Digital Identification for inclusive access to services

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The Transport and ICT Global Practice
Smart Connections for All

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Digital technologies are changing the world

Electronic payments displace traditional forms of payment

- According to Gartner, by 2018, over 50% of Internet users of United States, Japan and Europe will make mobile payments with smartphones, and by 2022 the cost of the financial industry expense will be reduced by blockchains to **20 billion**. $ per year

E-commerce is becoming a major driver of the growth of SMEs

- According to Frost and Sullivan Research 27% of the total volume of world trade will take place over the Internet and will reach **25 bln**. $ by 2020

The role of social networks continues to increase

- **45%** of the 3.2 billion Internet users around the world are using Facebook

- In 2014, the daily number of messages on Twitter has grown to **155 million. 55** million a year earlier

More devices will be connected to the Internet IoT

- According to Cisco estimates that 50 billion devices will be connected to the Internet (IoT), which will allow annual savings of up to **8.9 bln**. $ by 2020

Drones and robots will replace many of the traditional forms of labor

- Gartner predicts over 5 years drones become standard equipment in industry and agriculture, and in 2030 drones and robots will replace **one third** of the global workforce
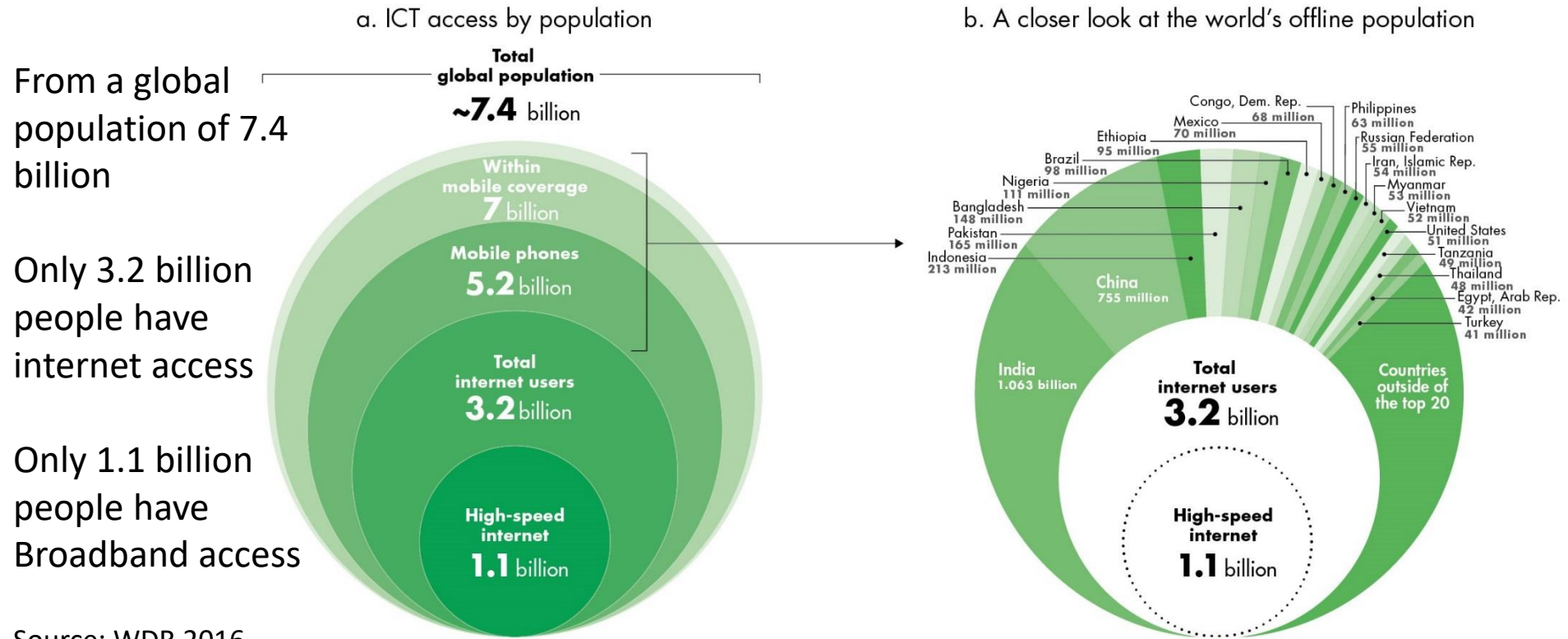
Big data will become an important tool in the growth of the country's competitiveness

- According to the Institute Demos Europa correct analysis and extracting value from big data can bring the countries of the European Union **206 billion. €** by 2020

SOURCE: McKinsey Group, Gartner, Cisco, Frost and Sullivan

Challenges in connectivity: Access, Capability, Affordability and Digital Divide

The Internet remains unavailable, inaccessible and unaffordable to a majority of the world's population

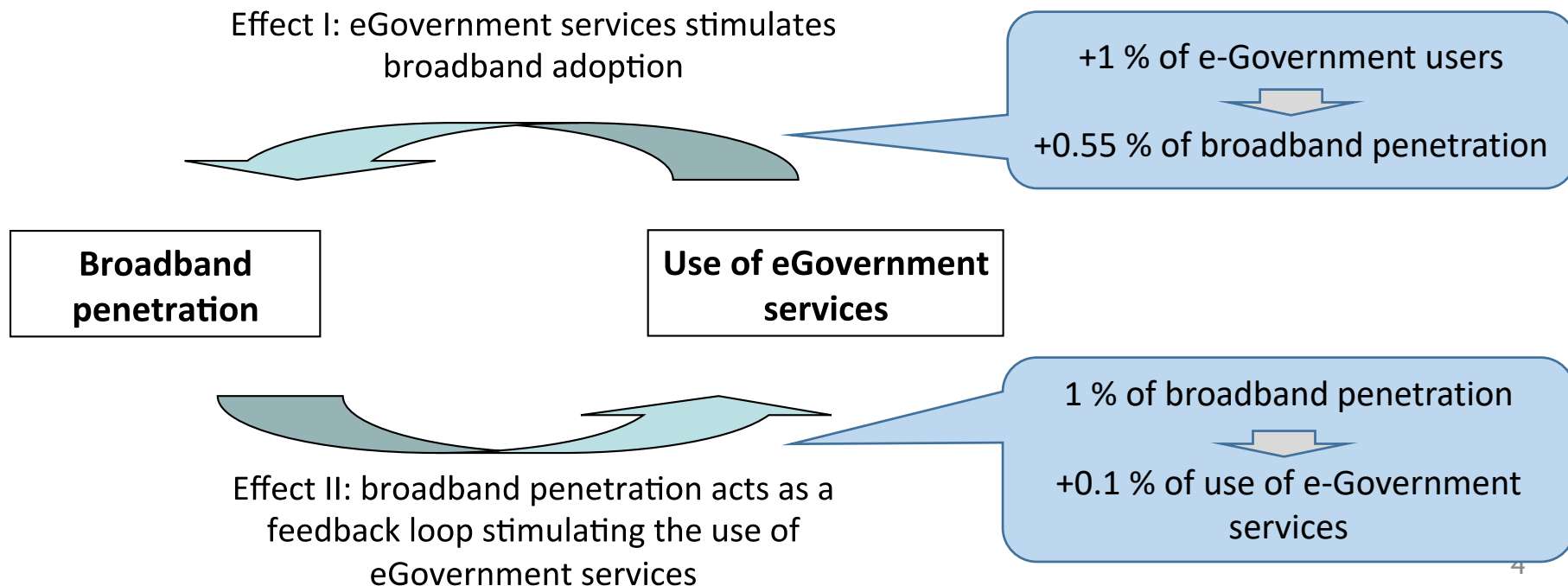From a global population of 7.4 billion

Only 3.2 billion people have internet access

Only 1.1 billion people have Broadband access

Source: WDR 2016

a. ICT access by population

Total global population
~**7.4** billion

Within mobile coverage
7 billion

Mobile phones
5.2 billion

Total internet users
3.2 billion

High-speed internet
1.1 billion

b. A closer look at the world's offline population

Congo, Dem. Rep.
68 million
Mexico
70 million
Ethiopia
95 million
Brazil
98 million
Nigeria
111 million
Bangladesh
148 million
Pakistan
165 million
Indonesia
213 million

Philippines
63 million
Russian Federation
55 million
Iran, Islamic Rep.
54 million
Myanmar
53 million
Vietnam
52 million
United States
51 million
Tanzania
49 million
Thailand
48 million
Egypt, Arab Rep.
42 million
Turkey
41 million

China
755 million

India
1.063 billion

Total internet users
3.2 billion

Countries outside of the top 20

High-speed internet
1.1 billion

Sources: World Bank 2015; Meeker 2015; ITU 2015; GSMA, https://gsmaintelligence.com/; UN Population Division 2014. Data at http://bit.do/WDR2016-FigO_5.

Note: High-speed internet (broadband) includes the total number of fixed-line broadband subscriptions (such as DSL, cable modems, fiber optics), and the total number of 4G/LTE mobile subscriptions, minus a correcting factor to allow for those who have both types of access. 4G = fourth generation; DSL = digital subscriber line; ICT = information and communication technology; LTE = Long Term Evolution.

Two key foundations for digital government

- (i) Broadband Infrastructure
- (ii) Digital Government Platforms
- These two are considered positively inter-related.

Example: Statistical research in Colombia shows positive mutual influence between Broadband and e-Government enabled by Digital Government Platforms.

Effect I: eGovernment services stimulates broadband adoption

+1 % of e-Government users

+0.55 % of broadband penetration

Broadband penetration

Use of eGovernment services

1 % of broadband penetration

+0.1 % of use of e-Government services

Effect II: broadband penetration acts as a feedback loop stimulating the use of eGovernment services

Source: Katz and Callorda (2011)

Trends we are seeing today:

Digital Government Technology Platforms (DGTP):

- Single, integrated, platform for government services(Build once, re-use always)
- Mandated use of cross-government shared service components Unified data shared across public sector, and beyond
- New supply models (service contracts, PPPs)
- Integrated cyber-security and privacy
- Integrated sensors, IoT, Precision Agriculture, Smart Cities
- Data analytics for service improvements
- Identification for development (ID4D)

- **eServices:**
  - Transformational by design
  - Open and secure by design
  - Digital from end to end – Ask Once
  - User-centered service design (customer as a focus, Identity-based)
  - Digital Registries adhering to International Standards
  - Mobile-centric – and able to accommodate new devices too

Principles of Digital Government
Identity & Services in the Digital Age

1. Digital by Default

2. **Open** and Secure by Design

3. Data-driven (not document driven)

4. Transformational by Design

5. Mobile and Cloud First

Elements of successful digital development

Leadership

Policy/Legal Framework

Technology/
Infrastructure

Successful
Digital Government
program

Institutional
set up

Innovation
Support

Partnerships

Citizen
engagement

Capacity Building

Effective
communication

Snapshot - Digital Government Technology Platform

Holistic approach is needed to effectively deliver public services.

Stakeholders

Government | Citizens | Businesses | Donors/NGO/CSO

Solutions

Health & Welfare Social Svc	Education & Learning	Citizen/Busines Transactions	Revenue& Trade Facilitation	Finances Banking	Public Works Utilities Transport

Digital Enablers: Broadband, Cloud, IDs, Payment systems, Mobile, Content Mgmt, DataXchange/InterOperability, Archiving, Messaging , Authent&Security

Analog Enablers: Laws, Regulations, Standards, Governance, Skills

What is in an Identifier?

- Its all about Data & Metadata
  - Languages
  - Formats and Standards
    - Geo-spatial data
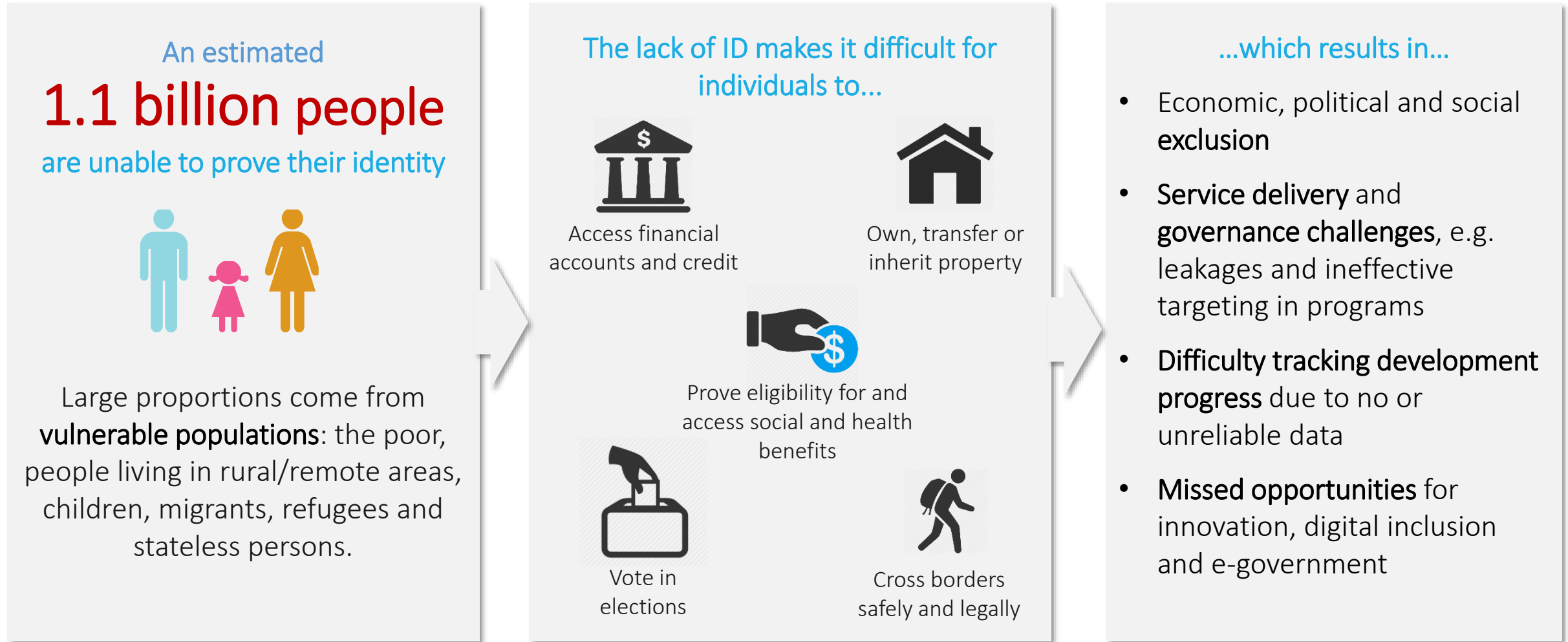   - Chart of account

Biometrics

Exchange and Inter-operability

Storage

Encryption

Scale of the problem: 1.1 billion individuals are unable to prove their identity, resulting in exclusion and governance challenges

An estimated

1.1 billion people

are unable to prove their identity

Large proportions come from **vulnerable populations**: the poor, people living in rural/remote areas, children, migrants, refugees and stateless persons.

The lack of ID makes it difficult for individuals to...

Access financial accounts and credit

Own, transfer or inherit property

Prove eligibility for and access social and health benefits

Vote in elections

Cross borders safely and legally

...which results in...

- Economic, political and social **exclusion**

- **Service delivery** and **governance challenges**, e.g. leakages and ineffective targeting in programs

- **Difficulty tracking development progress** due to no or unreliable data

- **Missed opportunities** for innovation, digital inclusion and e-government

Potential for a Digital Solution: Digital ID can be a foundation for inclusion and effective service delivery
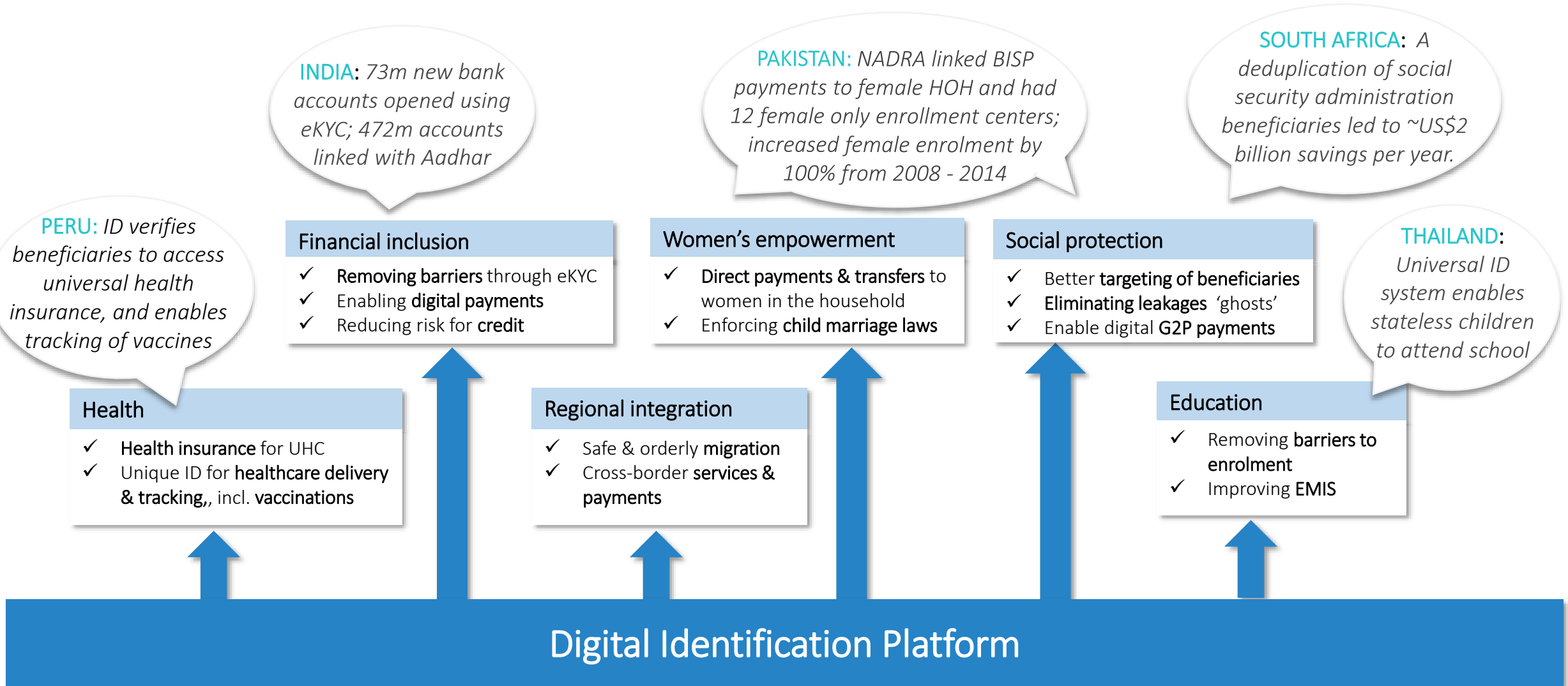
Current Challenges in Implementation: Countries face consistent challenges in building robust & inclusive ID systems
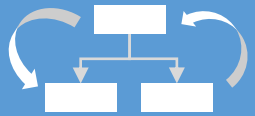
Governance & Harmonization

- ❑ When systems are fragmented, silo ministries engage in duplicative or one-off efforts resulting in waste *(e.g. Nigeria)*

- ❑ Lack of coordination e.g. between civil registries and adult identification.

- ❑ Low capacity in National ID offices to take strategic technical decisions and follow through on implementation

Legal & Regulatory

- ❑ Lack legal & regulatory frameworks to cover ID agency mandates, privacy, and data protection

- ❑ Where frameworks are in place, they are often dated or inadequate, and some face issues with implementation

Technology & Infrastructure

- ❑ Prevalence of legacy manual paper based systems

- ❑ Where digital systems exist, increasing reliance on smartcards which often results in vendor lock in

- ❑ Lack of connectivity and physical infrastructure; e.g. in storing/managing data and in remote authentication

Costs & Accessibility

- ❑ Fees, indirect costs, and convoluted processes create inefficiencies and create barriers to identification

- ❑ Disproportionate impacts of lack of access for women, displaced persons and other marginalized groups

Identified Success Factors: Common features in design and implementation can enable success

| Political Will & Coordination	Unique Identifier from Birth to Death	Minimalist Approach to Basic Identity	Inclusive Approach to Enrolment	Linkages to Development Uses	Standards based Open Approach	Robust Legal & Regulatory Frameworks
High level **support** & cross-ministerial engagement for a **national action plan**	Identification is unique to the individual and **linked to civil registration** systems	Identification as a basic **foundational layer** to ease rollout and protect privacy	Targeted enrolment strategies to bring in **remote or vulnerable** populations	Service delivery and **demand-based** approach to increasing enrolment	**Competitive** approaches to avoid proprietary technologies & **vendor lock-in**	Clearly defined institutional mandates; laws to **protect data security and privacy**
Uruguay	*Thailand*	*India*	*Pakistan*	*Peru*	*India*	*Belgium*
President positioned identification as a national priority	*Integrated CR & ID agency provided unique number from birth to death*	*Unique number for all residents with 4 data fields & biometrics*	*Targeted enrolment strategies for remote areas and women*	*ID links to finances, health, G2P, pensions, & scholarships*	*Use of standard commodity hardware; 3 vendors for deduplication*	*The Data Protection Law (2001) and others regulate use of data*

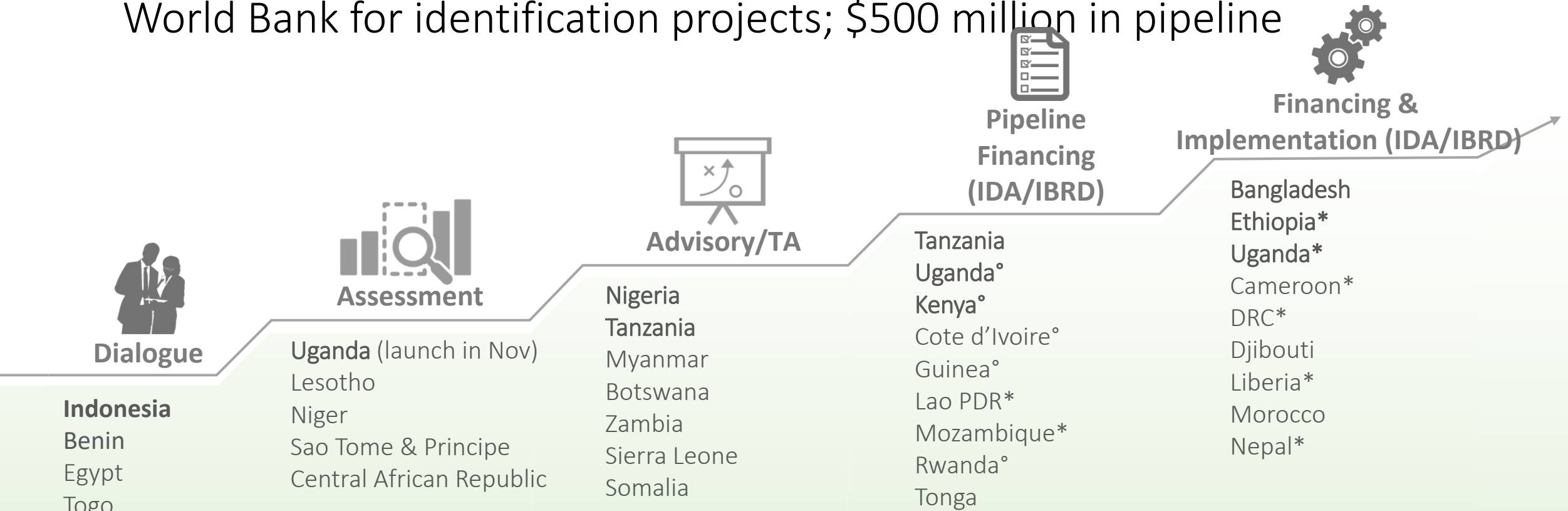# …Full Coverage is still a Way Off

Birth Registration
Rate % (age 0-5)
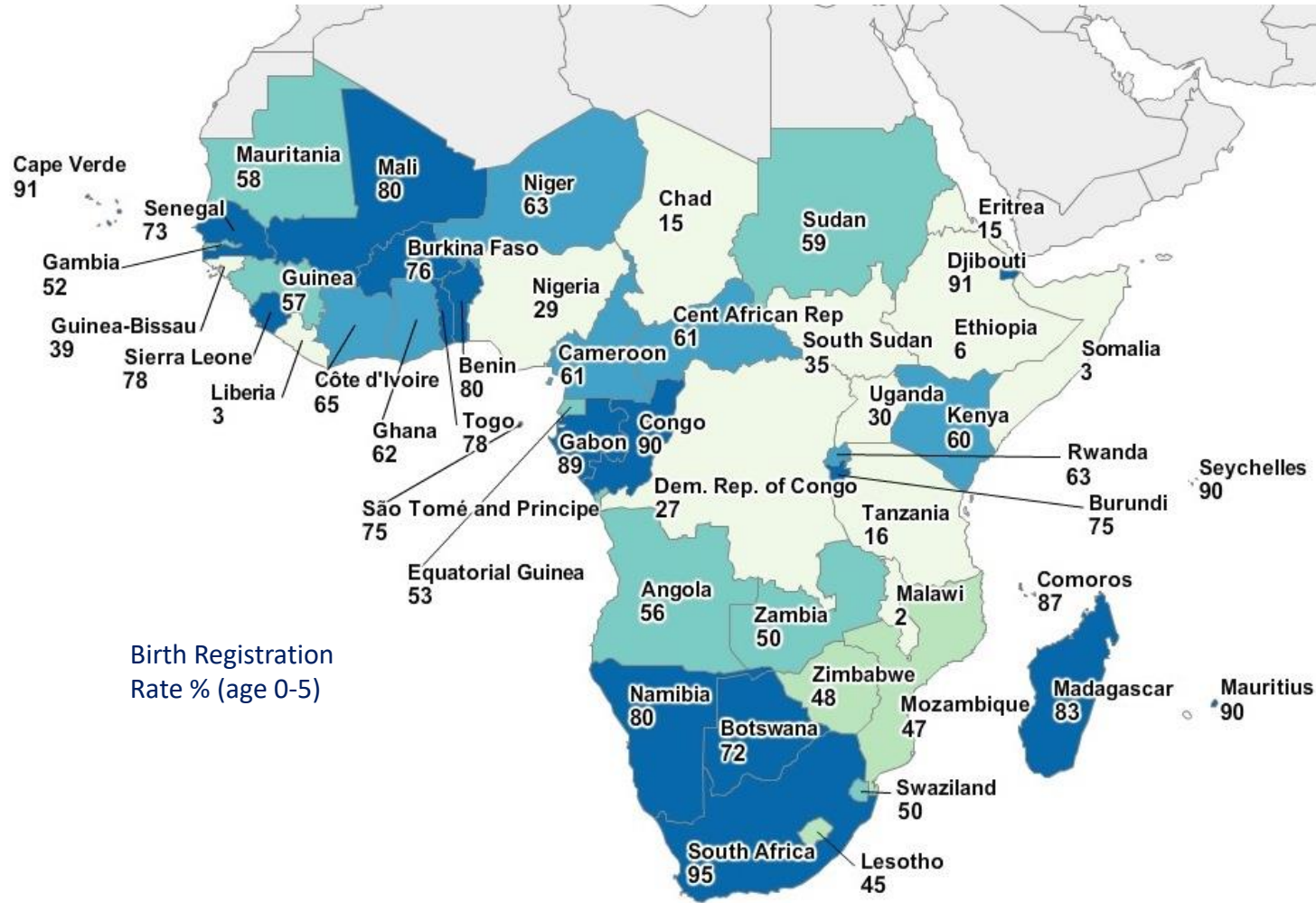
Case Of Finland

- **Census and certificates were digitalized in 1980's**

- In 1980's Finland started to make **digital census** by using existing datasets. Censuses can be completed cost-effectively, quickly and without forms. This procedure has saved tens of millions of euros.

- In mid 1980's Population Register Centre started a reform to reduce the number of **certificates**.

- In 1997 less than 0,6 million certificates were issued (reduction of 90%)

- Some requirements were completely unnecessary

- Authorities **can check online** necessary information from population register

Country Engagement: Over $500 million currently committed across the World Bank for identification projects; $500 million in pipeline

Financing & Implementation (IDA/IBRD)

Bangladesh
Ethiopia*
Uganda*
Cameroon*
DRC*
Djibouti
Liberia*
Morocco
Nepal*

Pipeline Financing (IDA/IBRD)

Tanzania
Uganda°
Kenya°
Cote d'Ivoire°
Guinea°
Lao PDR*
Mozambique*
Rwanda°
Tonga

Advisory/TA

Nigeria
Tanzania
Myanmar
Botswana
Zambia
Sierra Leone
Somalia

Assessment

Uganda (launch in Nov)
Lesotho
Niger
Sao Tome & Principe
Central African Republic

Dialogue

Indonesia
Benin
Egypt
Togo
Tunisia
Jordan

* *Civil Registration Projects*
° *Regional ID Projects*

Conclusion: Our Approaches towards Digital Government for SDGs

The World Bank can help client countries form digital government platforms through:

- Establishment of the enabling environment cross-cutting approach
  - Formulation of National ICT Action Plan and Digital/e-Government strategy
  - Inter-ministry institutional coordination mechanisms and change management

- Digital platforms and shared infrastructure, services, databases, of e-Government services, in addition to sector-specific assistance
  - eID/Digital ID – An enabler for all services provision and simplification
  - Enterprise Architecture, interoperability
  - Computing and Hosting Environment (Data Centers and Cloud)
  - Government WANs
  - MIS for several Government agency applications
  - Open source policies, open data standard
- Improvement of e-Government services for better public service delivery
  - Back-end systems, Transactions (G2C, G2B, G2G), Capacity building

- Integration with mobile applications for greater reach to the disadvantaged target
  - Greater access in remote areas, by females and unemployed youth
  - Mobile-money services towards greater financial inclusion

- Promotion of ICT "trust" policies
  - Cybersecurity, data and privacy protection, and intellectual property

- Engagement of private sector for improving digital connectivity and platforms
  - Effective provision of knowledge and solutions, Partnership (i.e. PPP)

Thank you for your attention.

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