



7th Malaysia Statistics Conference

20th & 22nd October 2020

In conjunction with World Statistics Day & MyStats Day 2020

Department of Statistics Malaysia, Putrajaya

"Census Shapes Nation's Future"



Plenary Session : Census Shapes Nation's Future

Unlocking the Value of Data in Public Service Delivery Transformation

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Make Sure You're
COUNTED



MYSTATS
DAY



WORLD
STATISTICS
DAY



AGENDA

01

INTRODUCTION

02

DATA-DRIVEN PROGRAMS

03

ISSUES AND CHALLENGES

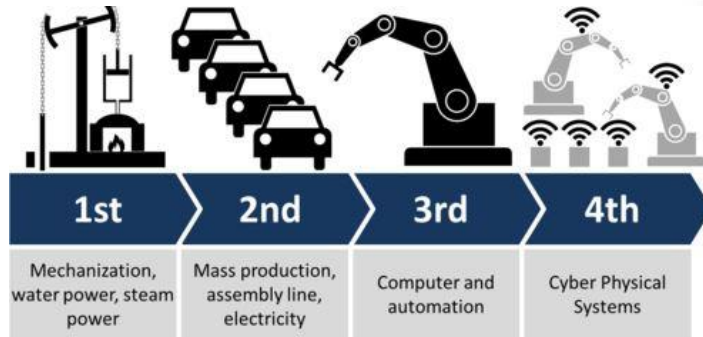
04

WAY FORWARD



THE IMPERATIVES OF DATA

‘The world’s most valuable resource is no longer oil.... but data’.



data driven industries growing rapidly

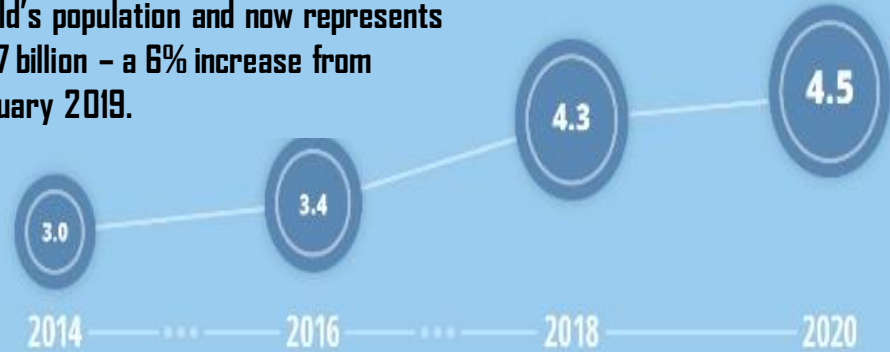
data is one of the key success factor in IR4.0

DATA NEVER SLEEPS

2020 This Is What Happens In An Internet Minute



The world's internet population is growing significantly year over year. As of **July 2020**, the internet reaches **59%** of the world's population and now represents **4.57 billion** - a **6%** increase from **January 2019**.



GLOBAL INTERNET POPULATION GROWTH 2014-2020
(IN BILLIONS)

THE DATA LANDSCAPE

20% structured | 80% unstructured

New urgency for data management



Demand for immediate access to high-quality data and insights

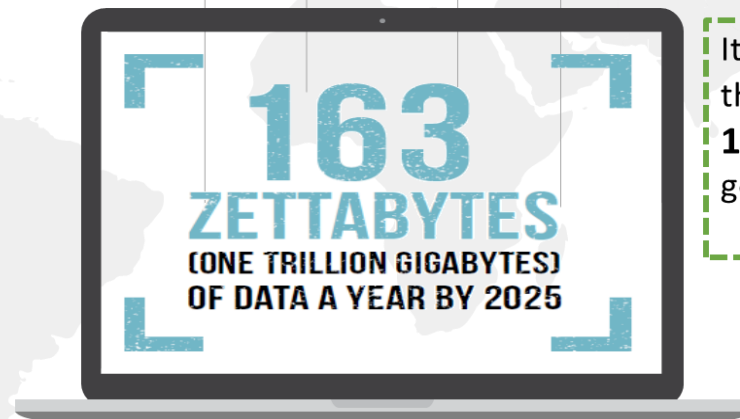
Exponential increase in the volume and diversity of data generated



If data is not optimised:

- Potential insights go untapped
- Citizen's needs go unmet
- Organisations make uninformed decisions

It is estimated that **less than 1%** of all data gets analysed [IDC]



Source: IDC, Data Age 2025



DATA-DRIVEN PROGRAMS

Framework



1

Methodology



3

Circular & Guidelines



5

Competency Development



7

Open Data, Shareable Data, Classified Data



9

2



Governance

4



Platform



6



Open Data Innovation

8



Consultation and Advisory Services

OPEN DATA

Ecosystem



Public Sector



Private Sector/
Industry



Public Sector



Private Sector/
Industry



Academia



NGO



Citizen

Programs

A. Policy, Strategy and Governance



C. Engagement/RoadShow/Handholding/Meet & Greet



E. Open Data Innovation



B. Platform Management and Data Sets



D. Capacity Development & Competence



F. Strategic Collaboration With International Organization



Impact



Transparency and
accountability of the
Government



Citizen Wellbeing



Country
Competitiveness



Innovation/Data
Product



Open Data
Barometer



E-Government
Development Index

International Ranking

PUBLIC SECTOR BIG DATA ANALYTICS

BDA-Digital Government
Open Innovation Network
(BDA-DGOIN)
Year 2015-2016

1

Public Sector
Big Data Analytics (DRSA)
– Pilot Projects
Year 2015-2016

2

Data Analytics Digital
Transformation (TDDA)
October – December 2015

3

DRSA Analytics Expansion
Year 2016-2017

4



5

Government Data
Optimization Transformation
Services (GDOTS)
Year 2017-2018

6

Sentiment Analysis
(Minister's Performance
Indicator-MPI)
Year 2019

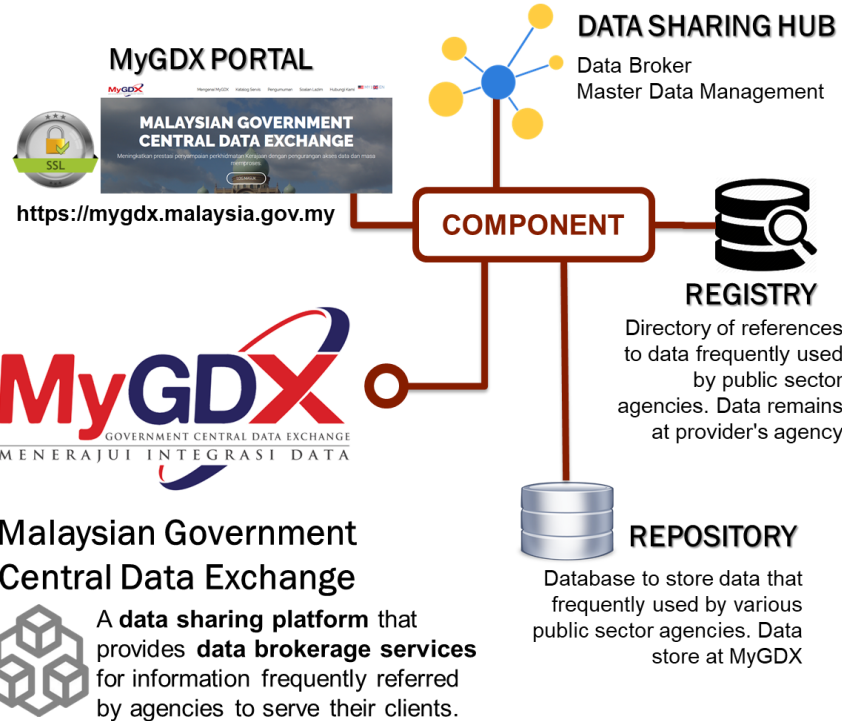
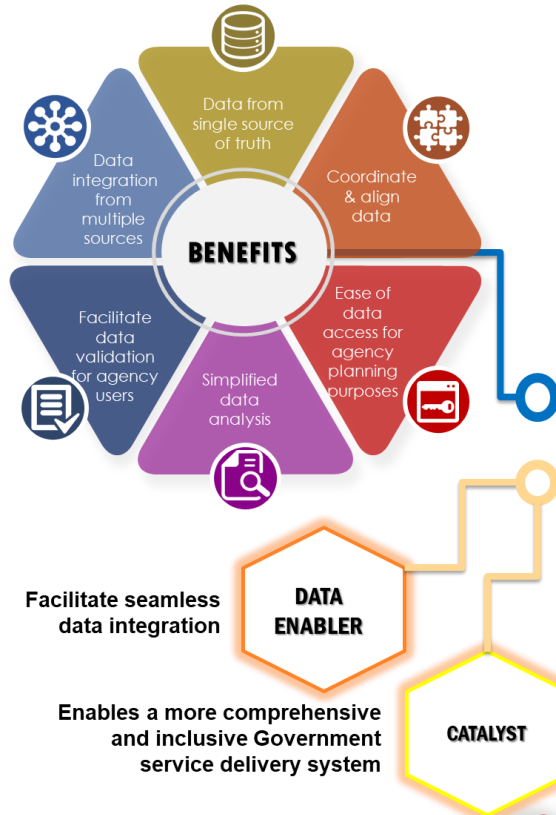
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Machine Learning Training
(Intermediate/Advance)
Year 2019-2020

8

DRSA 2.0
Year 2019-2020

MALAYSIAN GOVERNMENT CENTRAL DATA EXCHANGE (MyGDX)





ISSUES AND CHALLENGES



1

Agencies (data owners) reluctant to share data due to no overarching data sharing policy

2

The level of awareness on the importance and potential of BDA as a strategy in government service delivery – low to moderate

3

Insufficient resources and expertise in data science and other related fields

4

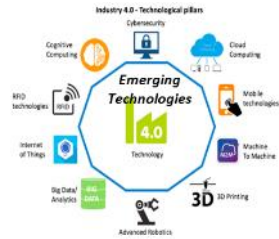
Less commitment from Subject Matter Experts/Domain Experts

CRITICAL SUCCESS FACTORS





Sustainable Development Goals 2030



Emerging Technologies



Shared Prosperity Vision 2030



12th Malaysia Plan

GLOBAL



PSPSA 2021-2025

NATIONAL



10 Essential Fundamentals Of National Direction



National Digital Network



National Policy on Industry 4.0



11th Malaysia Plan



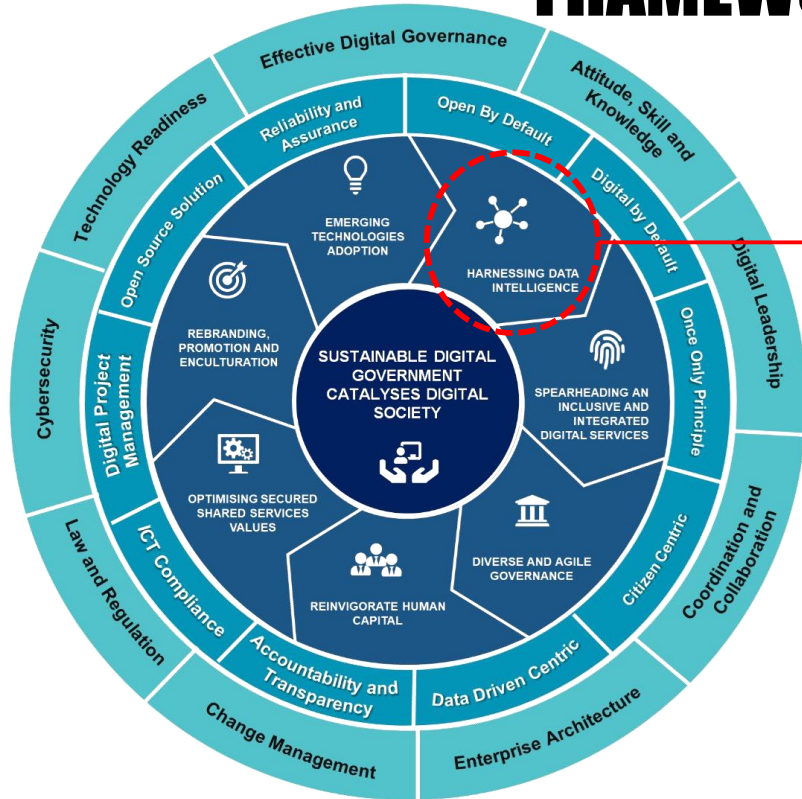
PSPSA - Public Sector Digitalisation Strategic Plan 2021-2025



PUBLIC SECTOR DIGITALISATION STRATEGIC FRAMEWORK 2021-2025

VISION

"Sustainable Digital Government Catalyses Digital Society"



10 GUIDING PRINCIPLES

- Open by Default
- Citizen Centric
- ICT Compliance
- Digital by Default
- Data Driven Centric
- Digital Project Management
- Once Only Principle
- Accountability and Transparency
- Open Source Solution
- Reliability and Assurance

9 ENABLING ECOSYSTEM

- Attitude, Skill and Knowledge
- Enterprise Architecture
- Cybersecurity
- Digital Leadership
- Change Management
- Technology Readiness
- Coordination and Collaboration
- Law and Regulation
- Effective Digital Governance

Strategic Thrust 1:
Harnessing Data Intelligence

● VISION ● STRATEGIC THRUST ● GUIDING PRINCIPLE ● ENABLING ECOSYSTEM

OVERVIEW STRATEGIC THRUSTS, STRATEGIES & ICT PROGRAMS

7 THRUSTS

19 STRATEGIES

48 PROGRAMS

134 ACTIVITIES

T1

HARNESSING DATA INTELLIGENCE



- S1: Reinforcement of Data Management and Coordination
- S2: Reinforcement of Open Data Initiatives
- S3: Empowerment of Government Service Delivery using Data Intelligence

7 Programs | 25 Activities

T2

SPEARHEADING AN INCLUSIVE AND INTEGRATED DIGITAL SERVICES



- S1: Empowerment of Citizen-centric Digital Service Delivery
- S2: Empowerment of Digital Economy via Digitalisation Initiatives
- S3: Empowerment of Conducive Ecosystem Digital Workspace for Civil Servants

9 Programs | 28 Activities

T3

DIVERSE AND AGILE GOVERNANCE



- S1: Solidification of Digital Governance
- S2: Empowerment of Digital Organisation Management To Spearhead Public Sector Digitisation
- S3: Empowerment of Public Sector Strategic Leadership

8 Programs | 19 Activities

T4

REINVIGORATE HUMAN CAPITAL



- S1: Empowerment of Digital Leaders' Talent Capabilities and Retention
- S2: Reinforcement of ICT Personnels' Management and Retention
- S3: Reinforcement of Public Sector Personnels' Digital Competencies

7 Programs | 17 Activities

T5

OPTIMISING SECURED SHARED SERVICES VALUES



- S1: Reinforcement of Public Sector Cloud Computing Infrastructure
- S2: Reinforcement of Network Capabilities and Digital Communication
- S3: Empowerment of Cybersecurity Services and Compliance

8 Programs | 25 Activities

T6

REBRANDING, PROMOTION AND ENCULTURATION



- S1: Development of National Branding
- S2: Reinforcement of Program Enculturation, Promotion and Change Management of Digital Services

5 Programs | 11 Activities

T7

EMERGING TECHNOLOGIES ADOPTION



- S1: Public Sector Emerging Technologies Management and Alignment
- S2: Transformation of Government Digital Service Delivery Through Emerging Technologies

4 Programs | 9 Activities

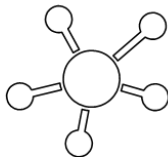
OVERVIEW STRATEGIC THRUST 1- HARNESSING DATA INTELLIGENCE

T1

HARNESSING DATA INTELLIGENCE

Objectives:

1. Strengthen data management and coordination at the national and public sector level
2. Foster planning, policy development and decision-making based on data intelligence



STRATEGY 1

REINFORCEMENT OF DATA MANAGEMENT AND COORDINATION

P1 EMPOWERMENT OF DATA GOVERNANCE AND STRUCTURE

- A1. Establishing an entity that spearheads the implementation of national data initiatives
- A2. Establishing national data governance
- A3. Formulating national data strategy
- A4. Establishing a special division in the ministries/agencies for data management and implementation initiatives

P2 STRENGTHEN ACT, STANDARD, POLICY AND GUIDELINES FOR DATA INITIATIVES

- A1. Conducting requirement study on act, standards, policies and guidelines on data initiatives
- A2. Strengthening act, standards, policies and guidelines on data initiatives

P3 EMPOWERMENT OF DATA SHARING AND MANAGEMENT HUB

- A1. Strengthening the Government's data sharing hub
- A2. Enhancing data management and migration of data sharing hub portal
- A3. Enhancing integration services and web services (APIs)

OVERVIEW STRATEGIC THRUST 1- HARNESSING DATA INTELLIGENCE

T1

HARNESSING DATA INTELLIGENCE



STRATEGY 2

REINFORCEMENT OF OPEN DATA INITIATIVES

P1 EMPOWERMENT OF OPEN DATA

- A1. Strengthening quality data publication mechanism in line with international standards
- A2. Strengthening the national open data innovation development centre for data product development starting from brainstorming, development, testing and commercialization
- A3. Applying the practice of Open Contracting Data Standard (OCSD) and Open Contracting For Infrastructure Data Standard (OC4IDS)
- A4. Establishing an open data performance framework based on Open Data Barometer
- A5. Developing Malaysia Open Data Index and strengthen Open Data Infrastructure platform
- A6. Participating and adopting the principles of Open Data Charter

P2 ENHANCEMENT OF STRATEGIC COLLABORATION

- A1. Enhancing strategic collaboration with industry, academia and the Malaysian Open Data Community
- A2. Reinforcing the sustainability of international strategic collaborations

STRATEGY 3

EMPOWERMENT OF GOVERNMENT SERVICE DELIVERY USING DATA INTELLIGENCE

P1 REINFORCEMENT OF PUBLIC SECTOR BIG DATA ANALYTICS INITIATIVES

- A1. Assessing and identifying high impact public sector data products
- A2. Developing high impact public sector data products
- A3. Expanding high impact public sector data products across the public and private sector

P2 DEVELOPMENT OF PUBLIC SECTOR BIG DATA ANALYTICS AND ARTIFICIAL INTELLIGENCE

- A1. Conducting readiness studies on the implementation of big data analytics and artificial intelligence in the public sector
- A2. Developing big data analytics and artificial intelligence initiatives in the public sector
- A3. Implementing studies on the effectiveness and impact of big data analytics and artificial intelligence towards making informed decisions
- A4. Providing consultancy services and become point of reference in the field of big data analytics and artificial intelligence at the public sector level
- A5. Conducting research on data analytics and data intelligence innovation

THANK YOU

BANCI MALAYSIA

7.7.2020 – 21.12.2020 (e-Census)

20.1.2021 – 6.2.2021 (Face To Face)

POPULATION & HOUSING
CENSUS 2020
MALAYSIA

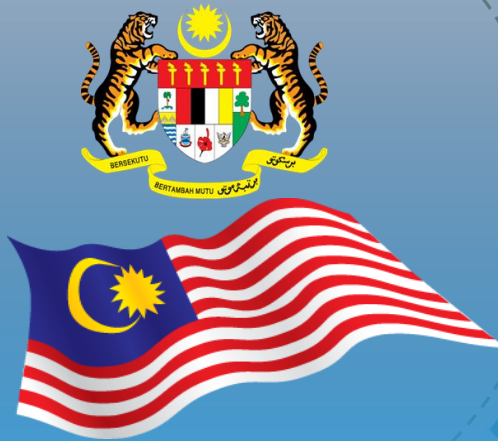
YOUR DATA IS OUR FUTURE



Make Sure You're
COUNTED

For More Info : www.dosm.gov.my
www.mycensus.gov.my





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