IMPLEMENTATION OF NATIONAL DIGITALISATION PLAN IN MALAYSIA

KONVENSYEN PENTADBIR ICT 2018
UNIVERSITI TUN HUSSEIN ONN MALAYSIA
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MAMPU

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Presentation Subtopic

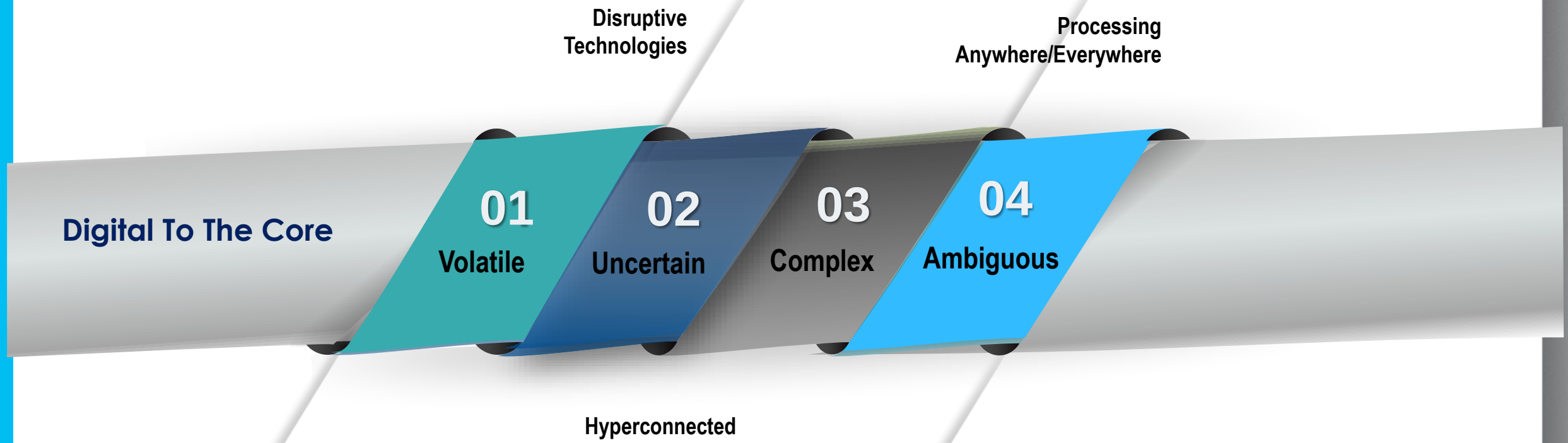
01

Continue .....

CURRENT PUBLIC SERVICE LANDSCAPE

CURRENT PUBLIC SERVICE LANDSCAPE

EXPERIENCING VUCA WORLD AS THE NEW NORMAL



- Shift In Economic Global Power
- Rapid Urbanisation
- Climate Change & Resource Scarcity
- Demographic & Social Change
- Policies & Regulations
- Technology Breakthrough

Source: http://www.pwc.co.uk/issues/megatrends.html

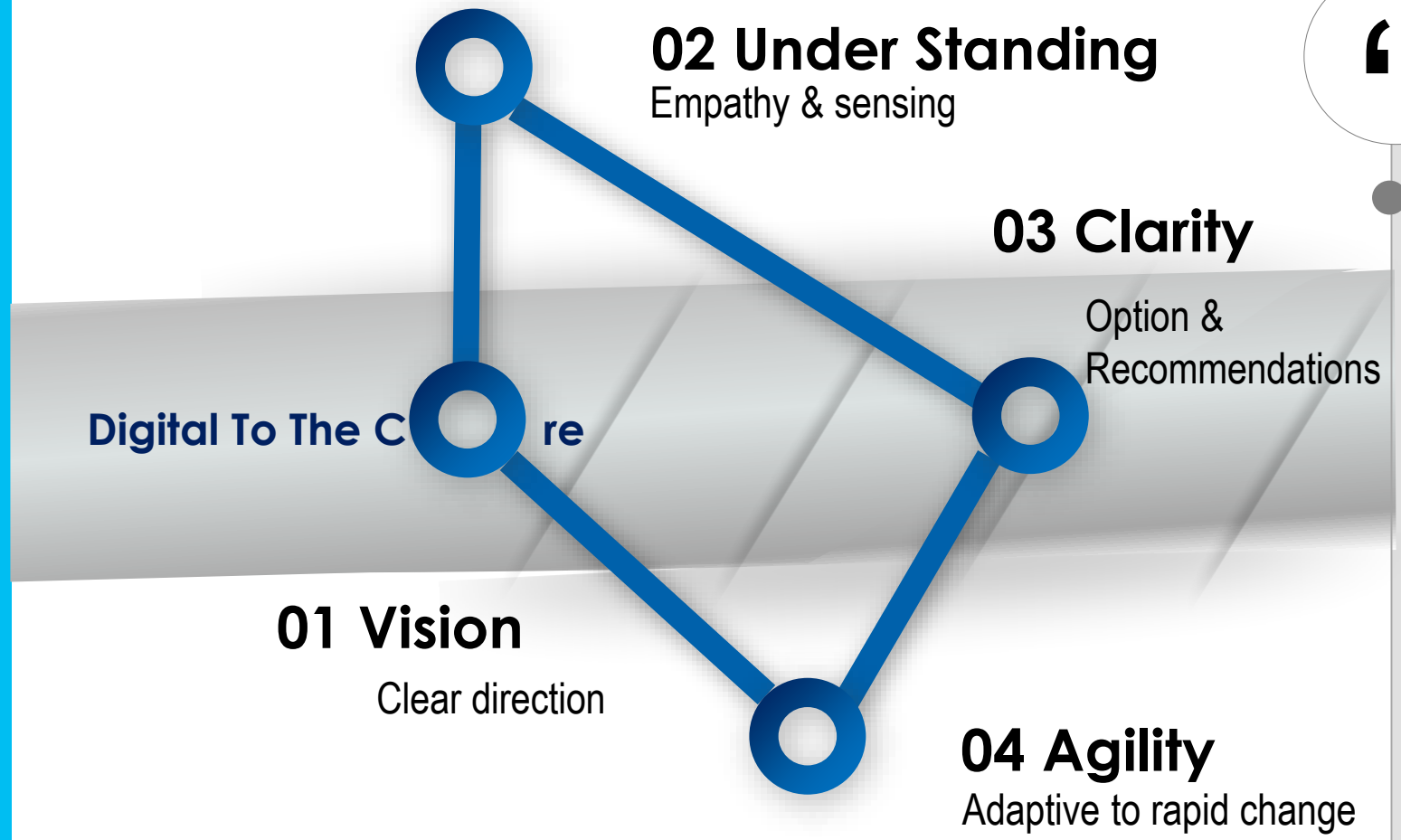
Presentation Subtopic

02

Continue .....

IMPACT ON PUBLIC SERVICE DELIVERY

NAVIGATING THE VUCA WORLD



" In today's era of volatility, there is no other way but to re-invent. The only sustainable advantage you can have over others is agility, that's it. Because nothing else is sustainable, everything else you create, somebody else will replicate "

JEFF BEZOS, AMAZON FOUNDER

Presentation Subtopic

03

Continue .....

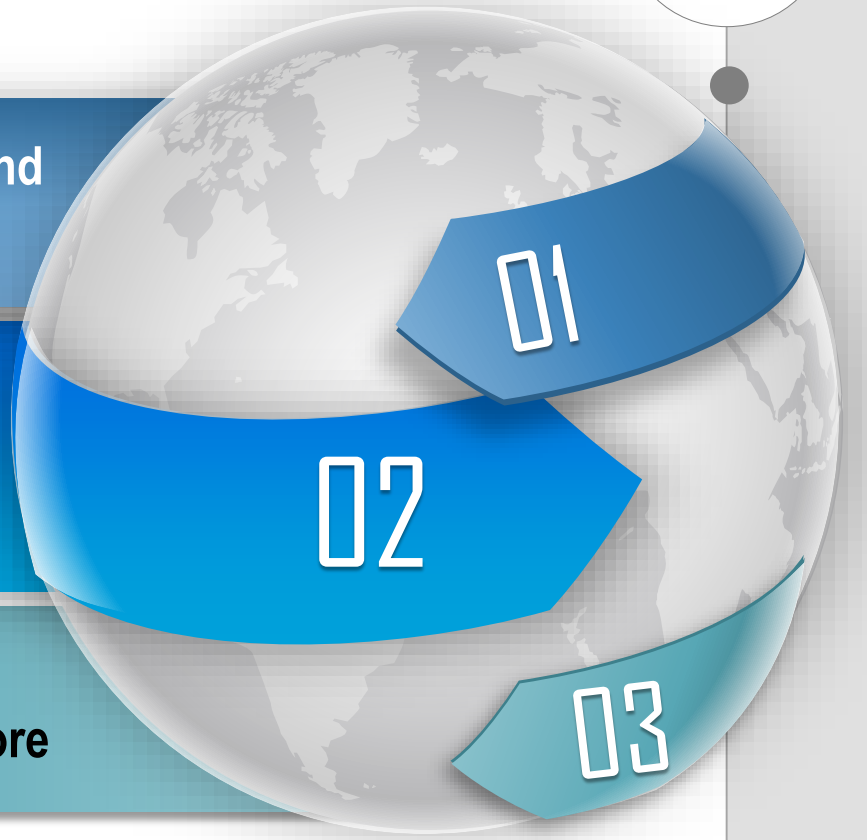
TRANSFORMING PUBLIC SERVICE DELIVERY

TRANSITIONING TO DIGITAL SERVICE DELIVERY

How your **businesses/services** respond to Digital Technologies Trend

How an organization implements technologies together with **strategy, talent management, structure** and **leadership**

How an organization instills a **digital** culture where **digital data is at the core**



> " You can't delegate digital transformation for your company… you and your executives have to own it! Executives need to engage, embrace and adopt new ways of working with the latest and emerging technologies "
>
> **BARRY ROSS, CEO AND CO-FOUNDER, ROSS & ROSS INTERNATIONAL**

Source: http://sloanreview.mit.edu/article/digital-maturity-not-digital-transformation/ (4 April 2017)

TRANSFORMING PUBLIC SERVICE DELIVERY

INNOVATING DIGITAL PUBLIC SERVICE DELIVERY

01 INTELLIGENCE (MEANINGFUL INSIGHTS)

Digital technologies yielding unprecedented amounts of data about the business/service ecosystems

(e.g. - business intelligence, data analytics, design thinking, business scenarios)

02 INTEGRATION (ORGANIZATIONAL STRUCTURE & CAPABILITIES)

Digital technologies bring greater connectivity between people and/or processes

(e.g, - data sharing, shared services, collaboration, governance)

03 IMPACT (VALUE CREATION)

Customer value an organization can bring by leveraging digital technologies

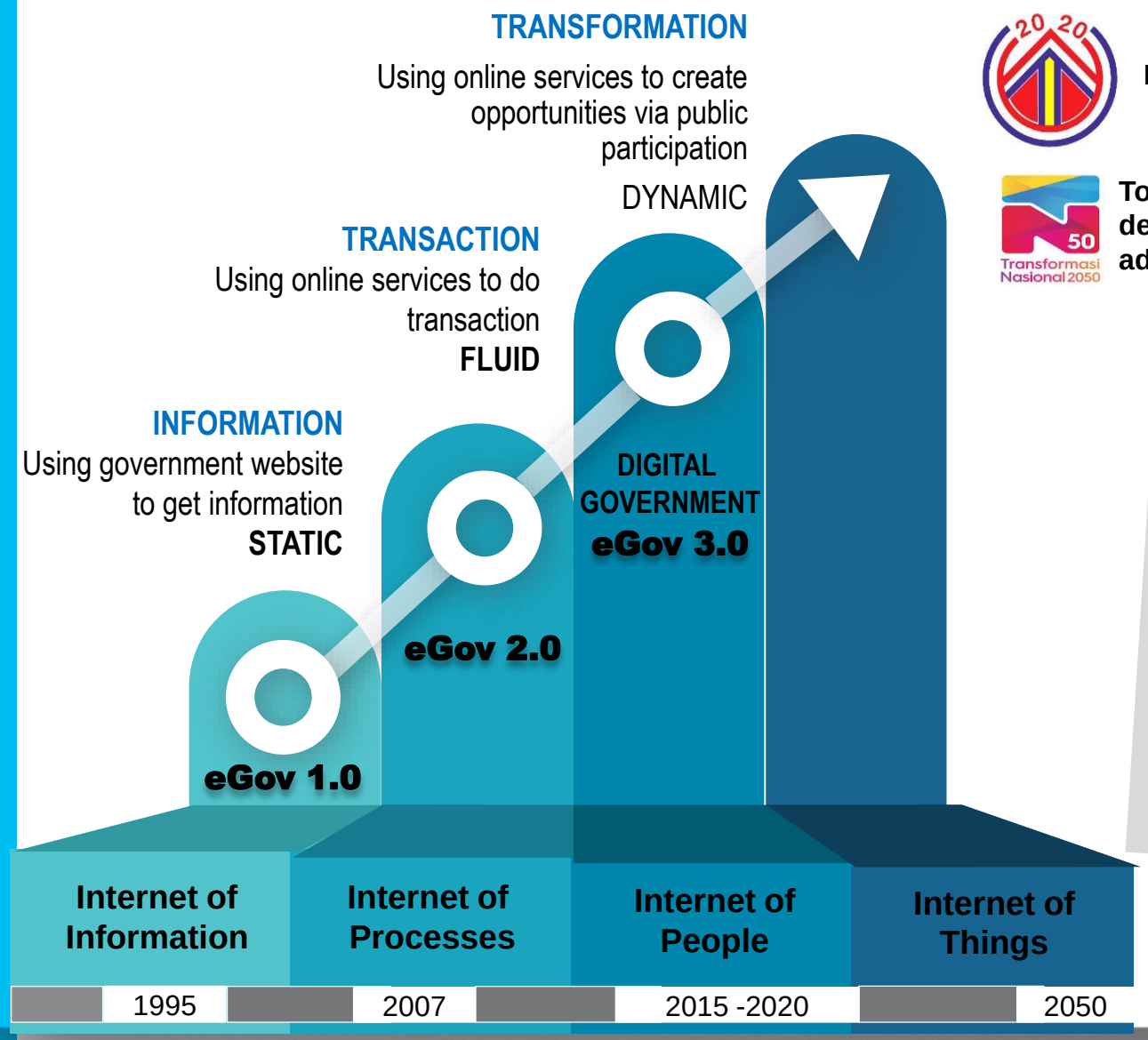
(e.g. – competitiveness, effectiveness, satisfaction, happiness)

> " Change is the law of life and those who look only to the past or present are certain to miss the future "
>
> **JOHN F. KENNEDY**

> " The measure of intelligence is the ability to change "
>
> **ALBERT EINSTEIN**

Source: www.europeanbusinessreview.com, 23 Sept 2016

UNDERSTANDING MALAYSIAN DIGITAL GOVERNMENT EVOLUTION



Developed Nation

Top 20 nation in economic development, social advancement & innovation

Digital government is government designed and operated to take advantage of DIGITAL DATA in optimizing, transforming, and creating government services.

Source:
Digital Government Is a Journey Toward Digital Business

TRANSFORMING PUBLIC SERVICE DELIVERY

ICT VISION

"An Inclusive Digital Government Spearheading Citizen Centric Service Delivery"

DRIVERS

Vision 2020

Eleventh Malaysia Plan

Technology trends *& disruptive technologies*

Digital Industry Based Economy

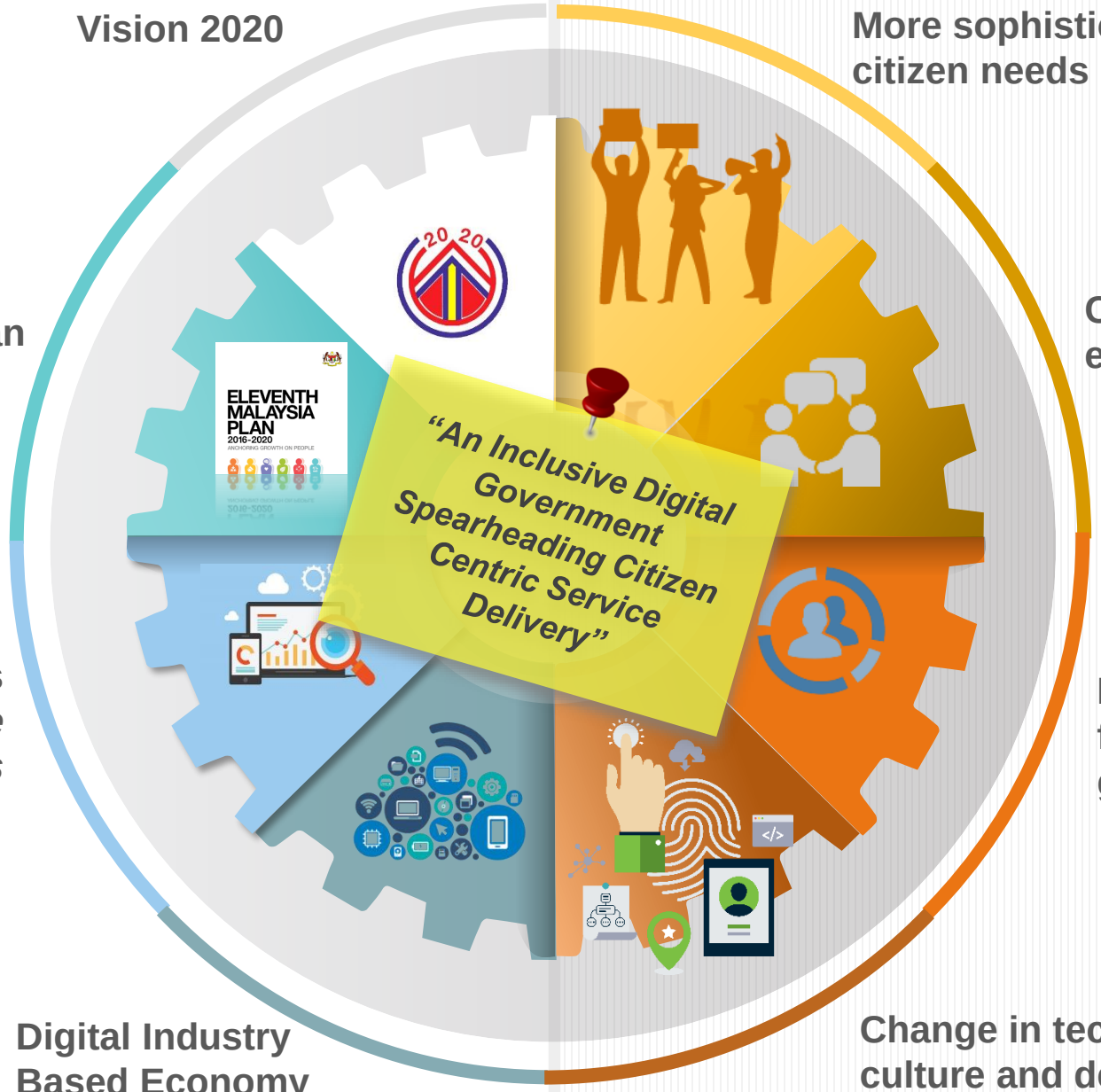
CHALLENGES

More sophisticated citizen needs

Citizen engagement

High expectations from the younger generation

Change in technology, culture and demography



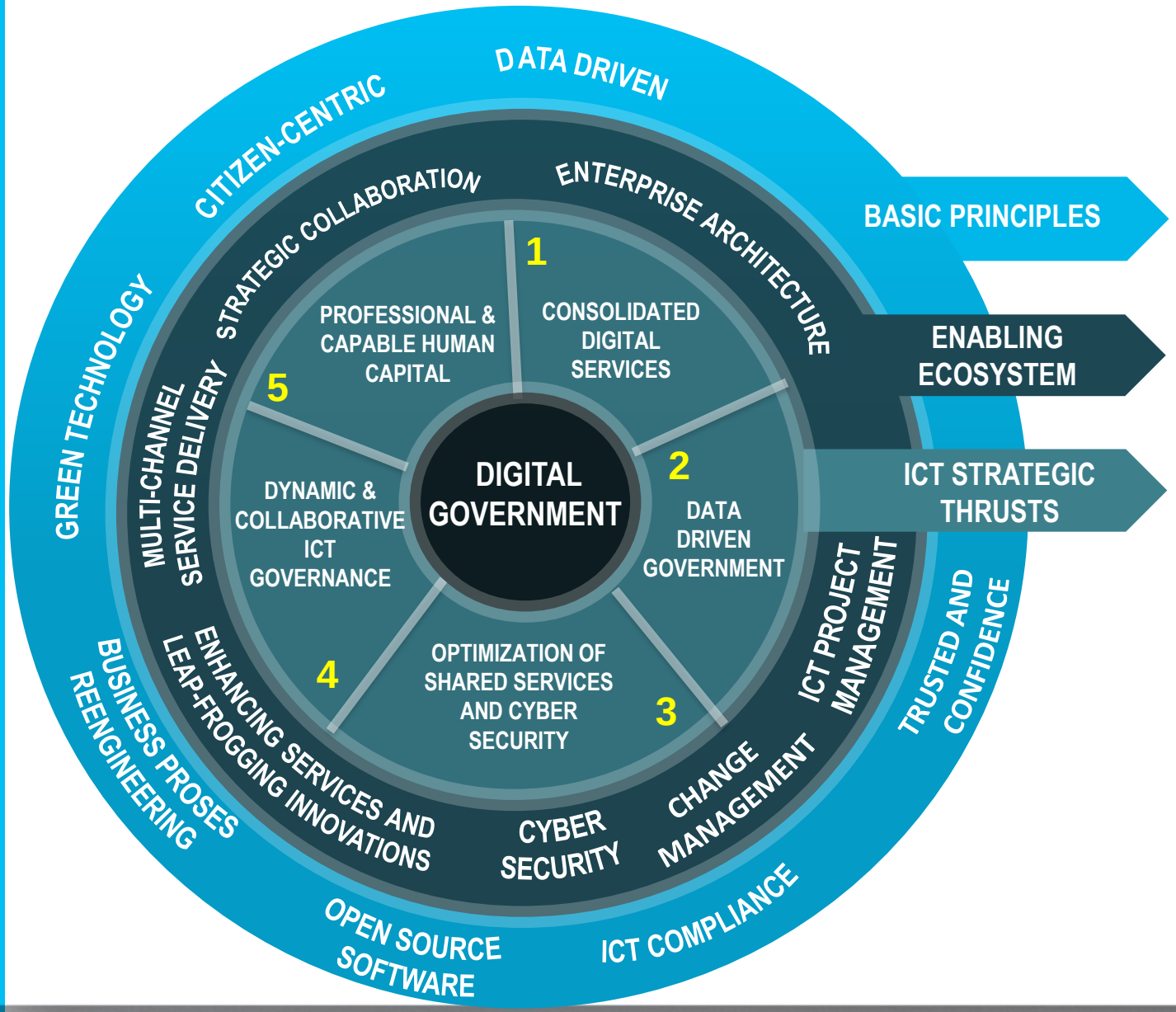
Presentation Subtopic

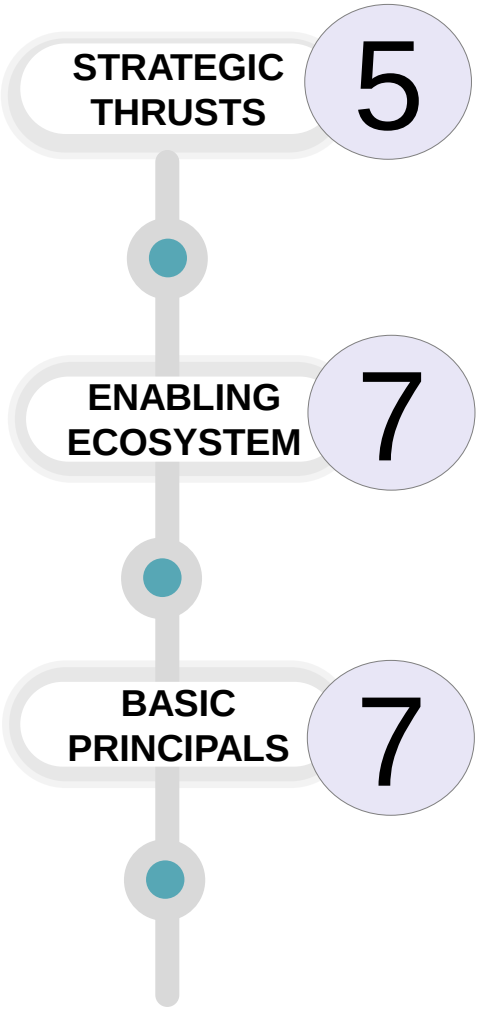
04

Continue .....

MALAYSIA INITIATIVES TOWARD DIGITALIZATION

PUBLIC SECTOR ICT STRATEGIC PLAN 2016 – 2020





EA - ENABLING ECOSYSTEM FOR DIGITAL DELIVERY

1. **How your business responds to digital technologies trend?**
2. **How an organization implements technology together with organizational structure & governance?**

- **Business Architecture** (innovative end-to-end services)
- **Information Architecture** (information/data sharing)
- **Application Architecture** (eliminate redundancy and leverage integration)
- **Technology Architecture** (consolidated robust technology solution & private cloud)

1GovEA
GOVERNMENT ENTERPRISE ARCHITECTURE

http://1govea.mampu.gov.my

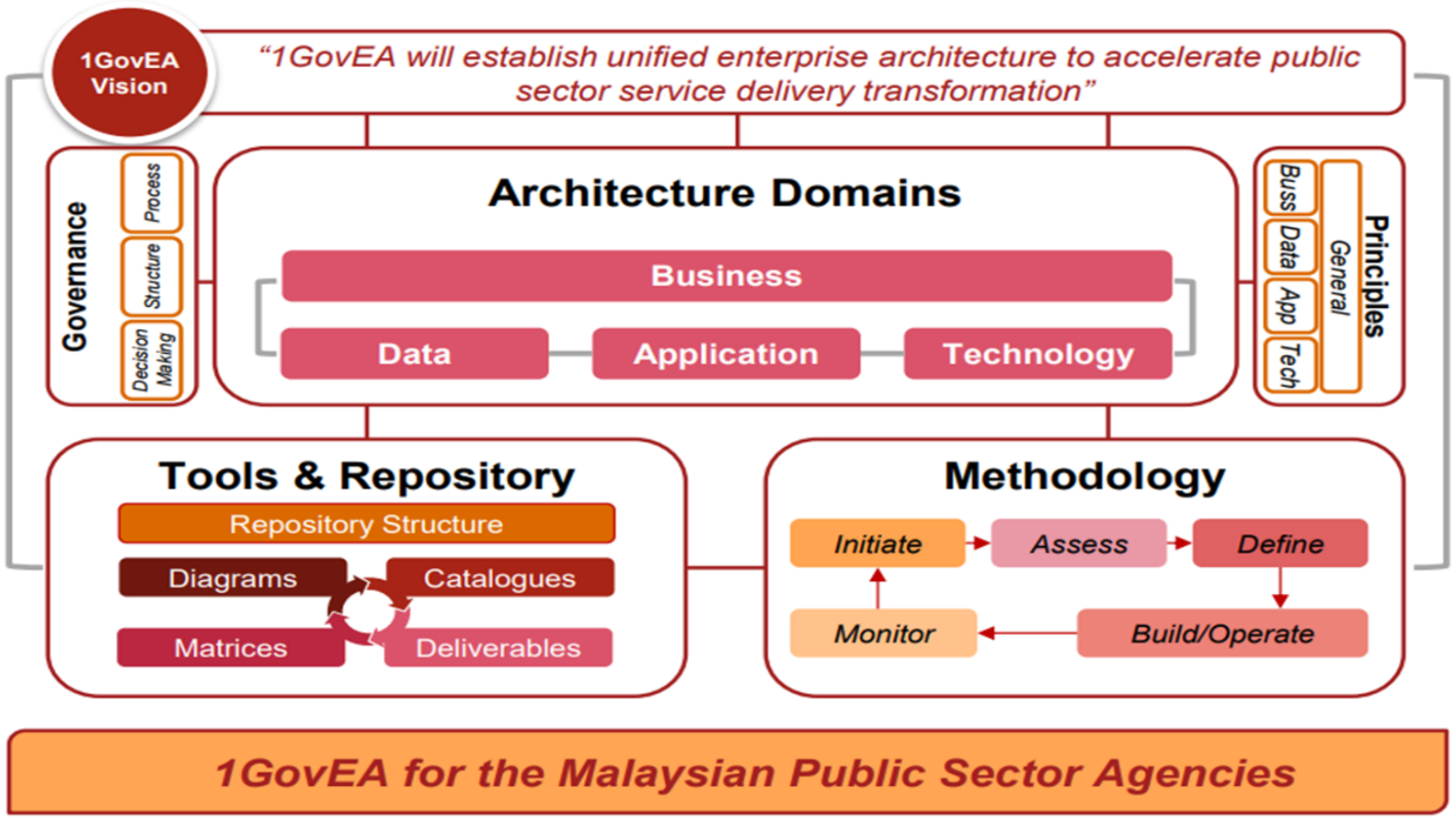
3. **How an organization instills a digital culture where digital data is at the core?**

DIGITAL FOR ALL

ENHANCING SERVICE DELIVERY WITH CITIZENS AT THE CENTRE

1. Reducing bureaucracy
2. Improving delivery process to increase responsiveness
3. Leveraging data to enhance outcomes and lower costs
4. Expanding outreach of services
5. Increasing accountability (transparency and outcomes)

PUBLIC SECTOR ENTEPRISE ARCHITECTURE (1GOVEA)



INFO

*Enterprise architecture is a **structured approach** used to define an organisation **across different domains**. It is often used as **a practice** to help transform the organisation through **understanding, reconciling** and **planning** across the **Business, Data, Application and Technology** domains.*

Public Services Delivery Digitalisation Plan

	T1	T2	T3	T4	T5	T6
6 Strategic Thrusts	INTEGRATED, INCLUSIVE AND SECURED DIGITAL SERVICES	DATA DRIVEN DIGITAL SERVICE DELIVERY	DIGITAL SERVICE BRANDING, PUBLICITY & PROMOTION	LEGISLATIVE AND GOVERNANCE	CAPABILITY & CAPACITY BUILDING	DIGITAL SERVICE DELIVERY SYSTEM OUTCOME OPTIMISATION
13 Strategies	2 Strategies	2 Strategies	2 Strategies	2 Strategies	2 Strategies	3 Strategies
29 Programs	7 Program	4 Program	5 Program	5 Program	4 Program	4 Program
93 Activities	21 Activities	24 Activities	11 Activities	13 Activities	12 Activities	12 Activities

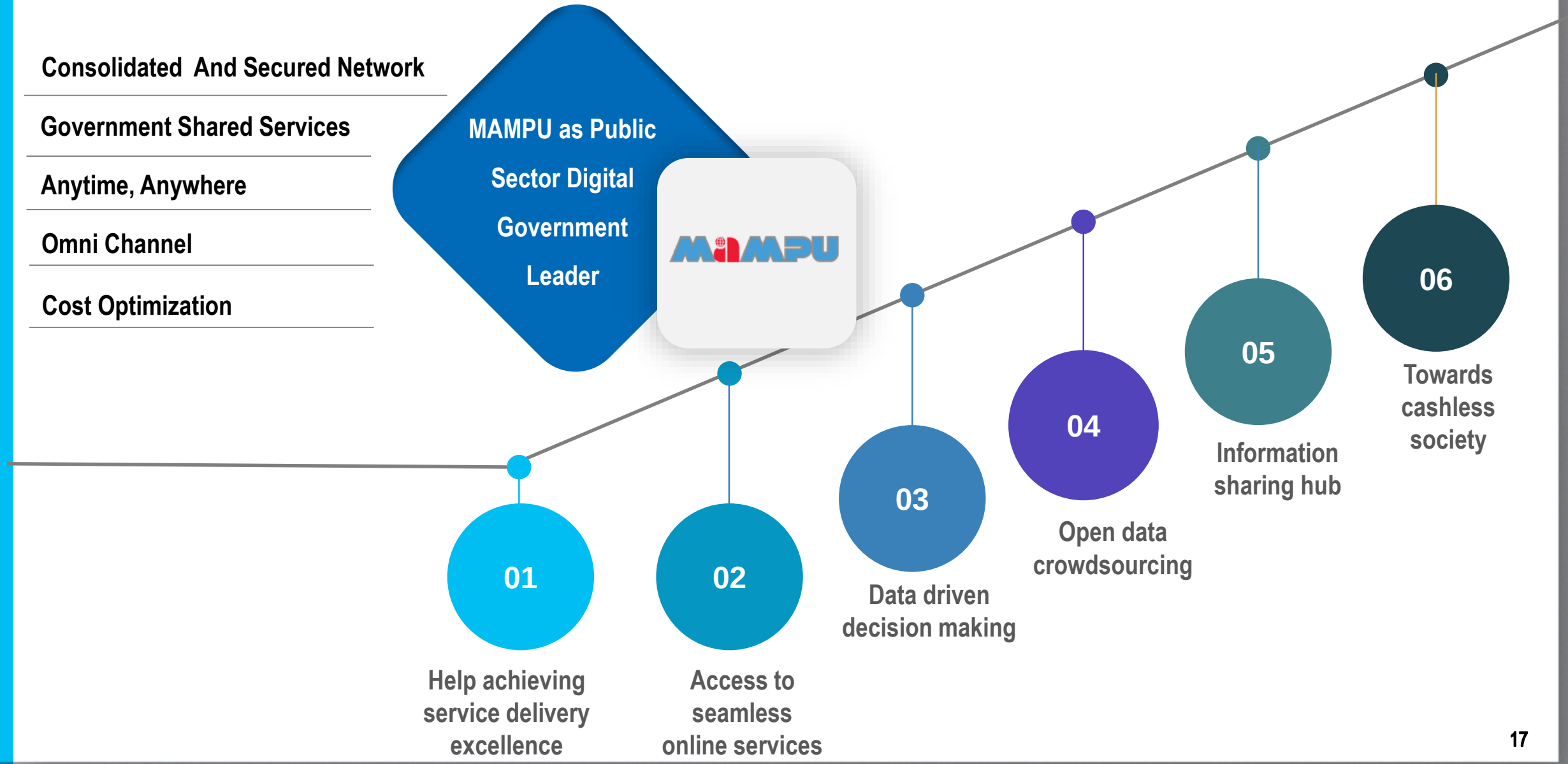
PUBLIC SECTOR CYBER SECURITY FRAMEWORK (RAKKSSA)

IDENTIFY → PROTECT → DETECT → RESPONSE → RECOVER → PROCURE → SECURITY AUDIT → ENFORCE

EXPERIENCE - DRIVEN PUBLIC SERVICE

- Consolidated And Secured Network
- Government Shared Services
- Anytime, Anywhere
- Omni Channel
- Cost Optimization

MAMPU as Public Sector Digital Government Leader



MALAYSIA INITIATIVES TOWARD DIGITALIZATION

DIGITAL GOVERNMENT INITIATIVES

1 CONSOLIDATED DIGITAL SERVICES

- *Government Online Services Gateway(GOSG)*
- MalaysiaBiz
- 1Malaysia One Call Center (1MOCC)
- Government Mobile Application Gallery (GAMMA)
- *Digital Document Management System (DDMS) 2.0*

2 DATA DRIVEN GOVERNMENT

- Government Data Optimization Transformation Services (GDOTS)
  - i. Public Sector Big Data Analytics (DRSA)
  - ii. Public Sector Open Data (DTSA)
- Government Information Sharing Hub (myGDX)

3 OPTIMISATION OF SHARED SERVICES & CYBER SECURITY

- Public Sector Data Center (PDSA)
- Integrated Government Telecommunication Network (1Gov*Net)
- Unified Government Communication Collaborative Services (1GovUC)
- Government Public Key Infrastructure (GPKI)
- Public Sector Cyber Security Framework (RAKKSA)
- Compliance to International Security Standard
- Malaysian Public Sector Business Process Digital Tools (MyISMS) & Business Continuity Management Systems (BCMS)
- Cyber Security Development Project (CSDeP)
- Malaysian Information Security, Governance, Risk and Compliance (MyISGRC)

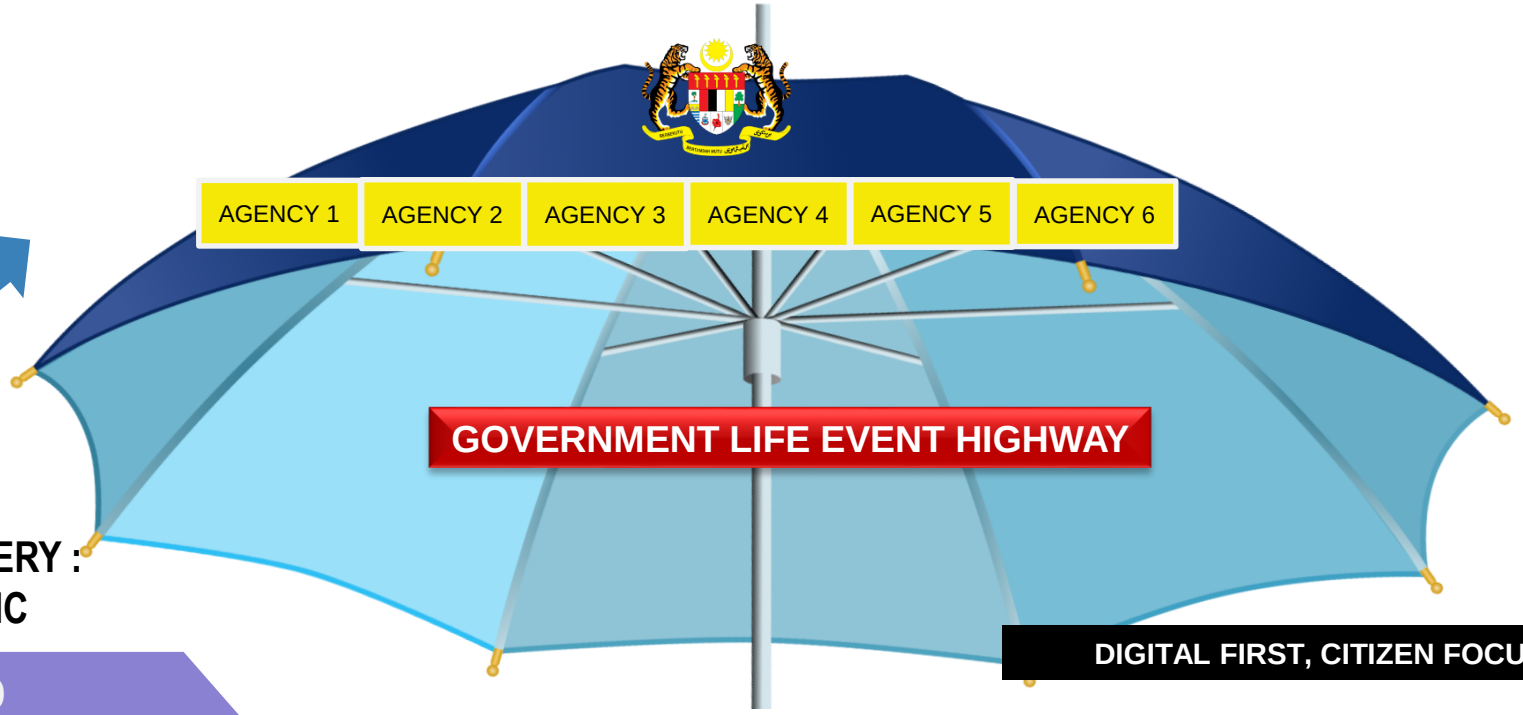
4 DYNAMIC & COLLABORATIVE ICT GOVERNANCE

- Public Sector ICT Strategic Plan
- Government Service Delivery Digitalisation Plan
- Public Sector Enterprise Architecture (1GovEA)
- Collaborative Strategic with Stakeholders
- Policies & Guidelines

5 PROFESSIONAL & CAPABLE HUMAN CAPITAL

- Digital Government Competency & Capability Readiness (DGCCR)
- Capability Development Roadmap for ICT Scheme Personnel (CDR)

GOVERNMENT ONLINE SERVICES GATEWAY



SERVICE DELIVERY : CITIZEN-CENTRIC

TO BE INTEGRATED DELIVERY SERVICES

DIGITAL FIRST, CITIZEN FOCUS

SERVICE DELIVERY : GOVERNMENT-CENTRIC

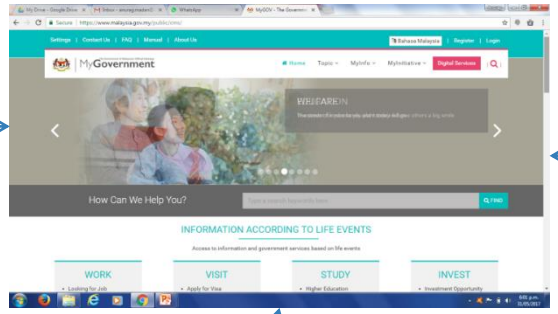
AS IS DELIVERY SERVICES IN SILO

- **P1** Government Online Service (GOS) Gateway
- **P2** Information Sharing Hub
- **P3** National Registry
- **P4** Data Driven Program

GOVERNMENT ONLINE SERVICES GATEWAY

SIMPLIFY AND DELIVER WORLD CLASS EXPERIENCE

MAMPU
Unit Pemodenan Tadbiran dan Perancangan Pengurusan Malaysia



GOSG

MOE Portal

MINISTRY OF EDUCATION MALAYSIA

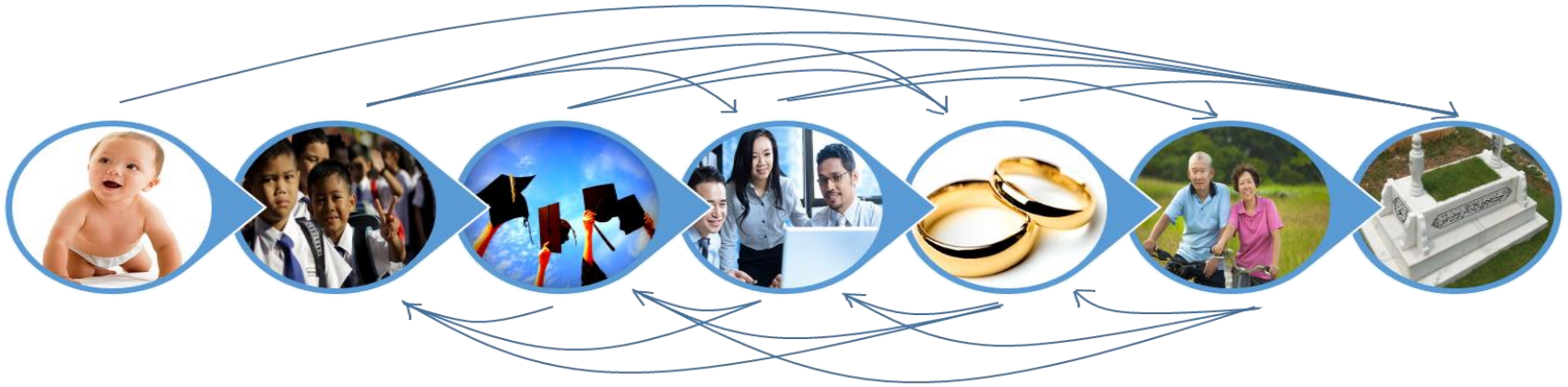
CITIZEN EXPERIENCE ACROSS CHANNELS (TOO MANY FRONT DOORS AND INCONSISTENT)

Citizen

Agent

LIFE EVENT FRAMEWORK– G2C PARADIGM

CITIZENS



Non-anticipatory life events

- Becoming disabled
- Natural Disasters
- Accidents
- War
- Job loss
- Change in law
- Death of Spouse
- Illness
- Getting Divorced
- Moving home
- Others

Citizen Profile

Personal Information	Education
Identity Documents	Location
Security and Authentication	Preferences
Employment Information	Interests
Accessibility	History
Life events	Others

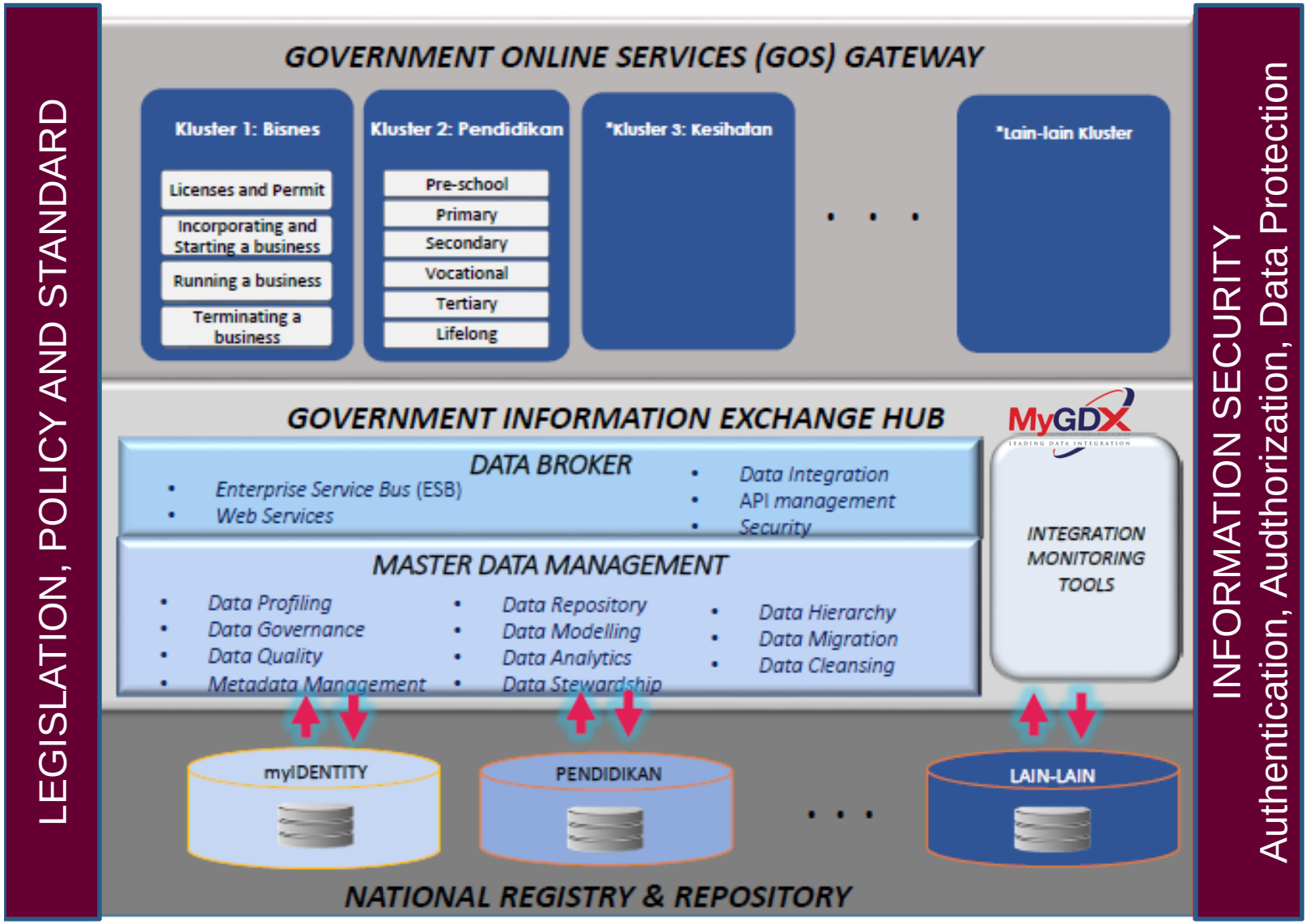
Recurring services

- Housing and Real Estates
- ID and Personal Documents
- Special Needs
- Health
- Public Utilities
- Social Welfare
- Legal and Justice
- Others

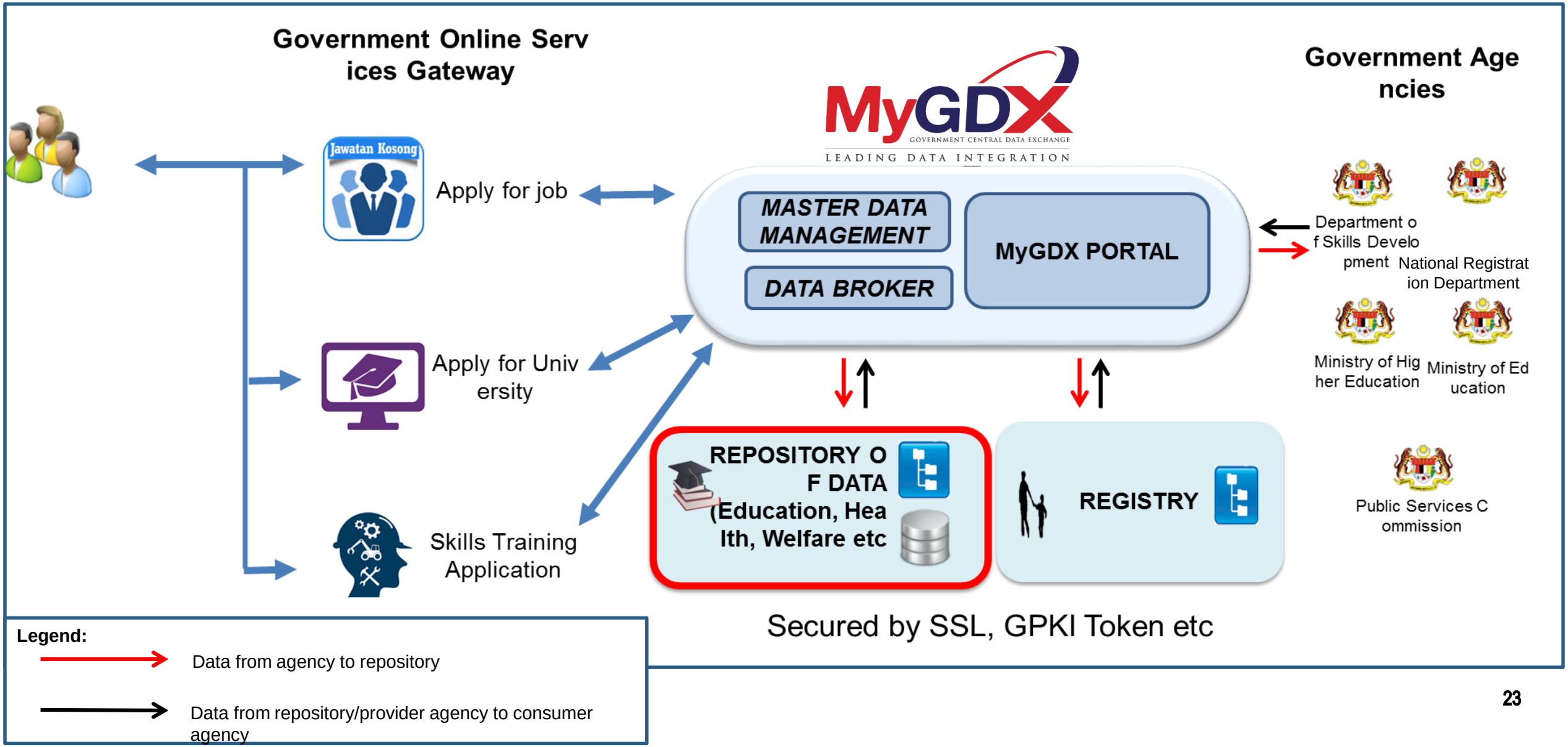
AGENCIES

GOVERNMENT ONLINE SERVICES GATEWAY- MyGDX

- Citizen centric and life events
- Total end-to-end services
- Single access
- Single Sign-on
- Standard interface

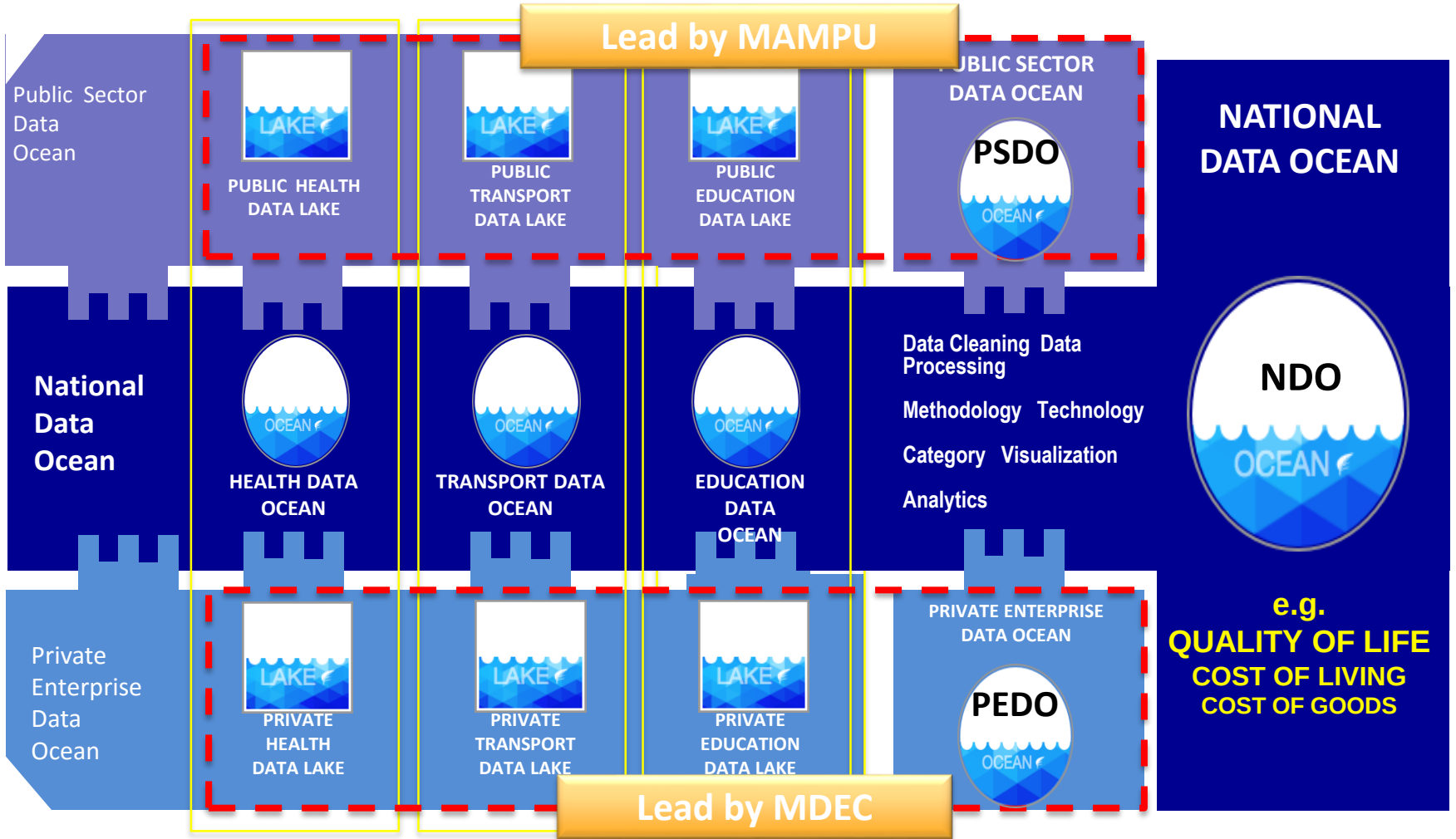


GOVERNMENT ONLINE SERVICES GATEWAY (MyGDX)



GOVERNMENT DATA OPTIMIZATION TRANSFORMATION SERVICES (GDOTS)

Government Data Optimization Transformation Services (GDOTS) initiatives will drive Digital Government transformation – MAMPU will be leading the Public Sector agencies towards building the National Data Ocean (NDO)



GOVERNMENT OPEN DATA

- Obtaining quality datasets and publish on data.gov.my
- Provide open data advisory
- Identify high impact use cases
- Document best practices and lesson learnt

Clusters

- Transport
- Agriculture
- Education
- Health
- Social
- Economy
- Finance
- Tourism
- ⋮

1 provider

data.gov.my

2 download

Request for new data sets 3

Open Data Users

- Business Communities
- Agencies
- Individuals

Innovation 4

- Cost savings to Government
- Increase income via innovations
- Generating economy via services

USE CASES (UC)			
UC 1	UC2	…..	UCn

Citizens/users

MALAYSIAN GOVERNMENT MOBILE APPLICATION (GAMMA)

PROBLEM

Malware? Fake Application?

SOLUTION

GAMMA

- One stop centre housing all government mobile applications
- Software As a Service (SaaS) platform
- Secure, official, authentic and certified

MALAYSIAN GOVERNMENT MOBILE APPLICATION (GAMMA) – TECHNOLOGY EMPLOYED

Development Tools
SpringMVC (JAVA)

Technologies
Apache Tomcat, Apache Cordova,
PhoneGap/Cordova
App Annie Analytic, Google's Analytic and
Windows Analytic
(Open Source Software)

Platform
CentOS
Citrix
SAN Storage

Database
MySQL,
Bacula System
Backup

Language
HTML, CSS, JavaSript

App Market Store

MALAYSIAN GOVERNMENT MOBILE APPLICATION (GAMMA) - BENEFITS

FOR PUBLIC

- Better quality government services delivery
- Single source government mobile applications
- Secure and trusted applications

- Government services are available anytime, anywhere

- Cost saving via infrastructure sharing
- Enhance the ICT personnel skills

- Infrastructure located in secured zone
- Increase the speed of service delivery to citizens
- Attract the new generation to use Government related services
- Improve the image of the Government to the citizen

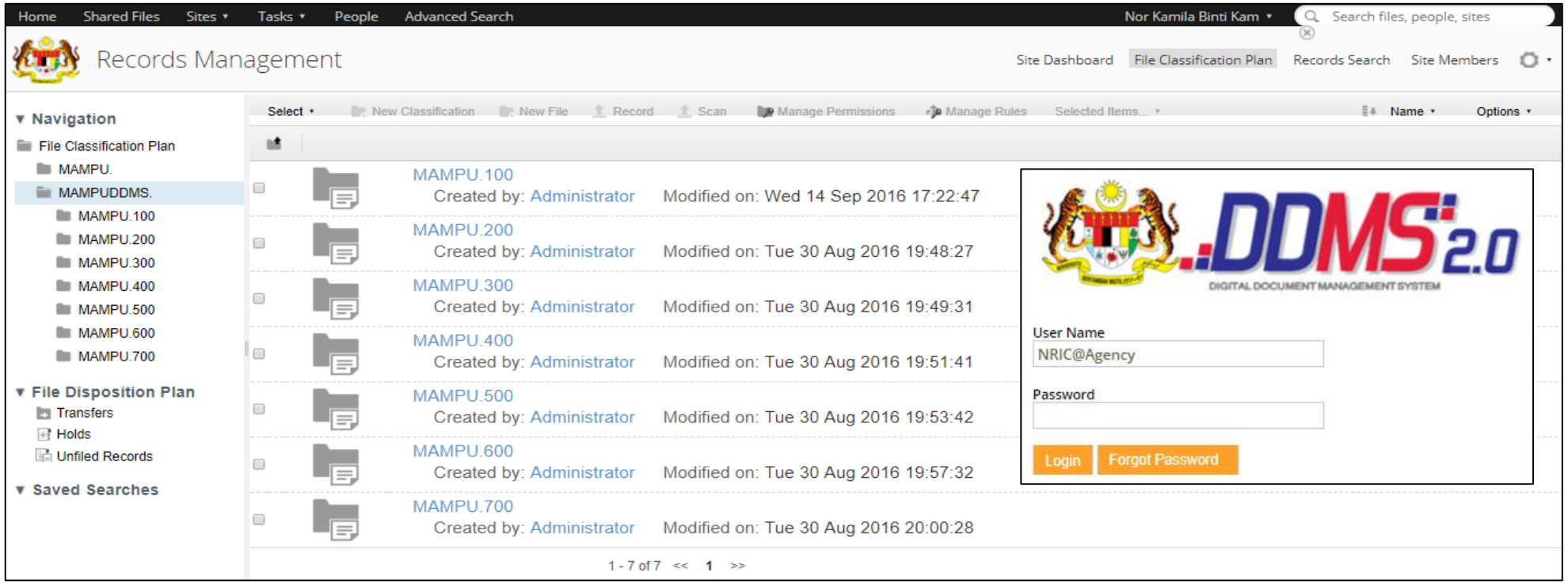
FOR GOVERNMENT

DIGITAL DOCUMENT MANAGEMENT SYSTEM (DDMS)

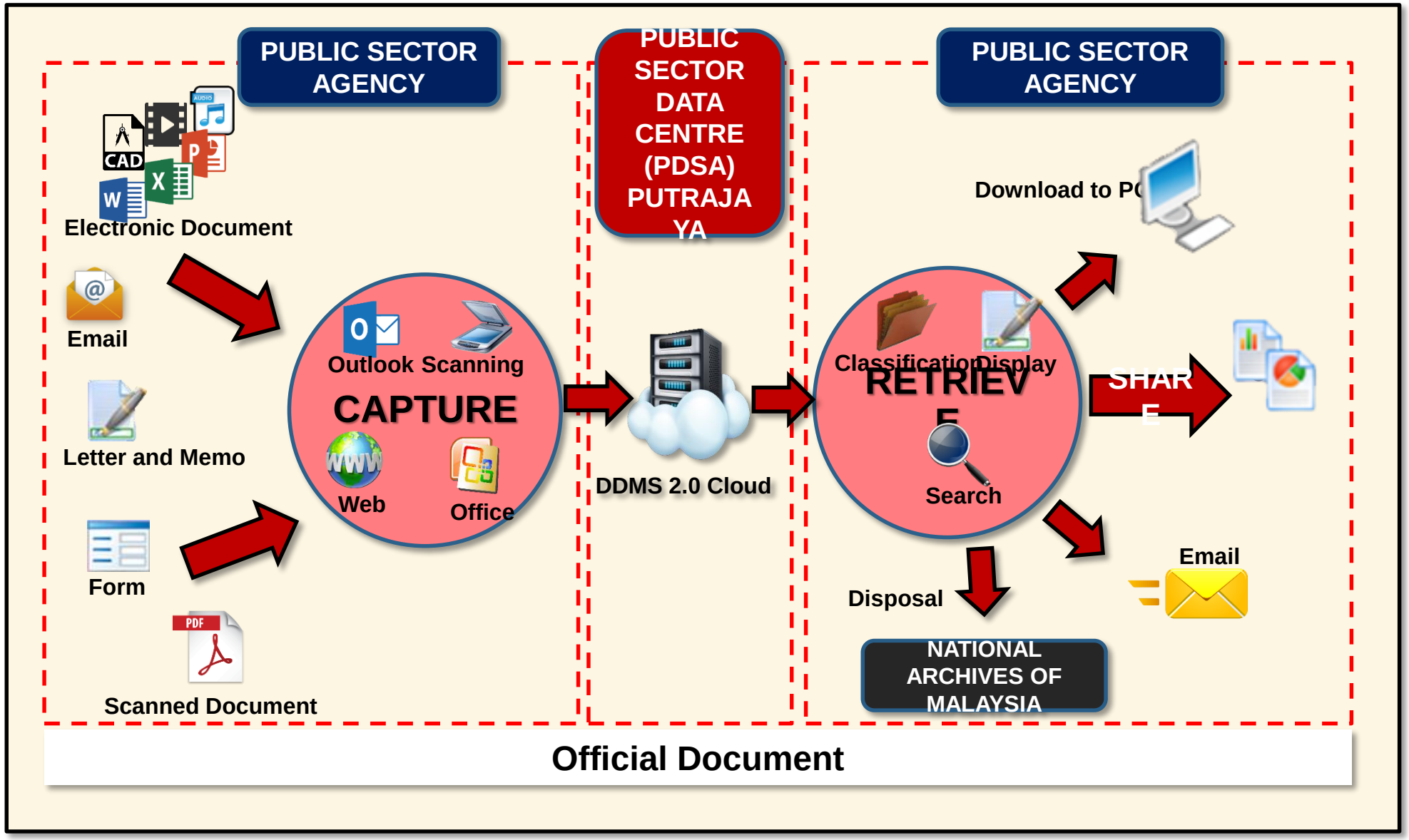
An electronic records management system to improve operational efficiency and user productivity in government administration

Supports entire lifecycle management of public records from creation, maintenance, dissemination and disposition of electronic records

Compliance to MS ISO 16175 standards



DIGITAL DOCUMENT MANAGEMENT SYSTEM (DDMS) - FRAMEWORK



1MOCC – 03 8000 8000

MAMPU
TOGETHER WE TRANSFORM

44 Ministries/ Agencies

Serving People Let's Get Connected

1MOCC – 03 8000 8000

- ✓ single point contact centre
- ✓ provides 24/7 access to government services
- ✓ facilitate the public
- ✓ provides high quality customer service
- ✓ efficient, accurate and centralised communication
- ✓ unique single contact number, +603 80008000
- ✓ National Blue Ocean Strategy (NBOS)

OPEN SOURCE DEVELOPMENT & CAPABILITIES PROGRAMME (OSDeC)

A continuation of the Malaysian Public Sector Open Source Software Blueprint

Objectives

1. Provide development infrastructure centre focused on system development in partnership with public sector agencies.
2. Develop capacity and capability of the Public Sector ICT services.
3. Provide exposure on open source software technology and promote OSS products.

Benefits And Impacts

- Increase the capability of Public Sector officers in system development.
- Improve the use and implementation of open source software in Public Sector agencies.
- Save cost in system development through the concept of resource and infrastructure sharing.
- Minimize user licensing costs for developed generic products.

OPEN SOURCE DEVELOPMENT & CAPABILITIES PROGRAMME (OSDeC)

SERVICES

Coaching

Provide coaching services to enhance capability, knowledge and optimise individual potential.

T : 2500 mandays | A : 187 mandays

Change Management

Implement Regional Workshop Program, Open Source Community Workshop and Open Source Software Conference.

T : 14 events| A : 2 events

Training

Provide technical and certification training.

Training - T : 43 session| A : 9 sessions
Certification – T :14 sessions

Infrastructure

Provide infrastructure based on open source software such as Enterprise Edition Premium Cloud Suite and Community version.

Installation and commissioned by May 2018

Capability

Generate self reliance and certified professional coaches within the public sector.

T : 10 coaches

Note:
T – Target
A – Achieved as of March 2018

The Public Sector Data Center (PDSA)

Provides integrated shared services for government agencies in Putrajaya using green technology. Services provided are:

1. **Physical & Virtual Server Hosting**
2. **Data Center and Disaster Recovery Center (DRC)**
3. **Gateway Viruswall**
4. **Backup & Restore**
5. **Support Services**

The Public Sector Data Center (PDSA)

1GOVNET

INTERNET

MOH, MOE, JAWHAR, MOF

KPKT, KKMM, AGC, JIM

MOHE, MOTAC, MOA, JPN

PUTRAJAYA CAMPUS NETWORK

PDSA CYBERJAYA

PDSA ENSTEK

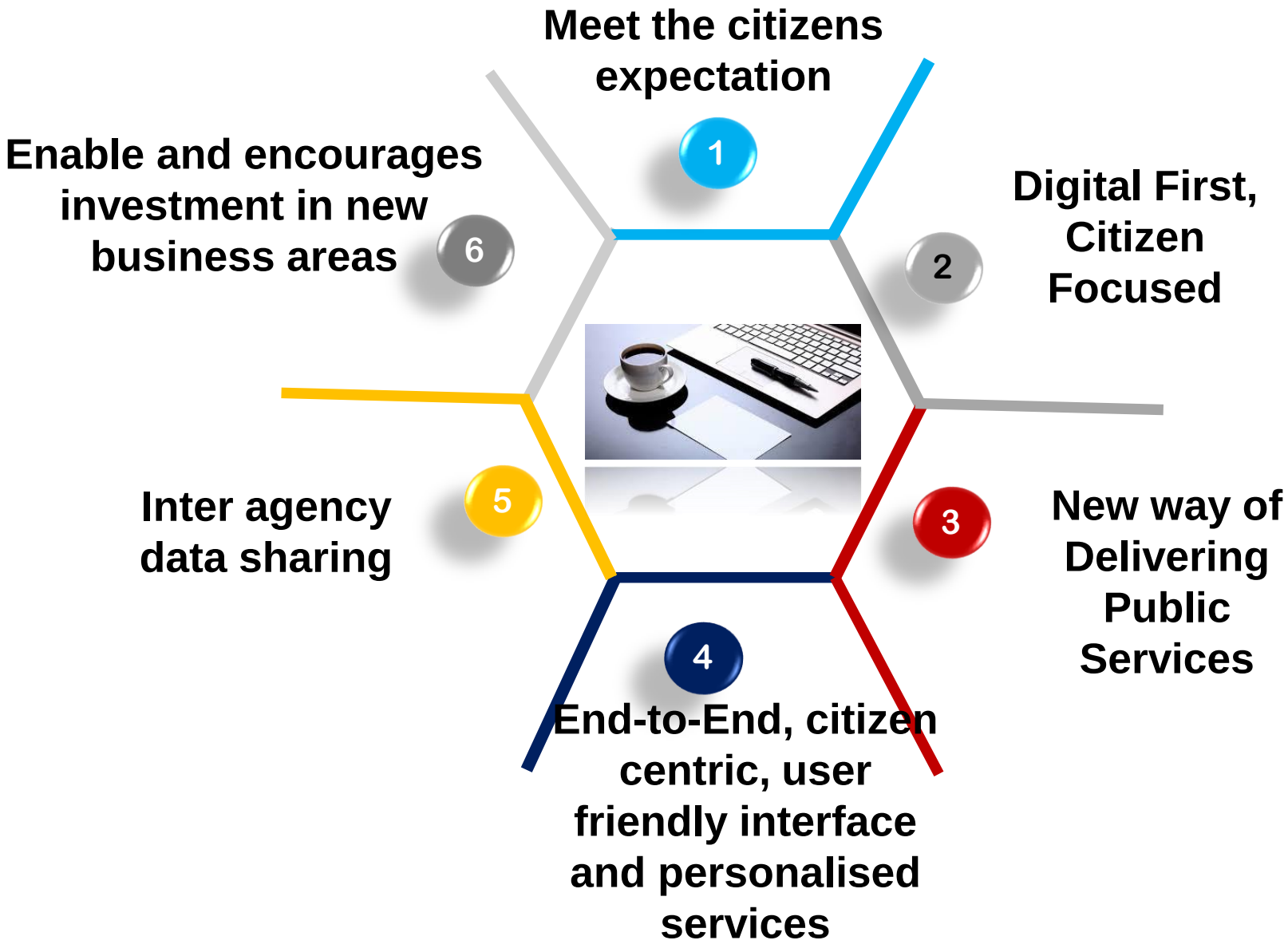
PDSA PUTRAJAYA

Legend:

Internet

1Gov*Net

WHY DIGITAL TRANSFORMATION



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