

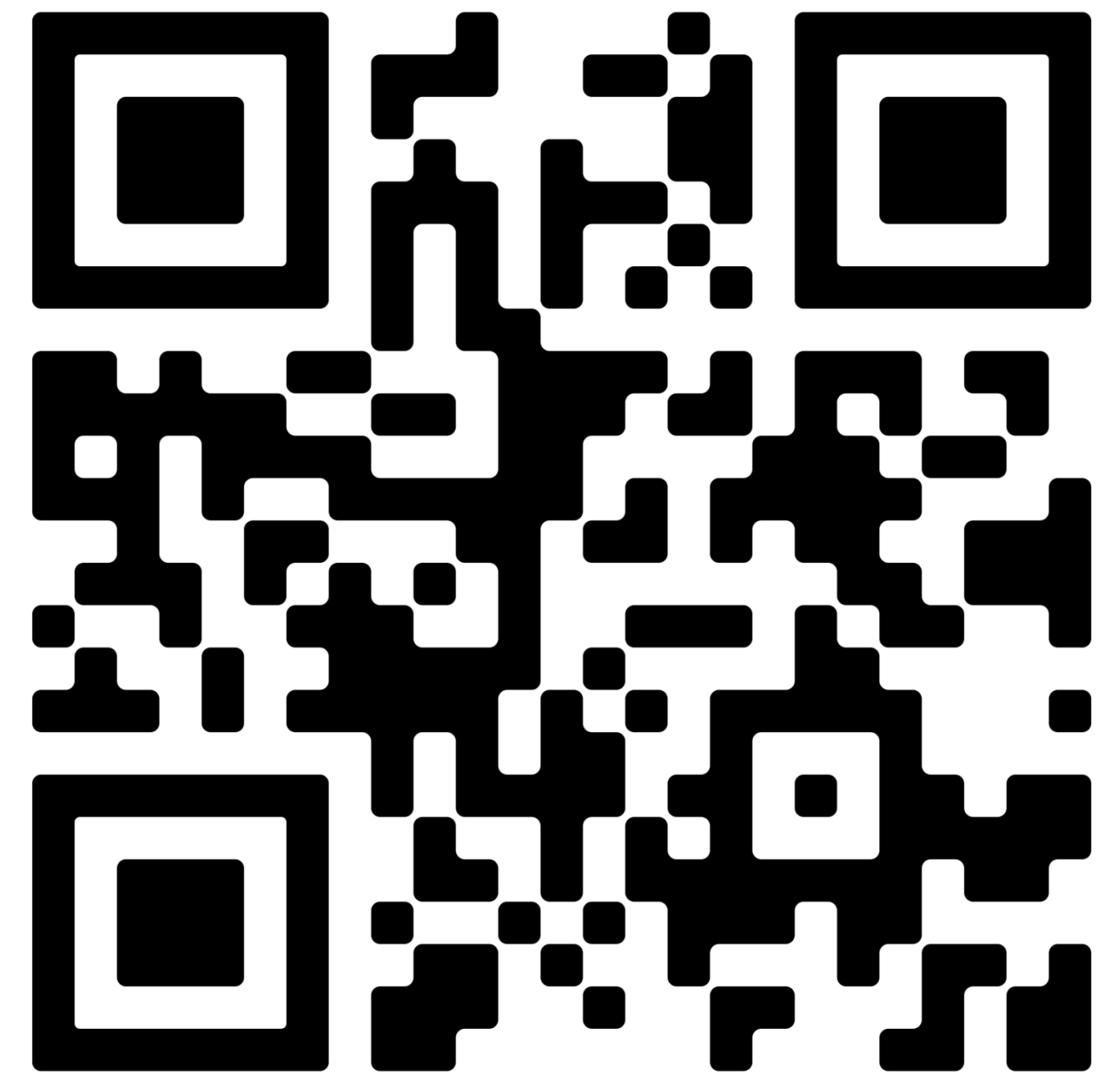


**United Nations**

Department of  
Economic and  
Social Affairs

# Capacity Development and Consultation Workshop on Public Service Management and Data Governance Framework

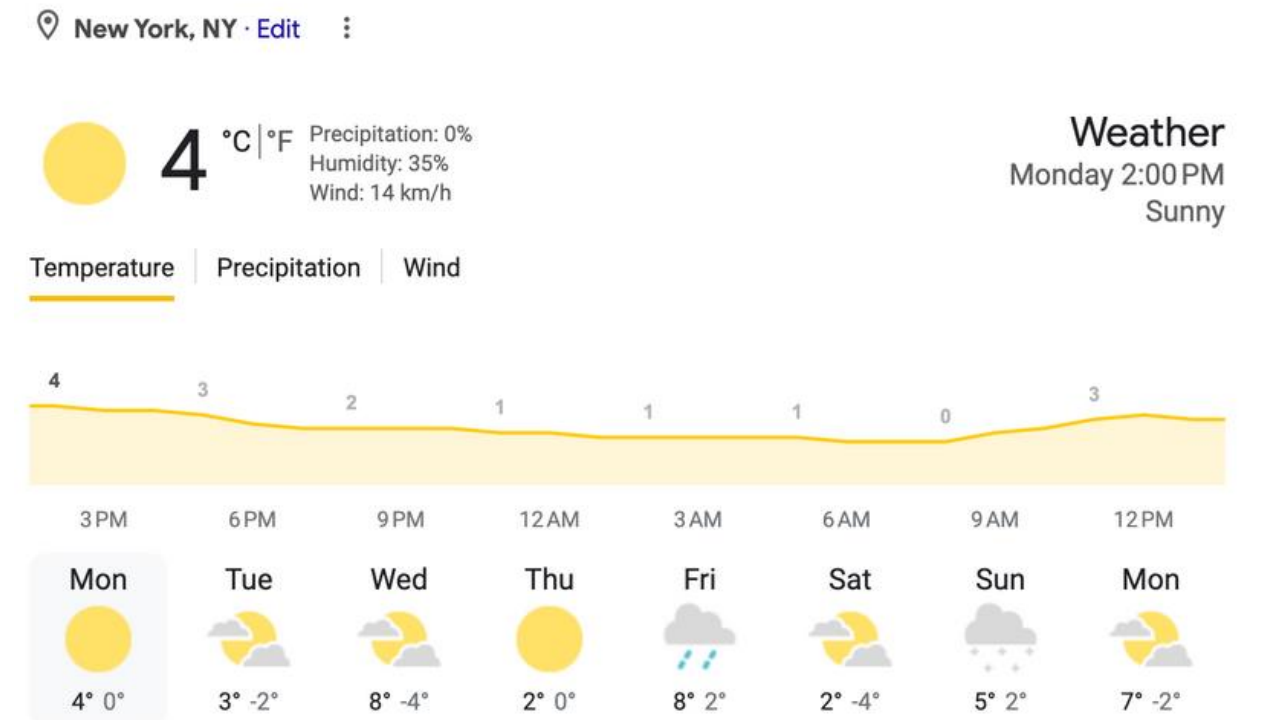
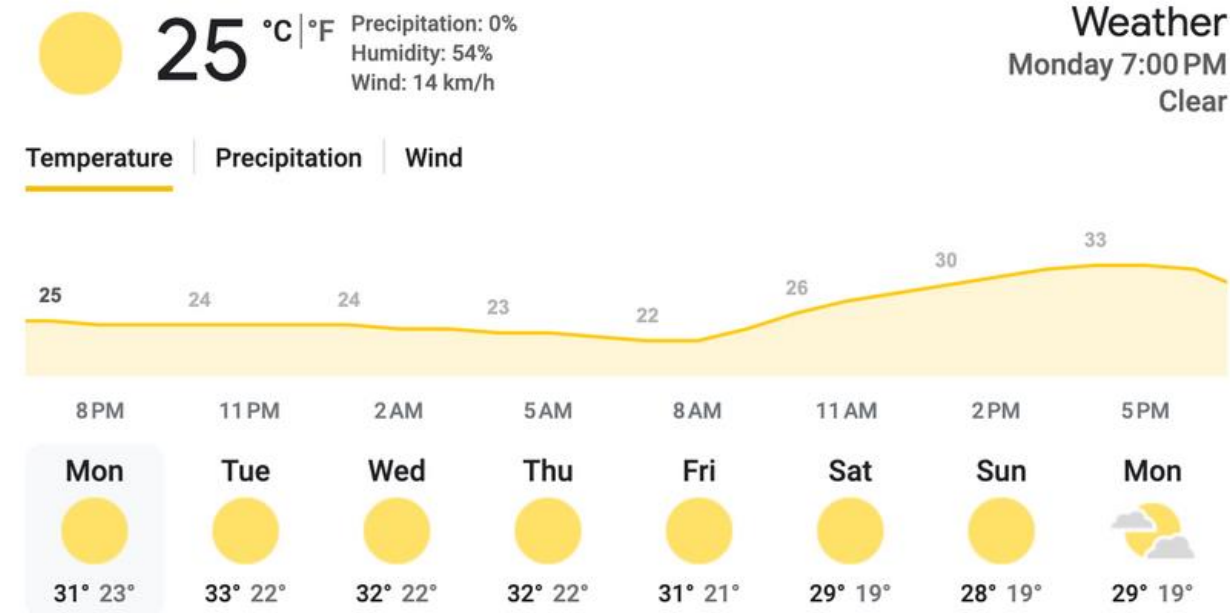
4-5 February 2025



**What is the  
average  
temperature in  
Banjul?**

**what is the best  
method of  
transportation to  
the bakadaji hotel  
from the banjul  
airport**

# What is the average temperature in Banjul?



The best way to get from Banjul Airport to the Bakadaji Hotel in Gambia is to take a pre-arranged taxi or private airport transfer; this is generally the most convenient and reliable option, as taxis are readily available at the airport and you can agree on the price beforehand.

### Key points about using a taxi:

- **Pre-book with your hotel:** Many hotels in Gambia, including Bakadaji, can arrange airport transfers for you, ensuring a smooth arrival.
- **Negotiate the price:** Always agree on the fare with the driver before starting your journey.
- **Consider a tourist taxi:** Opt for a tourist taxi for a more reliable and comfortable experience.

### Other options (less recommended):

#### Public transport:

While there are some public buses available in the Banjul area, they might not be the most convenient option for reaching a specific hotel like Bakadaji.

#### Shared taxi:

You can find shared taxis at the airport, but they might take longer as they drop off other passengers along the way.

# what is the best method of transportation to the bakadaji hotel from the banjul airport

**What is the total  
population of  
Gambia**

**Since when  
Gambia was a  
member state of  
the United  
Nations**

## What is the total population of Gambia

	<b>Gambia</b> Health data overview for Republic of the Gambia
Population	2 697 845 (2023)
Current health expenditure (% of GDP)	3.19 (2021)
WHO region	Africa
World Bank income level	Low income (LIC)

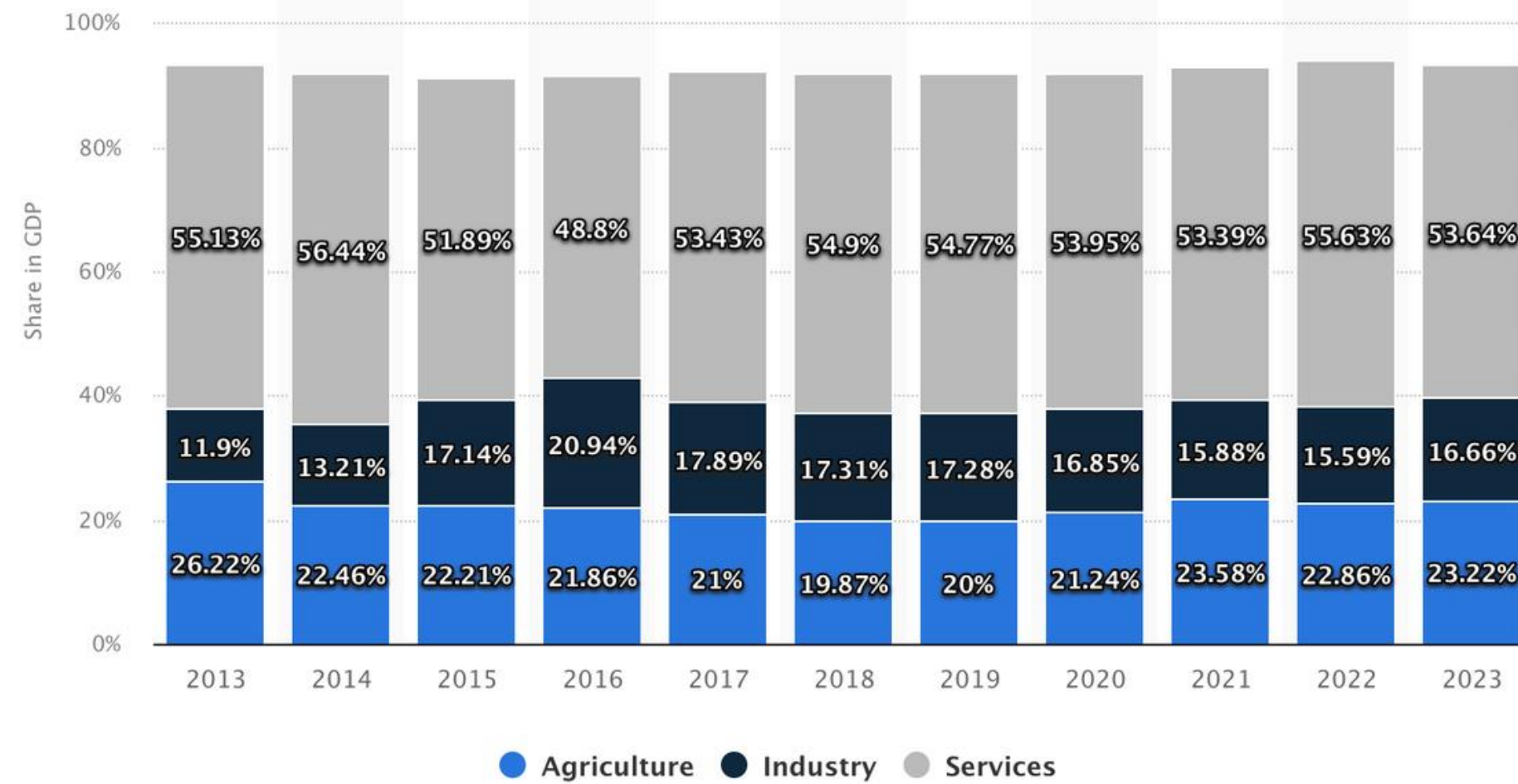
## Since when Gambia was a member state of the United Nations

The Gambia joined the United Nations on 21 September 1965 as a new independent State. Since then, the UN has been supporting The Gambia to achieve its national development priorities, which are aligned to the Sustainable Development Goals (SDGs).

**What is the major  
Economy of  
Gambia**

**Does Gambia  
possess a digital  
strategy?**

# What is the major Economy of Gambia



Resource: Statista (<https://www.statista.com/statistics/525670/share-of-economic-sector-in-the-gdp-in-gambia/>)

# Since when Gambia was a member state of the United Nations

Addis Ababa, Ethiopia, 30 November 2023 (ECA) — The Gambia, in collaboration with the United Nations Economic Commission for Africa (ECA) and the Ministry of Communication and Digital Economy (MOCDE), proudly announces validation of its groundbreaking [Digital Transformation Strategy](#) and the [Digital ID Strategy](#) that has culminated in over 9 months of work. The validation will take place on the 19<sup>th</sup> to 20<sup>th</sup> December in the Gambia.

## Key Highlights of the Digital Transformation Strategy:

- Inclusive Digital Economy:** The strategy outlines a vision for an inclusive digital economy that benefits all citizens, with a focus on bridging the digital divide and providing equitable access to digital services.
- E-Government Services:** The plan includes the development and implementation of robust e-government services, streamlining administrative processes and enhancing citizen-government interactions.
- Digital Infrastructure Development:** Recognizing the importance of a strong digital infrastructure, the strategy emphasizes the expansion and enhancement of digital networks to reach underserved communities.
- Capacity Building and Digital Literacy:** A key component is the investment in human capital through comprehensive capacity-building programs and initiatives to promote digital literacy across all segments of society.

# Why data? Why data governance?

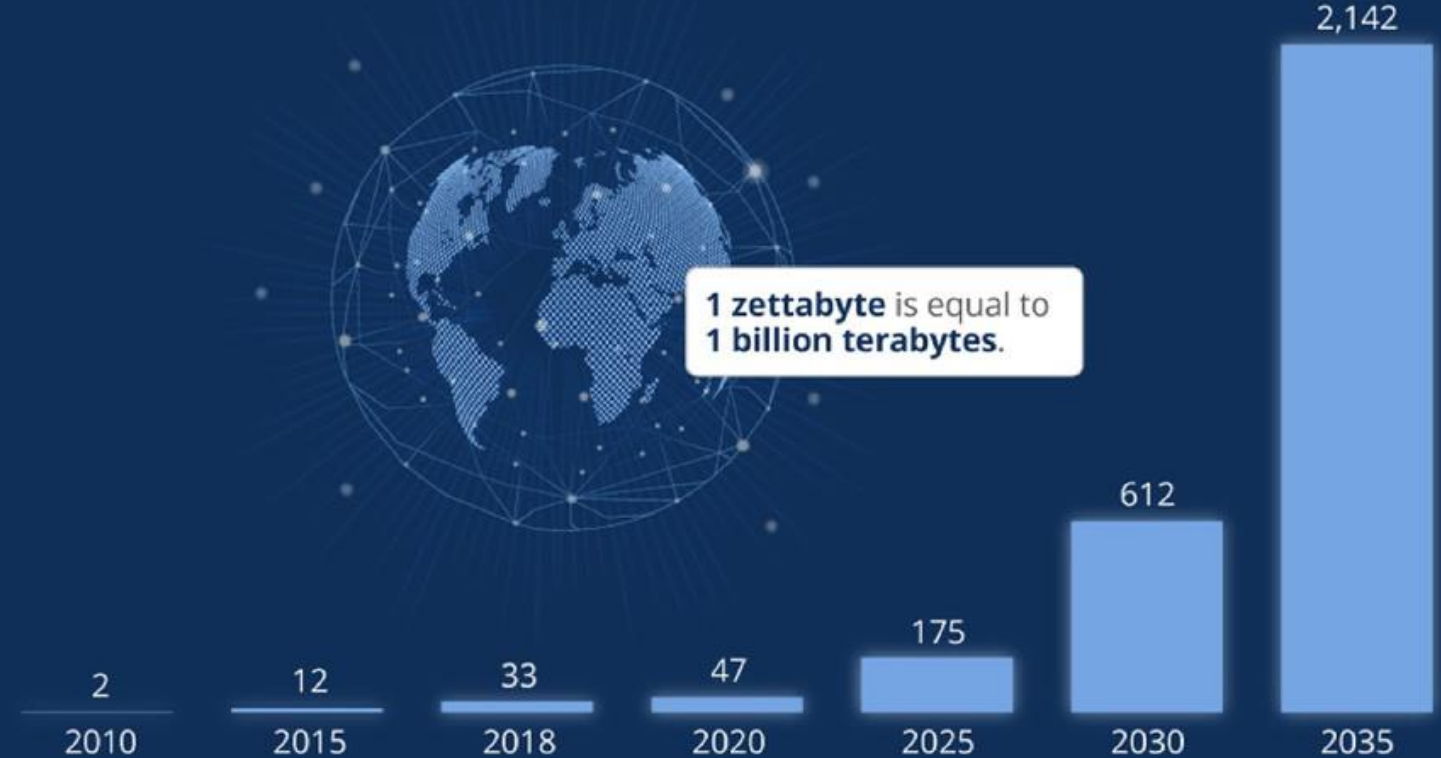
Data grows rapidly, and will reach **2,142 zettabytes** in **2035** (Note: One zetta is a “1” followed by 21 zeroes)  
Close to **50 per cent** will be stored in the **public cloud**



- **Data governance precedes digital governance**
- **Data governance precedes AI governance, and governance of any other new/emerging technologies**
- **National data governance precedes global data/AI governance**

## Global Data Creation is About to Explode

Follow our workshop



Actual and forecast amount of data created worldwide 2010-2035 (in zettabytes)

#NationalDataGovernance #DataGovernanceFramework #EGovernmentSurvey  
#SDGs #GlobalGoals #SmartBangladesh2041





# Why data? Why data governance?

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# 1,000,000,000,000,000,000,000,000

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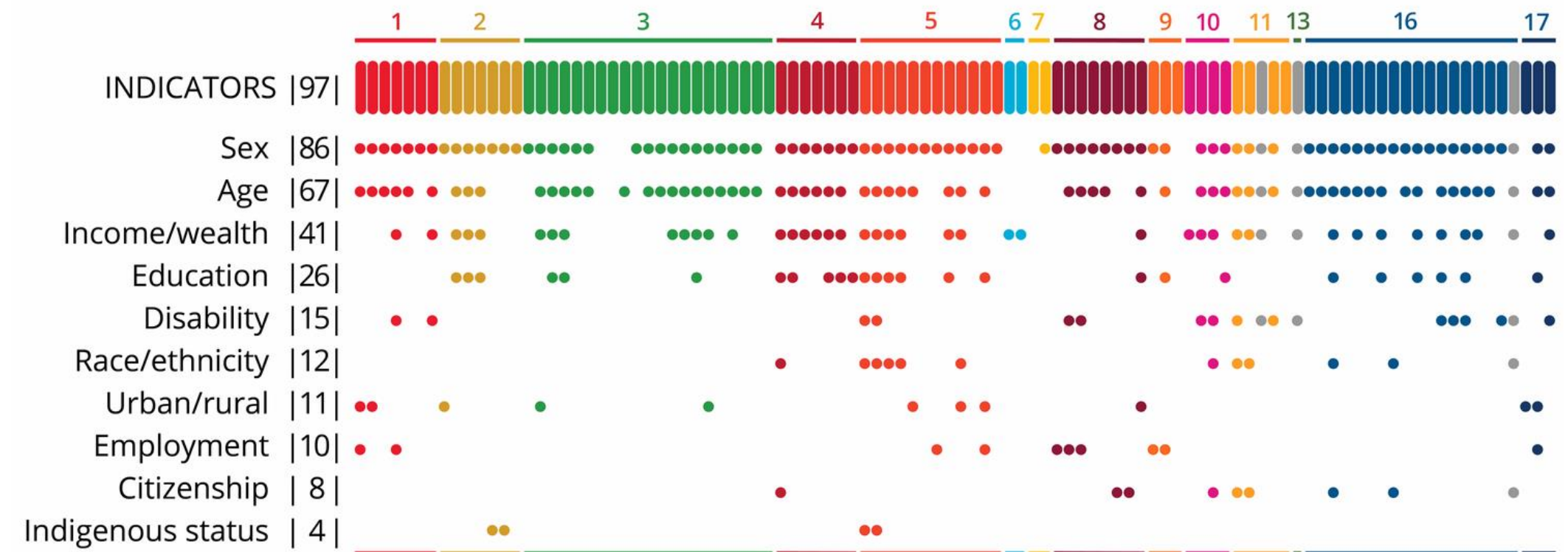
# Data

- **Nexus** of digital government, digital economy, digital society and sustainable development
- Role of data and digital government in **responding to crisis and emergencies** such as pandemics and conflict, supporting a responsive and resilient government
- Central role of **data, AI and other emerging technologies** in driving anticipatory, predictive and responsive services
- Need for a **national data governance framework** in supporting to digital government strategy
  
- Changing institutional dimension of government, from silos to whole-of-government, whole-of-society, and integrated strategies covering multiple sectors, multilevel (across local jurisdictions) and multistakeholder (with private sector, academia and civil society)

# Data on SDGs, Data for SDGs

- **Data on SDGs:** Data can help ensure that plans to achieve the SDGs are evidence-based, and that their outcomes are measurable. Data can help assess the SDGs in three main ways namely:
  - a facilitator of standards,
  - a tool for accountability and an evidence base for impact assessment.
  - Impact assessment: Data can reveal inequalities and disparities in income, wealth and access to government services and provide a basis for assessing progress over time.

Required types of disaggregation by SDG indicators (on individuals)



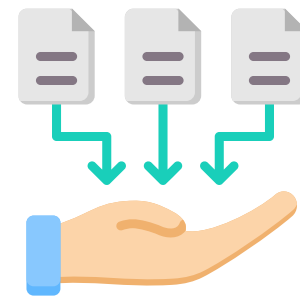
Data based on calculations by Open Data Watch. Repeated indicators appear in gray but are not included in totals.



SDG indicators requiring data on individuals and families.

# Data on SDGs, Data for SDGs

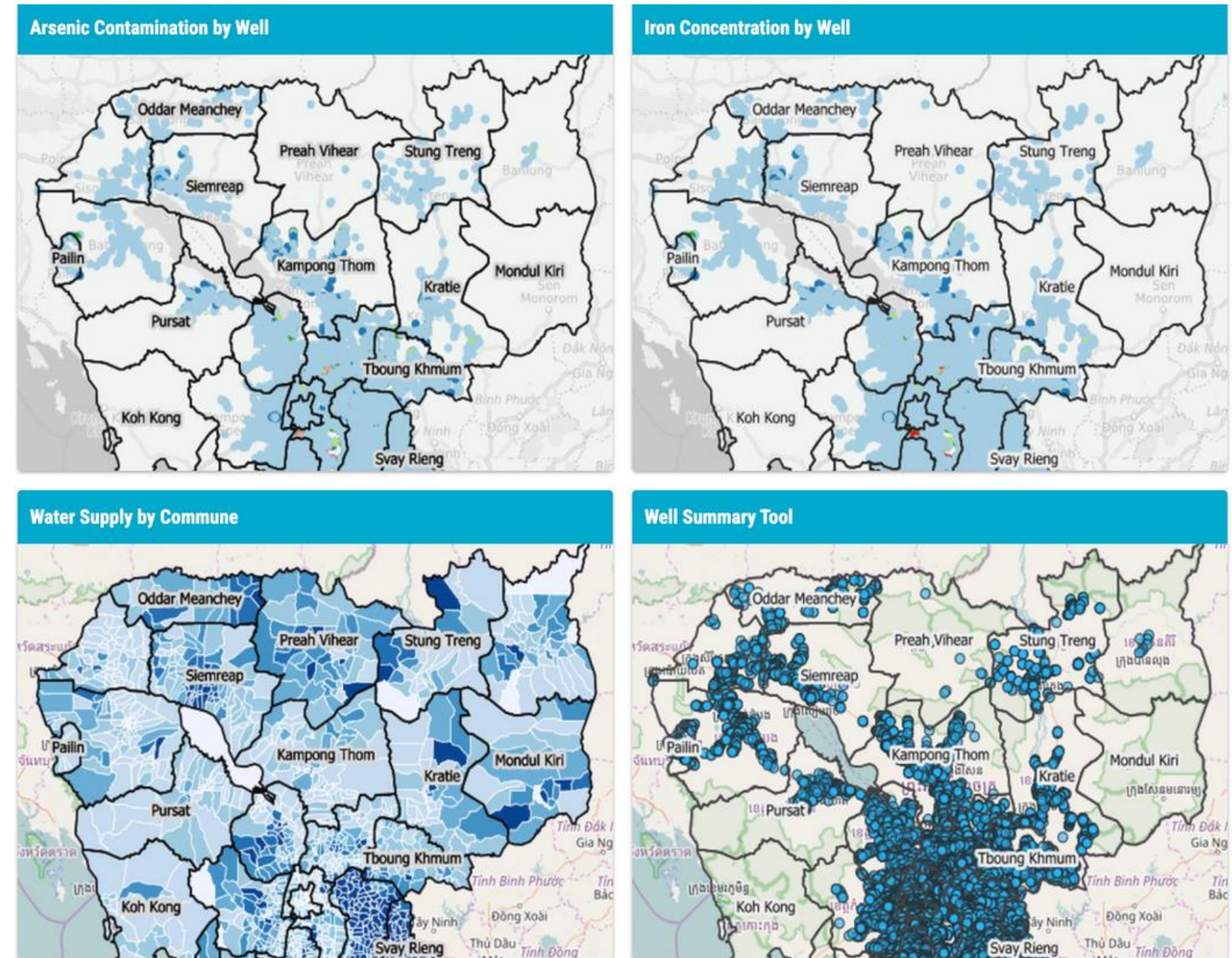
- **Data for SDGs:** data can help achieve the SDGs by providing critical information on available resources, government operations, public services, and population demographics. These insights can inform national priorities and help determine the most effective path for action on national issues.



**Cambodia: Less than 20% with access to drinkable water.**

- Developed a well-map to allow citizens know which wells are drinkable.
- Opened to private sectors to mobilize private investment
- 13-point increase in drinkable water.
- safely managed sanitation 5% -> 36%

## Cambodia Wellmap



Source: SDG6 Country Acceleration Case Study\_2024



**United  
Nations**

Department of  
Economic and  
Social Affairs

**United Nations**  
**Peace and**  
**Development**  
**Fund (UN PDF)**

**Project:**

Developing **institutional capacities for digital data governance and cooperation** to advance progress toward the **Sustainable Development Goals**

**Objective:**

Enhancing the institutional and individual capacities of government officials and stakeholders in target countries, for digital data management, data governance and data cooperation to achieve mutual benefit, win-win outcomes and common development.



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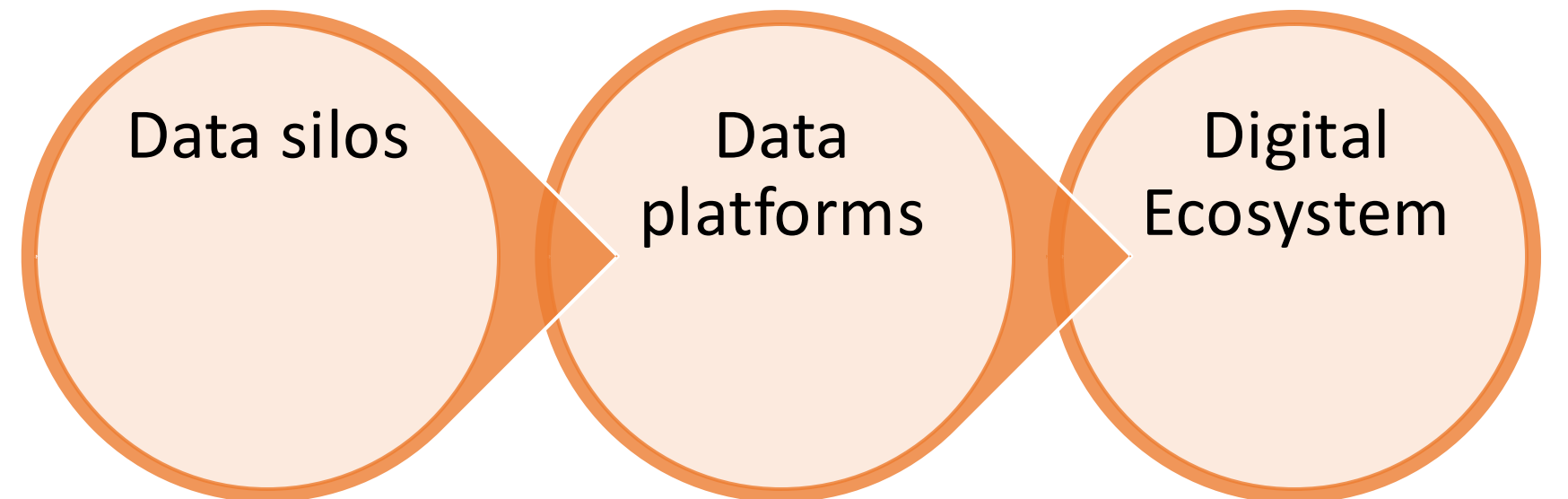
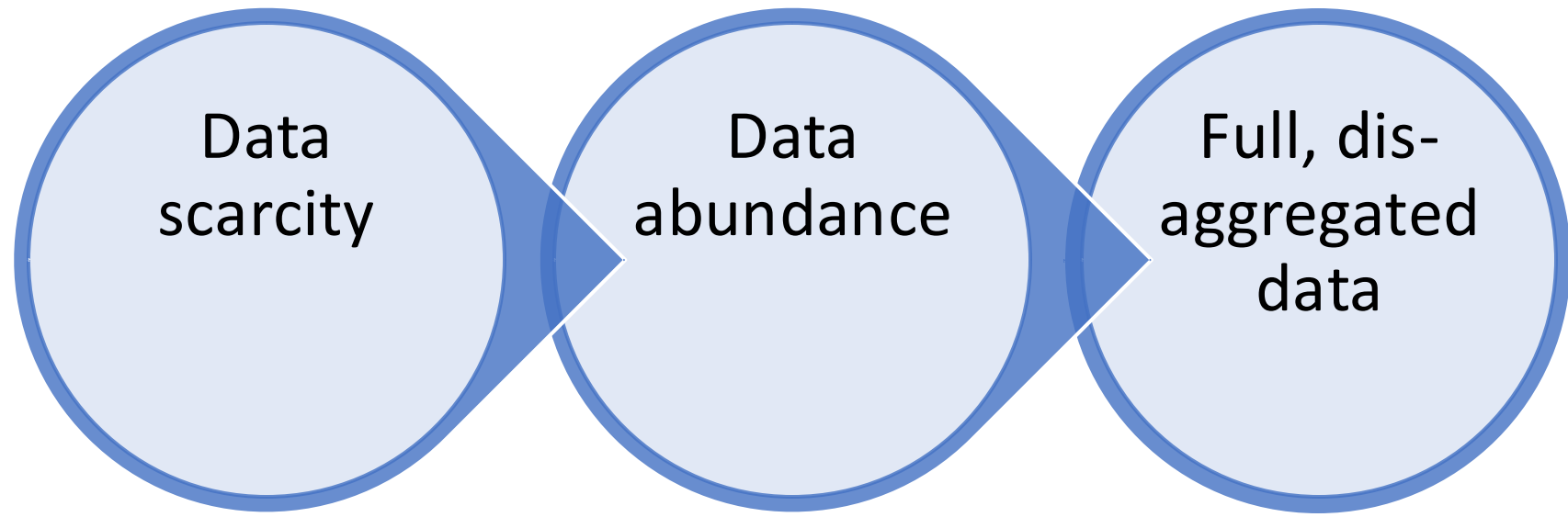
## Project countries

### Asia Pacific

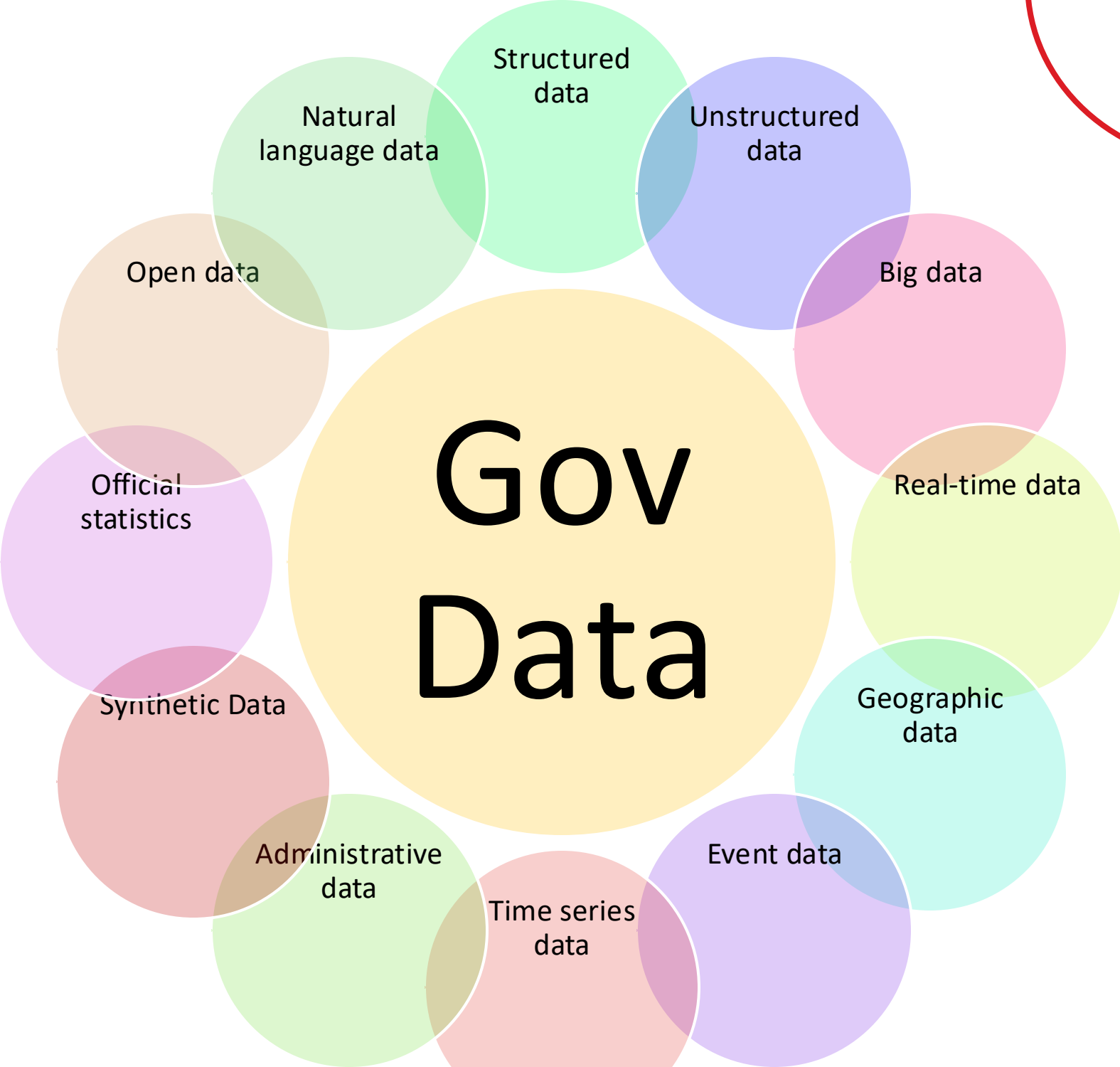
Bangladesh  
Bhutan  
Cambodia  
Lao PDR  
Samoa  
Vanuatu  
Mongolia

### Africa

Ethiopia  
Rwanda  
Sierra Leone  
Tanzania  
\*Gambia



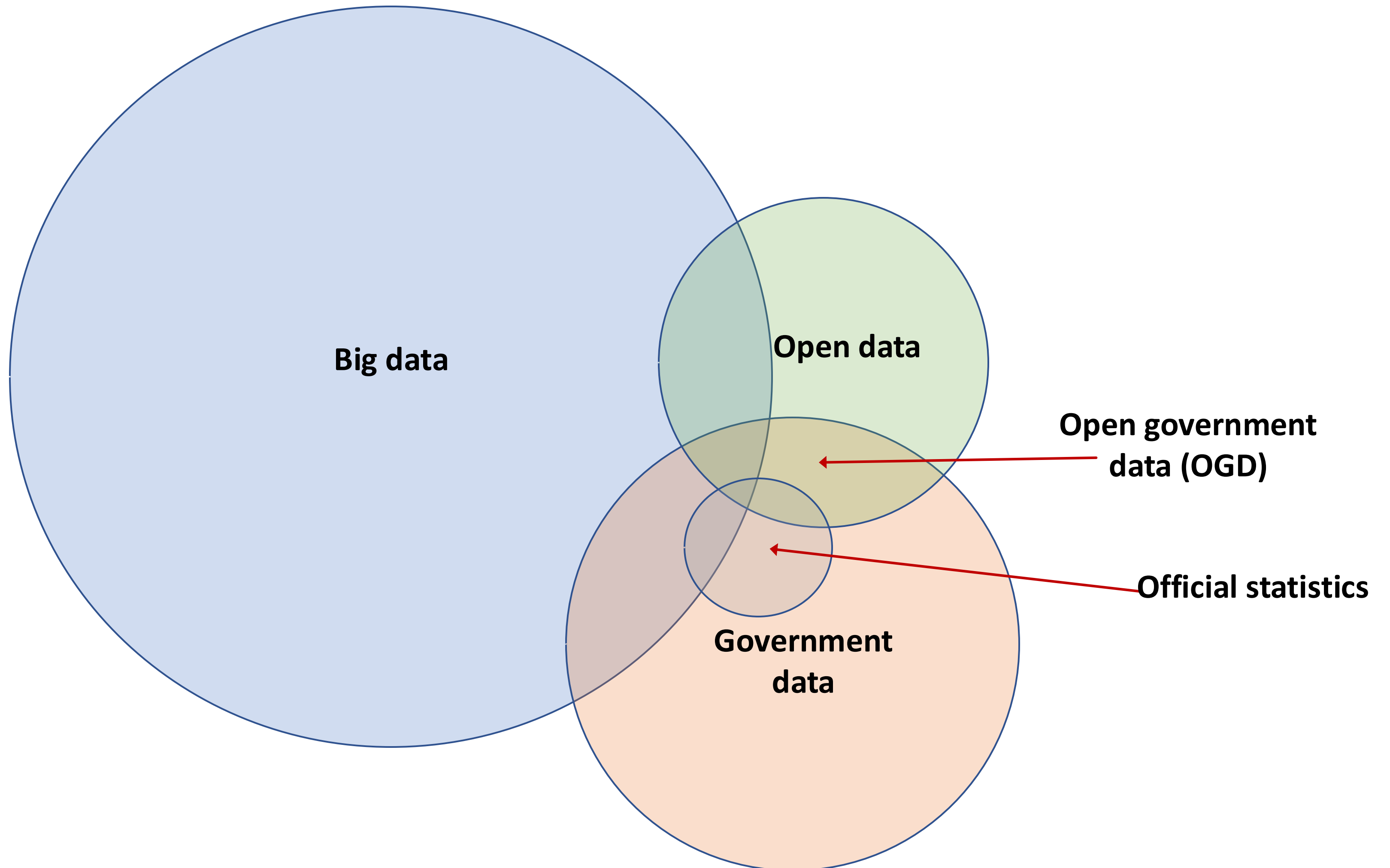
# Types of Government Data



Source: UN E-Government Survey 2020 Chapter 6

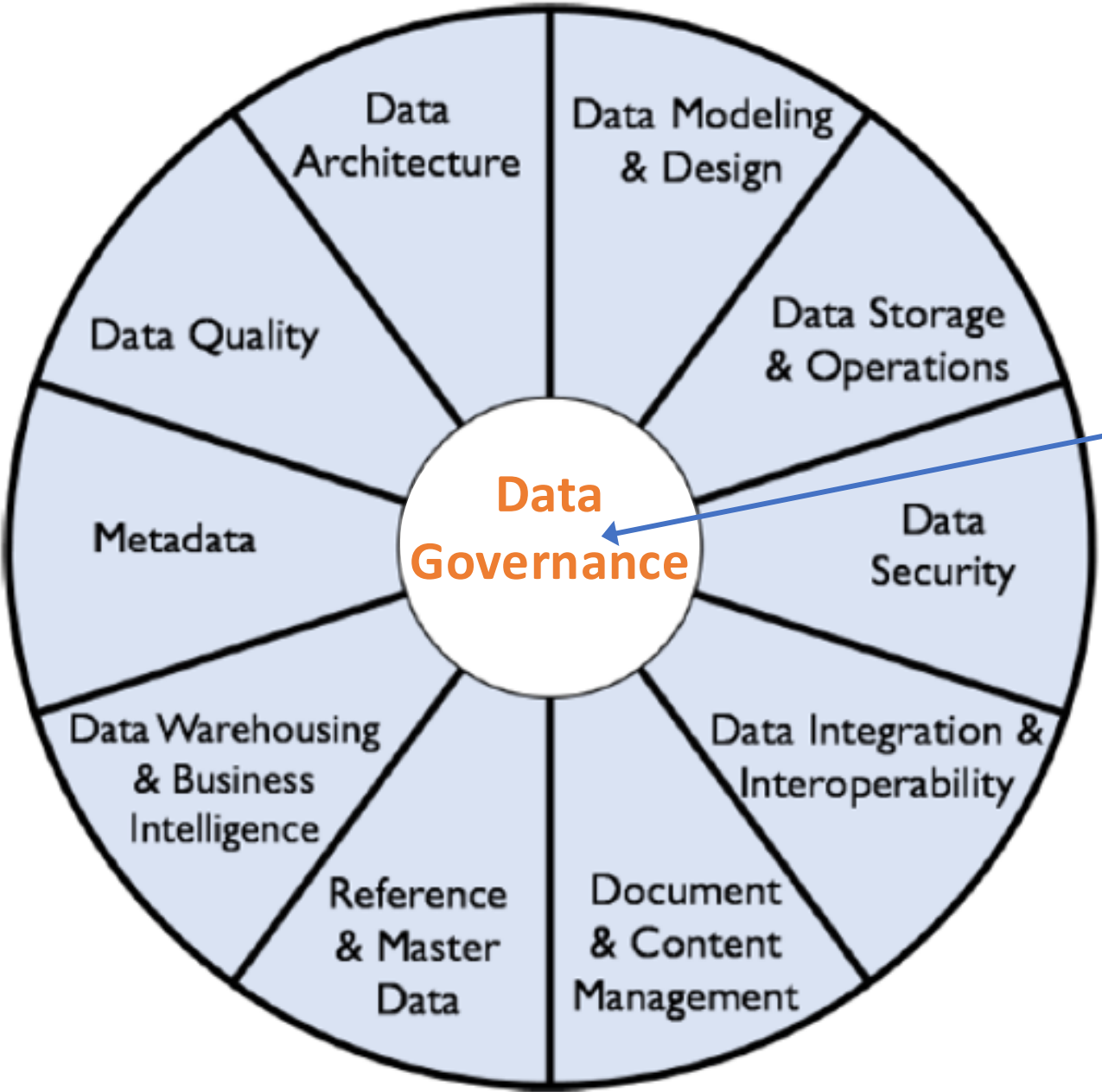
Data type	Description
Public data	Includes all data that are available in the public domain, including those created by governments, academia, civil society and the private sector.
Government data	A subset of public data “recorded and documented in any manner and on any medium and obtained or created upon performance of public duties provided by law or legislation issued on the basis thereof.
Census and survey data	Data collected through observation of a given population or universe, including demographic data and other survey data on items such as housing, land use, agriculture and business.
Administrative data	Data collected by government agencies on their operations such as data on public service transactions in sectors such as health, justice and education; administrative registers of persons and legal entities and the records of ministries, departments and specialized agencies, including tax returns, social services records and customs data.
Open Data	Information that is open in terms of access, redistribution, reuse, absence of technological restriction, attribution, integrity, no discrimination.
Open Government Data	Data open to and available in the public domain in various (including machine-readable) formats and normally licensed for all to access, use, modify and share. Essentially, all OGD are government data, but not all government data are OGD, see figure 1.
Big data	Describe the exponential growth and availability of data, both structured and unstructured and is defined by 3 V’s: Volume, Velocity and Variety. Big data analytics can be used for deeper and more complex tasks such as social media sentiment analysis.
Data Science	The study of the generalized extraction of knowledge from data by employing machine learning, predictive and prescriptive methodologies, thereby creating direct value on an experimental and ad-hoc basis.
Geospatial data	Data and information that have an implicit or explicit association with a geographical location
	Constant streams of live data delivered immediately after collection. Such data show the actions of Governments and/or people almost instantaneously and are usually deployed with the expectation of a rapid response such as the monitoring





Source: Adapted from UN E-Government Survey 2020 Chapter

# What is the difference between data management and data governance?



Data governance framework defines the **policies (rules), institutions, processes, roles and responsibilities (people)**, related to the management of data, including data collection, analysis, use, sharing and disposal of data, in order to **manage data as a critical asset**.

Source: Adapted from DAMA-DMBOK2 Data Management Framework

Policies | Institutions  
Processes | Roles and Responsibilities

Accessible

Quality

oConsistent

Secured

oRespect privacy

Integrated

oInteroperable

Applicable (Analytics)

oAI/ML

Data

Data Value

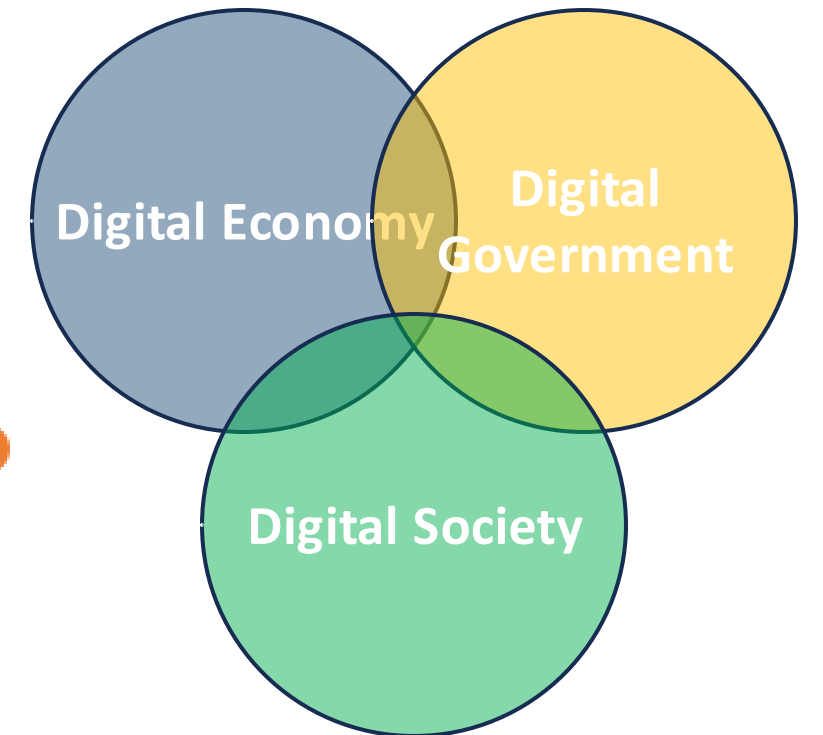
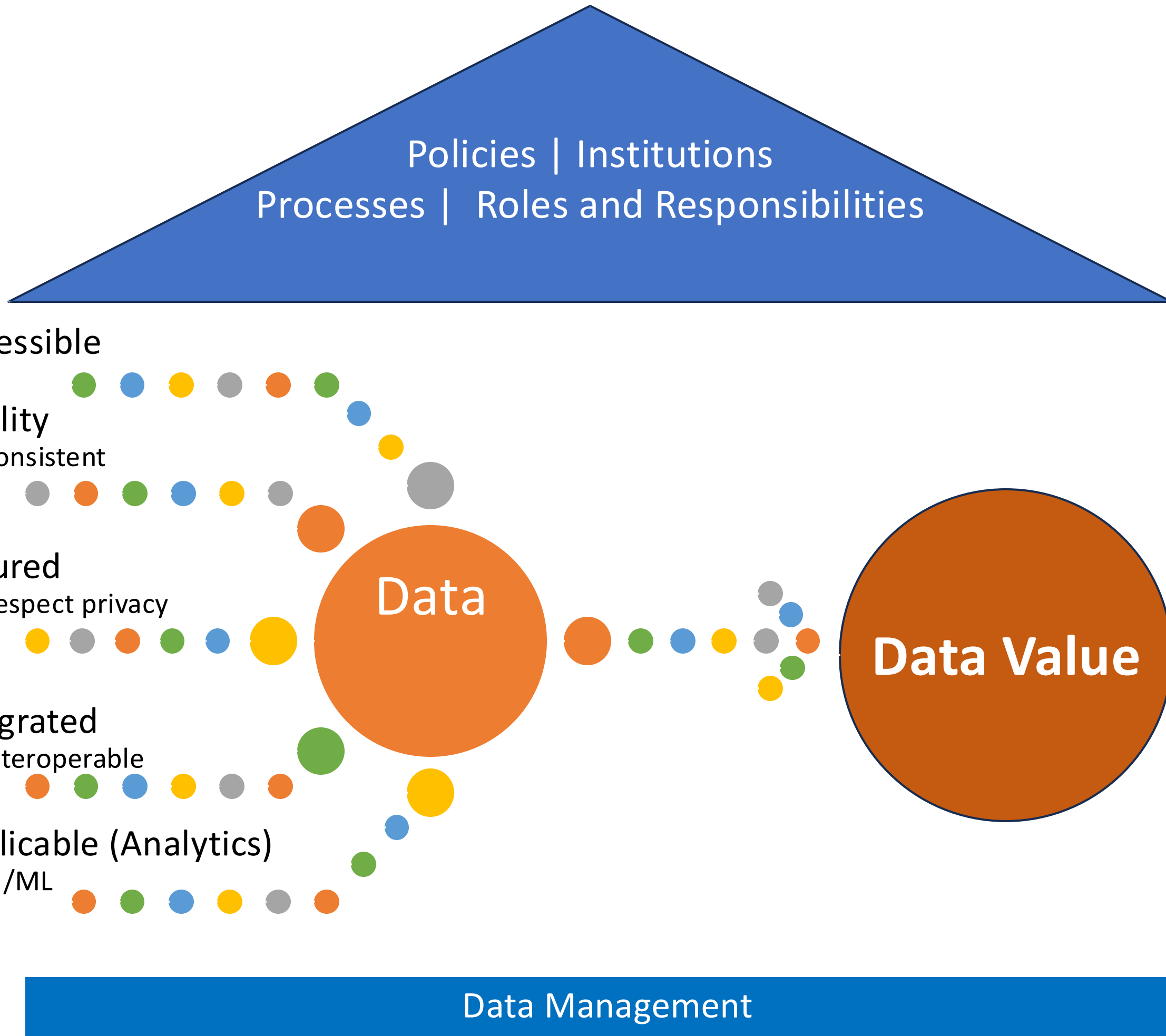
Digital Economy

Digital Government

Digital Society

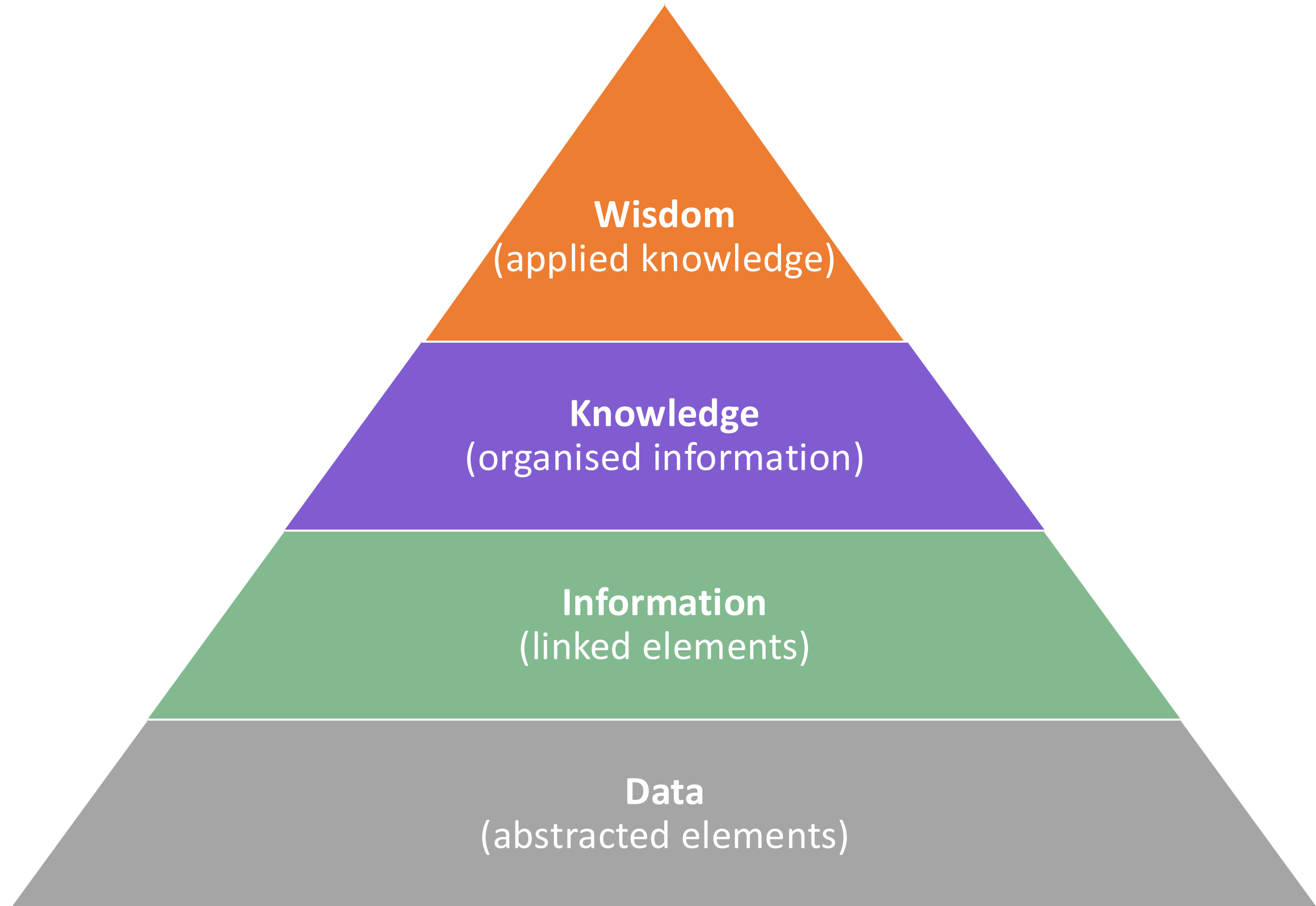
Digital Transformation

Data Management



# DIKW Pyramid

☐ Data ☐ Information ☐ Knowledge ☐ Wisdom



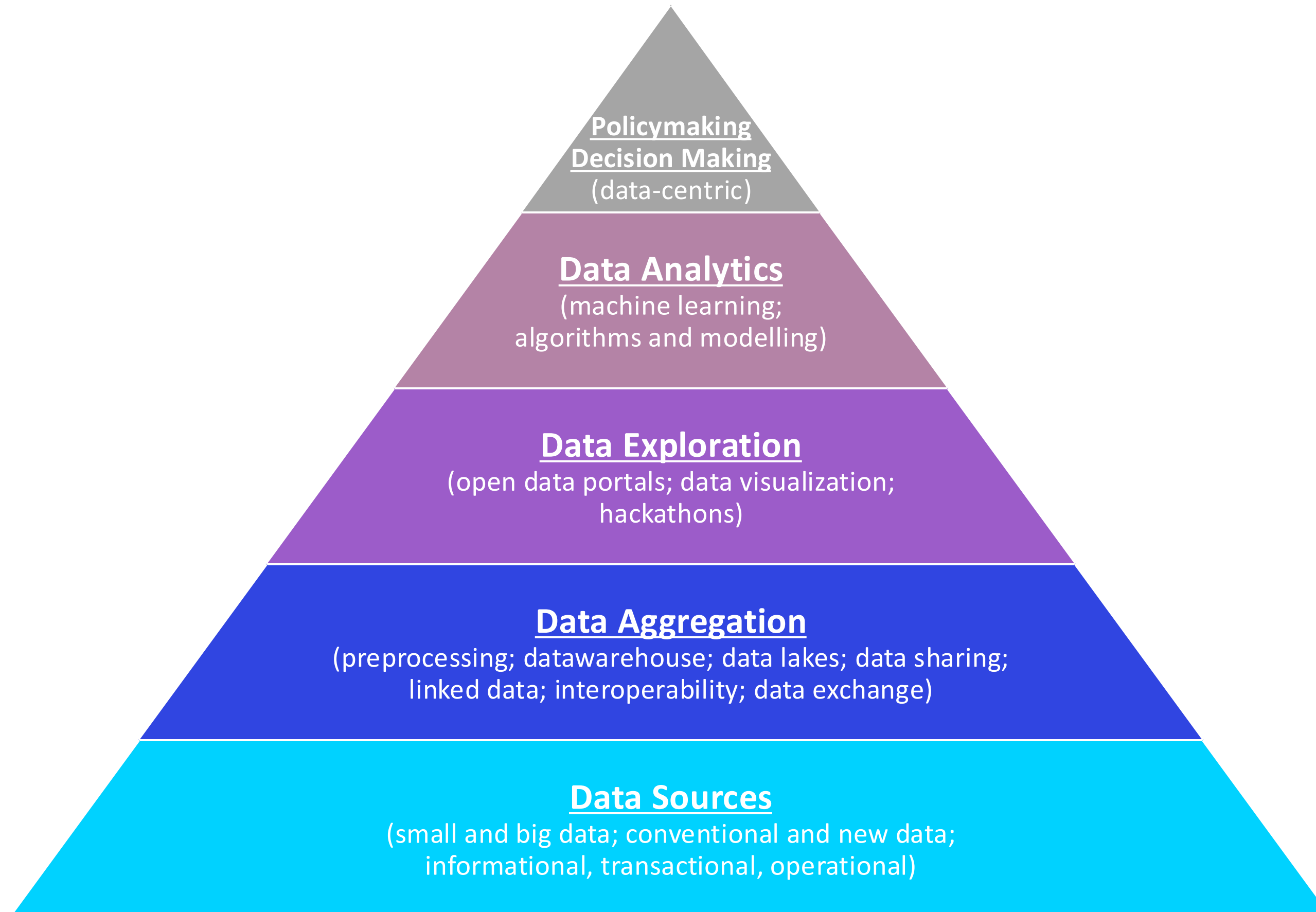
**Wisdom**  
(applied knowledge)

**Knowledge**  
(organised information)

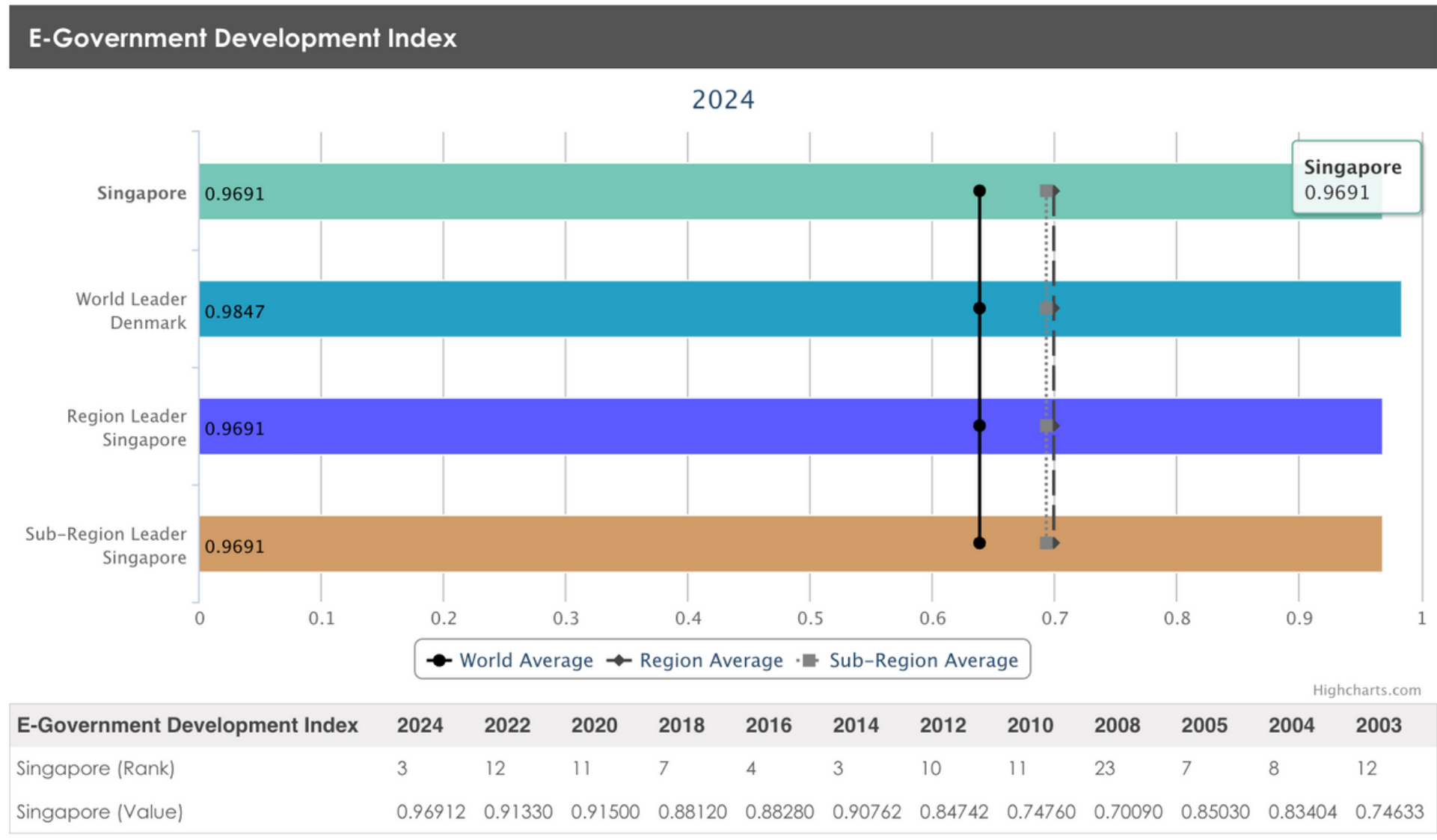
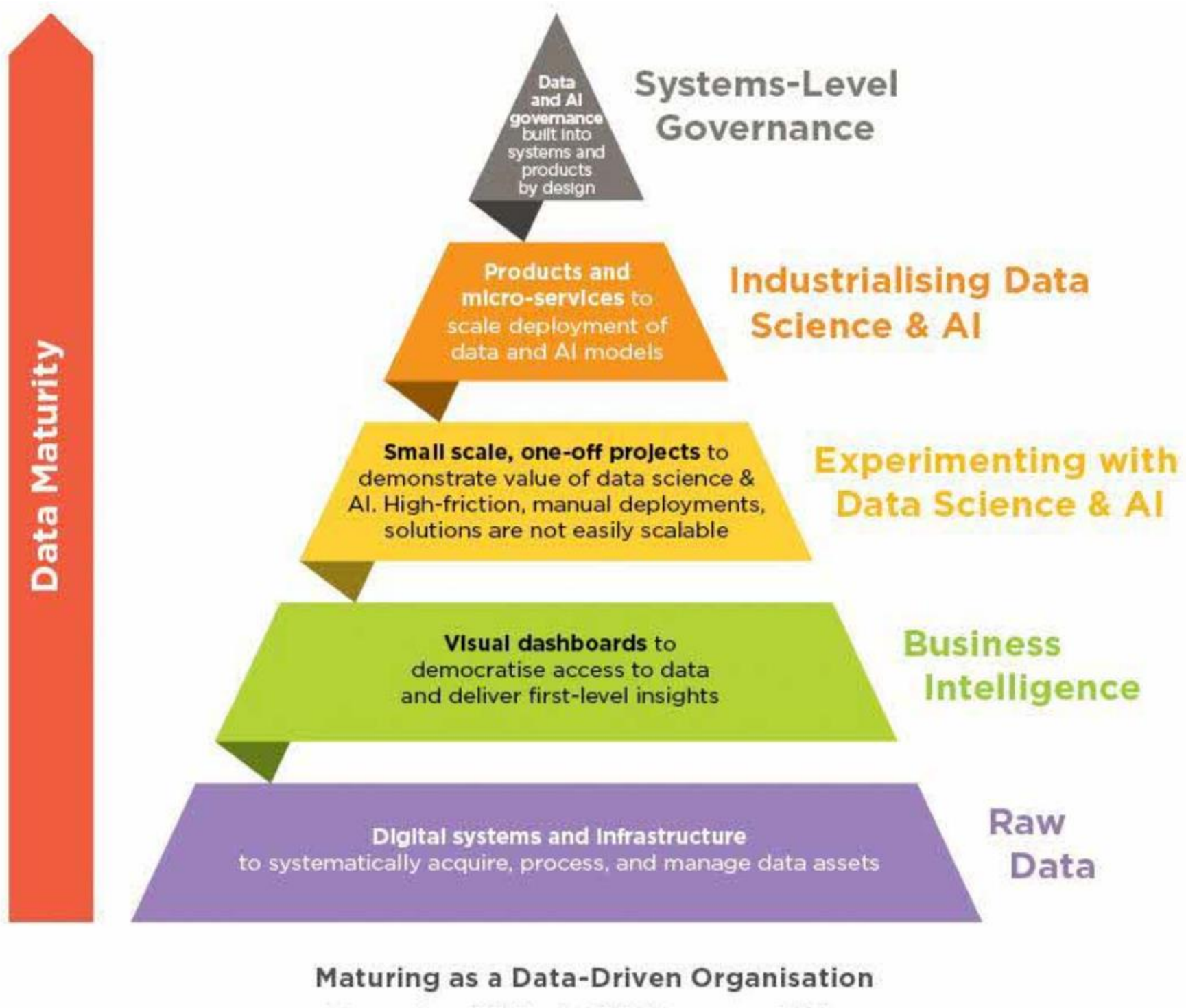
**Information**  
(linked elements)

**Data**  
(abstracted elements)

# Data in Digital Government and Digital Transformation



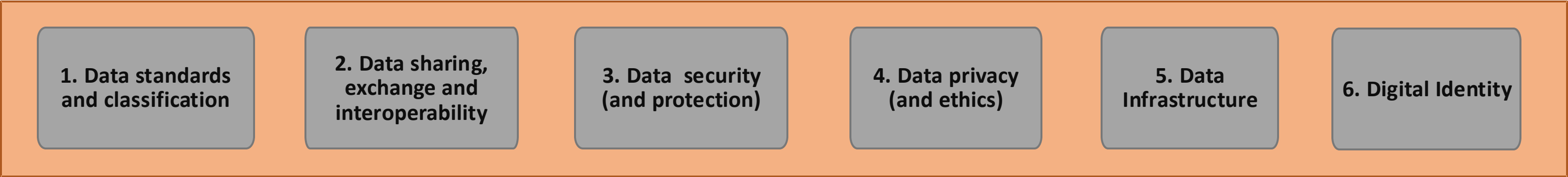
(Source: 2020 UN E-Government Survey; chapter 6)



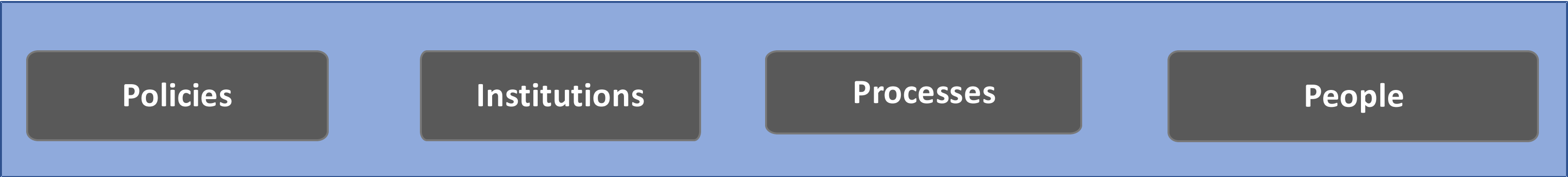
(Source: Singapore's Smart Nation & Digital Government Office)

# UN DESA's National Data Governance Framework

## ELEMENTS (6)



## PILLARS (4)




## SDG 16 PRINCIPLES (3)



# P1 Policies

- Policies on “single-source-of-truth”, “data once only” or “once-only principle” ensure that individual users and businesses provide data to public administration only once, while public bodies exchange this data with a single authoritative source when requested and in compliance with the relevant regulations.

## Enablers / Barriers of Once-Only Principle

 <p><b>Political Commitment</b> pre-condition to implement the once-only principle</p>	 <p><b>Legal Framework</b> to enable sharing and reuse of data stored in government's base registries &amp; ensuring data privacy and protection of citizen's rights</p>	 <p><b>Networked trusted infrastructure</b> to ensure trust and effective interaction among governments</p>
 <p><b>Organizational commitment &amp; Collaboration</b> to enable governments to share citizens' (personal) data among public administrations in secured networks and on the basis of standards</p>	 <p><b>Semantic standards</b> for data exchange to ensure common understanding &amp; multilateral agreements on reference data to ensure information interoperability</p>	 <p><b>Appropriate collaborative governance</b> to enable cross-government collaboration</p> <p><b>Trust and transparency</b> to enable citizens to control and monitor when an agency has used the citizen data and for what purpose</p>

## Evidence-Based Policymaking Act of 2018, United States of America

While evidence-based policymaking is not new and is widely supported by academic research, it is still uncommon to find a national policy or strategy supporting this approach.



In 2016, the United States Commission on Evidence-Based Policymaking was created to explore ways in which the Government could make better use of its data to inform future government decisions. The Commission spent a year and a half in deliberations and fact-finding and in September 2017 issued a report in which priority was assigned to expanding access to data, ensuring privacy, and strengthening the capacity of the Government to generate and utilize evidence to evaluate budgetary spending on programmes affecting health, education and economic well-being.

The Foundations for Evidence-Based Policymaking Act (the Evidence Act) received congressional approval in 2017 and 2018 and was signed into law by the President in January 2019 to facilitate the implementation of a number of the Commission's recommendations. Shortly thereafter, the Federal Data Strategy was issued by the White House Office of Management and Budget (OMB) as a second implementation mechanism, identifying data as a strategic asset and outlining the principles and practices to which federal agencies would have to adhere in the execution of the Act. The OMB published multiple guidance documents to help agencies address some of the Commission's recommendations; included in the documents were provisions for designating evaluation officers, appointing chief data officers, identifying statistical experts, developing "learning agendas", and incorporating new actions into annual budget and performance plans. For agencies that already have data strategies in place, such as the Department of Health and Human Services, the Evidence Act constitutes an additional mandate to strengthen capacity for using data for evidence-building purposes.



The Evidence Act establishes new expectations for open data, data inventories, and data management. It also reinforces the longstanding Confidential Information Protection and Statistical Efficiency Act, a strong privacy and confidentiality law that compels the Government to take all necessary steps to protect data when confidentiality has been promised. A national secure data service (recommended by the Commission but not yet established) is expected to improve data access and will also strengthen privacy protection.

Sources: United States, Foundations for Evidence-Based Policymaking Act of 2018, H.R. 4174 - 115th Congress (2017-2018), available at <https://www.congress.gov/bills/115th-congress/house-bill/4174>; see also J. Heckman, "Federal Data Strategy to impact all feds, not just 'data plans for data works'", *Federal News Network* (2020), available at <https://strategy.data.gov/>; and Data Coalition (2020), available at <https://www.datacoalition.org/two-years-of-progress-on-evidence-based-policymaking-in-the-united-states/>.



# P2 Institutions

**Institutions or institutional arrangement to support data governance** are essential for the implementation of the national data strategy and the data governance framework. Often required within this context is an institutional review that could transform the way agencies in all sectors and at all levels effectively cooperate and deploy government data as a strategic asset.

Source: UN E-government Survey, chapter 6

## **Examples:**

- 1. National Data Advisory Council (Australia)**
- 2. National Data Governance Committee (Ethiopia)**
- 3. National Data Bureau (China)**
- 4. Smart Nation and Digital Government Office; Government Data Architecture (Singapore)**

# P3 People

## Roles and responsibilities in national/sectoral data governance, and data leadership/stewardship

Source: UN E-government Survey, chapter 6

### Examples:

1. **Chief Data Officers:** individuals with leadership role in data governance and data strategies
2. **Data stewards:** individuals or teams within data-holding organizations who are empowered to proactively initiate, facilitate and coordinate data collaboratives toward the public interest.
3. Others: **Data Bureau, Data Leads, Data Officers, Data Focal Points**

# Data roles and data literacy

<i>Roles (non-exclusive)</i>	<i>Description</i>	<i>Required skillsets</i>
<b>Policymakers and decision-makers</b>	Ministers, Secretaries, Directory General, or any other senior officials with decision-making roles.	Understand and interpret data for insights and decision-making
<b>Data Stewards</b>	Data leadership functions that include: <ol style="list-style-type: none"><li>1. Chief Data Stewards / Officers (national and/or-subnational)</li><li>2. Chief Digital Strategy Officer</li><li>3. Chief Information Officer</li><li>4. Chief Government Technology Officer</li><li>5. Chief Evaluation Officer</li><li>6. Chief Innovation Officer</li></ol>	Leadership skills (both technical and policy) to provide data oversights, policy and technical frameworks for data governance and the data ecosystem
<b>Policy analysts</b>	Those with analytical skills, especially with domain expertise of specific sectors (e.g. health, education); assist in policy analysis in supporting public policymaking	Sectoral domain knowledge; data analytical skills; using BI (business intelligence) and self-service analytics tools
<b>Public Officers (administrators)</b>	Majority of public sector employees	Use of data for daily operations or reporting; to be able to benefit from data visualisations, charts, etc.
<b>Data scientists</b>	Technically trained specialists in data analytics and data science; "power users"	Specific skills in Python and other data tools, data services and infrastructure; includes AI, blockchains, big data specialists, etc.

# P4 Processes

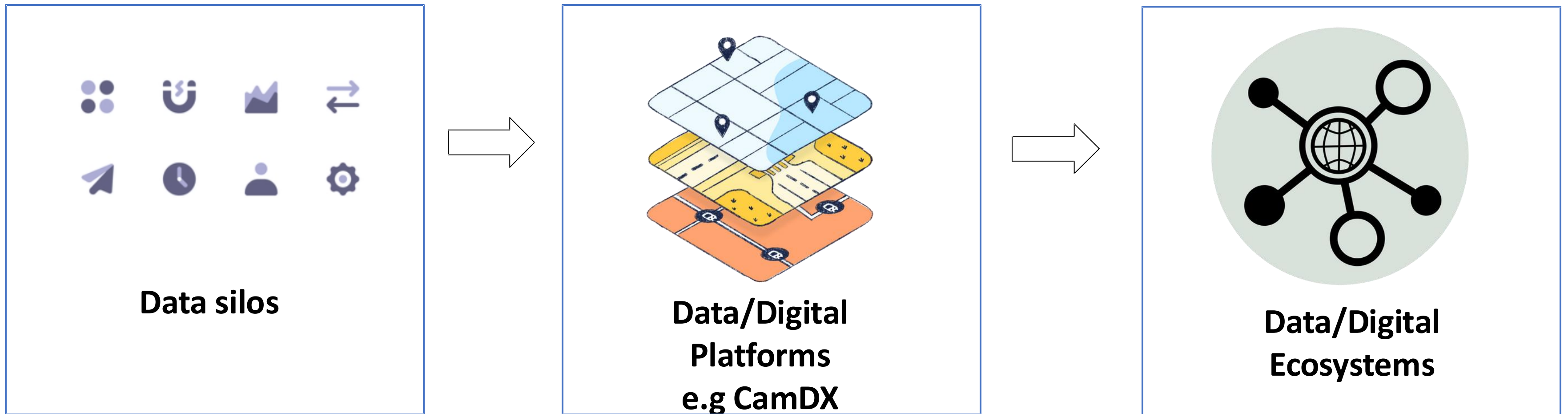
1. Data is not only an **input**; but also **output** of e-government
2. Data is used in **both front- and back-office** of e-government
3. **Some data are used; many are not**, including those generated through e-services (administrative)
4. Some data are not used **optimally**; some data are also **misused**
5. While there is a **lack of data**, there is also **data and information overload**
6. Government's quadrupole role: **producer, consumer, regulator, and platform provider (enabler)**



(Source: 2020 UN E-Government Survey; chapter 6)

# P4 Processes

From data silos to data platforms, to data ecosystems





## Six Elements

Data Standards  
and Classification

Data Sharing,  
Exchange &  
Interoperability

Data Security

Data Privacy

National Data  
Infrastructure

Link with Digital  
Identity

## Four Pillars

Policy

Institutions

People

Processes

## Three Principles

Accountability

Effectiveness

Inclusiveness

## Key Messages on Digital Identity

- **Digital IDs unlock great opportunities** (e-services, banking commerce, remote services, collaboration, etc.), but they [by and large] **rely on effective data governance and robust systems**
- Hence, there is a need to **improve, digitize and coordinate with existing civil and vital registration systems, through a whole-of-government approach**
- **Emerging technologies:** blockchain and other DLTs, AI can improve data processing, verification, and authentication processes; **biometric data is increasingly being used for identity verification, but it is not risk-free.** Risk of data misuse or breach; incidents have a greater impact (some data not replaceable)
- **Data governance in privacy and protection is** considered a priority in the implementation and management of digital ID.
- **Leapfrogging physical ID systems** may run the risk of excluding communities or populations; at the same time, implementing **digital ID may lead to a more rapid deployment of e-government services**
- There is a **strong need for legislation, institutional support and implementation guidelines**
- **Partnerships between public and private sectors,** as well as with international actors and academia to build more effective and efficient digital ID solutions

شكرا  
谢谢  
Thank You  
Merci  
Спасибо  
Gracias



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