



United Nations

Department of
Economic and
Social Affairs



Digital Government Transformation and Data Governance



Inter-ministerial Technical Workshop on Implementing the One-Door-Service Centers in Lao PDR, 28 Oct 2021

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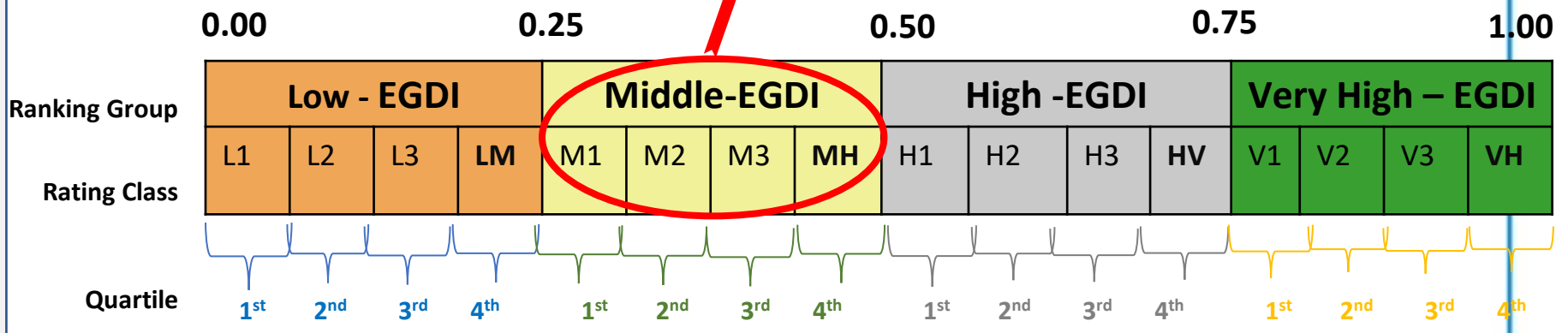
EGDI Methodology

What's new in 2020 EGDI?

✓ To provide a more granular cluster analysis of countries with similar performances, each EGDI group has been further broken down into 4 equally defined intervals (rating classes), identified by:

- the 1st quartile
- the 2nd quartile
- the 3rd quartile
- the 4th – **top quartile in the group**

Each EGDI Group has 4 Rating Classes e.g., Middle EGDI – M1, M2, M3, M4



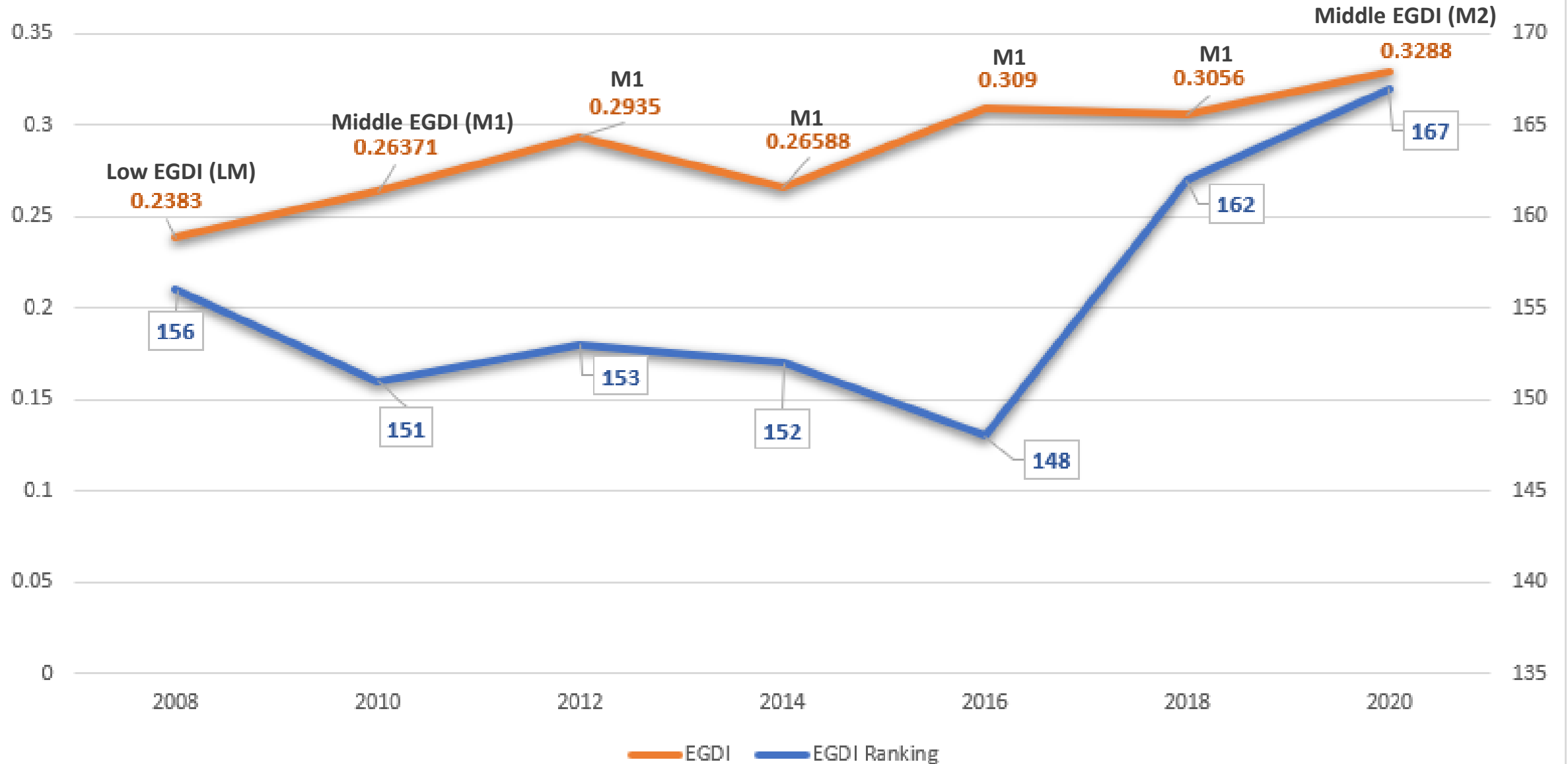
For instance:

Very High- EGDI group has been further sub-divided into four quartiles:

- VH - forth **top quartile**, EGDI scores ranging from 0.8989 to 0.9758
- V3 - third quartile, EGDI scores ranging from 0.8375 to 0.8914
- V2 - second quartile, EGDI scores ranging from 0.7991 to 0.8361
- V1 - first quartile EGDI scores ranging from 0.7565 to 0.7980

Lao PDR

E-Government Development Index (EGDI)





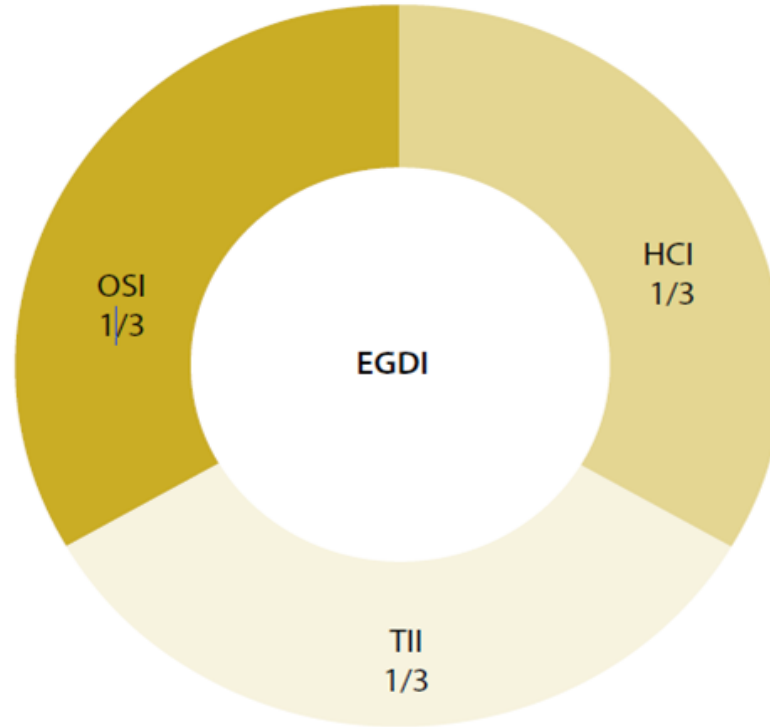
EGDI Components

OSI - Online Service Index

- ✓ A list of features
- ✓ Binary responses

- Total number of points scored by each country is **normalized to a range of 0 to 1**.

(UNDESA data)



(i) the scope and quality of online services quantified as the Online Service Index (OSI);
 (ii) the status of the development of telecommunication infrastructure or the Telecommunication Infrastructure Index (TII); and
 (iii) the inherent human capital or the Human Capital Index (HCI). Each of these indices is a composite measure that can be extracted and analyzed independently.

$$EGDI = \frac{1}{3} (OSI_{normalized} + TII_{normalized} + HCI_{normalized})$$

HCI - Human Capital Index

- ✓ Adult literacy
- ✓ Gross enrollment ratio
- ✓ Expected years of schooling
- ✓ Mean years of schooling

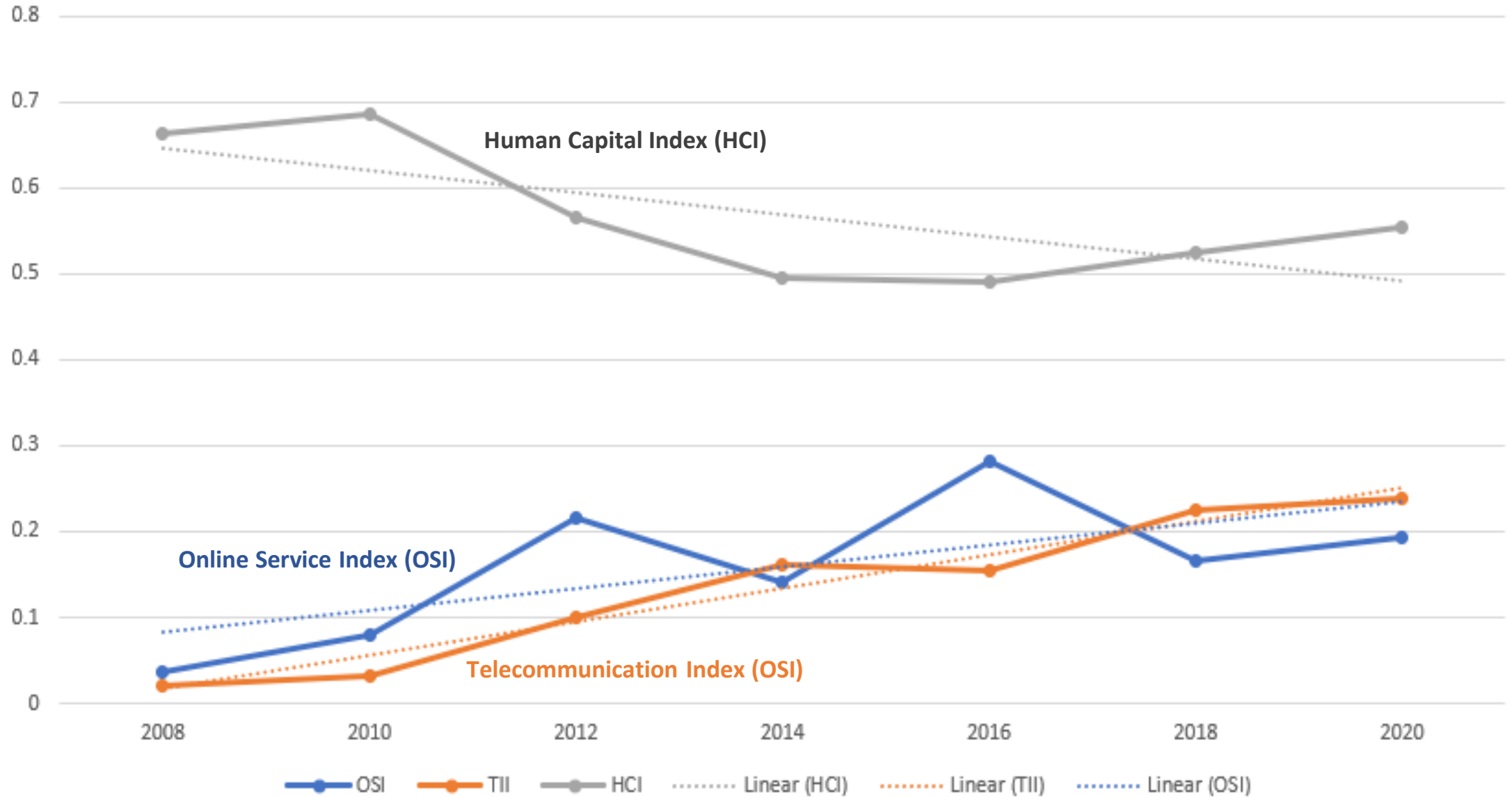
(UNESCO, UNDP data)

TII - Telecommunication Infrastructure Index

- Mobile subscribers per 100 inhabitant
- Fixed broadband subscriptions per 100 inhabitants
- Internet users per 100 inhabitants
- Active mobile-broadband subscriptions

(ITU data)

Lao PDR - EGDI Components (OSI, TII, HCI)



Key Messages on Data Governance

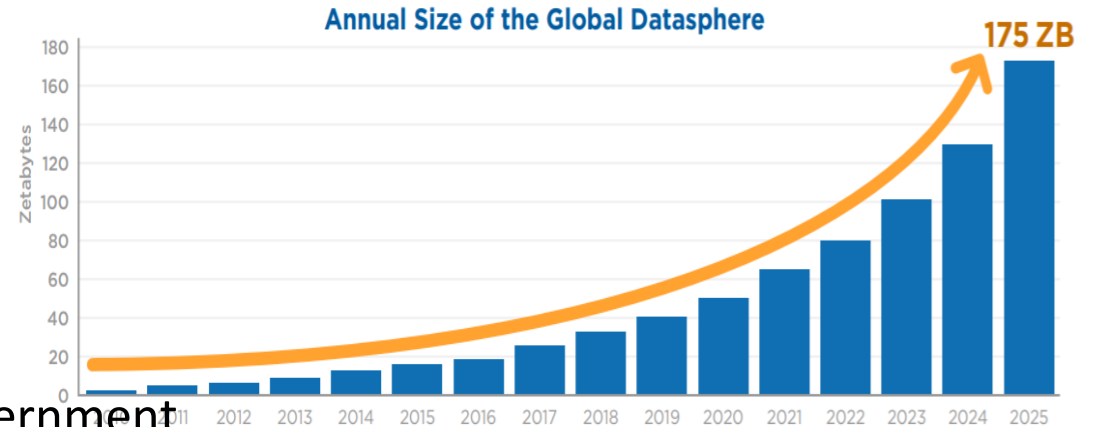
Key trends

Data grows rapidly, will reach 175 zettabytes in 2025

Note: One zetta is a “1” followed by 21 zeroes

Paradoxes around data:

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
4. Data is not used **optimally**; some are **misused**
5. While there is a **lack of data**, there is also **data and information overload**
6. Government’s triple role: **producer, consumer and regulator** of data



- Optimizing the use of data will **increase the productivity, accountability and inclusivity of public institutions**, in line with the principles embodied in Goal 16 of the 2030 Agenda.
- A data-centric government will also help **build trustworthiness and public trust**.
- **Many benefits around government data have yet to be realized**, especially in countries in special situations. The greatest obstacles to progress include a general lack of understanding of data and data science, low political priority and the absence of data leadership, resource constraints, and concerns about data quality, security and privacy.
- **Harvesting public value from data requires a long-term vision and approach** that involves mastering the economics and politics of data governance and management and effectively navigating the evolving data security and privacy landscape. As data governance encompasses much more than technical functions, Governments must employ a **holistic, whole-of-government approach in developing an overarching data governance framework, supported by a national data strategy/policy, strong data leadership and a data ecosystem**.

CHAPTER 6 • TOWARDS DATA-CENTRIC E-GOVERNMENT
Chapter 6

6. Towards Data-Centric E-Government

6.1 Introduction

The need for government data is nothing new. For decades, the ways in which government data are gathered, secured, used and shared have been of great interest to Governments and to academics in the fields of development and public administration.¹ Government data have always been critically important, but the ways in which data are created and used have changed dramatically, bolstered by the revolution in data technologies and the proliferation of applications of different types and forms of data, including small and big data, real-time data, and geospatial data.

The 2030 Agenda for Sustainable Development has made data a focal point, acknowledging that data are key to effective decision-making and that timely, reliable, quality and disaggregated data are needed to facilitate the measurement of progress towards sustainable development and to ensure that no one is left behind.² The latter imperative is reflected in multiple global indicators and entails not only reaching the poorest and most vulnerable groups but also combating rising inequalities within and among countries.³ Data and related issues and developments in the public sector have become increasingly important in terms of government analysis and operations, academic research, and real-world applicability and acceptance. Data are now integral to every sector and function of government—as essential as physical assets and human resources. Much of the operational activity in government is now data-driven, and many Governments would find it difficult, if not impossible, to function effectively without data.

At the global level, the quantity of data is expected to increase more than fivefold from 33 zettabytes⁴ in 2018 to 175 zettabytes in 2025, with 49 per cent stored in the public cloud.⁵ Researchers have estimated that the number of devices driven by the Internet of Things (IoT) will reach 10 times the world population (about 75 billion) in 2025.⁶ These trends, coupled with the propagation of 5G networks and other next-generation devices, will also equip society with data-centric applications in areas such as artificial intelligence (AI), blockchain, and augmented and virtual reality (AR and VR) and will further boost data supply and demand, moving the world closer to becoming a truly digital society.

The exponential growth and rapid evolution of new digital and data technologies and related applications will unquestionably affect the public sector. Conventional government data sources include censuses, surveys and administrative data, and while those have served administrators well, the future of data holds virtually unlimited promise. Big data, social media, analytics and a wide range of digital technologies can be leveraged to develop cost-effective, time-saving policy solutions

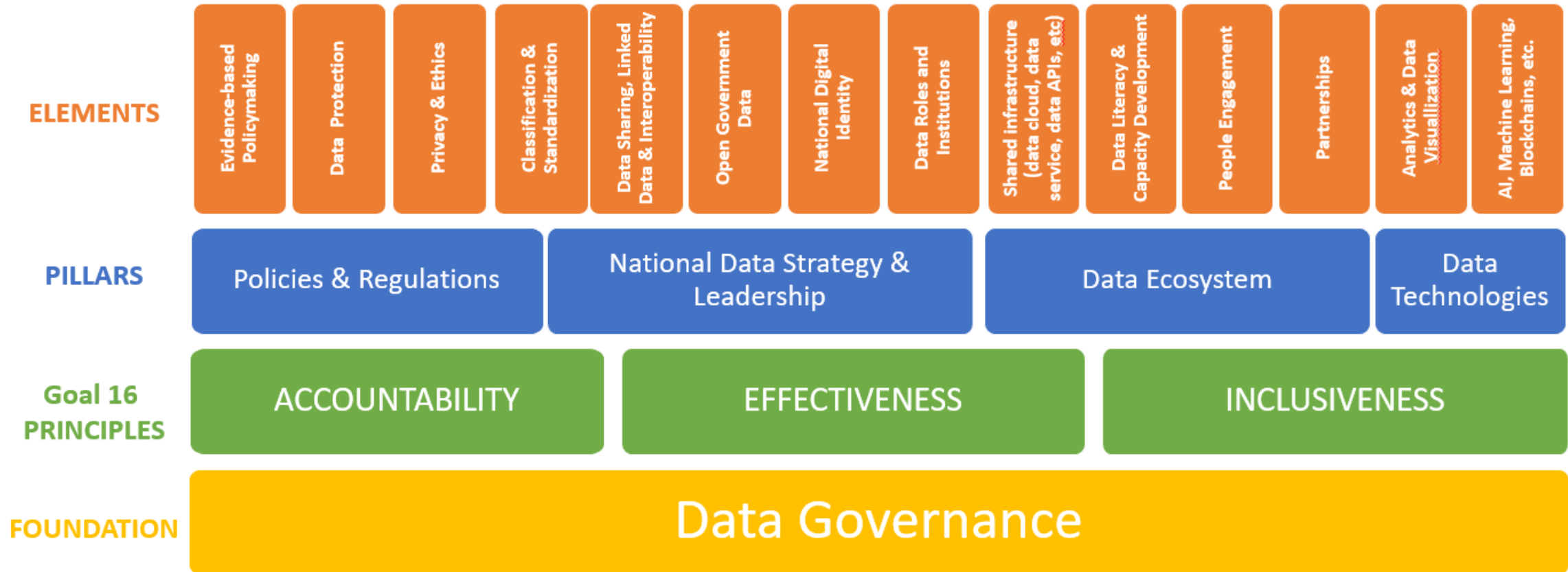


Photo credit: [unstats.com](#)

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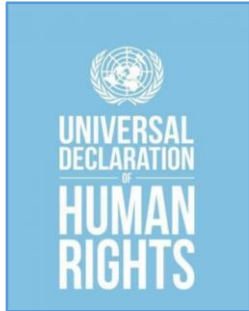
Chapter 6

Data Governance Framework



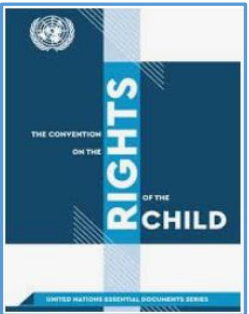


Legal Identity for ALL



Universal Declaration of Human Rights (Art. 6)

“Everyone has the right to be recognized as a person before the law”



Convention on the Rights of the Child (Art. 7)

“The child shall be registered immediately after birth and shall have the right from birth to a name, the right to acquire a nationality[...]



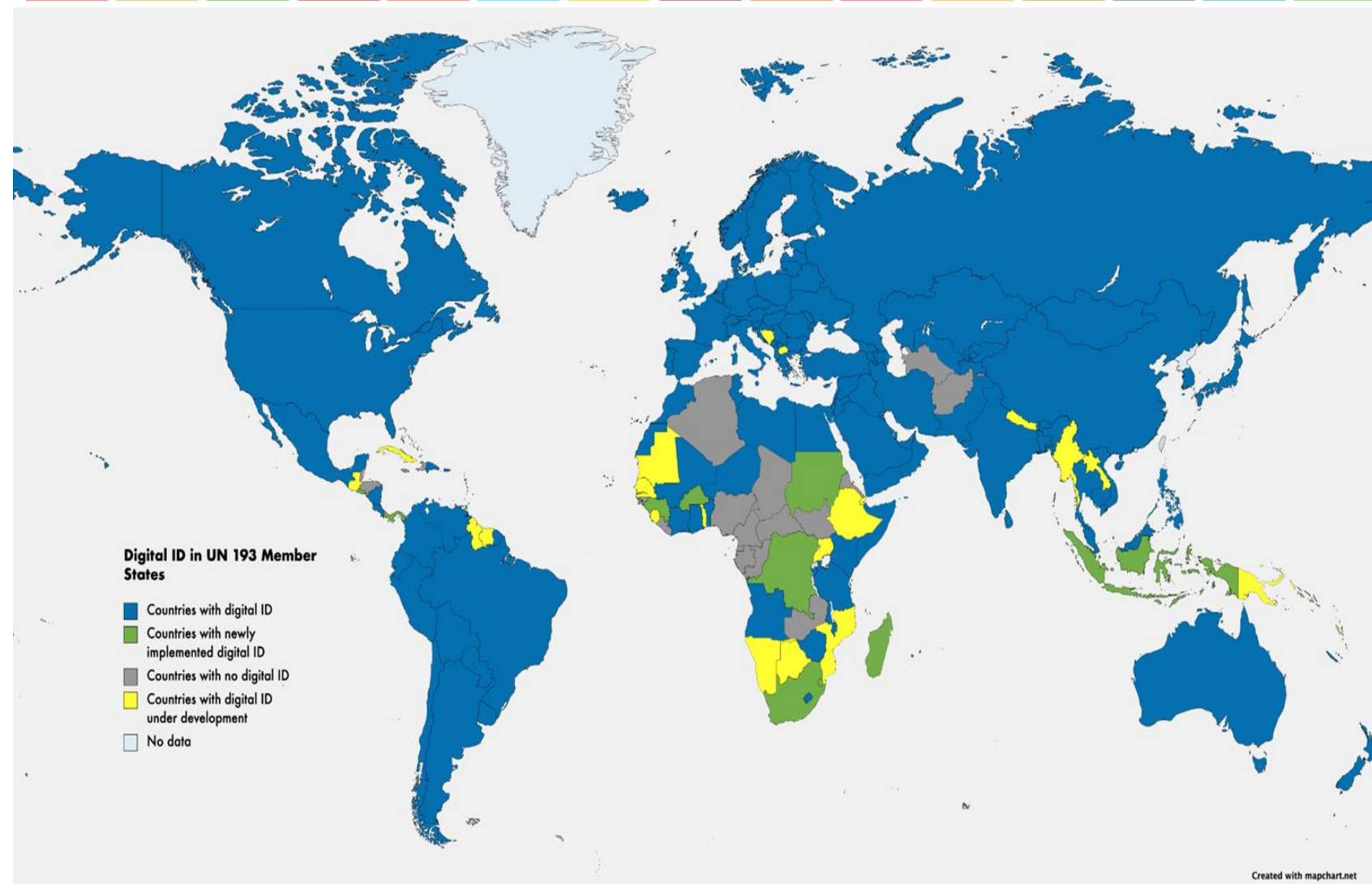
International Convention on Civil and Political Rights (Art. 25(b))

“Every citizen shall have the right and the opportunity [...] to vote and be elected at genuine periodic election...”

SDG Target 16.9 By 2030 provide legal identity for all including free birth registrations



Digital IDs in 193 UN Member States



Findings: (193 UN Member States)

- 142 countries with digital ID, of which
- 13 countries that have newly implemented digital ID:
- 28 countries with ongoing Digital ID initiatives
- 51 countries with no digital ID**

Source: UN DESA research and UN MSQs, 2020 and 2022





Legal vs Digital IDs

Legal ID

- ✓ An agreed common definition:
 - ✓ Basic characteristics of an individual's identity [e.g., name, sex, place and date of birth] conferred through registration and the issuance of a certificate by an authorized civil registration authority following the occurrence of birth,
- ✓ Linked to civil registration and vital statistics (CRVS) systems
- ✓ Legal ID is created/retired by the issuance of birth/death certificates from designated authority

<https://unstats.un.org/unsd/statcom/51st-session/documents/BG-Item3k-Overview-E.pdforg>

Digital ID

- ✓ No universally adopted definition
 - ✓ Understood to be a unique and constant identity – a virtual identification card – assigned to individuals that authenticates them as users of all their portable digital devices, both in the digital world, such as online banking, commerce, and in the physical world whenever such identification may be required
- ✓ Involve biometrics, such as fingerprint or iris scanning

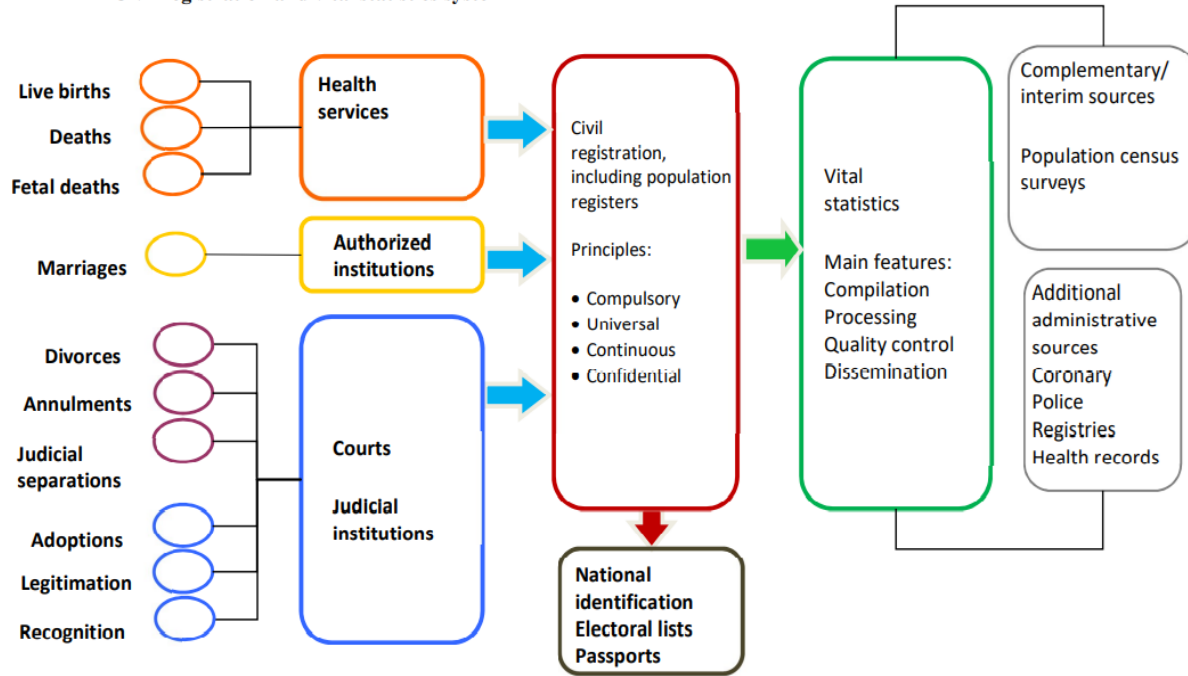




Digitization of Legal ID systems

Legal ID

Figure 1
Civil registration and vital statistics system



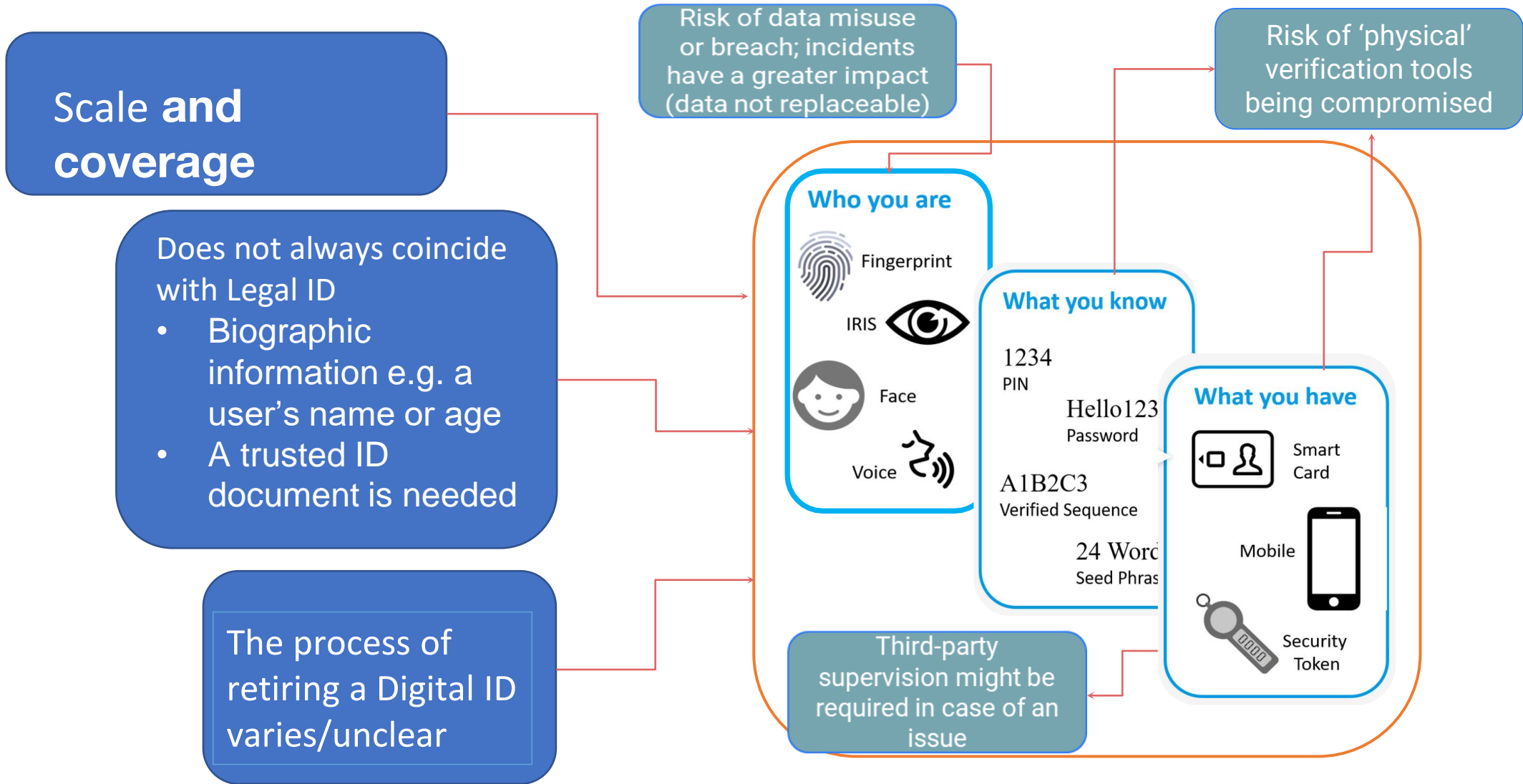
Source: *Principles and Recommendations for a Vital Statistics System*, Rev. 3, para. 26.

- **Transmission and encryption:**
 - ✓ Hard-copy format to electronic => possible data breach during transmission (possible solution is encryption)
- **Storage:**
 - ✓ Scanning old records and entering their data (Not discarding/abandoning)
- **Retention:**
 - ✓ Server space, information management strategy, clarity on whether, when and how digitized and electronic records may be destroyed, etc.
- **Authenticity:**
 - ✓ methods to ensure authenticity, stolen certificates, etc.
- **Confidentiality of individual's information:**
 - ✓ robust security setups, multilayer protection, access to registers

<https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Handbooks/crvs/crvs-mgt-E.pdf>




Scaling and Securing Digital ID systems



- **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.
- **Partnerships between public and private sectors**, as well as with international actors and academia to build more effective and efficient digital ID solutions
- **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**

Useful links:

- [United Nations Secretary-General's report on "Our Common Agenda"](#)
 - [Secretary General's Roadmap for Digital Cooperation](#)
 - [UN E-Government Survey 2020](#)
- 
- [Handbook on Civil Registration and Vital Statistics Systems: Management, Operation and Maintenance, Rev. 1,](#)
 - [Report of the Secretary-General on introduction of the UN Legal Identity Agenda – a Holistic Approach to Civil Registration, Vital Statistics and Identity Management \(approved by ECOSC in June 2020\)](#)
 - [Overview of the United Nations Legal Identity Agenda \(approved by ECOSC in June 2020\)](#)
 - [UNCT Operational Guidelines on UN LIA implementation](#)
 - [United Nations Legal Identity Agenda Task Force Guidelines: Maintaining Civil Registration and Vital Statistics during the COVID-19 Pandemic \(living document, to be updated\)](#)
 - [Guidance to UNDP Country Offices on the privacy, data protection and broader human rights dimensions of using digital technologies to combat Covid-19](#)
 - [UN Legal Identity Agenda website](#)



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Thank You

Merci

Спасибо

Gracias

