



## 2019 ACSH Annual Conference “Values Trust and Technology in the Public Sector” (13-14 June 2019, Nur-Sultan, Kazakhstan)

### Instituting Data Governance for Building Digital Trust and Advancing Digital Government



**United Nations Project Office on Governance**

**Division for Public Institutions and Digital Government (DPIDG)**

**United Nations Department of Economic and Social Affairs (UN DESA)**



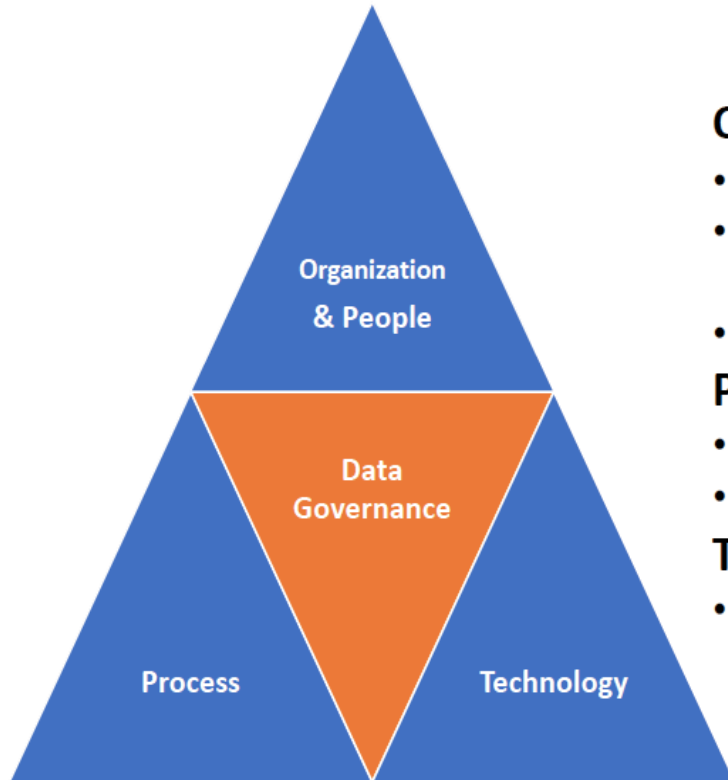
# Contents

- I. What is driving data governance**
- II. Data governance from the perspective of government**
- III. Approaches to instituting data governance**
- IV. Laws and regulations for data governance**
- V. Policy recommendations**



# I. What is driving data governance

- Definition: the overall management of the availability, usability, integrity, and security of the data employed in an enterprise



Three Dimensions of Data Governance

## Organization & People

- the strategic committee or board for designing the strategy
- the tactical team for setting the approach to implementing the strategy
- data stewards for actually managing the data governance

## Process

- to define and enforce data standard and policies
- to audit, monitor and control of data governance activities

## Technology

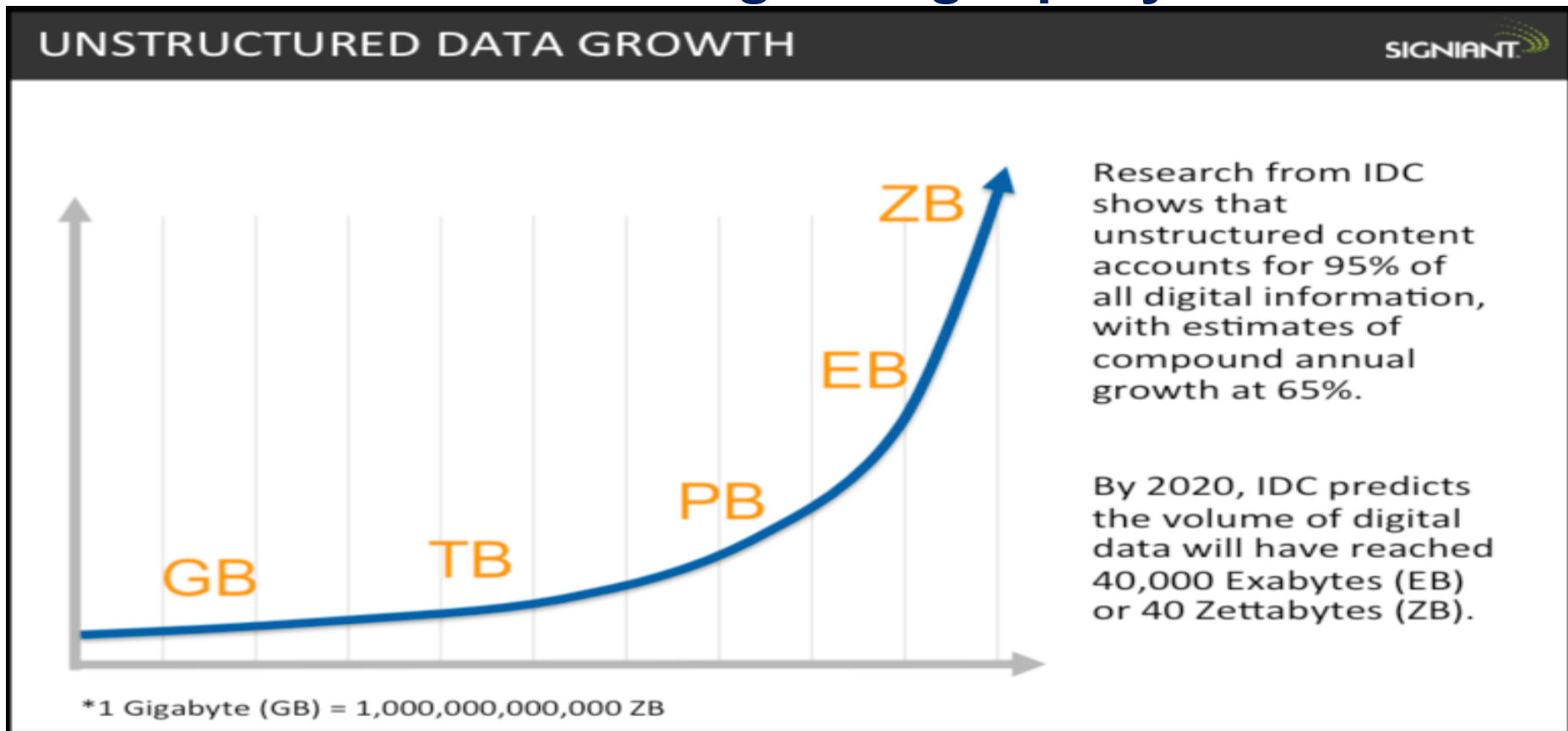
- to secure infrastructure, identity and access control, information protection, auditing and reporting

Source: UNPOG “Instituting Data Governance for Advancing Digital Government”



## I. What is driving data governance

- ❑ **Big data and cloud environment - exponential growth of data and increasing complexity in data with unstructured data growing rapidly**





# I. What is driving data governance

## ❑ **Security concerns and data breach scandals**

- Ownership of the data – citizens, businesses, state?
- Data privacy as one of basic human right – concerns of lack of privacy protections
- Surveillance network (cameras with AI) versus citizen protection (through preventing criminal behavior)
- Data breach scandals



## I. What is driving data governance

**Facebook and Cambridge Analytica data breach** - the data breach of a collection of personally identifiable information of about 50 million Facebook users that Cambridge Analytica began collecting in 2014.

*A data breach is the intentional or unintentional release of secure or private/confidential information to an untrusted environment*



# I. What is driving data governance

## □ **Regulatory and compliance requirements**

- **GDPR, HIPPA\* ...**
- **Risk management of financial or personally identifiable information (PII), e.g. US SEC requirements on release of financial statements**

*\* Health Insurance Portability and Accountability Act of 1996*



# I. What is driving data governance

## ❑ **Government innovation - data driven**

- Big data and data analytics for anticipatory governance (DRR) – IoT, sensor data...
- Open government data initiative – data as public asset - “open by default”: *open standard, open source and open code*
- Rapid proliferation of frontier technologies, such as AI versus ethic concerns (biased algorithm)





# I. What is driving data governance

## □ **Better public service delivery**

- Data has become key resource for delivering public services
  - **Building digital trust - globally, regionally and in many countries, there is a trust deficit order**
  - **Better understanding citizen needs**
  - **To be customized to specific needs of vulnerable groups – disaggregated data**



## II. Data governance from the perspective of government

### ➤ Government as service providers

- **Governments hold PII and commercially sensitive information – digital ID with biometrics info, facial recognition, bank account info, driver license, customer registered info for gaining certain types of services**
- **Data quality – data cleansing and data storage/archiving**
- **Building resilience in IT infrastructure against cyberattacks**
  - *Cyberspace security as national security*
  - *Cascade effect of the interconnected ICT infrastructure/system – one subcomponent failure triggers the system failure*



## II. Data governance from the perspective of government

### ➤ Government as data generators

- **Designated open data portals – data catalogues**
- **Data quality assurance framework - data sets with metadata, data release, ...**



## II. Data governance from the perspective of government

- **Government as regulator and guardian of privacy of the users and citizens**
  - **Collecting and using data – to ensure compliance with data privacy (PII)**
  - **Avoiding “mosaic effect” – consistent data release protocol across government departments**



### III. Approaches to instituting data governance

- Holistic and centralized (government-wide) data governance structure

*for*

Setting the policy and strategy for data collection/gathering, data classification, naming conventions, **data storage and deletion**, data processing, access control, usage and analysis, data release, and data security during the whole life cycle of data & consistent across all government agencies



### III. Approaches to instituting data governance

- Inter-Agency collaboration to avoid duplicate data collection or gathering, e.g. customs and border control, tourism...
- Better use of administrative records
- Data quality assurance framework – consistency in data quality and data publication process



### III. Approaches to instituting data governance

- Be prudential in collaborating with other agencies or outsourcing to third parties .....
- **Inadequate control to gain access to database**
- **Data usage without following proper rules and procedures**
- **Not fulfilling the data protection responsibilities**
- **Maximizing the commercial value for sharing data with other parties**



### III. Approaches to instituting data governance

- In digital era, ordinary citizens have no capacity to protect personal information
  - **Legislation – privacy first**
  - **Enforcing compliance**





## IV. Laws and regulations for data governance



- **General Data Protection Regulation (GDPR) – Effective May 25, 2018**
- **Privacy Amendment (Notifiable Data Breaches) Bill 2016 – Effective Feb 2018**
- **Payment Card Industry Data Security Standard – In effect**



## IV. Laws and regulations for data governance



### **No single, comprehensive federal law regulating the collection and use of personal data**

- The Federal Trade Commission Act (15 U.S.C. §§41-58) (FTC Act) - a federal consumer protection law
- The Financial Services Modernization Act (Gramm-Leach-Bliley Act (GLB)) (15 U.S.C. §§6801-6827)
- The Health Insurance Portability and Accountability Act (HIPAA) (42 U.S.C. §1301 et seq.) regulates medical information.
- Children's Online Privacy Protection Act of 1998
- The Fair Credit Reporting Act (15 U.S.C. §1681) (and the Fair and Accurate Credit Transactions Act (Pub. L. No. 108-159)
- The Electronic Communications Privacy Act (18 U.S.C. §2510) and the Computer Fraud and Abuse Act (18 U.S.C. §1030)



## IV. Laws and regulations for data governance



### **Brunei has ratified several laws related to cybersecurity**

- **Chapter 197 Anti-Terrorism (Financial and Other Measures) Act**
- **Chapter 194 Computer Misuse Act**
- **Chapter 153 Official Secrets Act**
- **Chapter 108 Evidence Act**
  
- **National ICT Security Policy Authority and Bru-CERT**



## IV. Laws and regulations for data governance

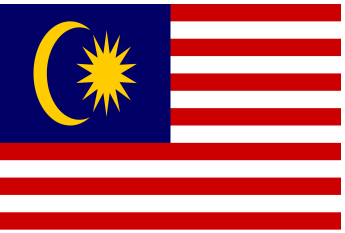


### **Indonesia has ratified several laws related to security**

- **Electronic Transaction Act No. 11/2008**
- **Electronic Transaction and System Provider Regulation No. 82/2012**
- **Information Security Guideline**
- **ID-CERT**
- **ID-SIRTII (Security Incident Response Team on Internet Infrastructure)**



## IV. Laws and regulations for data governance



### **Cyber Security Malaysia - national info security coordination center**

- **Digital Signature Act of 1997**
- **Computer Crimes Act of 1997**
- **Telemedicine Act of 1997**
- **e-Commerce Act of 2006**
- **Electronic Government Activities Act of 2007**
- **Personal Data Protection Act by 2010**



## IV. Laws and regulations for data governance



### Thailand

- **Electronic Act 2001 - the core of its cyber law**
- **The Computer Crime Act B.E.2550 (2007)**
- **In the process of establishing new legislation on digital economy, six digital bills were passed.**
  - Electronics Transaction Organization Restructuring bill
  - Data Protection bill
  - Cybersecurity bill
  - Digital Economy and Society Council bill
  - Digital ID bill
  - Electronics Transaction Officer bill



## V. Policy recommendations

- **Government-wide governance for improving public services**
- **All stakeholders inclusive approach – bringing in citizens**
- **Government legislation should be with foresight – adaptive, review and amend**
- **Develop a culture of data privacy – awareness-raising**
- **Prudential in outsourcing in the cloud environment**
- **A holistic approach – data security, maintaining data privacy and meeting compliance requirements**
- **International collaboration in cyberspace security**



# Questions?

谢谢    thank you ▪ merci ▪ bienvenidos ▪ gracias ▪ شكرا

Email: [yaok@un.org](mailto:yaok@un.org)