERATION

Ministry family will take into account these drivers to align the Ministry Family Digitalisation Plan.

\*The Digital Government Blueprint aims to set out strategies to guide agencies on transforming to be a digital government.

## 3.2

# KEY COMPONENTS OF MINISTRY FAMILY DIGITALISATION PLANS (MFDP)

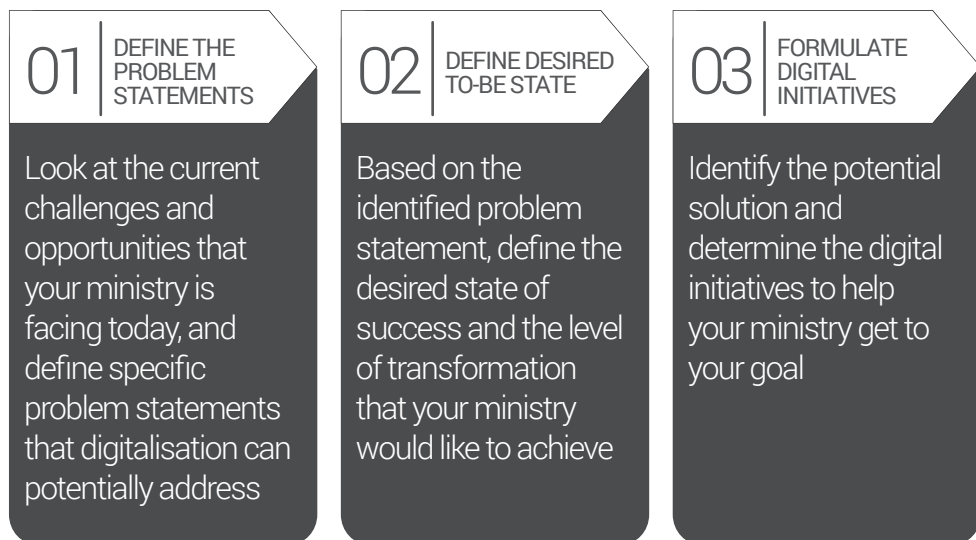


## 3.3

# APPROACH FOR DEVELOPING MFDP

- The approach below is a guide for “developing” the MFDP. It does not cover the full implementation journey.
- The respective relevant digital principles recommended at each phase are for reference only.

## Key Phases

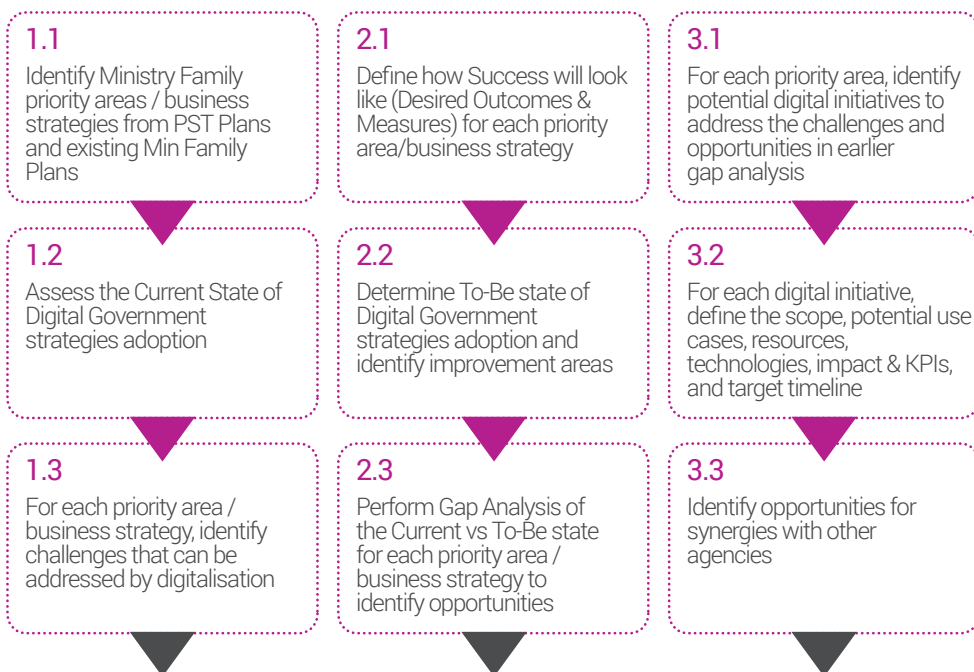


## 3.3

### Key Phases



### Key Activities



### Output



## 3.3

01 DEFINE PROBLEMS

02 TO-BE STATE

03 DIGITAL INITIATIVES

### Ask why the need to transform

Analyse and define the problem statements of current state for the identified priority areas / business strategies.

Consider DGB strategies and identify relevant areas to work on.

#### To identify problem statements:



#### PUBLIC SERVICES

- Examine the relevance of current citizen and business service models
- Understand citizens' and businesses' needs, their experiences and pain points
- Identify areas of improvement and review the way we provide services to citizens and businesses



#### COMMUNITY ENGAGEMENT

- Examine current state of how the community is being engaged
- Assess and evaluate opportunities of engaging the community
- Consider how to create greater social cohesion through digitalisation



#### INTERNAL OPERATIONS

- Examine the current state of operations and challenges
- Identify digital opportunities that can change operational processes to enable officers to work more productively and effectively

## 3.3

01 DEFINE PROBLEMS

02 TO-BE STATE

03 DIGITAL INITIATIVES

### Define how success looks like

Determine the level of aspirations (or degree of transformation) for the **focus areas** in the **to-be state** (where you want to be) of the priority areas / business strategies.

Consider how best to adopt the digital government strategies in DGB.



#### FOCUS 01 Citizen-centric service experience

Transform the way  
we serve citizens

- What is the future service delivery model and experience for citizens?
- Do we go beyond User Interface and take into account the entire citizen experience?
- Do my services have an outside-in design thinking approach?
- Are there synergies for cross agency integration to improve citizen experience?



#### FOCUS 02 Pro-business service experience

Transform the way  
we serve  
businesses

- How can we better serve businesses for them to operate in Singapore and transact with the Government?
- Are there ways in which the Government can facilitate creation of more business opportunities and emergence of new business models?



#### FOCUS 03 Engaged community

Transform the way  
we engage  
community

- How to rope in actors (Citizens, Businesses and other government agencies) in the ecosystem to provide greater value?
- How can citizens and businesses participate in co-designing or co-creating the services?
- Can citizens / businesses be involved to deliver "public services" back to the community they belong?



#### FOCUS 04 Operational excellence

Transform the way  
we work

- Are my services efficient in terms of manpower, turnaround time and total cost?
- How can my operational processes be transformed through automation or cut out unnecessary red tape?
- Does my agency have a culture of continuous improvement and innovation?

## 3.3

01 DEFINE PROBLEMS

02 TO-BE STATE

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### Consideration

Consider the current demand and supply of services to citizens. Rethink how demand can be met and consider different supply models of providing the services.

#### DEMAND OF PUBLIC SERVICES

##### WHAT IS THE REAL DEMAND FOR MY SERVICES?

- Spotify: I want to listen to a song, not buy a CD with 9 songs that I don't want
- IRAS No Filing: The demand is revenue collection not tax filing by citizens
- What other "real demands" lie behind our services? E.g. licences and permits

##### HOW CAN I REDUCE AVOIDABLE DEMANDS?

- Examples of avoidable demands: misuse of A&E, data errors leading to non-compliance
- Leveraging technology to gain customer insights, change behaviour and get data from source

#### SUPPLY OF PUBLIC SERVICES

##### WHAT ARE OTHER SOURCES OF SUPPLY BESIDES GOVERNMENT?

- YouTube: Content creation by millions of users
- MyResponder and OneService: New supply of "public services" by citizens and other motivated parties

##### HOW CAN SERVICE DELIVERY BE IMPROVED?

- Automation, virtualisation, disintermediation, social, predictive
- Netflix: streaming videos vs upgrading of physical media VHS > DVD > Blu-ray

#### HOW CAN I BUILD PLATFORMS AND GROW ECOSYSTEMS AROUND MY SERVICES?

- Google Android: Users, App Developers, Advertisers, Content Creators
- Student Learning Space – bringing together students, teachers, app developers, EdTech

## 3.3

01 DEFINE PROBLEMS

02 TO-BE STATE

03 DIGITAL INITIATIVES

### Transform the way we serve citizens

Put the citizen in the centre. Design the services for them, not around organisational limits or constraints.



What is the vision of a future citizen experience for your service?

#### SIMPLE

Services are simple, intuitive and easy to understand and use.

#### SEAMLESS

Services are 'integrated' across different agencies. 'No wrong door' policy.

#### FAST & EFFICIENT

Services can be completed in the shortest time possible.

#### PERSONALISED

Services are personalised to the needs of citizens, information is requested only once.

#### ACCESSIBLE

Services can be accessed via multiple channels. Digital channel to be available by default.

#### ANTICIPATORY

Anticipate citizens' needs and provide information and services at the right time, triggered by events in their moments of life.

## 3.3

01 DEFINE PROBLEMS

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03 DIGITAL INITIATIVES

### Transform the way we serve businesses

Government interacts with businesses through various G2B services. These services can leverage the capabilities of new technologies and be re-designed to be more business-centric and facilitative.



#### What is the vision of a pro-business service experience?

##### LOW COMPLIANCE COST

Total cost for complying to various rules and regulations should be minimised where possible.

##### SEAMLESS

Services are 'integrated' across different agencies. 'No wrong door' policy.

##### FAST & EFFICIENT

Services can be completed in the shortest time possible.

##### ADAPTABLE

G2B services that can adapt to changing business needs.

##### ACCESSIBLE

Services can be accessed via multiple channels. Digital channel available by default.

##### OPEN & COLLABORATIVE

Government should open up its data and collaborate with businesses to enable new business opportunities.

## 3.3

01 DEFINE PROBLEMS

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### Transform the way we engage the community

Involve citizens and businesses to shape ideas, co-create solutions and share responsibilities in delivering better public services to the citizens.



What is the future state of a community engagement model?

Increasing degree of community involvement



CO-IDEATE

Citizens and businesses are invited to provide ideas on challenge statements provided by the Government.



CO-DEVELOP

Citizens and businesses are invited to jointly create solutions together. They form part of the development team to build the solutions.



CO-DELIVER

Citizens and businesses are directly involved as part of the service delivery back to the same community that they belong.

The level of empowerment and involvement given to citizens and businesses will increase their shared responsibility and ownership of the solution.

## 3.3

01 DEFINE PROBLEMS

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### Transform the way we work

In order to achieve operational excellence, continuously examine and assess the areas of improvement for operational processes (Change the way we work) to reduce the need on manpower, cut costs, increase productivity and effectiveness.



What is the future state of your operating model?

#### Processes and Operations

##### Frontline

Processes that directly interface with citizens and businesses, or processes that directly fulfil the mission tasks on the ground.  
e.g. Hygiene inspection, emergency response and rescue

##### Back office

Processes that do not directly interface with the citizens but indirectly contribute to agency's mission tasks.  
Corporate office processes such as HR, Finance, IT etc.

Increasing degree of Processes and Ops Transformation

#### IMPROVE

Improve smaller processes and operations

#### RE-DESIGN

Moderate change in mid-sized processes and operations

#### RE-ENGINEER

Major change in operating model or core processes and operations that requires fundamental review. Potentially moving towards zero-ops where unnecessary processes are either cut or automated



*Seek to cut work before automating.  
Focus on Effectiveness, not only on Efficiency*

## 3.3

01 DEFINE PROBLEMS

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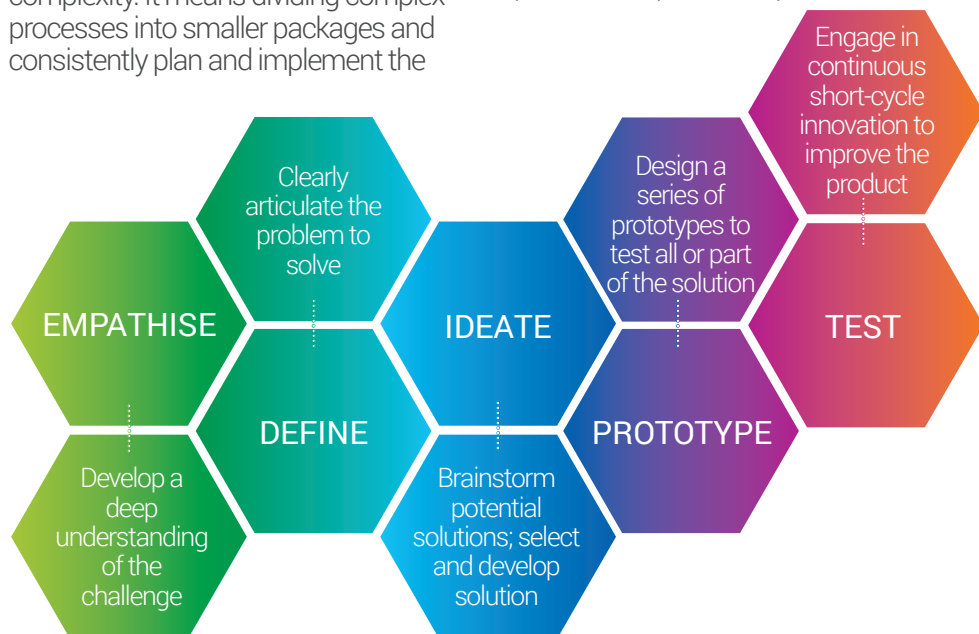
### Formulating digital initiatives

#### PRINCIPLE 01 | THINK SIMPLE

While there is an increase in back-end complexity in today's highly connected world, front-end services are expected to become increasingly simple and user-friendly.

There is a need to distil simplicity from complexity. It means dividing complex processes into smaller packages and consistently plan and implement the

latter in an agile way. To do that, organisations must first be aware of what the end-to-end process entails, who are the parties involved, what are the interfaces affected etc. to examine how the processes can be simplified. Fewer processes equal more speed.



- Adopt an **Empathetic**, **Outside-In**, **Design thinking** and **Prototyping-led** approach to find solutions to the problems
- Study data related to user behaviour to understand their interactions and preferences

## 3.3

01 DEFINE PROBLEMS

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### Formulating digital initiatives

#### PRINCIPLE 02 | BE AGILE & ITERATE

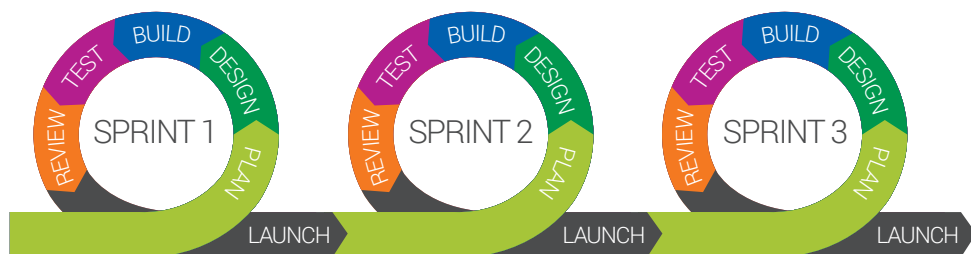
Citizens and businesses' demands are fast evolving. Organisations need to find simple solutions to complex problems. Be agile in order to respond to dynamic changes for their needs.

Start small on new service(s), be it starting with a small group of trial

users, or releasing only a **minimum viable product (MVP)**. Gather users' feedback, and make improvements.

Learn what works and what doesn't. Citizens' needs may change. Reiterate the process to release new features or services, focusing on what citizens need.

Agencies can also adopt **agile software development methodologies** based on iterative and incremental development to develop their solutions, such as SCRUM.



**NOTE:** This process will require business users to be greatly involved and committed in the design process.

## 3.3

01 DEFINE PROBLEMS

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### Formulating digital initiatives

PRINCIPLE 03



CO-DEVELOP & CO-DELIVER WITH CITIZENS

In leveraging the citizens to find solutions, Government must embrace the idea of being "Open". Digital technologies such as API, Open source code repository, micro-services and mobile helps to open up such collaboration opportunities with citizens.

Increasing degree of community involvement



CO-IDEATE



CO-DEVELOP



CO-DELIVER

#### Open Innovation

Invite citizens and businesses to provide innovative ideas on how to tackle some of the challenges faced.

E.g. eCitizens Ideas! crowdsourcing portal, IRAS Hackathon 2016

#### Open Data, Open Source Code

Let the citizens and businesses access your data and source codes where possible. Allow them to leverage your APIs and micro-services to build amazing applications with them.

E.g. data.gov.sg, MyInfo API, Beeline source codes, LTA DataMall

#### Open Volunteerism & Mobilisation

Offer opportunities where citizens and businesses can volunteer or be mobilised to be part of the service delivery. Digital technologies help bring ease in co-opting citizens and businesses.

E.g. MyResponder, OneService, MOM SnapSAFE, SGSecure

## 3.3

01 DEFINE PROBLEMS

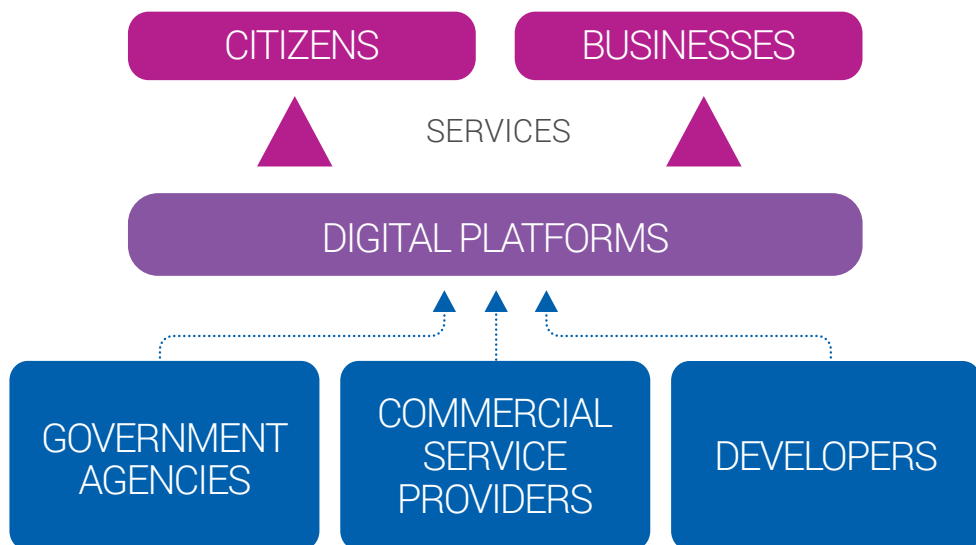
02 TO-BE STATE

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### Formulating digital initiatives

#### PRINCIPLE 04 | PARTNER EXTERNAL ORGANISATIONS

- Digital platforms allow different actors to come together and deliver public services in new ways as well as create value for all parties
- Government can be the owner of digital platforms or a participant in platforms operated by other organisations
- Commercial Service Providers can collaborate with Government through the platforms to offer their services
- The platforms can also be opened to Developers to develop complementary products and services
- Main elements of these platforms are API management, control and security



## 3.3

01 DEFINE PROBLEMS

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### Formulating digital initiatives

PRINCIPLE

04



PARTNER EXTERNAL ORGANISATIONS

#### Key Considerations for participating in or creating Digital Platforms

##### Business Models

**ENABLE PARTNERS IN THE SAME VALUE CHAIN TO WORK TOGETHER**

**Example:**  
Contract manufacturers and parts suppliers

**INTEGRATE ENABLERS TO DEVELOP NEW SERVICES**

**Example:**  
Amazon Web Services

**DEVELOP AND PUBLISH NEW PRODUCTS AND SERVICES**

**Example:**  
App Stores

**MATCH DEMAND AND SUPPLY**

**Example:**  
AirBnB

##### Design Considerations

**HOW OPEN IS THE PLATFORM?**

- Public
- Private

**WHO ARE THE MEMBERS?**

- Citizen
- Businesses
- Things

**WHAT ARE THE RELATIONSHIPS AMONG MEMBERS?**

- Customers
- Partners
- Service providers

**WHAT IS IN IT FOR THE MEMBERS?**

- Monetary
- Data
- Services

## 3.3

01 DEFINE PROBLEMS

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### Formulating digital initiatives

PRINCIPLE

05



COLLECT, SHARE & USE DATA

**Collecting the right data** from internal and external sources can expand our data analytics possibilities. New data sources, from Internet-of-Things (IoT) and web analytics, are waiting to be tapped on.

**Building a culture of sharing meaningful data** with other agencies in the Government will encourage collaboration and improve the overall quality of data collection.

**Use insights from data analytics** to derive meaningful outcomes and deliver actions from the data collected.



#### COLLECT

relevant data from various sources no matter where they are



#### ORGANISE

data into appropriate stores to clean, prepare and model them for analytics later



#### ANALYSE

data at the appropriate juncture to gain insights



#### USE

insights & data at the most logical point when decision or actions have to be made

## 3.3

01 DEFINE PROBLEMS

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### Formulating digital initiatives

#### PRINCIPLE 05 COLLECT, SHARE & USE DATA

Besides human-centric rule-based data analytics, advanced analytics with Internet-of-Things (IoT) and Artificial Intelligence (AI) can be used to obtain deep actionable insights and automate decisions in service delivery and operations.

Coupled with the use of geospatial data and video analytics, the potential of richer applications with the ability to transform processes and operations can be made possible.

#### EXAMPLES

##### Infrastructure & facilities management

JTC's integrated smart estate and building operations system, J-Ops, uses existing sensors to centrally monitor and analyse essential services and in several buildings. This raises productivity as facility managers can optimise ops room personnel and technicians over several buildings and facilities. J-Ops enables data analytics for predictive maintenance to pre-empt issues and reduce energy consumption.

##### Urban planning

URA is collaborating with A\*STAR I2R and relevant planning agencies to research the use of GIS modelling, analytics and visualisation for planning of land uses, infrastructure and utilities, as well as facilities.

### 3.3

01 DEFINE PROBLEMS

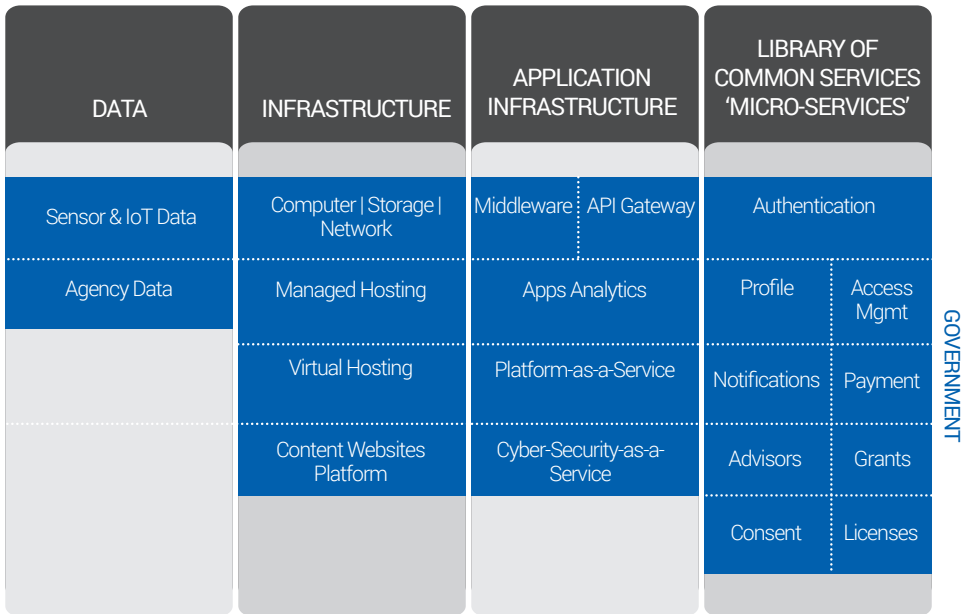
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## Formulating digital initiatives

PRINCIPLE 06  USE GOVERNMENT TECH STACK TO EXPEDITE DELIVERY

Now there is no need to reinvent the wheel. Reuse the technology building blocks in the government tech stack to accelerate your implementation. The solutions have been tested to comply to IM8 requirements. Make use of common services, consolidate applications on standardised and tested platforms and infrastructure.



## 3.4

# OTHER CRITICAL FACTORS FOR A SUCCESSFUL TRANSFORMATION

Getting people ready for the change

PRINCIPLE 07



FOSTER A DIGITAL DNA

To succeed, change must cut deep into an organisation. An effective digital transformation strategy needs to permeate the entire organisation to break down organisational silos and hierarchies to facilitate cross-departmental and external collaboration.

Values such as agility, boldness, innovation and collaboration should be encouraged as part of the organisation culture.

### Leadership

Top leadership must be involved in the planning and implementation of digital initiatives by taking charge of decision-making.

Ensure priorities are emphasised through frequent communication and see through the implementation to ensure success. Top leadership should also be aware of digital technologies and trends, and the opportunities they create.

### Staff Development

It is critical to develop your staff for the necessary know-how to embrace digitalisation as part of their work, and build up the digital capability of the organisation.

The staff can then apply these skillsets on improving business processes and service delivery.

### Innovative & Risk-taking Culture

The organisational culture should encourage ideas and experiments on digital transformation to celebrate success and learn from failure.

Innovation and risk-taking should be rewarded.

## 3.4

### Getting people ready for the change

PRINCIPLE 08



INTEGRATE OPS & TECH

Technological developments need to be aligned to operational considerations. Integration of Ops-Tech has to occur at multiple levels of the organisation.

#### JOINT PLANNING AND STRATEGY DEVELOPMENT

- Integration of Ops-Tech requires close alignment of planning and strategy development instead of discrete planning exercises by both sides.
- Ops-Tech integration needs to start from the early stages of conceptualisation of digital initiatives.

#### ENABLE NEW BUSINESS MODELS

- Ops-Tech integration can enable new business models by bringing together operational considerations enabled with possibilities of new technologies.

#### JOINT PROJECT OWNERSHIP

- Digitalisation initiatives should be jointly managed, executed and owned by both Ops and Tech teams.
- There should be a conscientious effort to develop the staff with Ops-Tech bridging capabilities.

## 3.4

### Getting people ready for the change

#### PRINCIPLE 09 | MANAGE CHANGE & DRIVE ADOPTION

With new products and services driven by digital transformation, the Government has to ensure that citizens will embrace these changes and adopt them.

While techniques such as design thinking and agile methodology will address the issue of usability, we still need to ensure there is actual adoption. Agencies should use Change Management techniques like behavioural insights, personas identification and demographic segmentation to plan for change interventions to drive adoption.

Within the organisation, staff must also make adjustment to support the new ways of delivering the digital products and services.

#### Change interventions to go from Awareness to Adoption

##### AWARE

Marketing campaigns and public communications

##### AVAILABLE

Products and services made readily available through convenient channels

##### ADOPT

Nudging users towards adoption

GOVERNMENT TECHNOLOGY  
AGENCY OF SINGAPORE  
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