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FIGI Symposium

22-24 January 2019
Cairo, Egypt

#financialinclusion

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

Applications of Digital ID in the financial sector

- Key policy considerations

Hosted by

NTRA National Telecom Regulatory Authority الجهاز القومي لتنظيم الإتصالات

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Applications of Digital ID Finance: Panelists

JEREMY GRANT
Managing Director at Venable LLP, FIDO ALLIANCE.

Phindu Lipenga, Principal Examiner, ICT at The Reserve Bank of Malawi

Yiannis Theodorou - Acting Head of Digital Identity and Director of Policy & Advocacy, GSMA

Mohammed Saidul Islam, Director of the National Identity Registration Wing of Bangladesh

Moderator: Sharmista Appaya

Senior Financial Sector Specialist, World Bank Group

APPLICATIONS OF DIGITAL ID IN THE FINANCIAL SECTOR – KEY POLICY CONSIDERATIONS

Jeremy Grant
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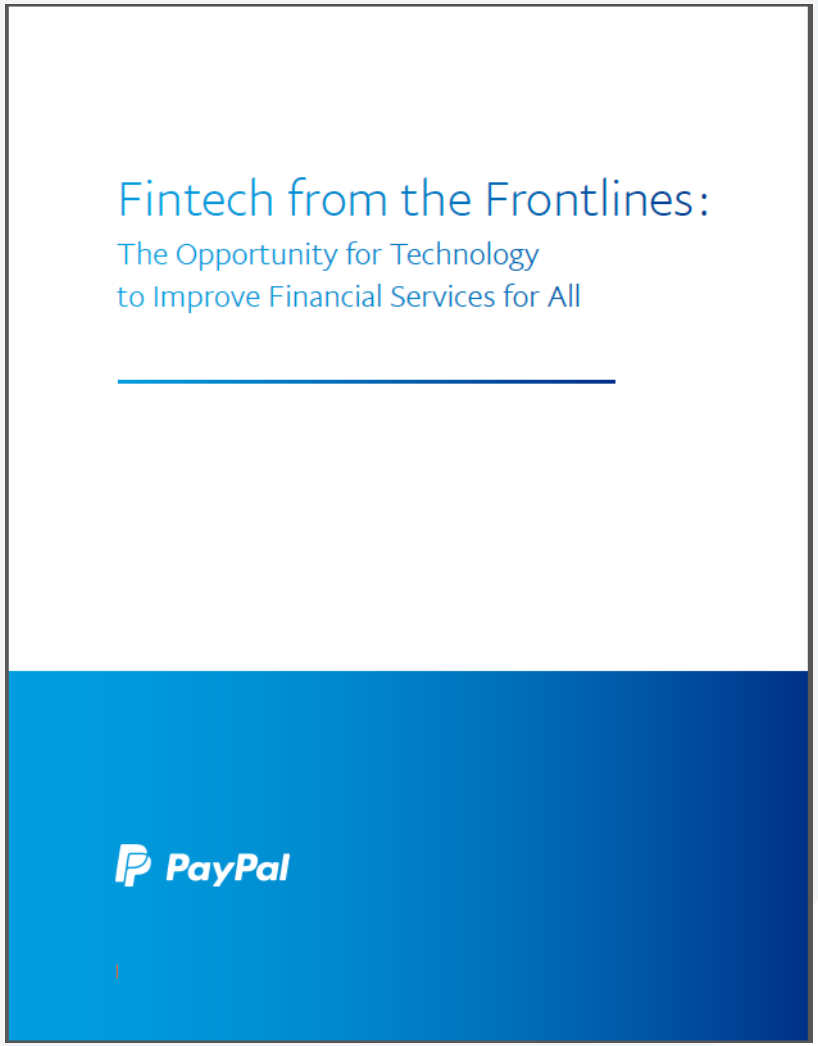
Digital: The Opportunity and the Challenge



"Identity is a precursor to access to fintech, yet identity continues to languish in analog forms that are difficult to build upon for the provision of digital services."

“Identity is a precursor to access to Fintech…”

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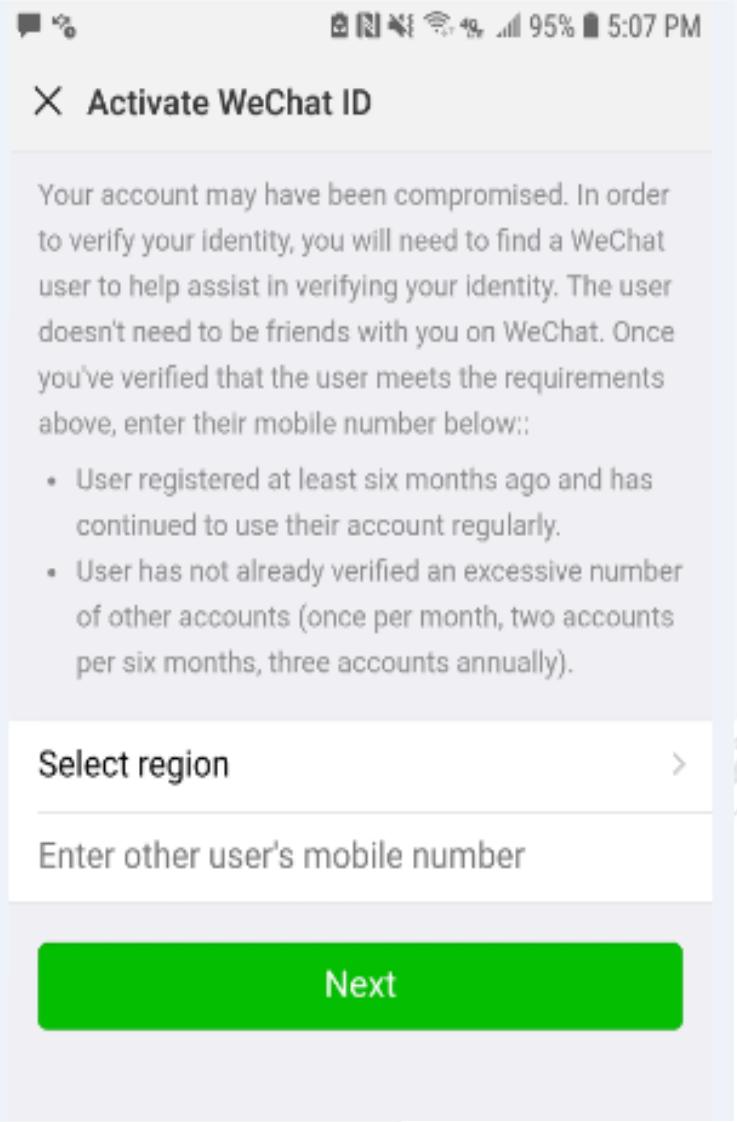
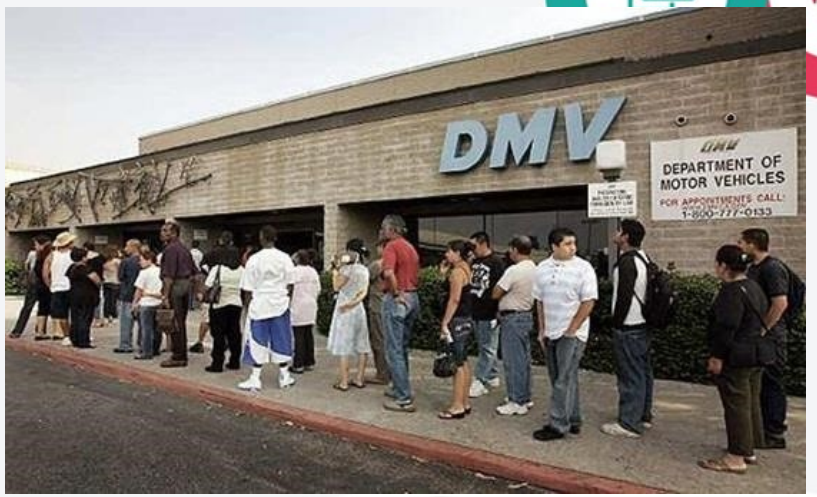


Vetting identity is hard

Nobody wants to go through a vetting process more than once.

- Awful for customer experience
- Costly and duplicative
- Not optimal for digital



Vetting identity is hard

Solutions that once worked well for KYC… not so much anymore.

Equifax reveals vast scale of 2017 consumer data breach

Some 145 million customers' Social Security numbers were stolen, company says

Jeremy B White San Francisco | Tuesday 8 May 2018 18:24 | 0 comments

Security

IRS breach highlights weakness of 'knowledge-based' security

By Zach Noble May 27, 2015

The compromise of 100,000 taxpayer accounts through the Get Transcript application on the IRS website were not random hacks, but the exploits of an already-publicized vulnerability -- known to security experts since at least March.

And, in order to gain access, hackers already had a good deal of information on the affected taxpayers.

Hackers already had the keys

The opportunity in digital

Vet once, reuse that “proofed identity” many times

By binding that “proofed identity” to a strong token that can be used to “unlock” the proof of identity each time it’s used

The opportunity in digital

- Though it does raise the question of how to later prove someone is the person who was proofed.

What tactics do they use?

62% of breaches featured hacking.

51% over half of breaches included malware.

81% of hacking-related breaches leveraged either stolen and/or weak passwords.

43% were social attacks.

14% Errors were causal events in 14% of breaches. The same proportion involved privilege misuse.

8% Physical actions were present in 8% of breaches.

The Good News: The Market is Responding

- It’s getting much easier to issue strong tokens – backed by multi-factor authentication

- Big banks and new identity startups are both creating alternatives to traditional KYC/identity proofing

Authentication is getting easier

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What once required

Photo courtesy of Precise Biometrics

Now ships in this

These things are interesting

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- Secure, hardware-based isolated execution environments (TPM/TEE/SE) – capable of generating, securing and applying cryptographic keys (tokens)
- Multiple biometric sensors (finger/face/iris/voice)

Strong, Multi-factor Authentication

Enabled by global standards

fido alliance | simpler stronger authentication

ITU

W3C®

But Identity Proofing is Getting Harder

Equifax reveals vast scale of 2017 consumer data breach

Some 145 million customers' Social Security numbers were stolen, company says

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Hackers already had the keys

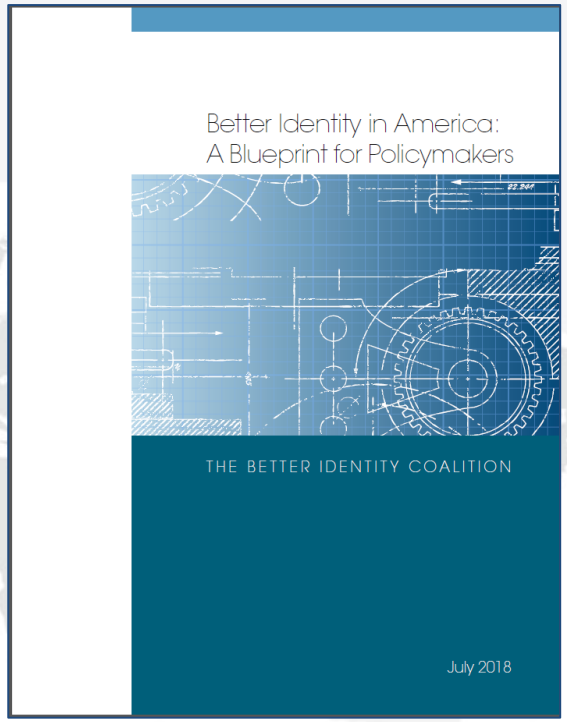
Identity: The only global standard today

- Built for travel, not financial services
- Built for paper, not digital
- Built for a subset of the population

How do we create globally recognized standards for digital identity – that can address requirements for financial services?

A Policy Blueprint for “Better Identity”

- **Better Security – with Less Fraud and Identity Theft**
  - Eliminating traditional identity-focused attacks tied to stolen data and password compromises.
- **Better Convenience for Consumers**
  - Allowing consumers to open new accounts online with ease, without having to go through duplicative, burdensome enrollment processes.
- **Better Confidence for Both Consumers and Service Providers**
  - That identities asserted online are reliable and trustworthy.
- **Better Privacy**
  - Shifting the predominant model for identity verification from one based on firms aggregating personal data without opt-in consent, to one where consumers proactively request that their identity be validated by parties with whom they already have a trusted relationship.



Proof-of-Identity Policy Considerations:

Accelerating Financial Inclusion for the Underserved via Mobile

Yiannis Theodorou (@yiathe)

Director of Policy & Acting Head
Digital Identity & Mobile for Humanitarian Innovation programmes
GSMA

Who is The GSMA?

THE GSMA WAS FOUNDED IN 1987

14 OFFICES WORLDWIDE

SHANGHAI

SAN FRANCISCO

BEIJING

SAO PAULO

NAIROBI

NEW DELHI

LONDON

DUBAI

ATLANTA

BRUSSELS

BARCELONA

HONG KONG

BUENOS AIRES

Connecting Everyone and Everything to a #BetterFuture

The mobile industry is the first to formally commit to the UN Sustainable Development Goals

The GSMA represents the interests of mobile operators worldwide

MORE THAN **750** MOBILE OPERATORS

WITH OVER **350** COMPANIES in the broader mobile ecosystem

The world's leading mobile industry events, Mobile World Congress and Mobile World Congress Shanghai, together attract nearly

190,000

people from across the globe each year

The GSMA works to deliver a regulatory environment that creates value for consumers by engaging regularly with:

MINISTRIES OF TELECOMS

TELECOMS REGULATORY AUTHORITIES

INTERNATIONAL & NON-GOVERNMENTAL ORGANISATIONS

CONNECTING **23,000+** Industry Experts

Exclusively for GSMA Members, InfoCentre[2] is your place to connect with a global community of industry experts

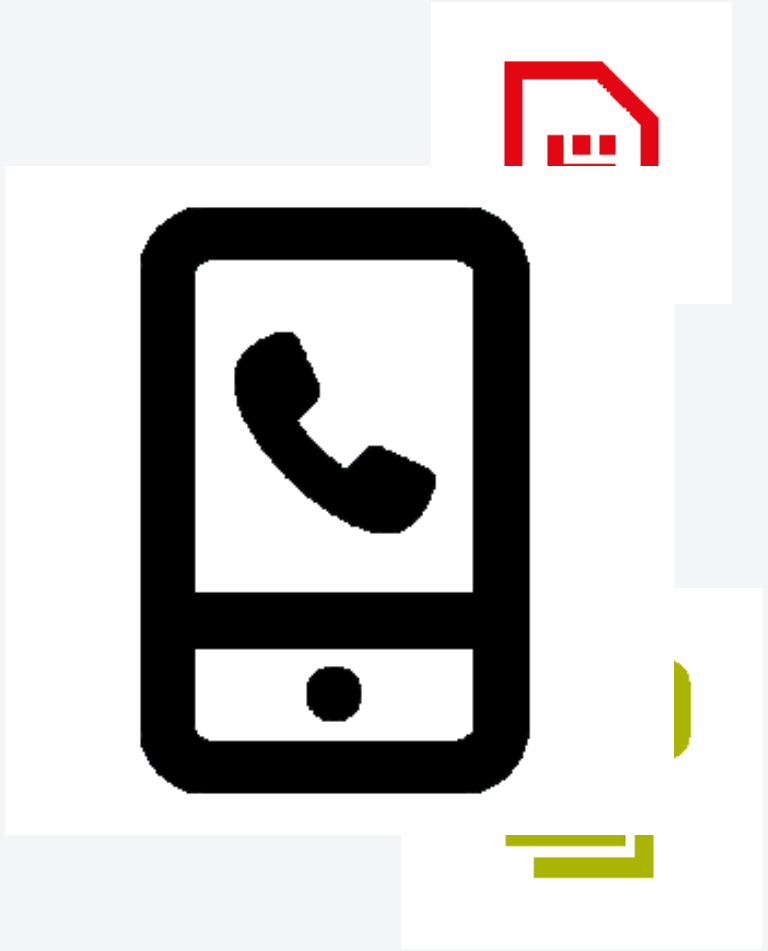
GSMA Working Groups and programmes provide frameworks and standards in commercial, operational and technical matters that help maintain and advance mobile industry ecosystems

8.7 bn+

MOBILE CONNECTIONS WORLDWIDE

Mobile has reached **more than 5 billion subscribers** worldwide and **with 690m Mobile Money** registered accounts in 92 countries

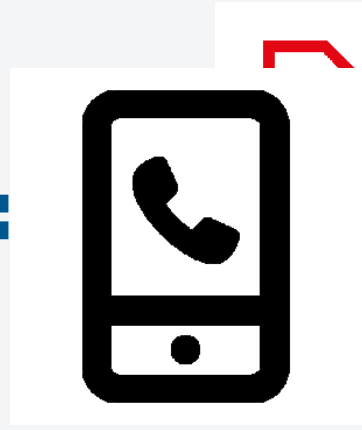
FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

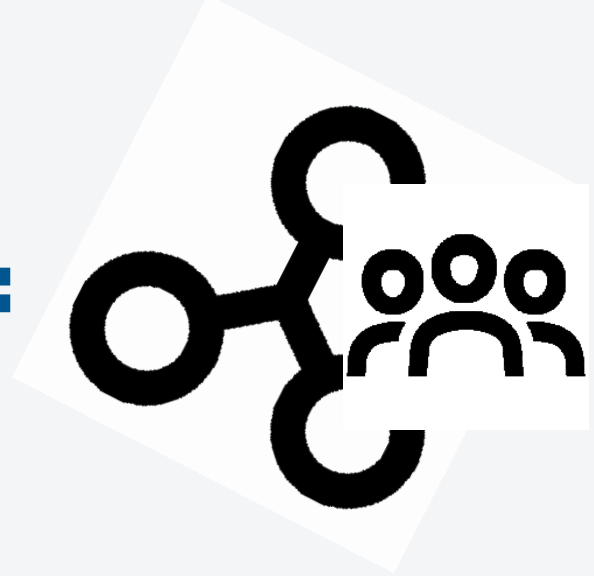


Mobile can play a key role in accelerating **digital and financial inclusion** as part of countries' Digital Transformation strategies

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

Digital ID = **Mobile access in one's name** = **Digital & financial inclusion** = **Digitally Transformed Economies**





In 150 countries, users need proof-of-identity to register a prepaid mobile SIM card in their own name – 50 are within Africa...

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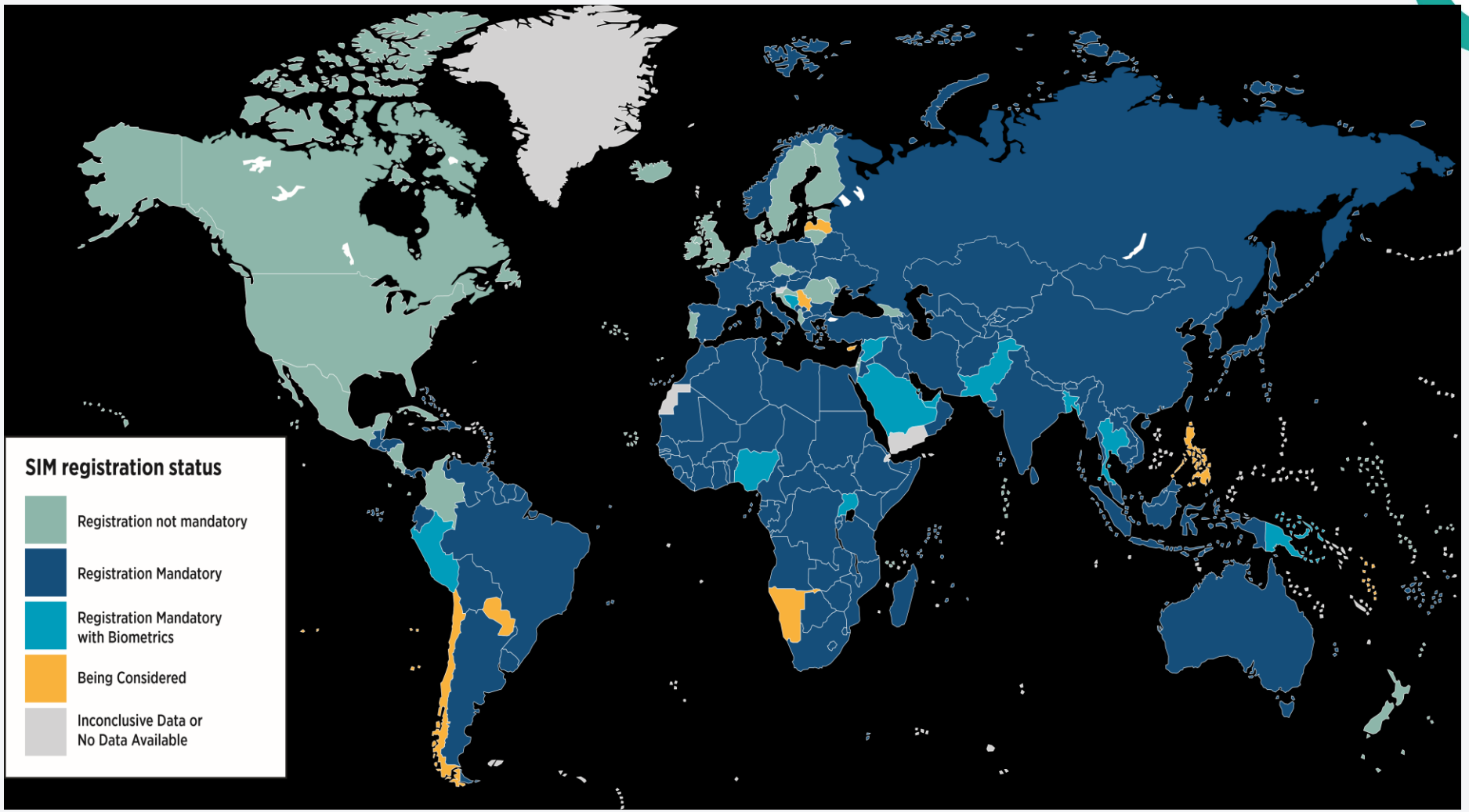
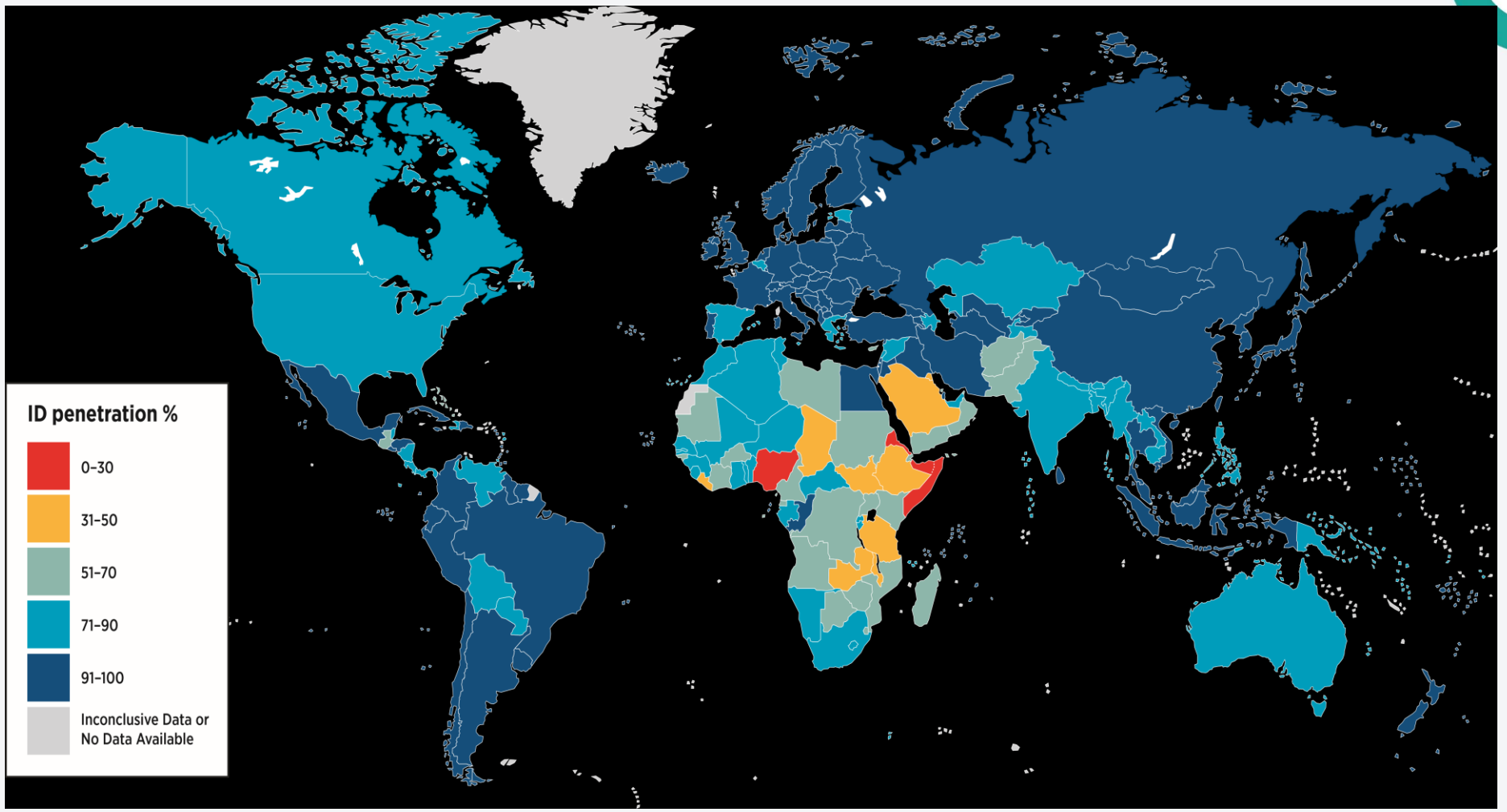
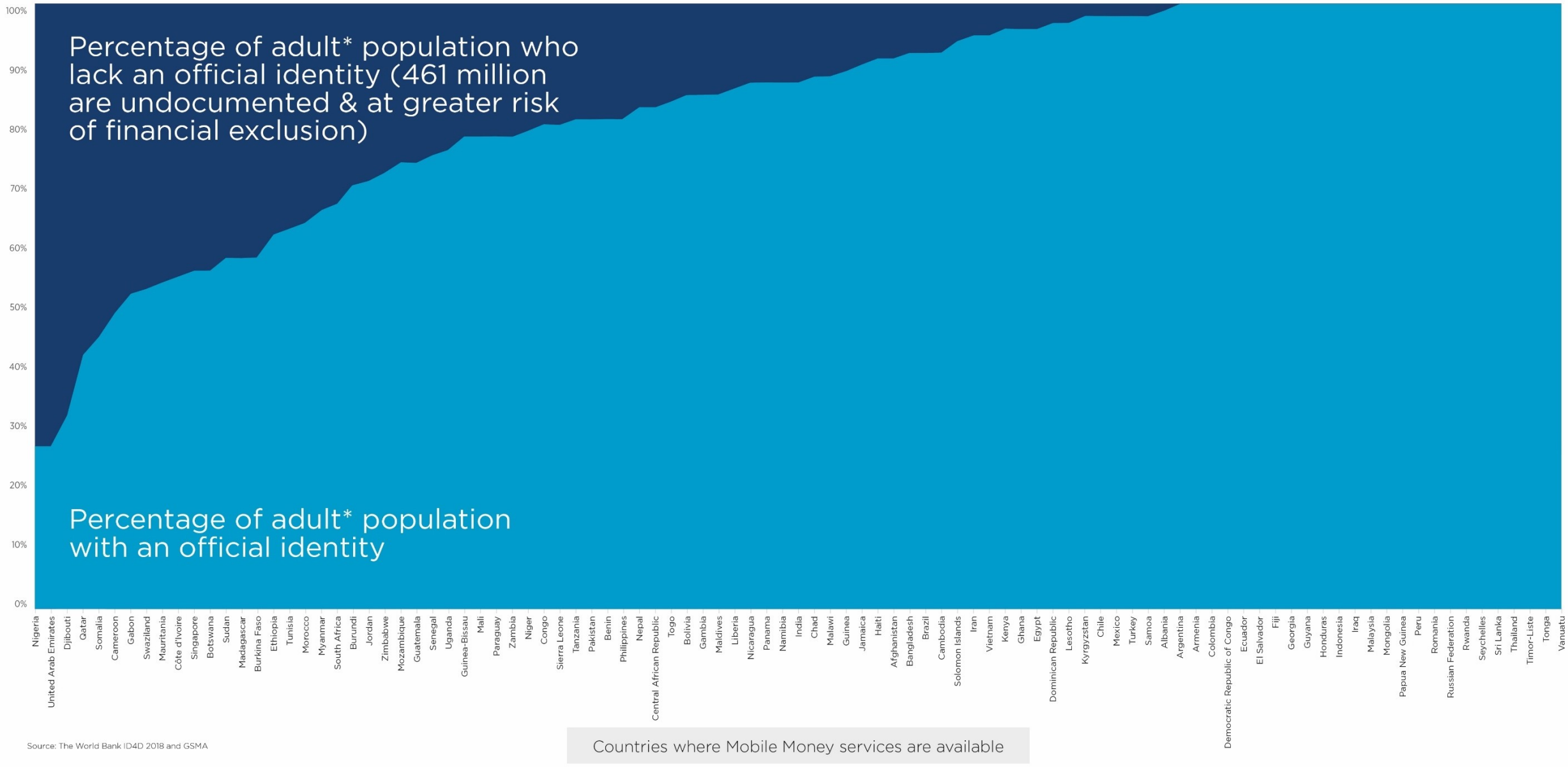


…Yet up to **1 billion people** lack the means to meet proof-of-identity requirements → unable to access mobile services <u>in their own name</u>

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE



…The **risk of financial exclusion** is also significant as undocumented people are unable to open bank or Mobile Money accounts – even where these are available



Source: The World Bank ID4D 2018 and GSMA

The robustness of MNOs' KYC assets depends on customers' access to and verifiability of identification

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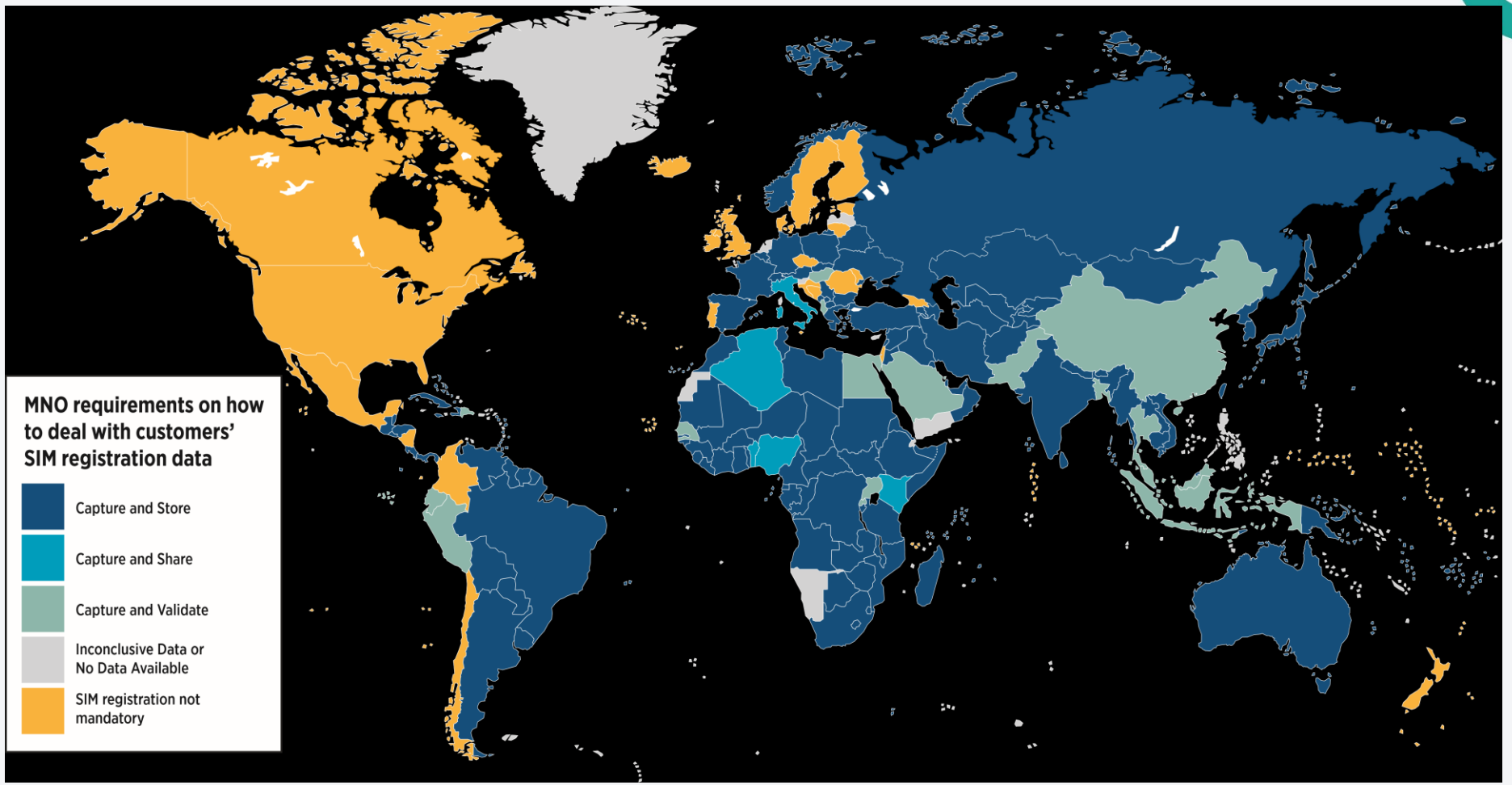
USER CAN ACCESS A MOBILE PHONE		USER HAS AN ACCEPTABLE PROOF-OF-ID?		USER HAS DIGITAL ID THAT MNO CAN VALIDATE		ROBUSTNESS OF MOBILE OPERATOR'S KYC ASSETS
Yes	+	Yes	+	Yes	=	VERY HIGH
Yes	+	Yes	+	No	=	HIGH
Yes	+	No	+	No	=	MEDIUM

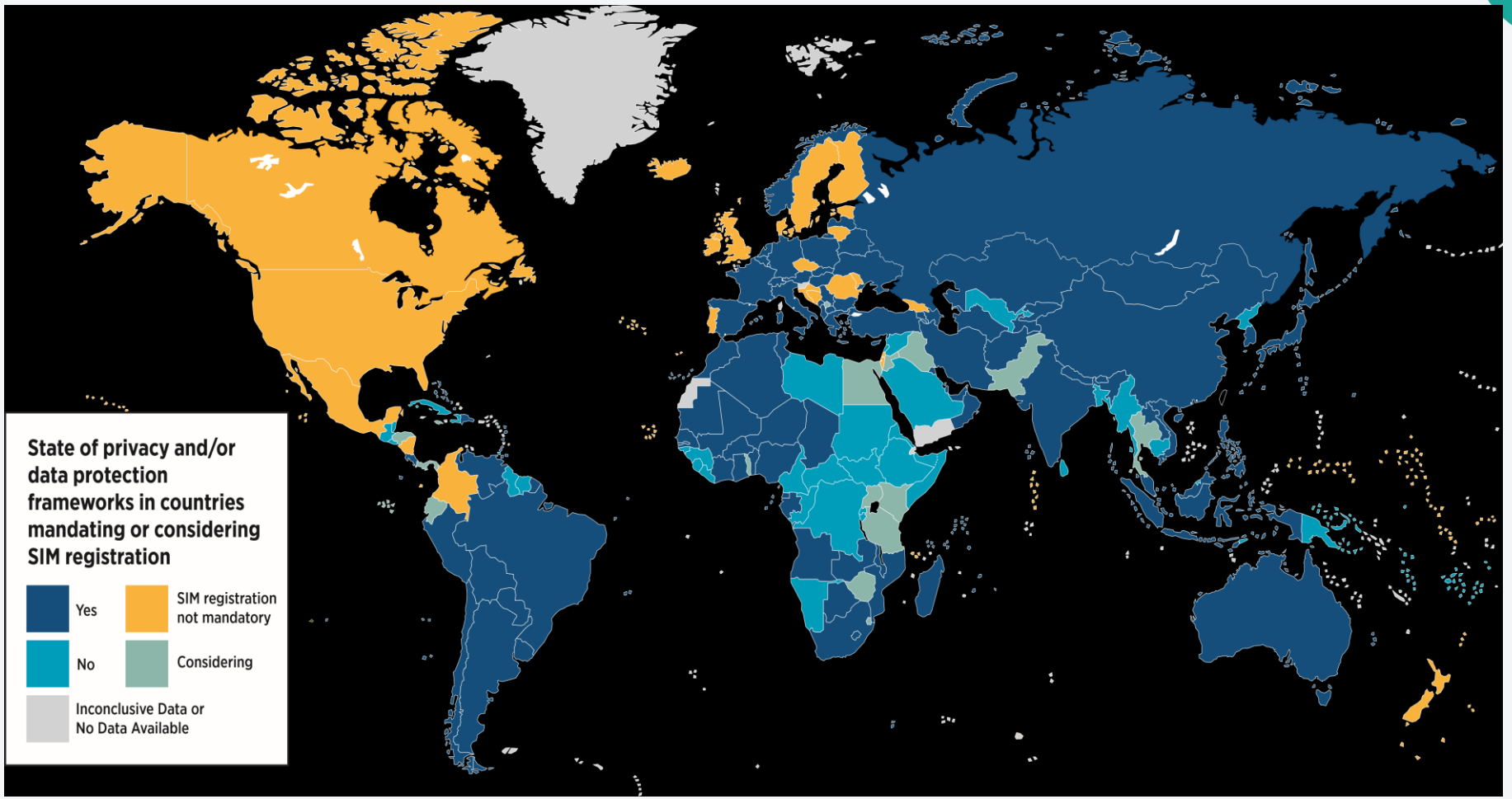
Only 11% of countries empower Mobile Operators to validate users' identity credentials against a central Government database / token

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE



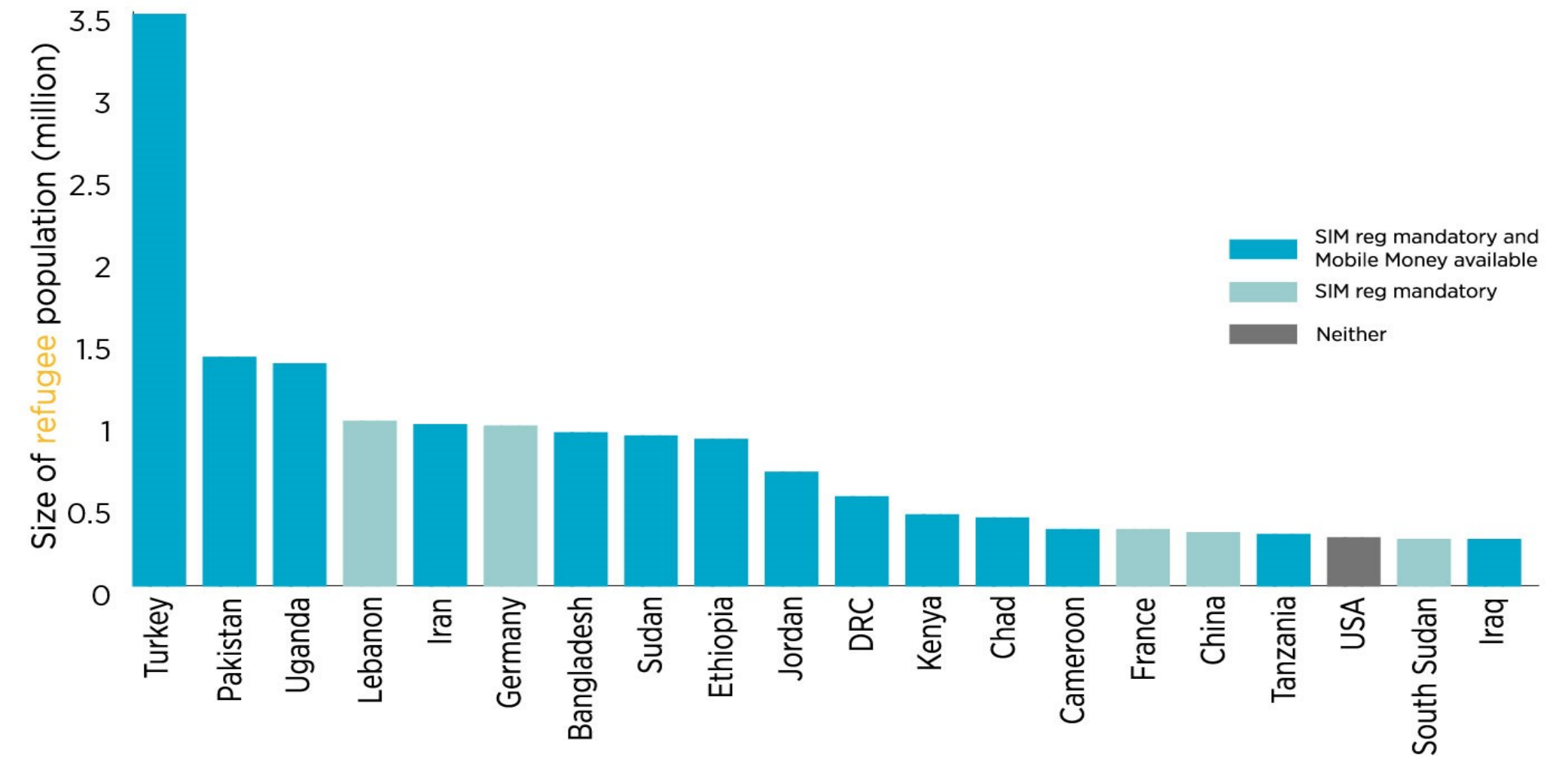
TRUST is crucial – Yet 41% of countries mandating SIM Registration lack a comprehensive Privacy and/or Data Protection framework

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE



Mobile Money services are available in 14 of the top 20 countries hosting **74%** all refugees → **subject to proof-of-ID** requirements

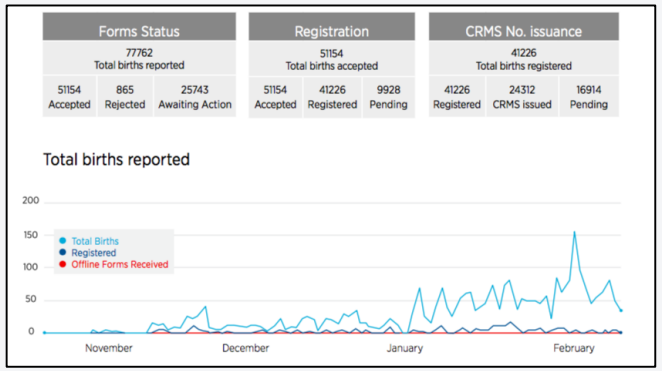
FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE



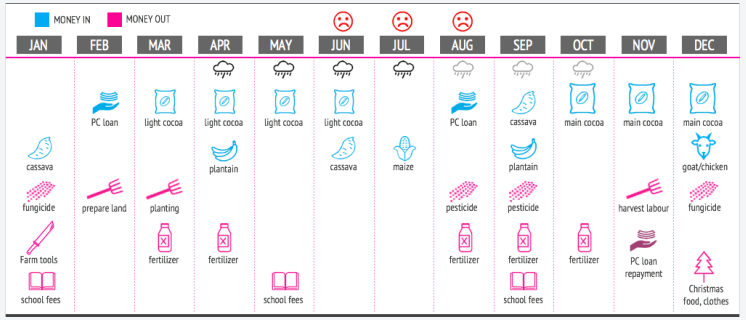
Mobile operators can play a number of roles to **accelerate** Digital Identity and DFS ecosystems

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

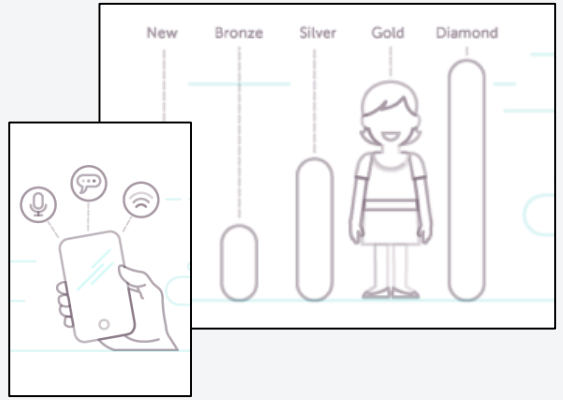
(1) Facilitate ID enrolment by leveraging mobile devices, agent networks, or other assets



(2) Authenticate against recognised ID systems to establish functional identities



(3) Empower digital participation and drive demand for ID by delivering targeted, identity-linked mobile services



Key Policy Considerations for building and leveraging Digital Identity ecosystems to support financial inclusion via mobile platforms

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

Pro-active engagement between Financial & Telecoms Regulators, Ministries of Interior and National ID Authorities needed to:

- **Expand Coverage and Accessibility of Foundational Digital ID**
- **Harmonise Identity-related KYC for MFS with SIM Registration Requirements**
- **Improve Reliability by Enabling MNOs & MFS to Validate Customers' ID Credentials**
- **Promote digital literacy and services that will drive demand for Digital ID registrations**
- **Build Trust e.g. through appropriate privacy frameworks**

Thank you !

Yiannis Theodorou (@yiathe)

APPLICATIONS OF DIGITAL ID IN THE FINANCIAL SECTOR

Phindu Lipenga

Bank of Malawi

Contents

- Background
- Current problems in the financial sector
- Current Status of National ID
- What should Happen
- Stakeholder views perceptions
- Regulatory Responses
- Current Regulatory Framework
- Possible Key Considerations

Background

- Malawi finalised issuing the National ID in 2018

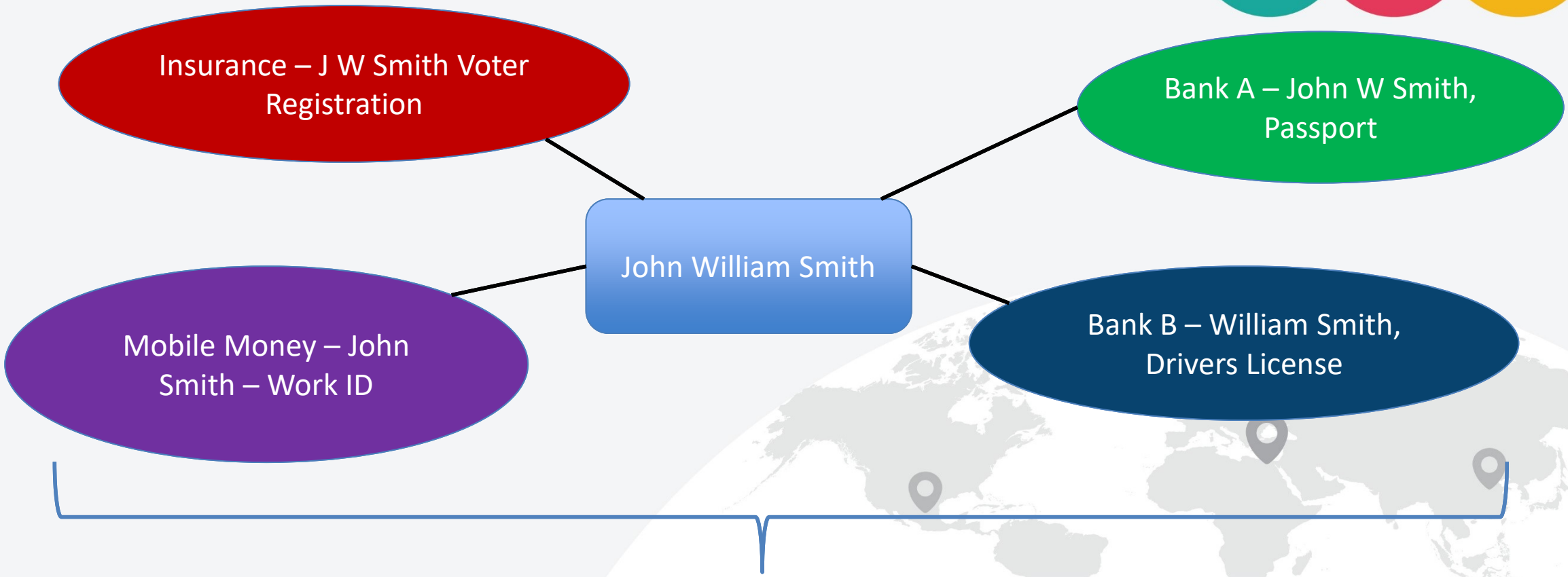
- Prior to National ID acceptable identification included Voter registration card, Passport, drivers licence, some company IDs

- Current status multiple IDs in various services with no common identification

- Survey indicates 20% of population have no bank account because of lack of ID

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

Current Problems with ID landscape

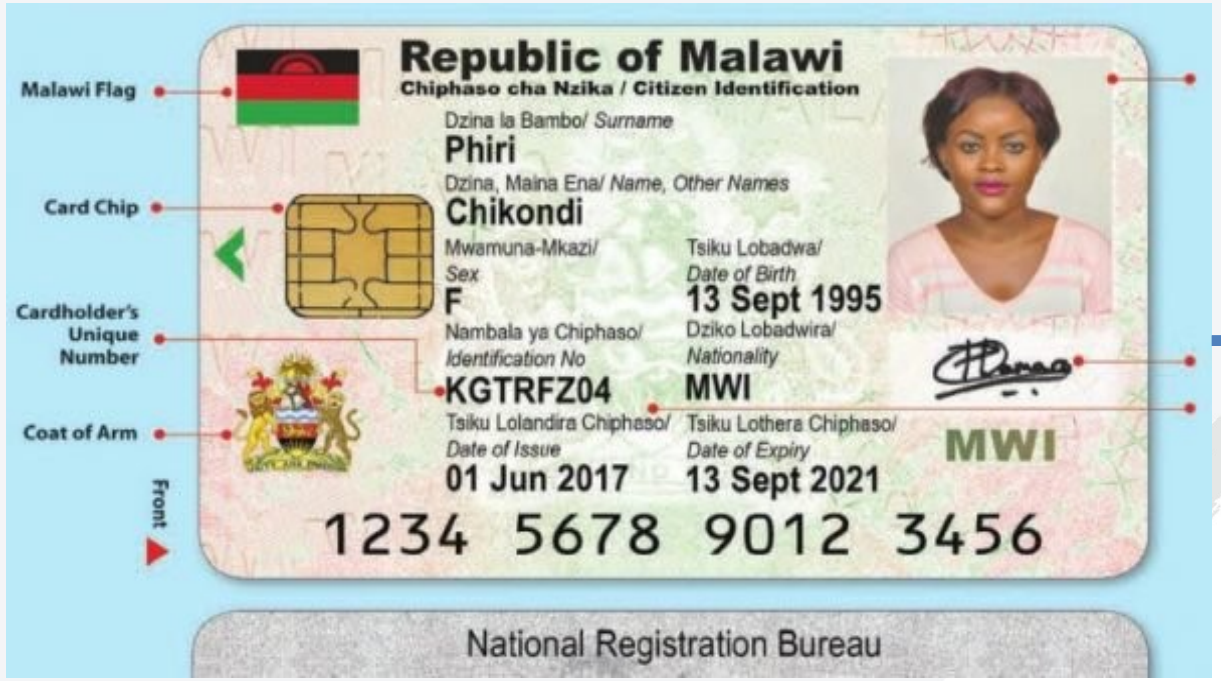


Disjointed information/ Poor Credit history data

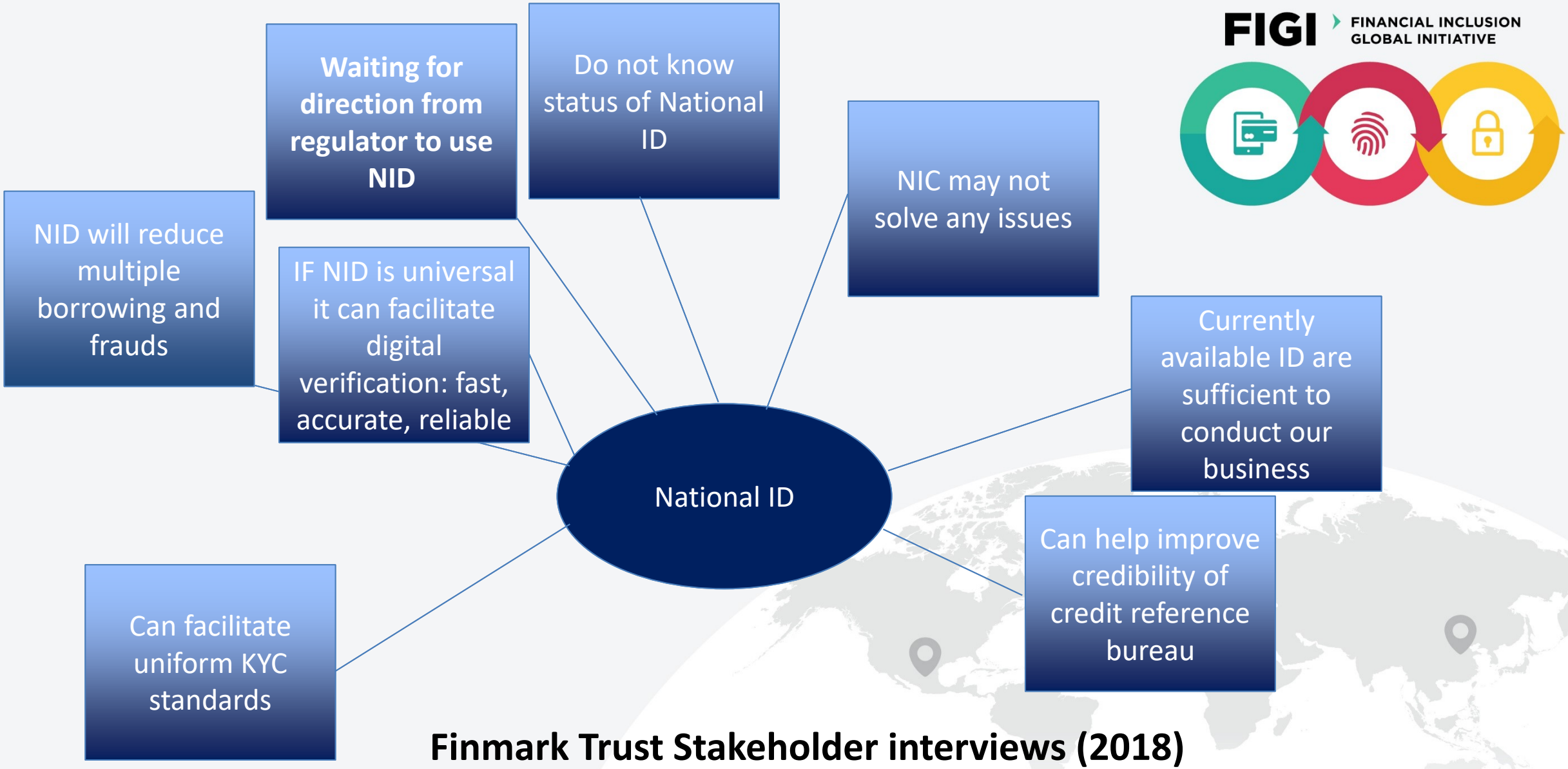
Current National ID Status

- Estimated population of Malawi 18.62 Million (World Bank 2017), About 8.8 million are below the age of 14.
- Approximately 9 million adults enrolled in 2018
- Approximately 8.9 million cards issued
- 26% (approximately 4.8 million) have access to formal financial services (Finscope Survey)

What should Happen



Harmonise



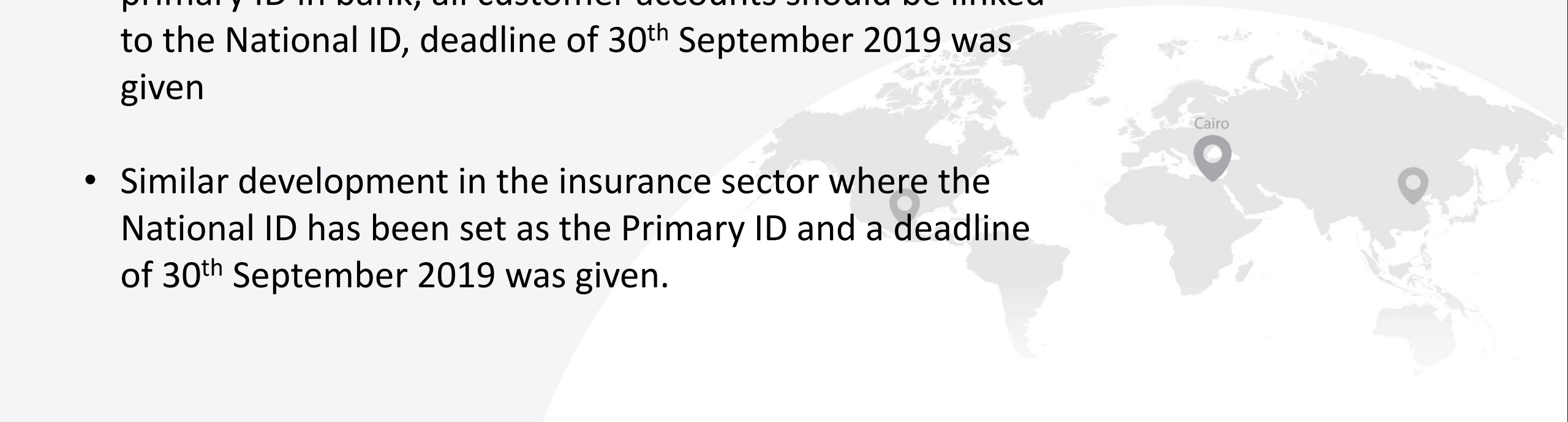
Finmark Trust Stakeholder interviews (2018)

Regulatory Response

- Task force was formed to look at Digital Identification and how best we can facilitate the adoption of digital ID in Malawi

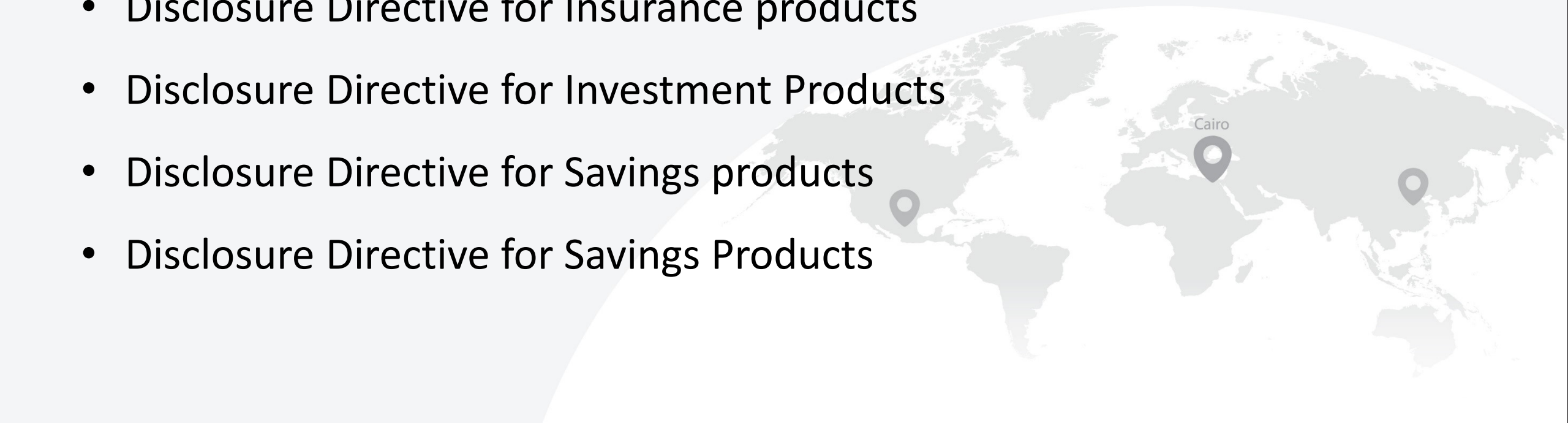
- Task force proposed that the National ID should be the primary ID in bank, all customer accounts should be linked to the National ID, deadline of 30th September 2019 was given

- Similar development in the insurance sector where the National ID has been set as the Primary ID and a deadline of 30th September 2019 was given.



Current Regulatory Framework

- National Financial Inclusion Strategy
- Disclosure Directive for Banks
- Disclosure Directive for Insurance products
- Disclosure Directive for Investment Products
- Disclosure Directive for Savings products
- Disclosure Directive for Savings Products



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Possible Key Considerations

- Financial literacy campaigns
- Extending NID as primary to MNOs
- Extending use of NID to microfinance and saccos as primary IDs
- All data submitted to Credit Reference Bureau to be linked by NID

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Thank You!!!

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STATE OF NID SYSTEM IN BANGLADESH

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SCOPE OF PRESENTATION

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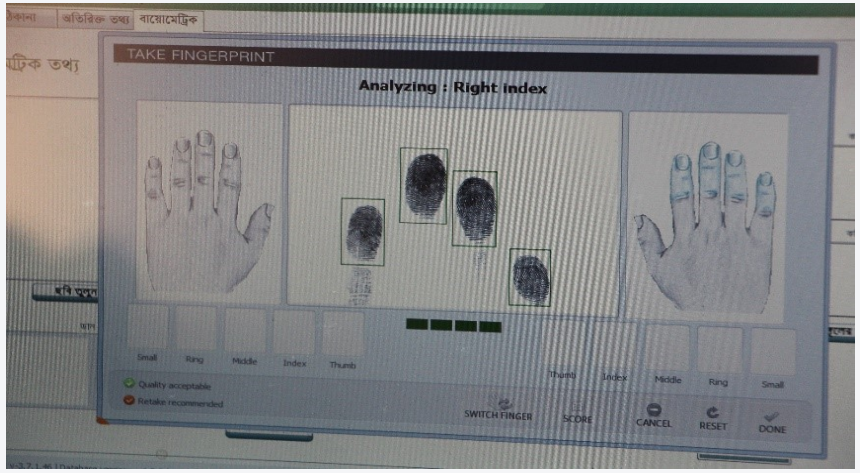
- Background
- IT infrastructure
- e- KYC
- Data privacy and security
- Achievement & impact of e-ID service delivery
- Authentication process
- Promoting financial integrity & financial inclusions
- Feasible option for optimum utilization of NID system

AIM

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE



To appraise the state of the NID system in Bangladesh

BACKGROUND – PERP

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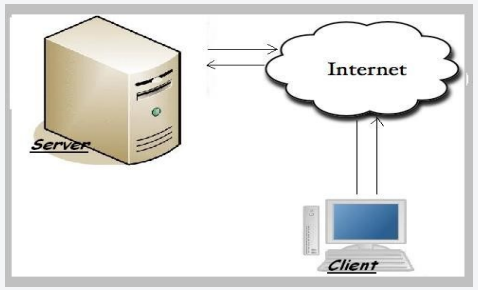
- PERP- Preparation of Electoral Roll with Photograph and Facilitating the Issuance of National Identity Card (PERP) project.
- This project was initiated to prepare an accurate electoral roll with photograph with the help of Bangladesh Government, Armed Forces in 2007.
- For the first time in the history of Bangladesh, Bangladesh Election Commission (BEC) completed preparation of electoral roll with photograph of 85.86 million voters.

BACKGROUND – PERP

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

- BEC prepared an electoral database and National ID Card under PERP project with the help of Bangladesh Government and nine other development partners [European Commission (EC), DFID, Netherlands, Switzerland, Sweden, Norway, Denmark, Korea and UNDP]

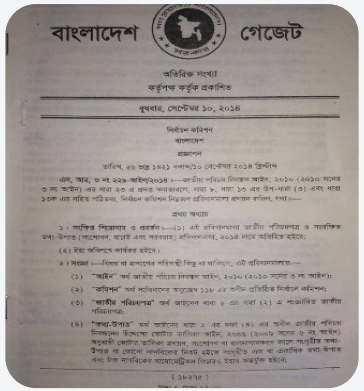


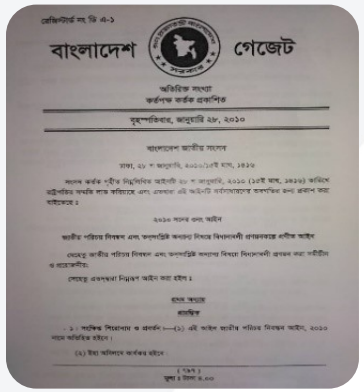
- As a byproduct of Electoral Roll, 85.86 million voters were issued with paper laminated ID cards.

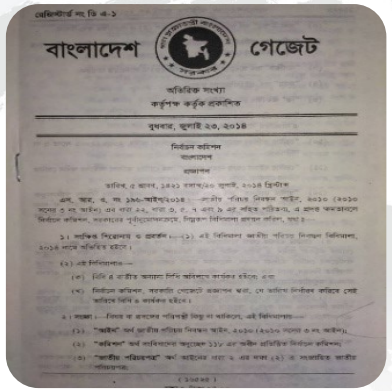
BACKGROUND – PERP

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

- National Identity Registration Act passed in early 2010 which provided the legal framework for the National Identification (NID) System.
- In 2011, National Identity Registration Wing (NIDW) was established in BEC for providing services to the citizens of Bangladesh and different agencies related to NID card, identity verifications etc.







BACKGROUND –IDEA PROJECT

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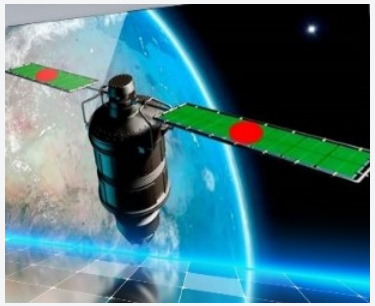
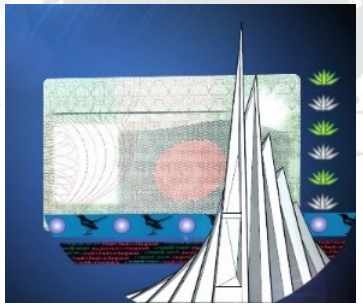
- IDEA- Identification System for Enhancing Access to Services Project.
- IDEA project was started in July 2011 for building a National ID Scheme based on the output of the PERP project.
- The Government of Bangladesh identified the National ID system as a key element to promote effective and efficient e-services under the ‘Digital Bangladesh Vision 2021’.





PROJECT OBJECTIVES - IDEA

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Overall Objective	**To establish a secure, accurate and reliable national ID system in Bangladesh that will serve as the basis for more efficient and transparent service delivery.**

Specific Objectives	***Supporting BEC in issuing ID cards with robust security features.***	***Developing capacity to provide identity verification services.***	***Developing capacity over the longer term to integrate the new ID system into a wide range of both public and private services.***

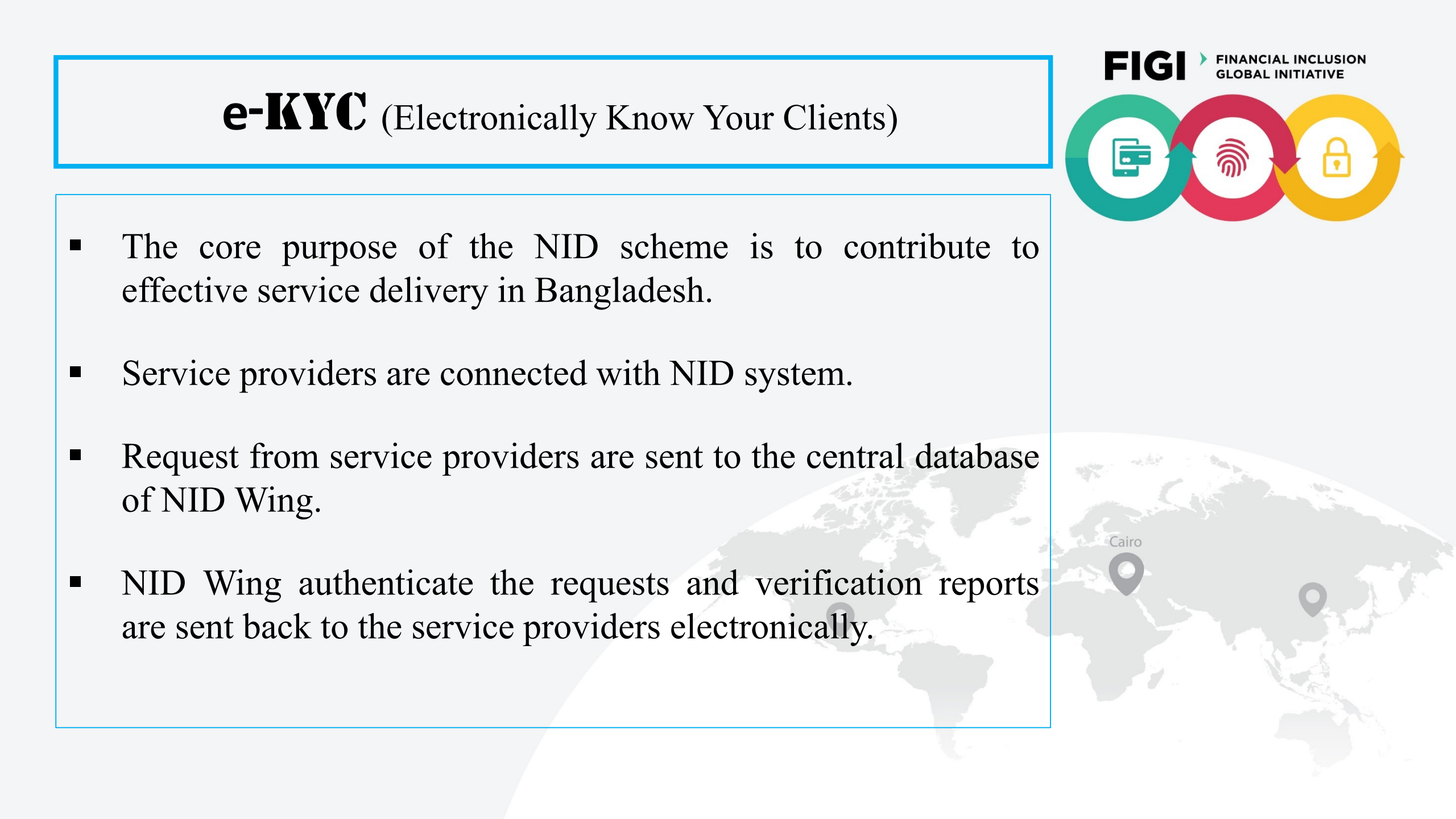
IT INFRASTRUCTURE

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

- Robust IT infrastructure (Data center, DRS, Upazila & District server station etc.) is ensured at various levels.
- Individuals are secured by recognition of their legal identity.
- Robust, secured and updated IT system for NID verification to get easy access to different public and private service delivery.
- Establishment of countrywide data connectivity through VPN is in progress.
- For new registration, at first de-duplication through AFIS (Automated Fingerprint Identification System) is conducted. Thereafter the data is stored in server.

e-KYC (Electronically Know Your Clients)

- The core purpose of the NID scheme is to contribute to effective service delivery in Bangladesh.
- Service providers are connected with NID system.
- Request from service providers are sent to the central database of NID Wing.
- NID Wing authenticate the requests and verification reports are sent back to the service providers electronically.



DATA PRIVACY AND DATA SECURITY

- All informations stored in NID database are completely confidential as declared by law.
- Bangladesh Election Commission is taking all out efforts to maintain data privacy and security in providing authentication service to the agencies.
- 10 digit unique NID number is introduced to protect data privacy in service delivery

ACHIEVEMENT IN SERVICE DELIVERY

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

- Individuals are recognized with their legal identity.

ACHIEVEMENT IN SERVICE DELIVERY

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

- Ensure service delivery to the right person in public and private sectors.

ACHIEVEMENT IN SERVICE DELIVERY

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

- So far in last 36 months, more than 325 million identity verification completed successfully.

325 million Verification

ACHIEVEMENT IN SERVICE DELIVERY

- E TIN introduced with the help of instant NID verification services

ACHIEVEMENT IN SERVICE DELIVERY

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

- Bangladesh Bank verifies NID of their client

ACHIEVEMENT IN SERVICE DELIVERY

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

- Commercial banks using ID verification services for e-KYC

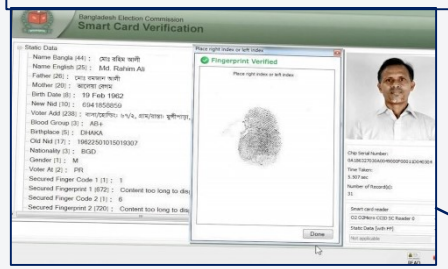
BIOMETRIC SIM REGISTRATION/ RE-REGISTRATION

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

BEGINNING OF A NEW ERA E-KYC/SERVICE

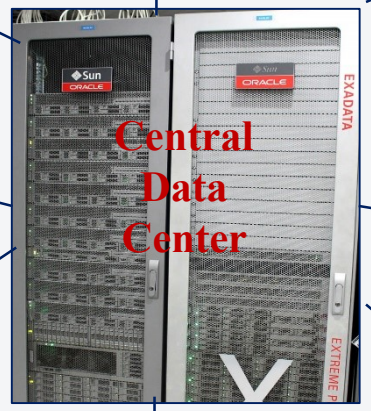
FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

NID verification services



Improvement in service delivery

e-governance

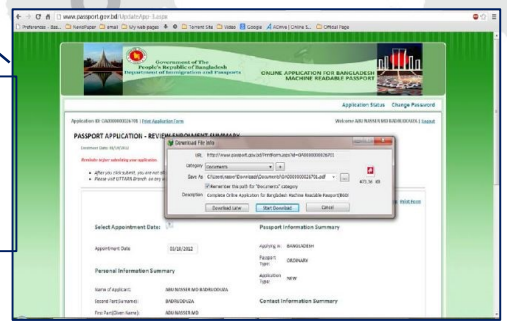


Central Data Center

Smart NID Card
Unique NID number - one man one ID concept

good governance

Hub of all e-service deliveries



IMPACT OF E-ID SERVICES DELIVERY

- E-TIN was introduced with the help of NID instant verification services which resulted in removal of hundreds and thousands of false or duplicate taxpayer accounts, reduction of tax evasion etc.

- Bangladesh Bank verifies NID for its Credit Information Bureau; Financial Intelligence Unit (FIU) has access to ID verification services for tracking unauthorized transactions.

- Commercial banks are using ID verification services for e-KYC (Know Your Clients), opening bank account, bank loan sanction etc.

IMPACT OF E-ID SERVICES DELIVERY

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

- Non-Banking Financial Institutions are using ID verification services for e-KYC.
- Department of Passports and Immigration verifies ID online for issuance of passports.
- 2.5 million Government employees completed their fixation of pay with NID.
- Retired Government employees are being verified by NID. False beneficiaries are being identified.
- 130 million Biometric SIM registrations have been completed in less than 6 months time.
- Law enforcing agencies use NID verification for the proper authentication of unidentified dead body and crime tracking.

STATUS OF AUTHENTICATICATION ONLINE

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

- NID authentication systems for agencies and institutions is going on through signing agreement/MoU.
- As of January 2019 a total of 104 (One Hundred and Four) public and private agencies signed MoU/agreement for the online identity verification services by using NID database.
- So far in last 36 months, more than 325 million hits counted successfully for NID authentication by the agencies.

STATUS OF AUTHENTICATICATION ONLINE

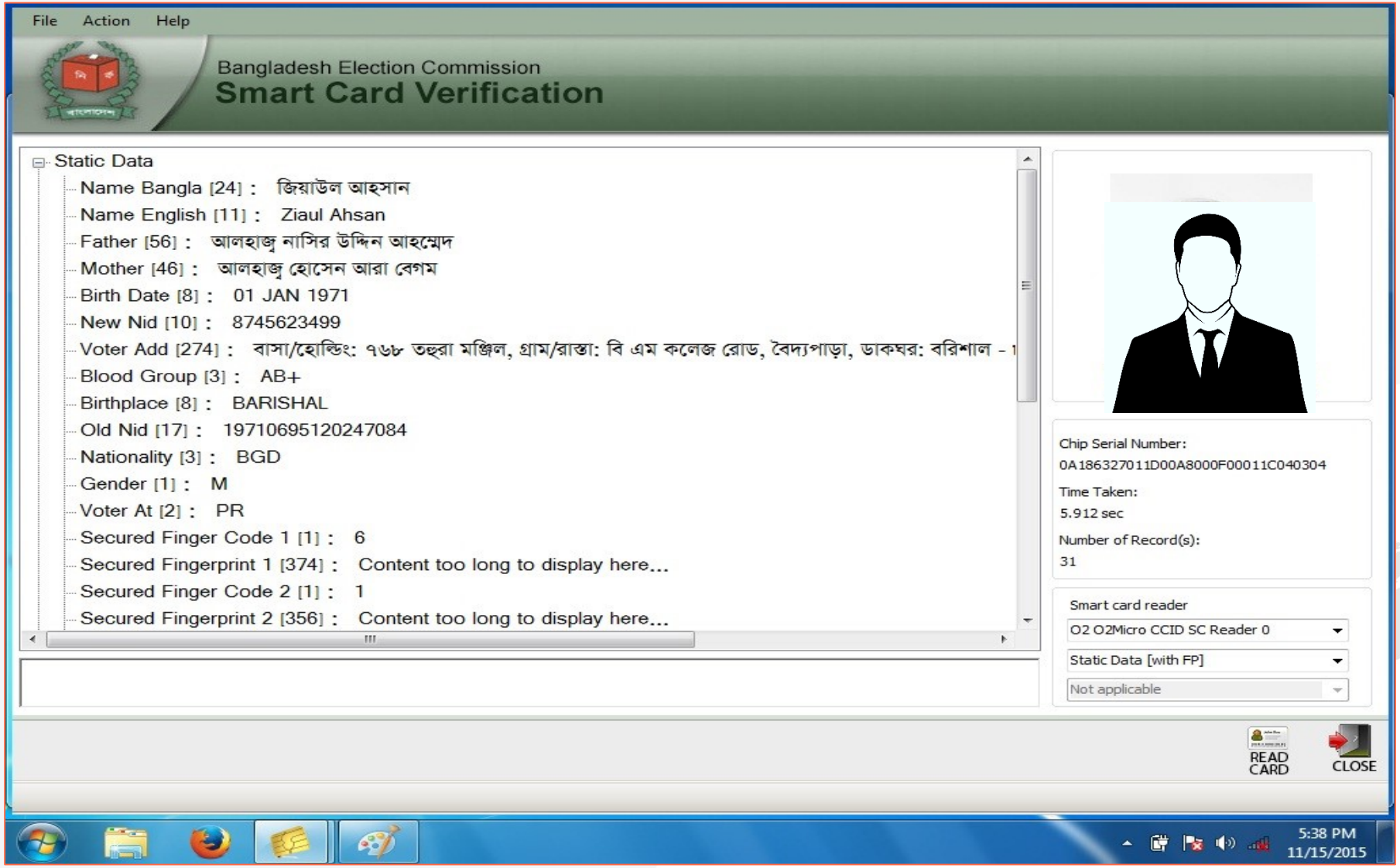
Sl. No.	Type of Organization	Number of Organization	Remarks
1	Government Organization	18	Bangladesh Bank, NBR, Finance Division, etc.
2	Mobile Operators	06	Airtel, Bangla Link, Robi, GP, Teletalk, City Cell
3	Commercial Private Banks	55	BRAC Bank Limited, Dutch Bangla Bank Limited, etc.
4	Non Banking Financial Institutions	25	IDLC Finance limited, IPDC, MIDAS Financing Limited, etc.
Total		**104**	

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

AUTHENTICATICATION OFFLINE

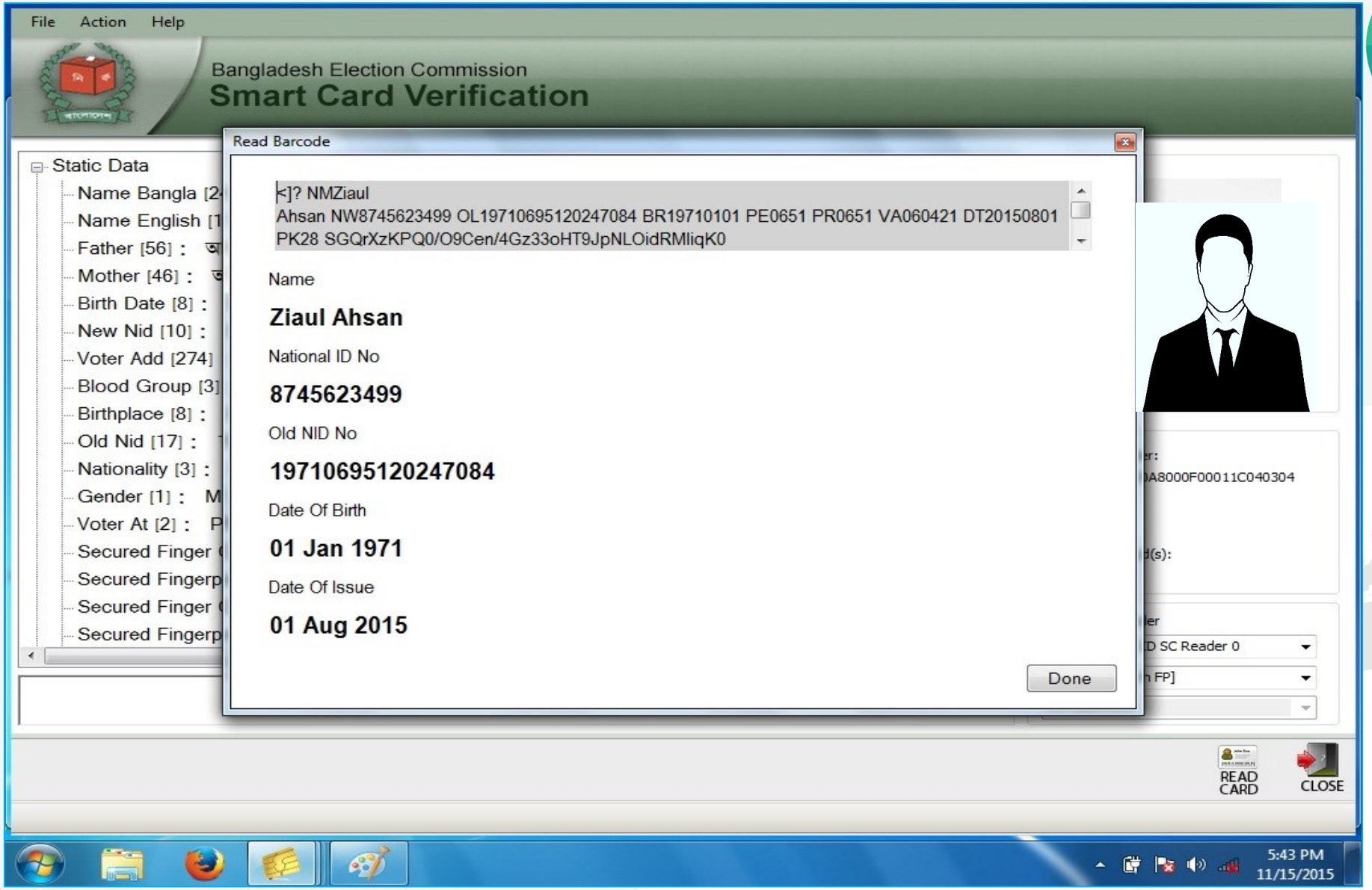
VERIFICATION USING CARD READER

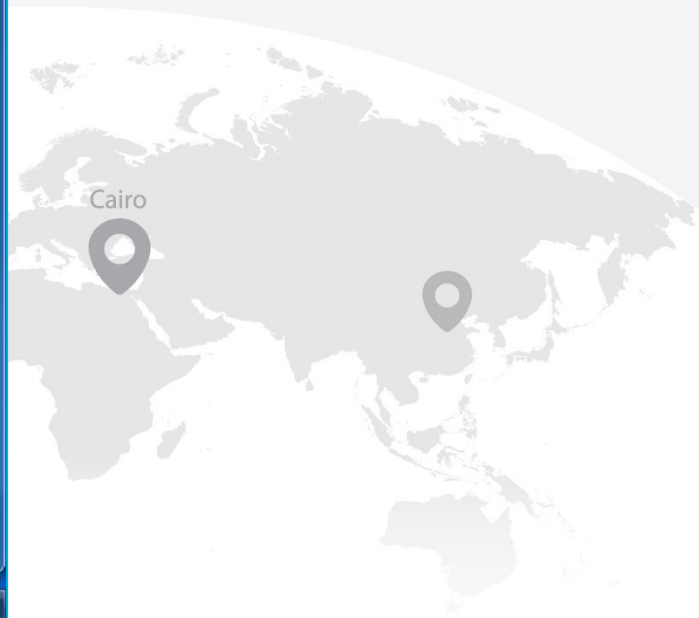
FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE



VERIFICATION USING BARCODE READER

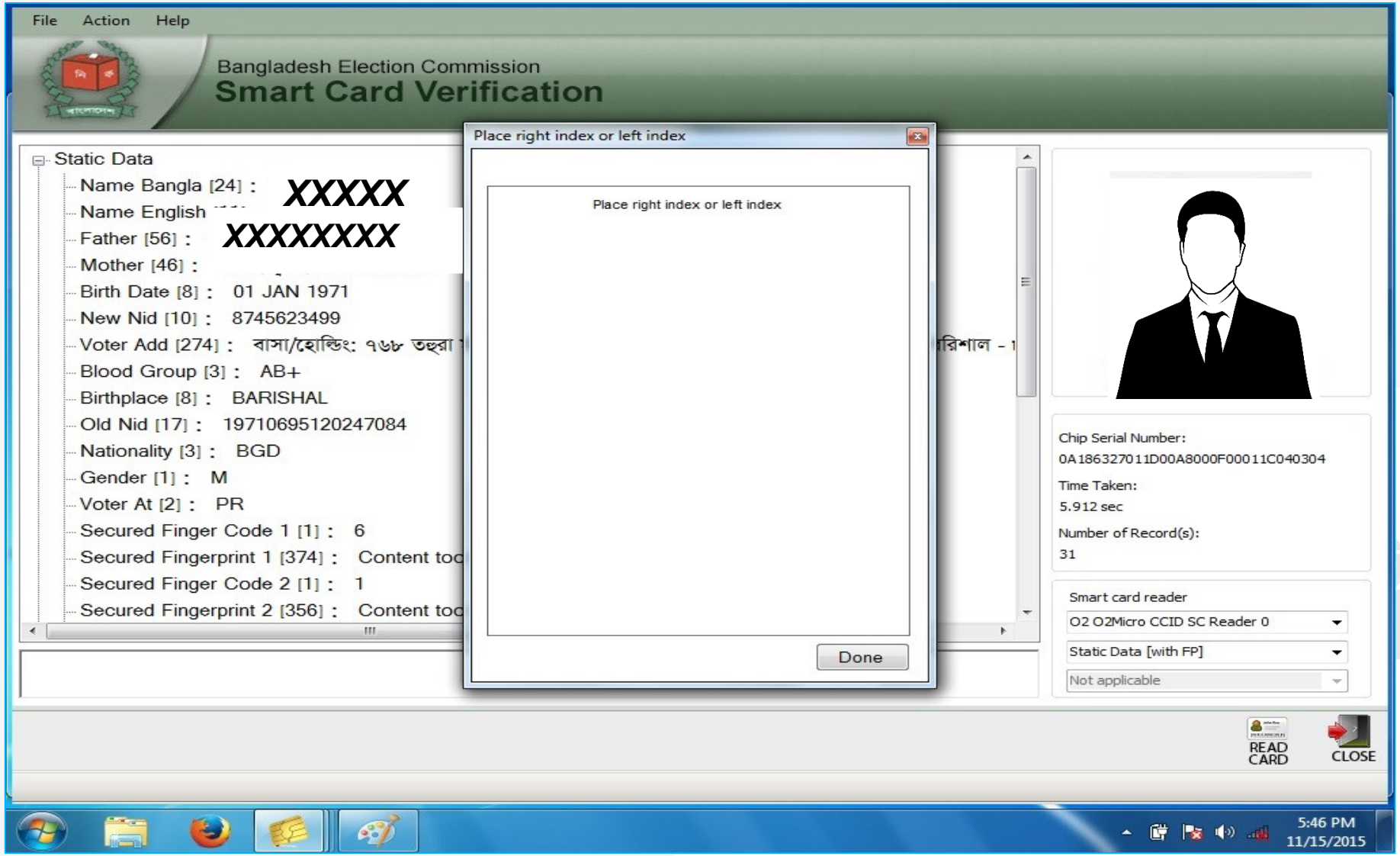
FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE





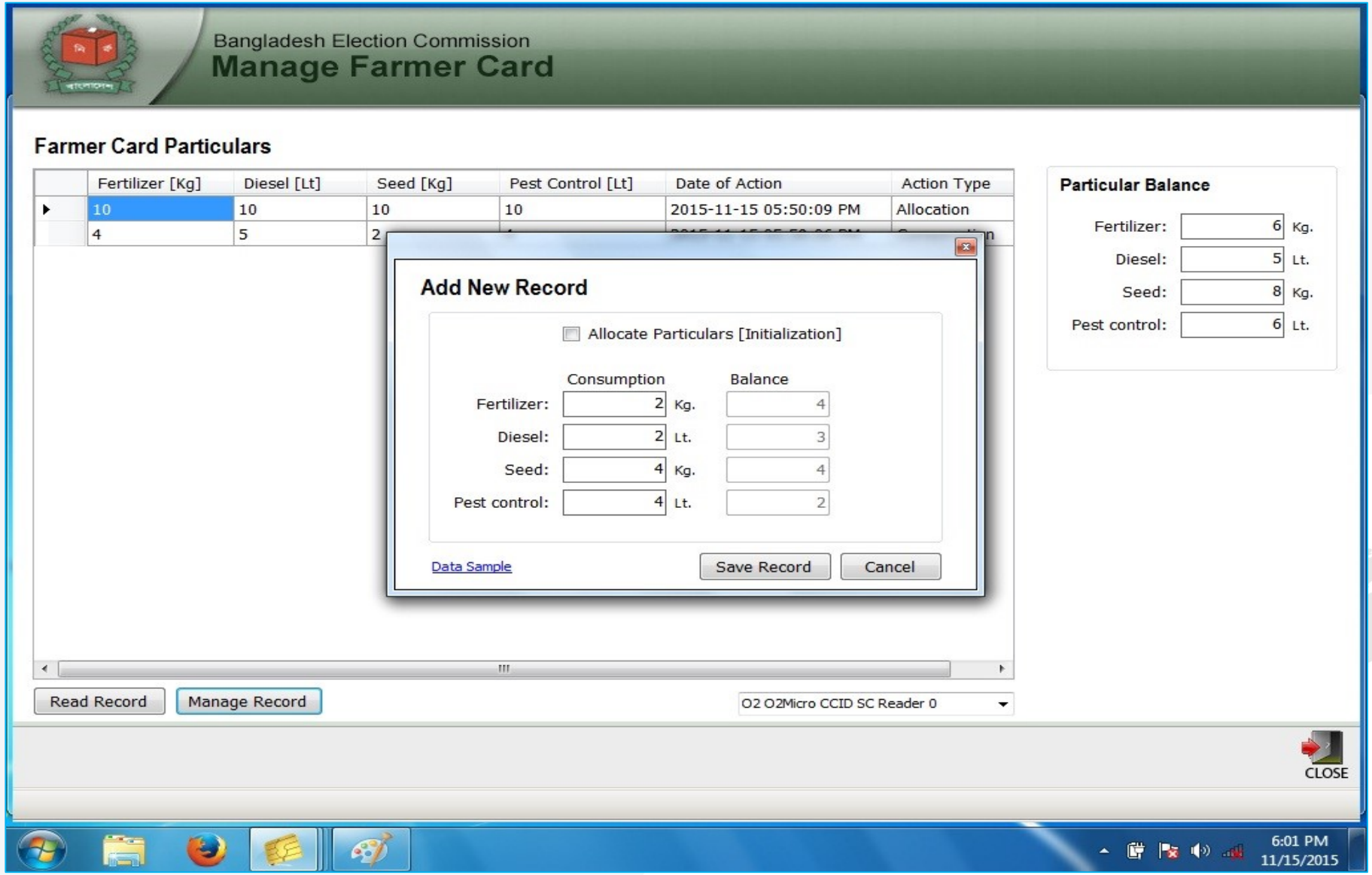
VERIFICATION USING FINGER PRINT

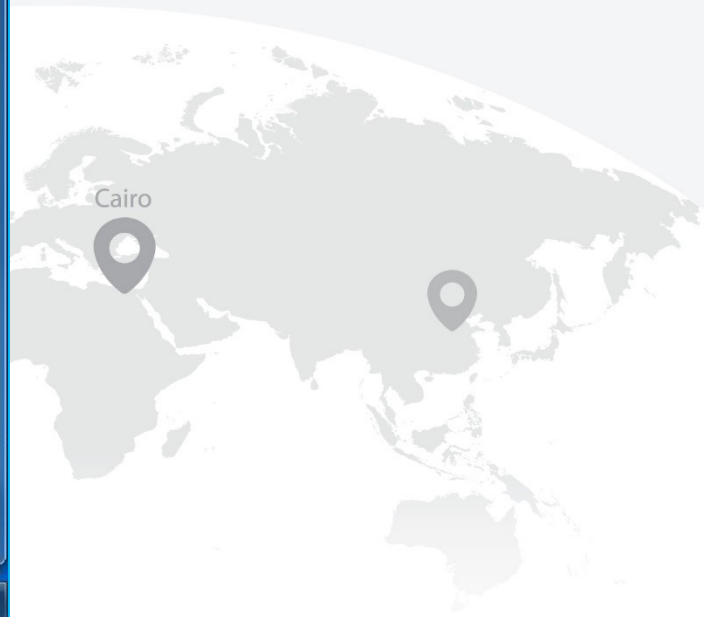
FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE



E-SERVICE DELIVERY TO FARMER USING NID CARD

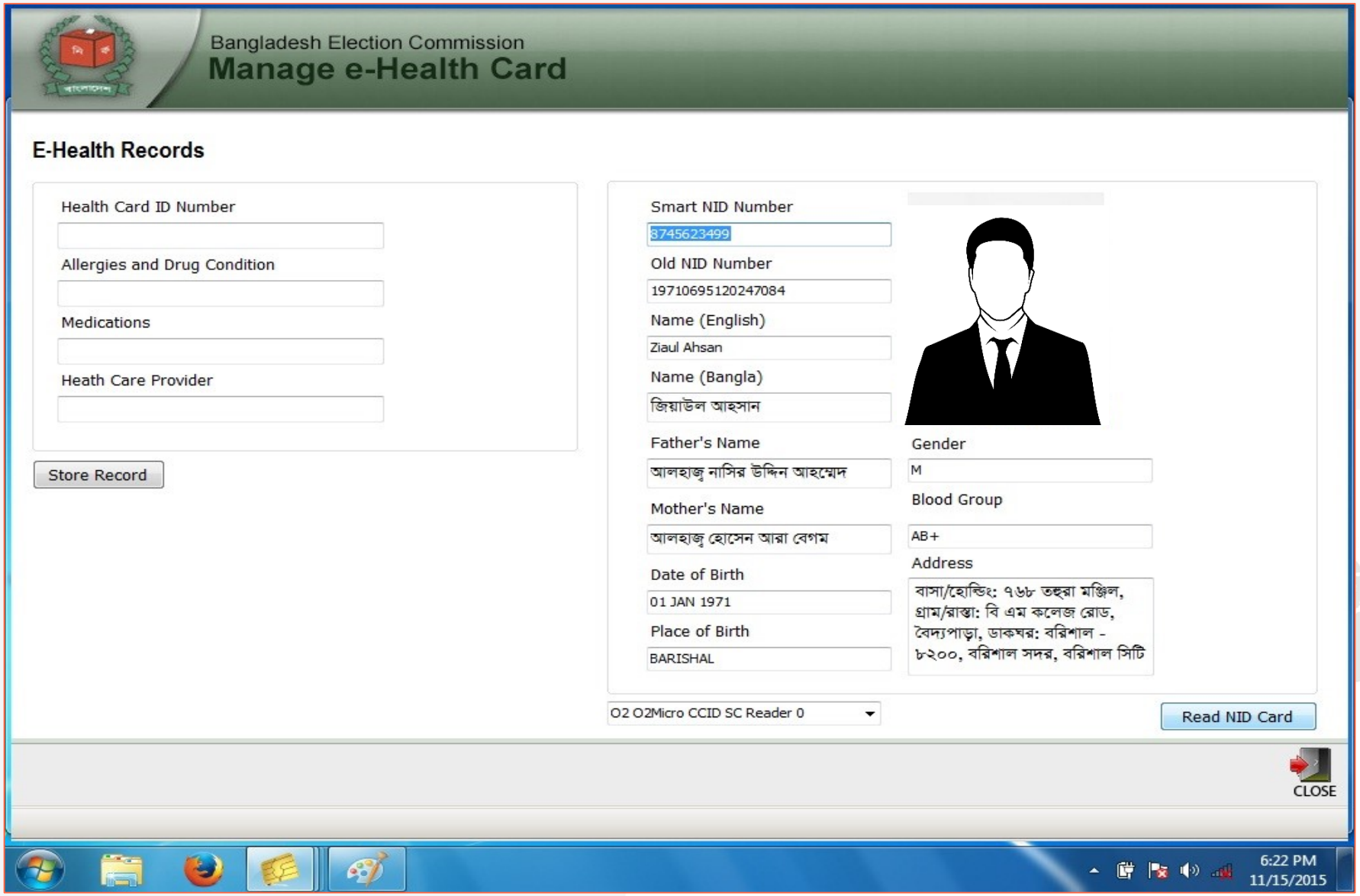
FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE





E-HEALTH SERVICE DELIVERY USING NID

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

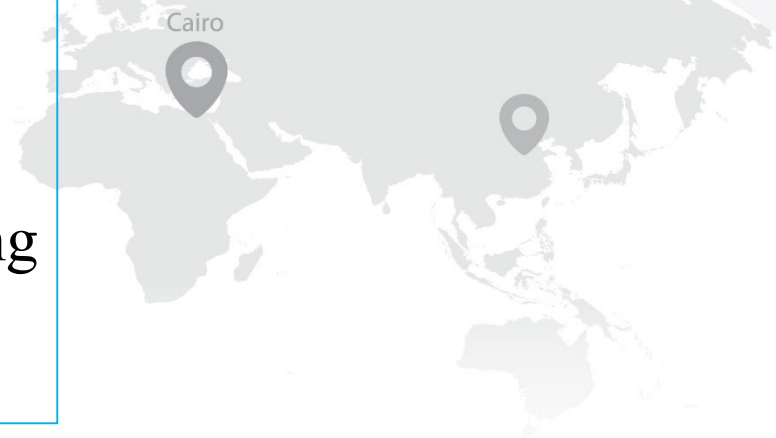


E-FROM FILLING-UP USING NID CARD

FIGI FINANCIAL INCLUSION GLOBAL INITIATIVE

SMART NID FOR PROMOTING FINANCIAL INTEGRITY & FINANCIAL INCLUSIONS

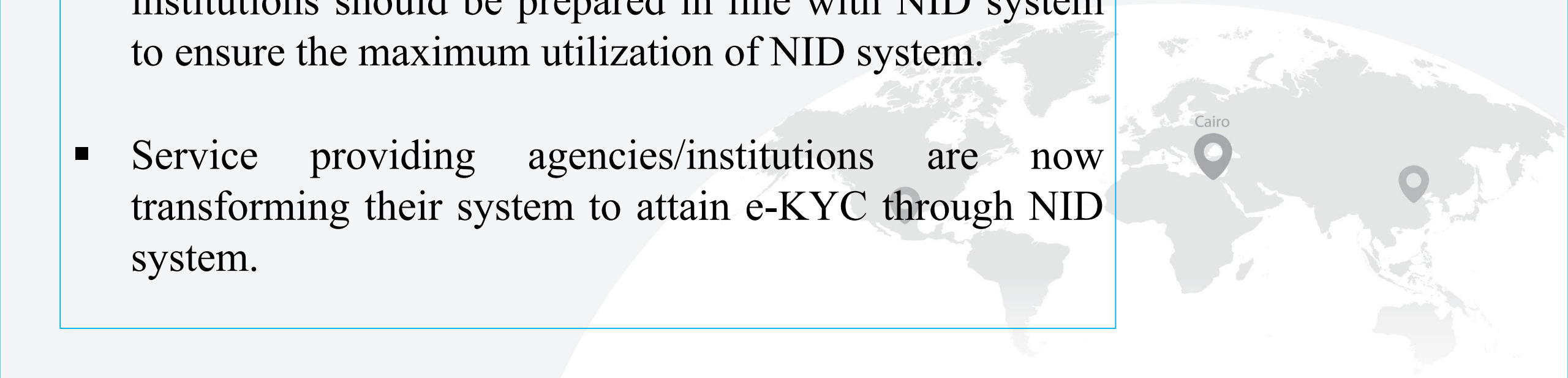
- For financial transactions and service delivery, Unique NID number may be used to create NID account.
- Banks may introduce electronic forms to open accounts to ensure e-KYC through NID.
- ATM may be introduced with offline fingerprint verifications using Smart Card.
- Mobile banking using offline finger print verification.
- Inclusion of bank account number in the chip by creating directory for Bangladesh Bank.



FEASIBLE OPTION FOR OPTIMUM UTILIZATION OF NID SYSTEM

- Bangladesh Election Commission have built the technological platform. Now the other agencies including the Telco's, Banks, Non-banking financial institutions should be prepared in line with NID system to ensure the maximum utilization of NID system.

- Service providing agencies/institutions are now transforming their system to attain e-KYC through NID system.



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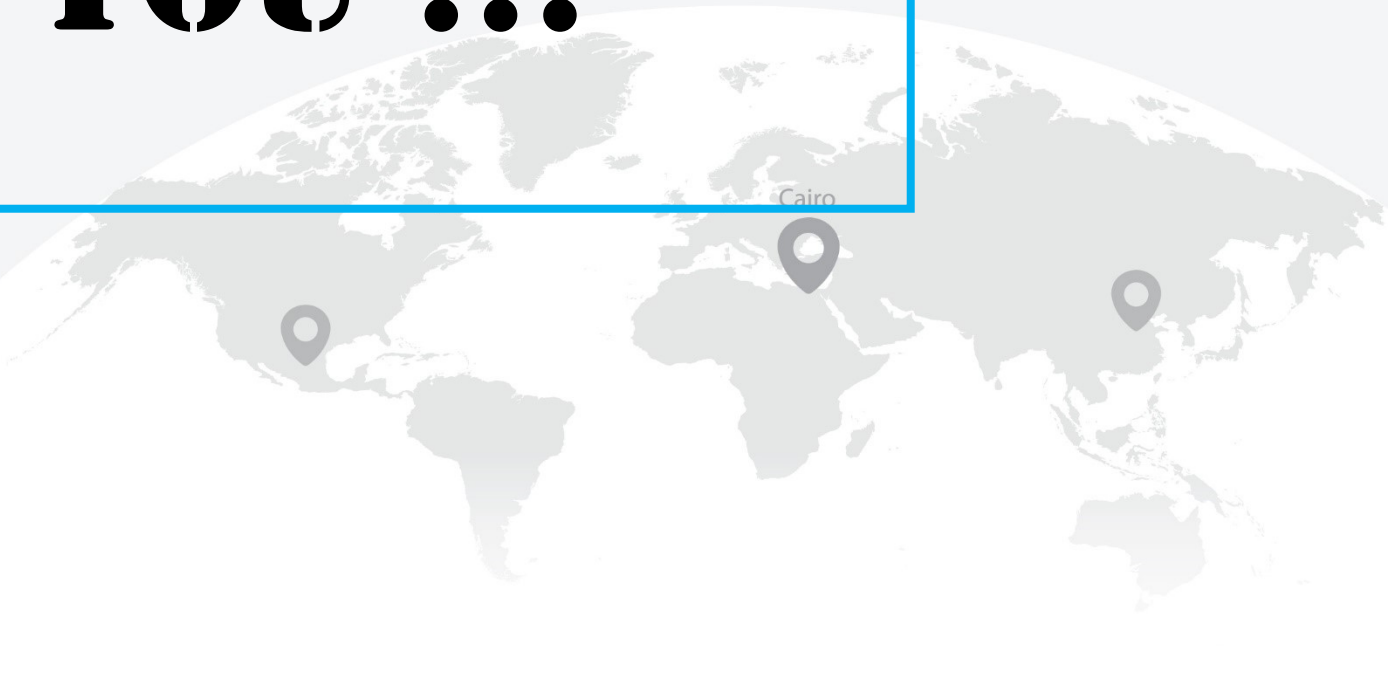
THANK YOU !!!