

United Nations Development Programme

UNDP SUPPORT DIGITAL IDENTITY IN AFRICA

E-ID Partizipations-Meeting, 1 June 2023

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Structure

- UN's approach to digital identity
- Challenges to digital identity in Africa
- Digital ID leap-frogging in Africa
- Conclusion / insights



UN Sustainable Development Goals (SDG) and identity

By 2030, provide legal identity for all, including birth registration

UN Sustainable Development Goal No. 16.9































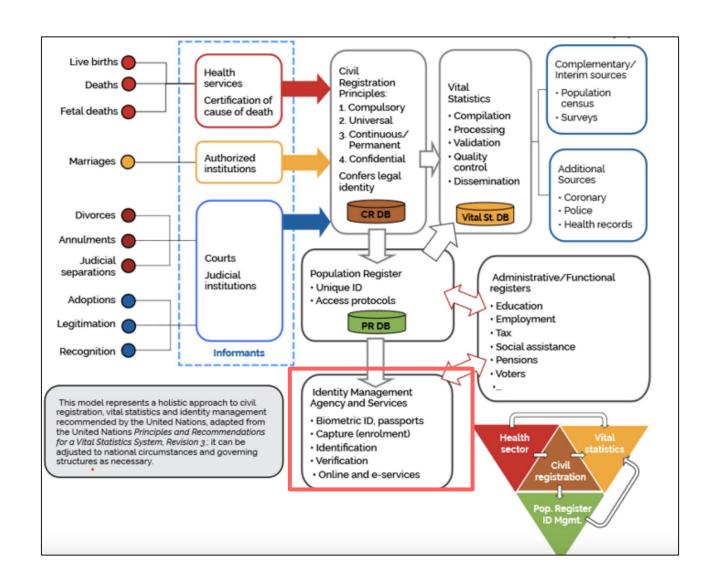






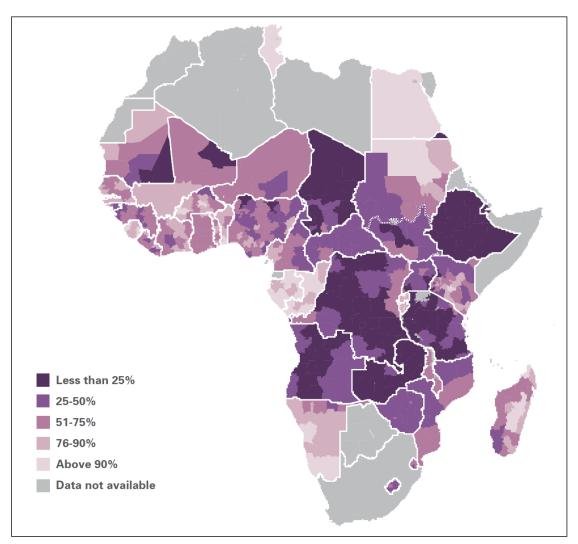
UNDP's approach:

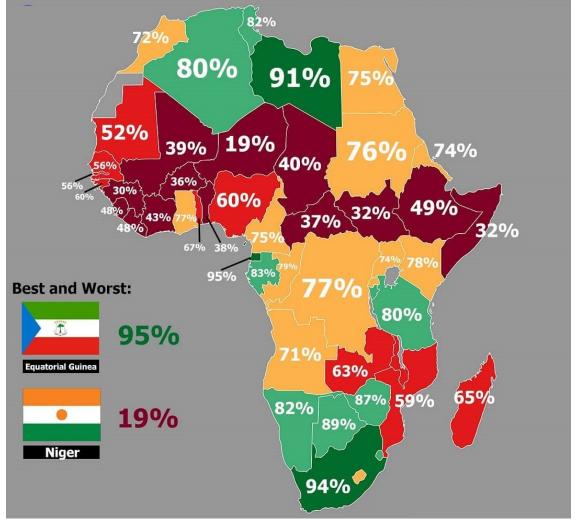
Integrated civil registration, vital statistics and identity management





Challenge: Low birth registration (55% on average)/ high discrepancies in literacy





2022) Source: UNESCO (2021)

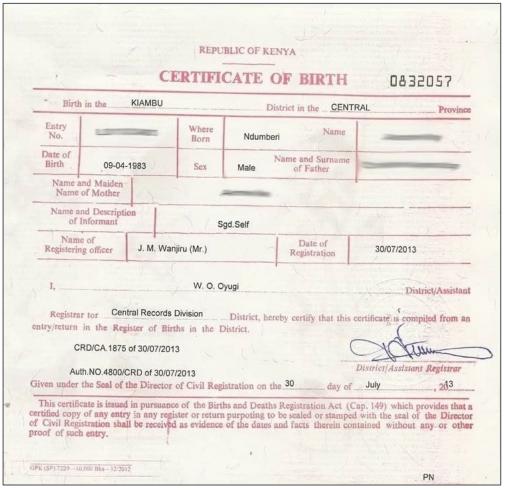


Challenge:

Paper-based or fragmented civil registry systems



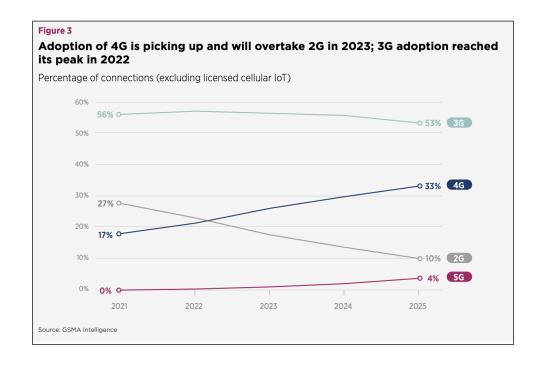
Birth Certificate - DRC

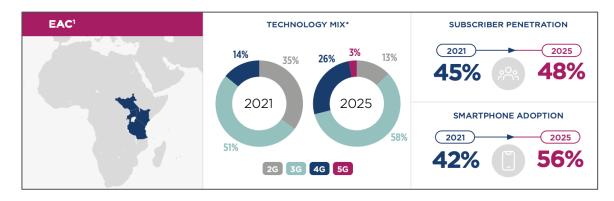


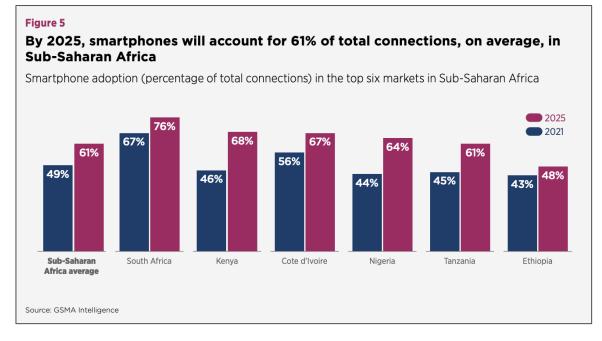
B1 Birth Certificate - Republic of Kenya



Challenge: Mobile internet and smartphone availability



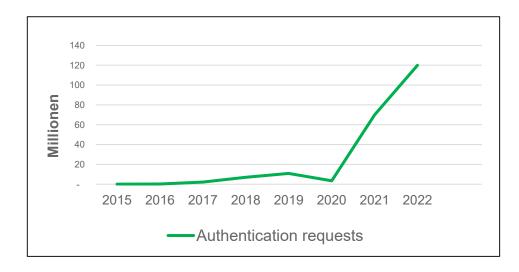


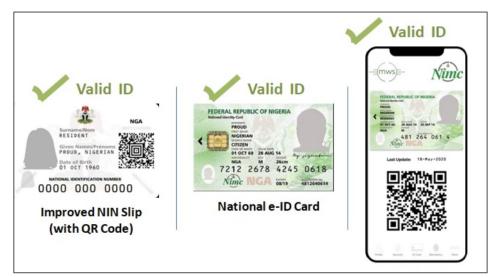


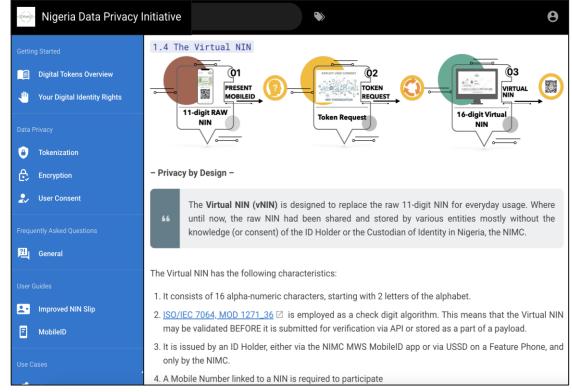
Source: GSMA (2022)



Digital ID leap-frogging: Nigeria







Source: Nigeria Data Privacy Initiative

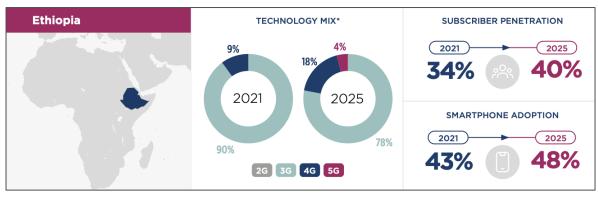
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Digital ID leap-frogging: Ethiopia





Mobile adoption in Ethiopia



Source: GSMA (2022)

Time-line introduction digital ID in Ethiopia

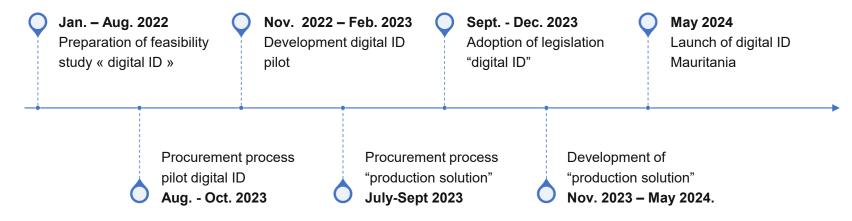


Source: Ethiopia National ID Programme



Digital ID leap-frogging: Mauritania







Digital ID leap-frogging: Mauritania





SMARTMS Server MobileApp Middleware IDencode KeycloakldP 1 SDK Initialization 2 Fetching the public key for Signature verification 3 Scans Mauritania ID Card & extracts details using OCR 4 Checks whether the card is NFC capable or not, if yes proceeds to Step 5, else proceeds to step 6 5 Extracts the image from chip using NFC 6 Selfie capture and stores it temperorily 7 liveness check, If success continues to next step, otherwise will ask user to recapture Perform matching of selfie image and the photo from chip on Mauritania ID Card 9 If match success, Sends details to be signed face template+demographics data 10 Generates the hash of the data and then signs it using private key 11 Sends the face template, demographics data & digital signature to generate Cryptograph 12 Generates Cryptograph 13 Sends the Cryptograph 14 Send the Cryptograph for secure storage 15 Decodes Cryptograph 16 Performs the verification of the digital signature 17 If signature verification successful, then sends reg request

18 Make user entry

Middleware

__ 19 Registration Status

MobileApp

20 If success response, Profile page displayed

ID Proofing

KeycloakldP

IDencode



Conclusion/ insights

- Mass adoption (hockey-stick)
- Digital ID as a "digital public good" (open source)
- Privacy matters
- Hybrid approaches
- Combining identity with payment
- South-South cooperation: MOSIP & NADRA

Look-up:

- MOSIP: https://mosip.io/
- ID4Africa: https://id4africa.com/
- Digital Public Goods Alliance: https://digitalpublicgoods.net/