



IDENTIFICATION FOR DEVELOPMENT

ID4AFRICA 2019



WORLD BANK GROUP

BILL & MELINDA
GATES foundation



OMIDYAR NETWORK



Australian Government
Department of Foreign Affairs and Trade



1

Making the Invisible Billion Visible:
Addressing the Coverage Gap

2

Building Good ID:
Designing for Inclusion *and* Trust

3

A Paradigm Shift: ID as a Foundation for a
Digital Economy in Africa

4

Looking Ahead

**Making the
Invisible
Billion
Visible:**
Addressing the
Coverage Gap





An estimated
1 billion
people lack a foundational ID



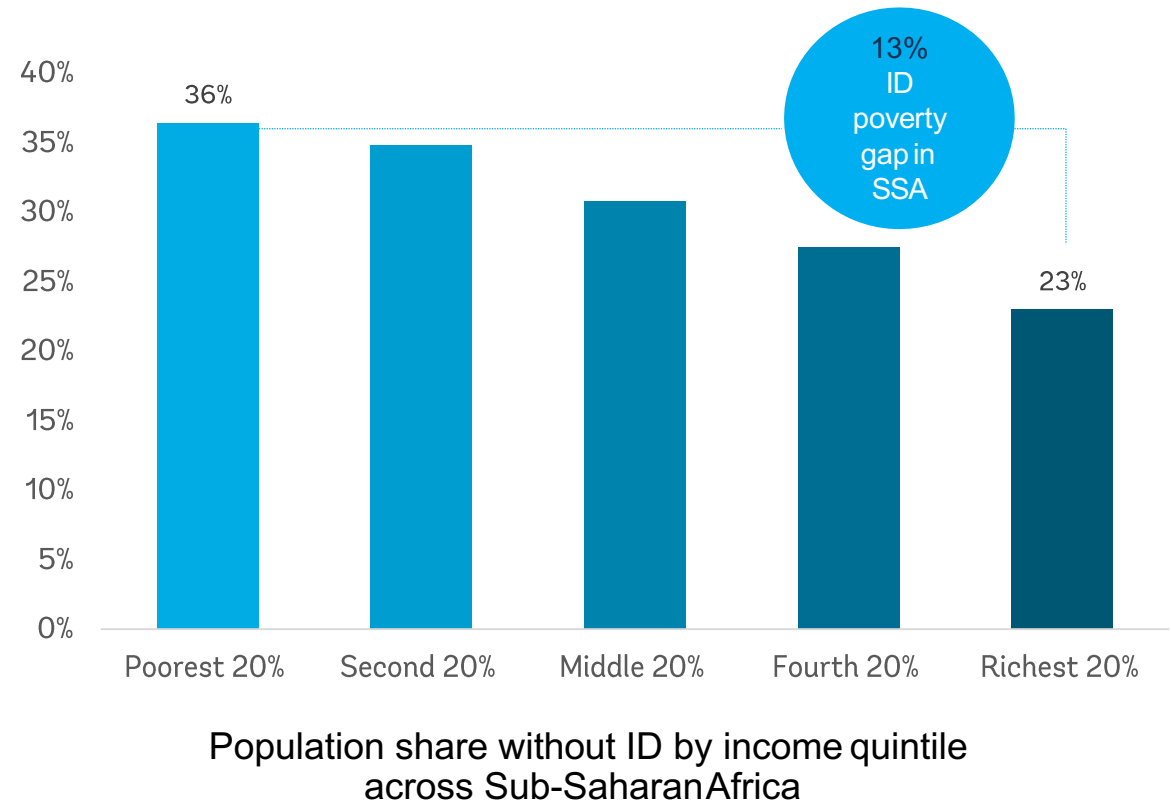
50%
of these live in
Sub-Saharan Africa



47%
are below the national ID age of
their country, without birth
registration

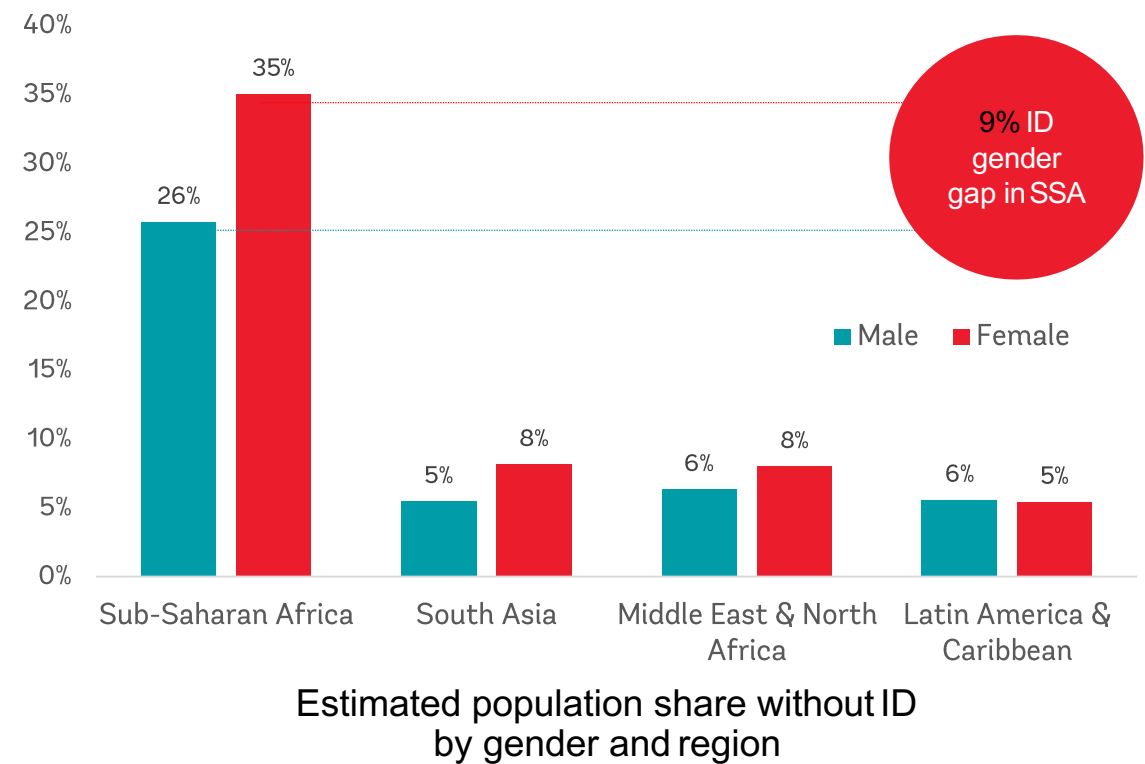
The poorest and women are far more likely to lack ID, particularly in Sub-Saharan Africa

Within countries, people among the **poorest 20%** are the most likely to lack an ID



Source: World Bank, ID4D Global Dataset, 2018 edition

Women in Low Income Countries are **less likely** to have an ID than men



Source: World Bank, ID4D-Findex surveys, 2017

Common Barriers to Accessing Identification



Yet data reveals strong motivations to register

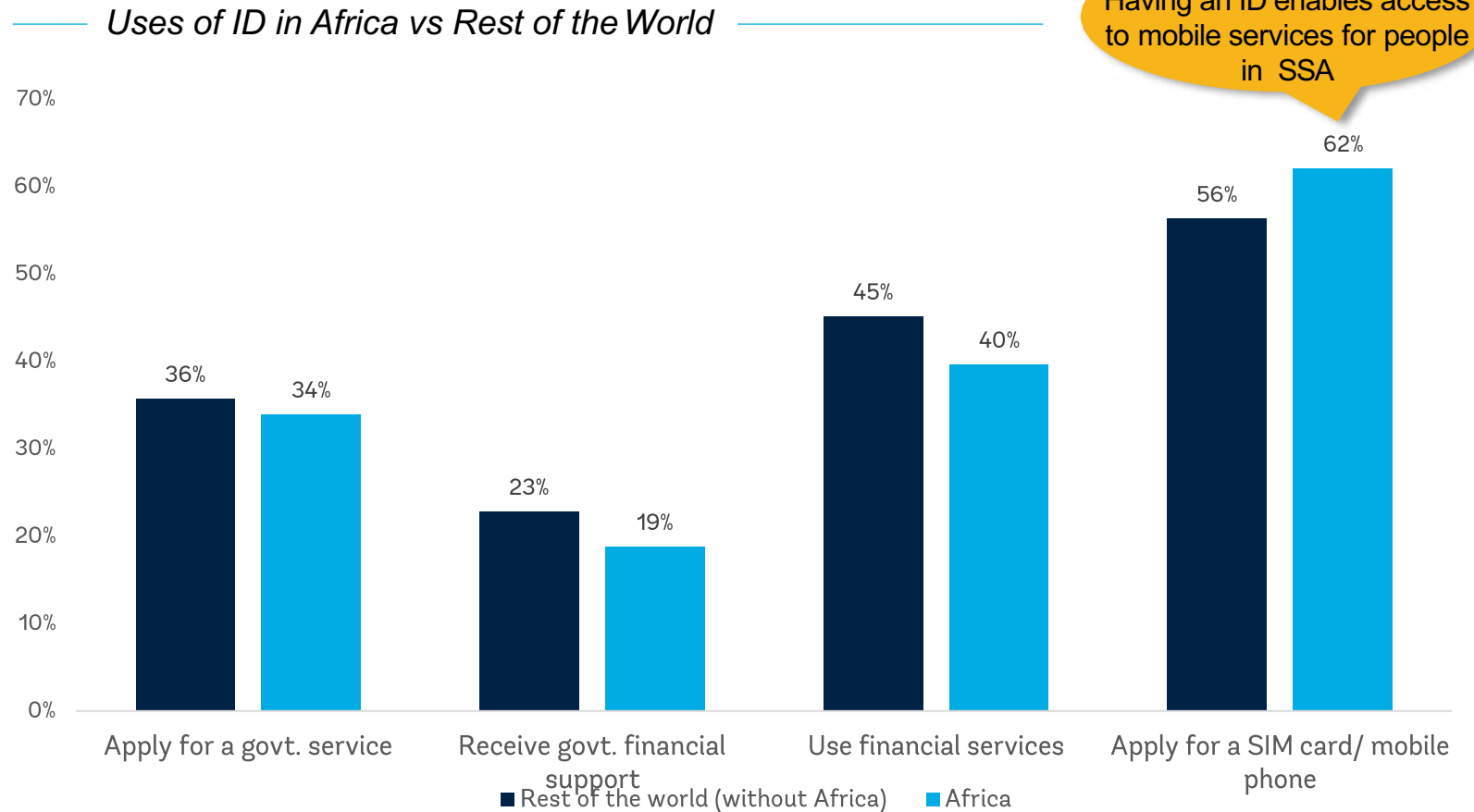
Qualitative Data

from End user research



Quantitative Data

From the ID4D-Findex Surveys



Source: World Bank, ID4D-Findex surveys, 2017

Recommended Best Practices for Inclusion

Eliminate barriers

- **Delink identity** from other rights or entitlements
- **Reduce distances** by using mobile registration
- **Remove additional requirements for women**, e.g., a need to provide a marriage certificate
- **Make all-female registration points** available

Simplify

- **Collect minimal data** (e.g. 4-5 data fields)
- **Flexible documentation requirements** (and have alternative pathways for those without)

Create demand

- **Positive incentives** for registration (e.g. cash transfers)
- **Free first ID** registration and issuance



Building
Good ID:
Inclusion and
Trust



A framework for 'Good ID', endorsed by 25 organizations



Empowered lives.
Resilient nations.

BILL & MELINDA
GATES foundation



OMIDYAR NETWORK
A WORLD OF POSITIVE RETURNS



World Food Programme



Inclusion: Universal coverage & accessibility

Design: Robust, secure, responsive & sustainable

Governance: Building trust by protecting privacy & rights

1. Ensuring universal coverage for individuals from birth to death, free from discrimination.
2. Removing barriers to access and usage and disparities in the availability of information and technology.
3. Establishing a robust—unique, secure, and accurate—identity.
4. Creating a platform that is interoperable and responsive to the needs of various users.
5. Using open standards and ensuring vendor and technology neutrality.
6. Protecting user privacy and control through system design.
7. Planning for financial and operational sustainability without compromising accessibility.
8. Safeguarding data privacy, security, and user rights through a comprehensive legal and regulatory framework.
9. Establishing clear institutional mandates and accountability.
10. Enforcing legal and trust frameworks through independent oversight and adjudication of grievances.

A tool for building robust legal & regulatory frameworks for Good ID systems



An initial **review of legal frameworks** to identify risks, gaps and weaknesses, and assess whether the legal and regulatory framework requires

- ✓ incremental improvements
- ✓ substantial reforms
- ✓ to be built from scratch

A map **to inform potential developments and investments** in ID systems

Helps countries address gaps and strengthen safeguards to achieve:

- **Universality**, nondiscrimination & inclusion
- Personal **data protection**
- **Security** of physical infra & data against risk of compromise, destruction, or unauthorized use

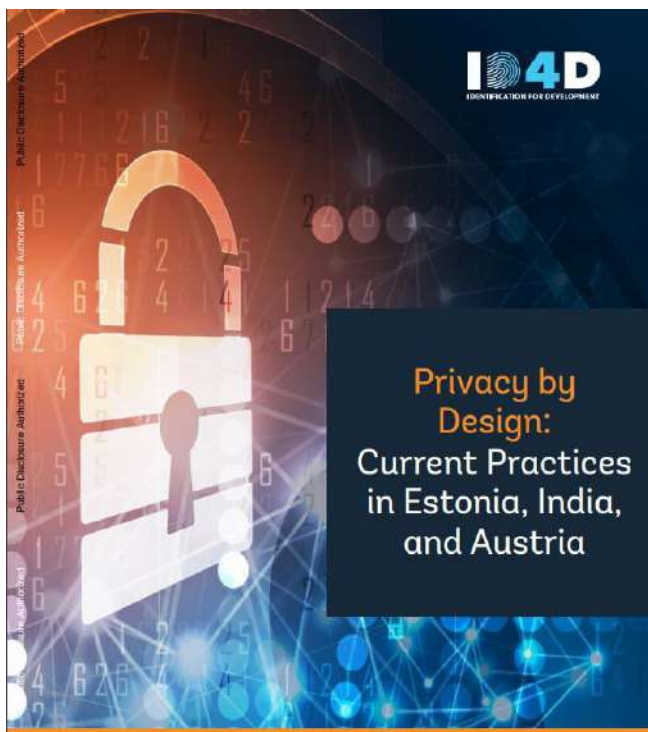
- Accessible to all citizens and residents
- No excluded linguistic, ethnic, religious or other vulnerable groups

Prohibitions on unauthorized:

- Access to systems
- Surveillance
- Alteration of Data
- Interference with data

- Data obtained & disclosed with user consent
- Data obtained and used specified purpose
- User rights to obtain and correct data
- User redress & remedies

Privacy by Design: Good practices to protect privacy and empower people



Minimal Data Collection



Only four mandatory demographic fields



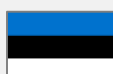
'Once only' Principle for gathering data

Encryption & Security



Logs **hash chained**; blockchain for integrity

User Access Portal



Users can view and update data on citizen portal & Personal Data Monitor



Biometrics can be locked by users



Transparency portal

Data Sharing Mechanisms



Data Exchange via **X Road** with Central Authority permission



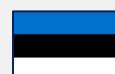
Data Exchange via **Federal Service Bus**

Approval of Data Access



Data protection authority (earlier known as Privacy Commission) as central authority for approving data access **proportional** to purpose

Traceable Authentication



Access to **tamper proof time stamped** authentication history **logs**

Tokenization



Protected UIN from service providers by sharing hashed token instead

Anonymization



Pseudonymizing logs and anonymization of data

ID Number Syntax



Protected data by issuing **random** number

Limited Data Access



Biometrics encrypted on device for access

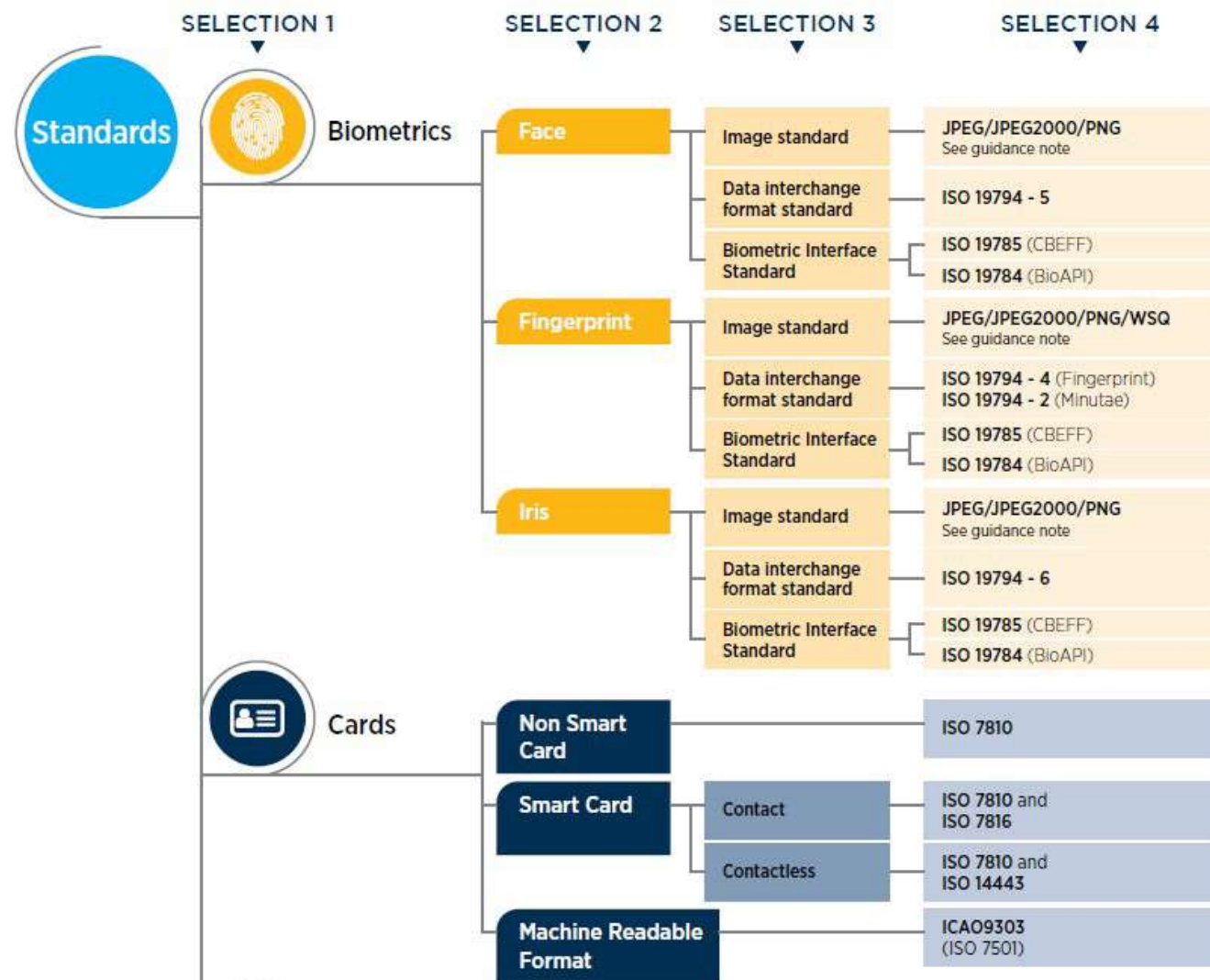
Mission Billion Innovation Challenge: Crowdsourcing Innovative Ideas for privacy by design in ID systems

MISSION
BILLION

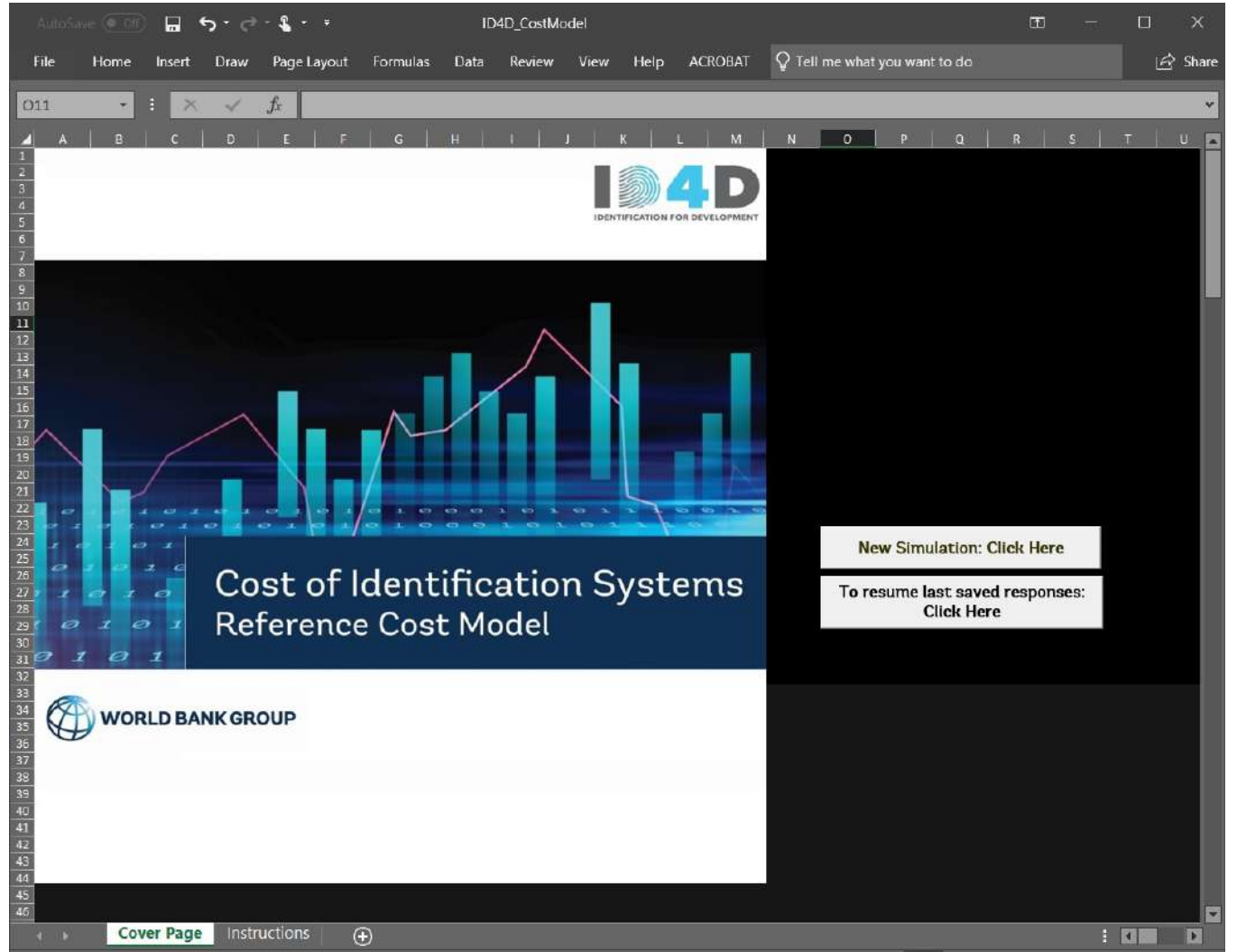
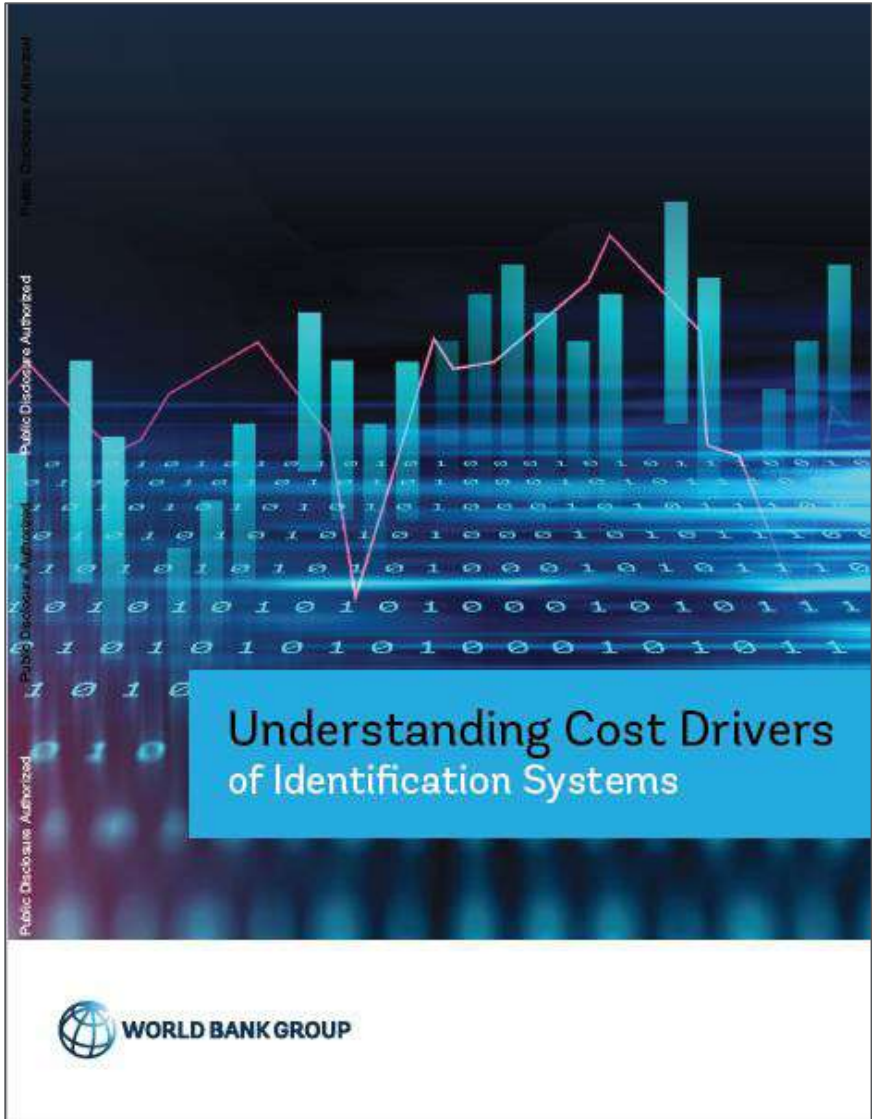


- **Audio Recorded Consent for Biometric Identification** - Open source Toolkit that uses layered consent approach and audio messages for meaningful informed consent
- **Solid** - Decentralized, Inclusive and User-Centric Digital ID. Uses existing technology to build a decentralized digital ID and data storage platform
- **Sthan**- Virtualizing Physical Addresses – Solution that replaces postal addresses with a privacy-protecting reimagination of what it means to physically locate a person or place.
- **Blockcerts** - Recipient-Owned, Lifelong Digital Credentials - Open standard that empowers people with control over sharing and verifying their documents and credentials

Technical Standards: Promoting vendor-neutral and interoperable ID systems



Flexible Cost Model to help countries evaluate financial impacts of design choices



Costing Study across 15+ countries finds key drivers linked to country characteristics and design choices

Typical ID Project Cost Breakup

CROSS-COUNTRY COMPARISON STUDY
(in % contribution to total cost/actual cost
range against cost per person incurred)

1	Human resources	35 – 65%	50 cents – 32 \$
2	ID Credential	10 – 40%	10 cents – 20 \$
3	Central IT Infrastructure	6 – 15%	20 cents – 1.5 \$
4	Physical Establishments	3 – 7%	30 cents – 1 \$
5	Enrollment IT Infrastructure	5 – 20%	20 cents – 2 \$
6	Information, Education, Communication (IEC)	3 – 5%	10 cents – 1 \$

Key Cost Driver Variables



Country Characteristics



Population size



Population density & urbanization



ICT Infrastructure



Wage levels



Program Design Choices



Choice of Biometrics



Enrollment timelines



Number of Data Fields



Integration of CR & ID



Choice of credential

2D barcode cards: ~10% of overall cost; Chip based cards: 25-40%

Emerging Open Source options to make cutting-edge features more accessible, and to promote 'open design'



✓ V1 public release expected July 2019

✓ **First adopters: Morocco and Philippines** (*pilot*)

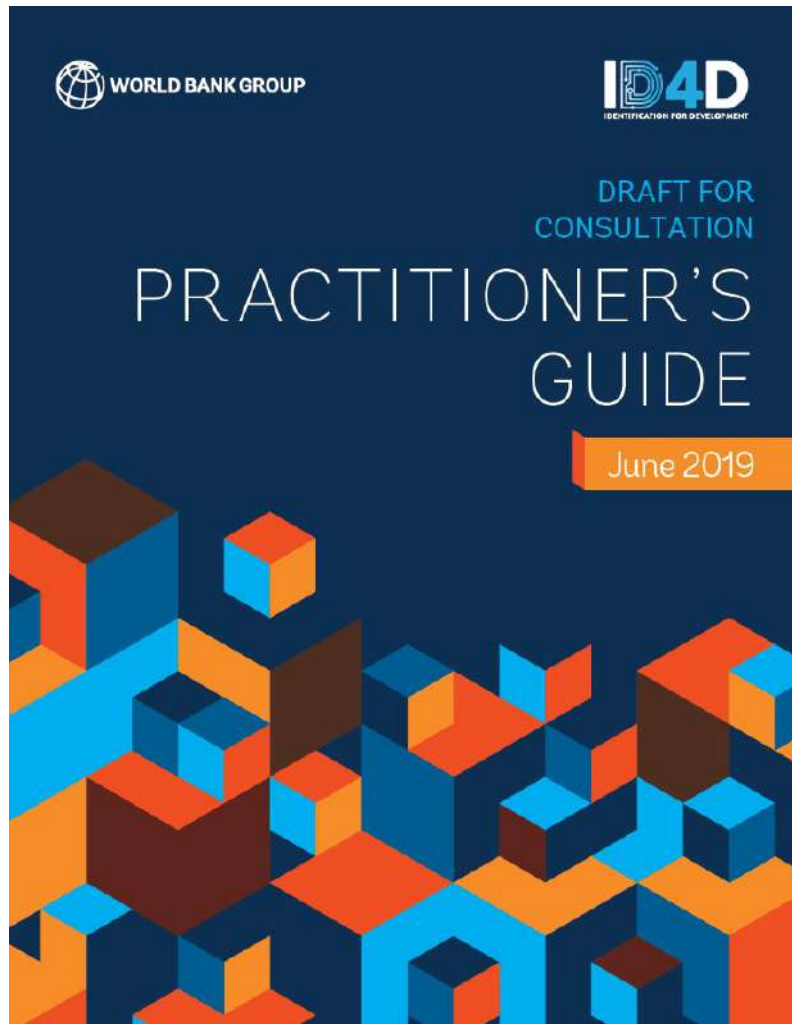


✓ V1 public release expected January 2020

✓ **First adopter: Bangladesh** (*pilot*)



From Principles to Practice: A comprehensive, user-friendly Practitioner's Guide that provides the “how-to” for Good ID



I	 INTRODUCTION	 Motivation	 ID 101		
II	 DESIGNING an ID SYSTEM	 Principles	 Planning Roadmap	 Key Decisions	 Procurement
III	 TOPICS	 Legal Framework	 Public Engagement	 Privacy & Security	 Administration
 IT Systems		 Registration & Coverage	 Credentials & Authentication	 Interoperability	 Standards
IV	 RESOURCES	 ID4D Materials	 Other Resources	 A-Z Glossary	

Digital Identification as a Foundation for the **Digital Economy**



Digital ID underpins inclusion, trust & privacy in the digital economy



Paper-less transactions

Electronically signing and sharing valid documents, and realizing 'once only' data collection principle.

- Through e-KYC, **costs for customer onboarding can be reduced by up to 90%.**
- Estonia offers **99% of government services online.**



Cash-less transactions

Unique ID as a financial address for interoperability, and ensuring the right person receives payments.

- Thailand's PromptPay grew electronic payments by 83% in 2018.
- India's UPI facilitated **733mn transactions in May 2019 worth more than \$21.9bn.**



Data empowerment

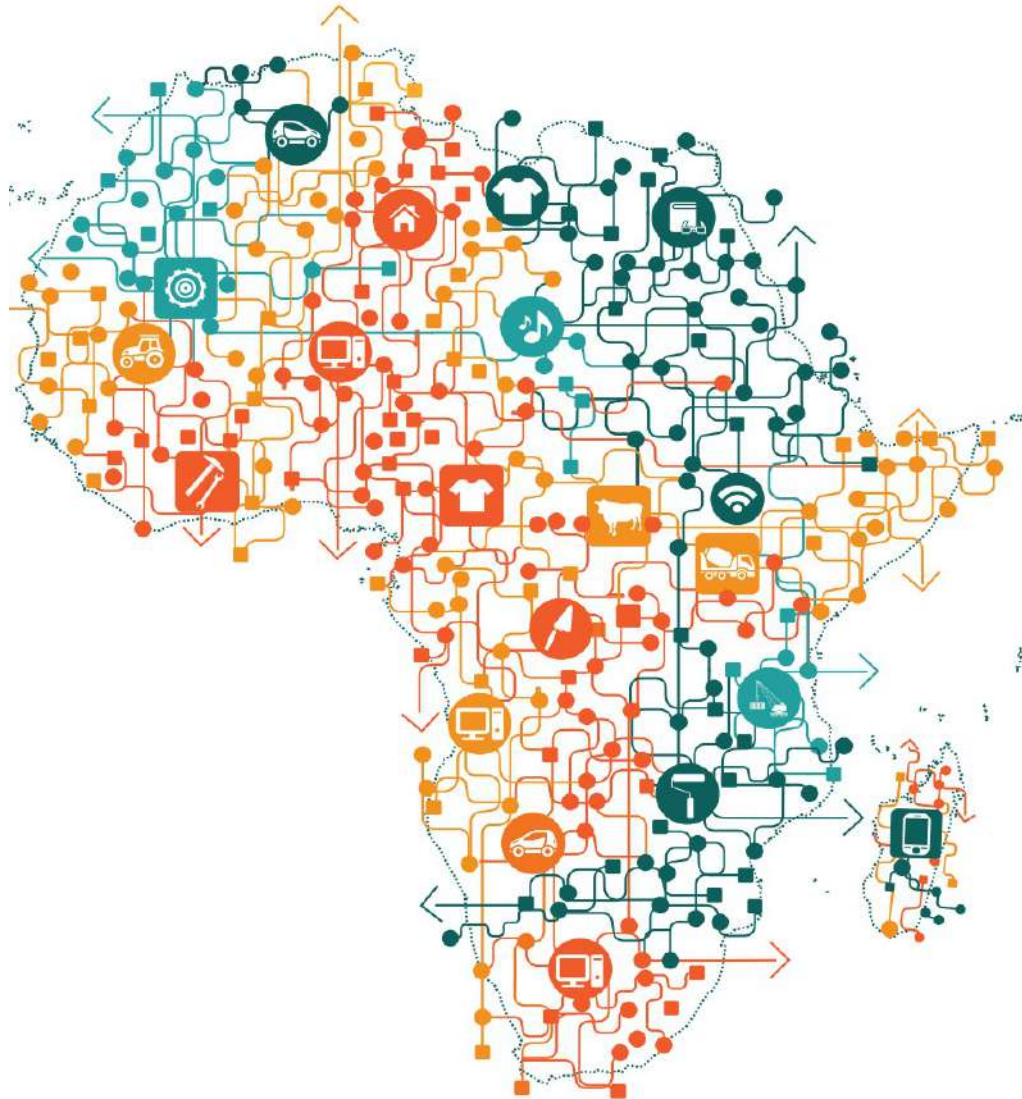
Allowing people to choose who accesses their personal data and when.

- Belgium's transparency portal enables people to see who has accessed their data, and why.
- India's **Data Empowerment and Protection Architecture** enables user consent-based sharing of financial data.

Presence-less transactions:

Enabling people to do business anytime and anywhere by allowing them to reliably prove who they are

Digital ID can also serve as an accelerator of Regional and Global Integration



E-commerce

Mutual recognition of **digital identities** across borders can make it easier to do trade (e.g. entering into **contracts** and offering **services online**)

E-commerce in Africa could go up to 75 billion dollars by 2025.

Migration

Making digital identities accepted as a travel document will make it **easier** for people to travel

Making it easier for people to travel with their digital IDs will boost trade and tourism, and reduce irregular migration

Looking Ahead: Current and Future **Country Projects**



ID4D is supporting a large number of countries in different ways



WBG is rapidly scaling up support and financing on ID



MOROCCO: \$100m project establishing a universal resident ID system linked to social safety nets. First adopter of new open source platform.



SOMALIA: Technical assistance on design options and financing for a foundational digital ID system with initial financial services use case



PHILIPPINES: Technical assistance for the design and implementation of a new foundational ID system.



NIGERIA: Preparing \$430m project (co-financed with AfD and EU) to complete national ID registration and links with key use cases, and civil registration.



WEST AFRICA: Active **US\$ 317.1 million** project for interoperable, regional foundational ID platforms in 5 countries for **100 million people**. Links to **social protection** and **changing nature of work**

Phase I : *Cote d'Ivoire, Guinea and ECOWAS*

Phase II : *Niger, Burkina Faso, Benin and Togo**

- Support to legal framework to issue ID credentials **for all people physically present in the territory**.
- Coordinating with **€40 million EU CR project** in Cote d'Ivoire.
- Partnership with UNHCR & IOM on support to **Niger** (hub for **returnees**)
- Innovative plan to link IDs to **portable benefits** platform for **informal sector** workers in **Benin**.

In Africa alone, the potential scale of impact of accelerating Digital ID is tremendous

108
million

The number of Africans who could open their **first bank accounts** upon receiving proper identification.

>\$6
billion

The total value of **social safety net programs** in Africa which could benefit from improved targeting and management.

\$38
billion

The total value of **remittances** sent and received in Sub-Saharan Africa in 2018 which could benefit from lower transaction costs. Sub-Saharan Africa remains the most expensive place to send money to, with an average cost of 9.4 percent

6.3
million

The number of **refugees** in Sub-Saharan Africa who could have access to better protection and humanitarian assistance.



"It always seems
impossible
until it is
done."

– Nelson Mandela



Helping countries realize the
transformational potential of
digital identification.

www.id4d.worldbank.org

Vyjayanti Desai, Program Manager

vdesai@worldbank.org

