



CREATING FOUNDATIONS FOR AFRICA'S DIGITAL FUTURE

ACKNOWLEDGEMENT

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LIST OF ABBREVIATIONS

| | |
|-----------------|--|
| • AfCFTA | African Continental Free Trade Area |
| • AU | African Union |
| • DPI | Digital Public Infrastructure |
| • DPG | Digital Public Goods |
| • eIDAS | Electronic Identification, Authentication, and Trust Services |
| • ETSI | European Telecommunications Standards Institute |
| • GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit |
| • ID | Identity |
| • ISO | International Organization for Standardization |
| • ITU | International Telecommunication Union |
| • KPI | Key Performance Indicator |
| • MNO | Mobile Network Operator |
| • SAS | Smart Africa Secretariat |
| • SADX | Smart Africa Data Exchange |
| • SATA | Smart Africa Trust Alliance |
| • SDM | Single Digital Market |
| • UNDP | United Nations Development Programme |
| • WURI | West Africa Unique Identification for Regional Integration and Inclusion |

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PREAMBLE

Digital Public Infrastructure (DPI) lies at the heart of Africa's journey towards digital transformation, offering the tools needed to improve service delivery, drive economic growth, and empower marginalized communities. At its core, initiatives like the Smart Africa Trust Alliance (SATA) are addressing two critical challenges that currently limit the continent's potential.

Nearly half of our population lacks basic identification, and our digital systems remain fragmented across national borders. This fragmentation limits access to essential services and holds back the innovation that could drive our continent's growth. As a result, Africa's digital progress has been uneven, leaving millions unable to fully participate in and benefit from the digital economy. But within these challenges lie extraordinary opportunities.

This is why SATA represents such a pivotal moment in our journey. SATA is more than just another initiative, it is Africa's bold response to the need for trusted, interoperable DPI, starting with digital identity as a foundational component. SATA has the potential to break down barriers, enabling citizens to access services seamlessly across borders and creating an environment that fosters regional integration. The development of interoperable digital systems is not only a solution to our challenges but also a pathway to achieving Africa's Single Digital Market.

The opportunity before us is immense. Interoperability offers the chance to link fragmented systems, reduce costs, and expand access, ensuring that no one is left behind in the digital economy. Through this white paper, we chart a vision for the future of Africa's digital transformation and call on all stakeholders—governments, the private sector, and development partners—to join us in building the foundation for a truly inclusive digital future with SATA.



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EXECUTIVE SUMMARY

As Africa embraces digital transformation, Digital Public Infrastructure (DPI) emerges as a key enabler for sustainable economic growth and social inclusion, offering unprecedented opportunities for innovation, regional integration, and empowerment across the continent. DPI is essential for connecting businesses to markets, facilitating cross-border trade, and improving access to services such as finance, health, and education.

The successful deployment of DPI relies on three essential components: data exchange, digital IDs and digital payments. Of these three components, the development of digital IDs is critical¹, enabling secure and trusted digital transactions within and across national borders. However, fragmentation of digital identity systems poses challenges to interoperability, highlighting the need for coordinated efforts.

The Smart Africa Trust Alliance (SATA), initiated by the Smart Africa Alliance, addresses both the technological and regulatory challenges of implementing DPI systems, powered by digital ID systems, while safeguarding the digital sovereignty of Member States.

This white paper explores the role of DPI in Africa's development, with a focus on digital identity systems enabled by SATA. SATA fosters digital integration that aligns with national priorities and encourages cross-border collaboration. The paper outlines the current state of DPI, the pivotal role of digital IDs, and the ongoing efforts of SATA to harmonize standards and build trust among nations. It also highlights case studies of successful collaborations and presents recommendations for policymakers, global partners, and industry leaders to support inclusive and resilient digital growth across Africa.

With Africa's economic potential on the rise, the development of a cross-border DPI, powered by digital identity systems and championed by SATA, offers a pathway to accelerated growth, innovation, and empowerment across the continent.

¹ Centre for Digital Public Infrastructure

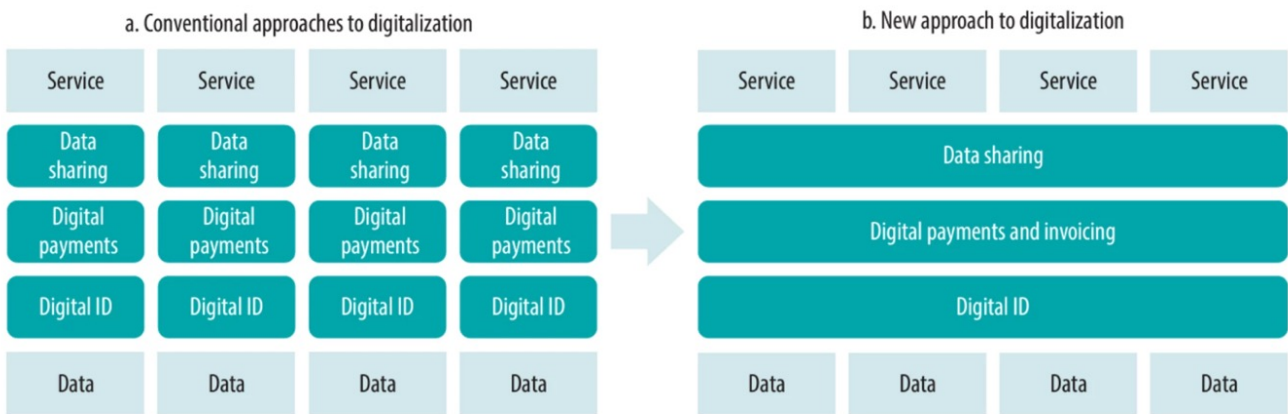
1. Introduction: DPI in Africa

1.1. Defining Digital Public Infrastructure (DPI)

As Africa continues to embrace digital transformation, Digital Public Infrastructure (DPI) has emerged as a critical foundation for delivering efficient public services and enabling seamless transactions between citizens, businesses, and governments. DPI encompasses essential digital systems, particularly data exchange, digital identity (ID) and digital payments, which together create an interoperable and shared backbone for various sectors. Instead of each service provider developing isolated solutions, DPI provides a standardized structure that ensures interoperability across services, thereby enhancing accessibility, reliability, and efficiency. This integration allows both public and private sectors to deliver services that citizens and businesses can easily access, creating a streamlined, unified digital environment across the continent.

1.2. Core Components: Digital ID, Digital Payments, and Data Exchange

Digital Public Infrastructure (DPI) refers to foundational digital systems that support the delivery of public services and enable secure transactions among stakeholders. Core components of DPI include data exchange, digital ID and digital payments, each contributing to efficient service delivery and interoperability across sectors². Digital ID provides a secure, verifiable identity that facilitates access to essential services, digital payments enable seamless financial transactions, and data exchange allows for effective information flow across sectors. By consolidating these building blocks, DPI acts as a cohesive digital framework that prevents redundancy, avoids isolated systems, and promotes efficiency by facilitating interaction among various digital services, as represented in **Figure 1**.



Source: World Bank Digital Progress and Trends Report 2023

Figure 1: DPI avoids reinventing the wheel and facilitates interoperability

² Center for Strategic and International Studies (CSIS), *Unpacking the Concept of Digital Public Infrastructure and Its Importance for Global Development*

1.3. The Role of DPI in Africa's Economic and Social Development

DPI is instrumental in driving inclusive economic growth and social inclusion across Africa by providing an interoperable foundation on which public and private sectors can collaborate. According to the United Nations Development Program (UNDP), effective DPI has the potential to accelerate GDP growth in low- and middle-income countries by up to \$19.2 trillion by 2030, thus shortening economic development timelines by nearly a decade³. For Africa, the implementation of DPI is expected to increase economic growth by up to 30%, laying the groundwork for increased productivity and fostering innovation⁴.

Beyond the benefits to individual countries, DPI holds transformative potential for Africa's regional economic integration. With interoperable systems, DPI can streamline cross-border interactions and trade, enabling economic growth on a scale beyond what isolated national economies can achieve. The Smart Africa Trust Alliance (SATA) spearheads this mission, beginning with digital ID systems to create an interconnected, Single Digital Market across Africa. Under this system, digital IDs issued in one Smart Africa member state can be recognized across borders, allowing citizens to use their national IDs for services such as banking, healthcare, and business transactions in any member state. This consolidated approach to digital identity verification fosters both business and citizen mobility, reducing the need for multiple IDs and creating a truly integrated market.

SATA is explicitly recognized in the AU Interoperability Framework for Digital ID as a key initiative to enable seamless cross-border interactions⁵. Starting with digital identity as a foundational component to ensure trust and seamless cross-border interaction, SATA empowers citizens to access services across borders with confidence, driving regional integration and enabling the creation of a Single Digital Market for Africa. This focus underscores SATA's role in aligning national priorities with regional goals and fostering trust among governments, businesses, and citizens to accelerate Africa's digital transformation.

³ United Nations Development Program. *The human and economic impact of digital public infrastructure.*

⁴ United Nations Development Program. *The human and economic impact of digital public infrastructure.*

⁵ AU Interoperability Framework for Digital ID

2. The Role of Digital Identity in DPI

2.1. Digital Identity as a Foundational Element of DPI

Digital identity (ID) is fundamental to Digital Public Infrastructure (DPI) because it establishes a “single source of truth” for identity verification, which is critical for secure, efficient, and reliable access to services across sectors and borders. This “single source of truth” means that each individual has one verified digital identity recognized across various platforms and jurisdictions, which reduces inconsistencies, minimizes fraud, and enhances trust.

The importance of digital ID within DPI is particularly evident in its ability to enable interoperability across services and countries. In the African context, where the goal is to establish a Single Digital Market, a digital ID allows citizens to use the same identity credentials for multiple interactions, whether they are accessing healthcare in their home country, participating in cross-border business transactions, or receiving financial services in a different African nation. These interoperable identity systems make digital services accessible and manageable, reducing the need for duplicate identification processes and enabling individuals to use services across the continent with ease and security.

Moreover, digital ID supports DPI by streamlining services across public and private sectors. When service providers can rely on a single, verified source of identity, they can deliver services more efficiently and securely. For instance, a bank can use digital ID to confirm a customer's identity without requiring separate verification processes, speeding up service delivery while reducing costs. Governments can also use digital ID to administer social programs or healthcare more effectively, ensuring that services reach the intended beneficiaries without redundancy or bureaucratic delays.

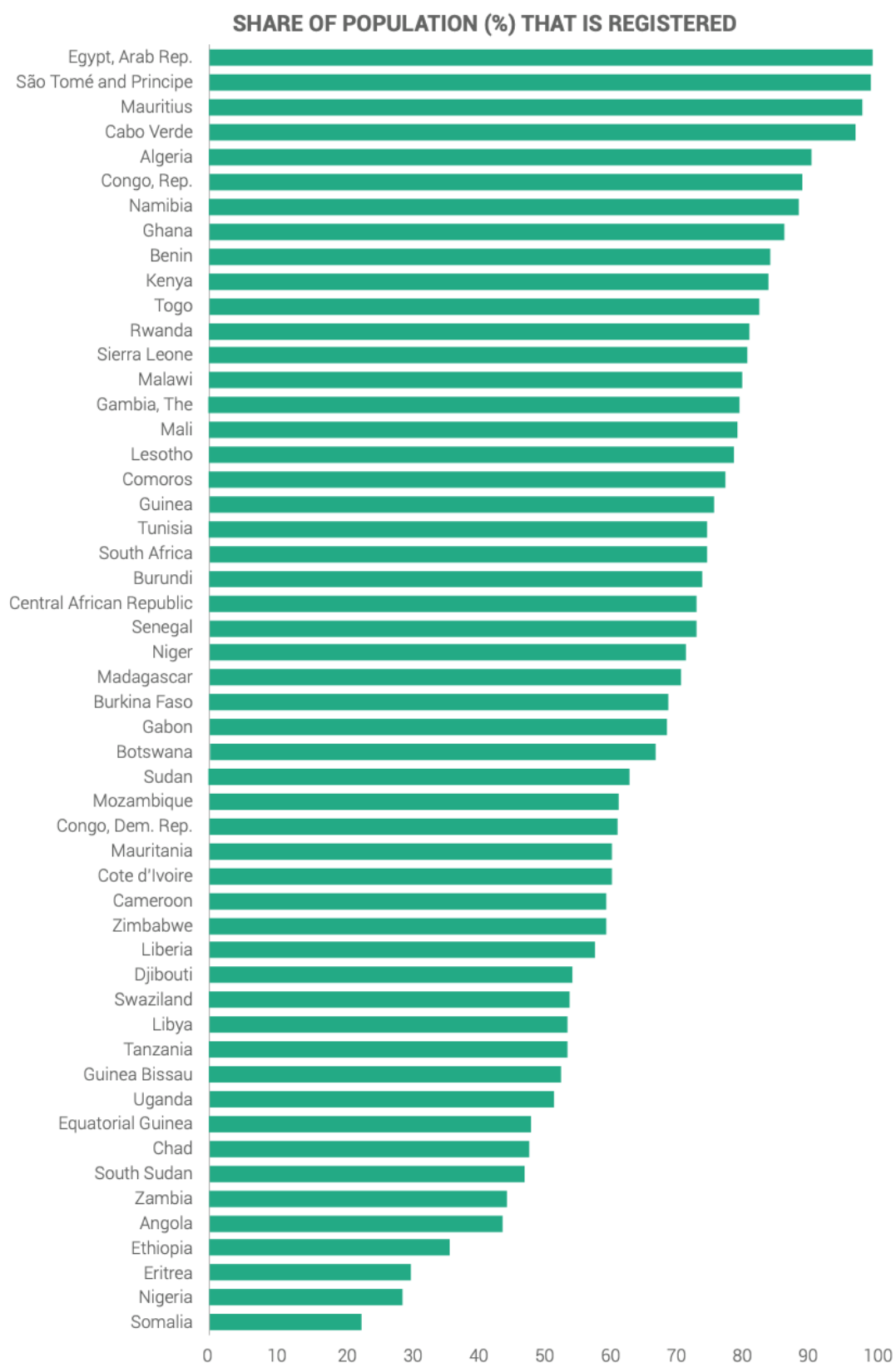
Ultimately, digital ID as a single source of truth is essential to achieving a trusted, interoperable digital environment that is the backbone of DPI. It fosters trust among governments, businesses, and citizens for digital interactions, enabling Africa to move closer to a resilient and inclusive digital economy.

2.2. Current Digital Identity Initiatives Across Africa

Nearly 500 million Africans, almost half of the continent's population, lack a legal identity, creating a profound barrier to socio-economic inclusion⁶. Without the ability to prove their identity, these individuals are excluded from essential services that most take for granted: they cannot open bank accounts, access healthcare, enroll in educational programs, or even apply for formal employment. This widespread lack of identification disproportionately affects women, children, and marginalized groups, perpetuating cycles of poverty and exclusion and stalling both personal and economic growth.

The scale of the challenge cannot be overstated. Africa's 1.4 billion population is projected to reach 2.5 billion by 2050, offering immense potential for economic growth, projected to nearly double that of the developed world. Yet, for this potential to materialize, the continent must bridge the gap in identity coverage.

⁶ The World Economic Forum, *Identity in a Digital World: A new chapter in the social contract*.



*Table 1. Source: Identification For Development (ID4D) Global Dataset, 2018,
<https://datacatalog.worldbank.org/dataset/identification-development-global-dataset>*

One initiative working to address this challenge is the World Bank's West Africa Unique Identification for Regional Integration and Inclusion (WURI) Program.

West Africa Unique Identification for Regional Integration and Inclusion (WURI) program

The World Bank's West Africa Unique Identification for Regional Integration and Inclusion (WURI) Program aims to help improve access to services, including safety nets, social registries, health and pension programs, financial and digital inclusion, women and girls' empowerment, and labor mobility by financing the development of digital foundational identification (fID) systems. With a particular eye to boosting inclusion and to making the invisible visible, the WURI-financed fID systems will provide a unique identity credential to any person in the territory of a country, irrespective of nationality, citizenship or legal status, who so desires one. These unique identity (or fID) credentials, which establish only uniqueness of identity by linking to biometrics data and do not establish a registrant's legal identity, might in turn be used when seeking access to services, be for schooling, safety nets, SIM cards or banking. Furthermore, as reliance is on the backend, digital system, the Program need only finance low-cost physical credentials, and will collect only the most minimum of biographic and biometric data. Digital fID systems can play an important role in delivering and managing social protection, health and financial inclusion services and are more important than ever in times such as we are experiencing with COVID-19.

The Program has the added aim of improving regional integration. Open to all ECOWAS Member States, the Program's first phase was launched on the 5th of June 2018 with Côte d'Ivoire, Guinea and the Economic Community of West African States (ECOWAS) Commission, and entered its second phase on the 28th of April 2020, adding Benin, Burkina Faso, Niger and Togo. WURI has three components, which are common to all participating countries: 1) Strengthening the legal and institutional framework necessary to structuring robust fID systems, including reinforcing data protection and privacy regimes; 2) establishing robust and inclusive fID systems, and registering all persons in the territory of the country and issuing them a unique identity number; and 3) facilitating access to services at the national and regional levels through the fID credentials.

2.3. Overcoming the Fragmentation of Digital Identity Systems Across Africa

While the potential of digital ID is well-recognized, its implementation across Africa faces significant challenges. Currently, digital ID systems in Africa are fragmented and vary widely between countries, limiting their interoperability and hindering cross-border recognition⁷. This lack of a cohesive framework prevents the formation of a seamless digital ecosystem, as digital IDs issued in one country are often not recognized elsewhere, creating barriers for citizens and businesses alike.

Infrastructural limitations, regulatory discrepancies, and the absence of unified standards further complicate the deployment of digital IDs. Many African countries lack the technical infrastructure and institutional capacity to support robust digital ID systems, leading to inconsistencies in implementation. Moreover, discrepancies in data protection regulations across nations raise concerns about privacy and security, which are essential for fostering trust in digital IDs.

⁷ European Centre for Development Policy Management. *Digital ID systems in Africa: Challenges, risks and opportunities*.

Interoperability is at the core of effective Digital Public Infrastructure (DPI), ensuring that digital systems can communicate across services, sectors, and national borders. A primary barrier to interoperability for effective DPI is the fragmented state of digital identity systems across the continent. Countries have developed digital ID solutions that often vary significantly in terms of standards, regulatory frameworks, and technical capabilities. This fragmentation limits the potential for these systems to be mutually recognized across borders, leading to inefficiencies and obstructing the creation of a Single Digital Market.

Efforts to increase ID registration across Africa have historically fallen short because they focused on promoting enrollment without demonstrating the tangible, life-changing value of national identity⁸. Simply put, the traditional approach has missed the critical point: people are more likely to adopt digital ID when it opens doors to services they actively need and want. For digital ID to become ubiquitous and bridge the identity gap inclusively, it must become a gateway to valuable, transformative services.

When digital identity becomes a means of accessing essential services—healthcare, banking, education—adoption happens naturally. By integrating digital ID into services that impact daily life and improve quality of life, we create a powerful motivation for individuals to register. People will seek out digital ID not as an obligation but as an enabler of opportunity and access, helping them participate fully in society and the economy.

A vision of regional integration offers a unique opportunity to accelerate the adoption and value of digital ID. Imagine an Africa where a Ghanaian student can seamlessly authenticate their diplomas and access educational services in South Africa.

To achieve the transformative potential of Digital Public Infrastructure (DPI) in Africa, it is essential to establish an interoperable and trusted digital identity (ID) system across national borders.

This vision underscores the need for a digital identity system that not only works within individual Member States but also bridges borders, enabling people to move, work, and access services seamlessly across Africa. By aligning digital ID with cross-border digital services, Africa can accelerate digital ID uptake and socio-economic integration, allowing its citizens and businesses to unlock opportunities in an increasingly connected continent.

In the next section, we will explore the Smart Africa Trust Alliance (SATA), which aims to establish trust in digital transactions, starting with digital identity, and takes advantage of the regional integration opportunity to build a trusted digital future for Africa.

⁸ European Centre for Development Policy Management. *Digital ID systems in Africa: Challenges, risks and opportunities*.

3. Establishing Trust with the SATA

3.1. Background

Africa is already a huge market, with a population of 1.4 billion people – which is projected to reach 2.5 billion by 2050⁹. Africa would then have a quarter of the world's working age population, with an economy that is estimated to grow twice as rapidly as that of the developed world¹⁰. African GDP is forecast to grow to US \$16 trillion by 2060¹¹.

In order to make this growth happen and for Africa to become more prosperous, the growth of the African digital economy is a necessary pillar.

Once created, Africa's Single Digital Market (SDM) could be the world's largest digital market and growth engine for the digital economy in 50+ countries of the continent.

Despite this great potential, the continent is currently fragmented in terms of markets and market rules – 50+ countries mean over 50 different legal, regulations and policies of digital services and trade.

This regulatory fragmentation is evident in trade overall. For example, intra-Africa trade represented 15% of African exports between 2018 and 2020, while Intra-European trade within the same time frame represented approximately 70% of European exports as a comparison¹². The fragmentation is even more evident in the digital economy, where very few digital services are available across the borders and existing digital identities only work domestically.

This is partly caused by limited institutional capacity of national governance institutions to design and implement the necessary policies and rules, build and connect relevant digital platforms and services.

However, most importantly there is lack of trust – between all sides of digital transactions and exchanges, be it business-to-consumer, business-to-business, government-to-citizen or government-to-business. One aspect of it is lack of proof of digital identity, its recognition across the borders, and lack of relevant and basic information exchange for trust to be possible in the first place.

If the issues of trust are not solved, the African SDM will not take off.

3.2. SATA Overview

The Smart Africa Trust Alliance (SATA) is a coordination and operations mechanism to enable cross-border use of digital identities and data for boosting trade and services in Africa¹³.

The vision of SATA is to realize Africa's Single Digital Market through Trust.

The mission of SATA is to enable digital systems interoperability by implementing policies, standards, platforms and solutions to boost trade and digital services across Africa.

SATA will be created in a way to solve the exact problems that have hindered the realization of SDM in Africa.

⁹ UNECA, *As Africa's Population Crosses 1.5 billion, The Demographic Window Is Opening: Getting the Dividend Requires More Time And Stronger Effort*

¹⁰ IMF, Andrew Stanley, *African Century: A demographic transformation in Africa has the potential to alter the world order*

¹¹ David Luke, *Understanding African trade is key to helping its development*

¹² London School of Economics, *How Africa Trades*, edited by David Luke

¹³ Smart Africa Alliance, *Blueprint on Digital Identity*

| SDM Challenges | SATA as a solution |
|--|--|
| Over 50 countries with over 50 legal, regulations and policies on digital services | SATA does not create continental and/or legal frameworks. It accelerates their adoption in practice, through harmonisation of policies and their implementation between African countries. |
| Limited institutional capacity of national governance institutions | SATA coordinates and capacitates clusters of national governance institutions to deliver cross-border interoperability in Africa. SATA directly supports the build-up of mutual trust and interoperability related technical and other skills of its Member States. |
| Limited trust on both sides of a digital transaction, be it business-to-consumer, business-to-business, government-to-citizen or government-to-business | SATA promotes a multi-stakeholder approach and is built on valuable inputs and needs from all stakeholders, especially the Private Sector. SATA is created exactly to solve the trust issue, and its features are: SATA is created and managed by African states, empowering their sovereignty and local institutions Transparency and inclusion in governance and operations. Open standards and open-source solutions High regard of data privacy and security |

In order to realize the vision and mission of SATA, six (6) strategic directions are necessary¹⁴. These directions are groups of activities, and they come in two types:

- Activities that are required to enable the concrete activities of ensuring trust – the foundational layers of SATA. Without these layers and activities, concrete operational activities will not succeed or be curtailed.

The foundational layers will be largely the same (and necessary) for any type of interoperability platforms and services under SATA, starting from digital ID and data exchange as the core of SATA.

- Operational activities for ensuring trust in practice – the operational pillars. Two of these pillars are mandatory in essence to make cross-border use of identities and data possible in practice fast enough. There is also a pillar of essential add-on services to boost trusted digital trade even further, beyond the core needs.

¹⁴ Smart Africa Alliance, Blueprint on Digital Identity

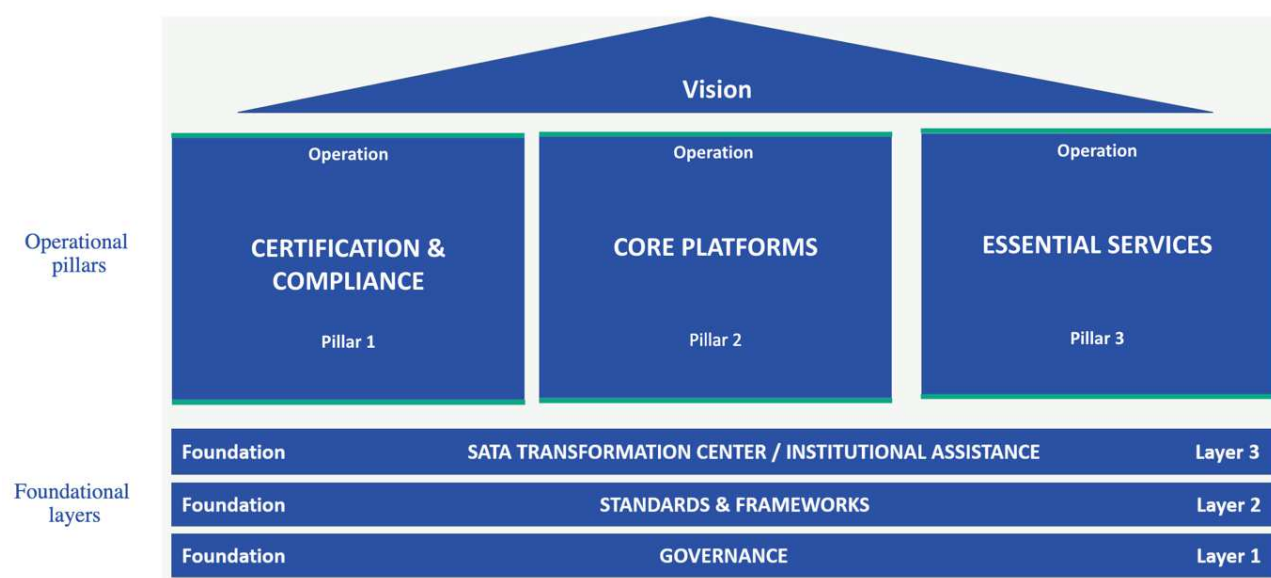


Figure 2: SATA Strategy Workstreams

SATA Governance

This is a workstream on coordination and engagement of governments and other stakeholders who want to be part of steering SATA standard setting and operations.

Standards and Frameworks

This workstream leads to a mutually agreed set of rules defined in close collaboration of Member States and with the private sector for trust operations in market and SATA.

SATA will not necessarily create new standards but will implement (global) best practice standards like eIDAS, ETSI, ISO, and others as applicable and required. Plus, it will adopt necessary frameworks on how to put the standards to practice.

Institutional Assistance

This workstream focuses on equipping member states' institutions and ecosystem participants, both existing and potential, with the necessary skills and knowledge to actively participate in SATA, while also fortifying SATA's own capabilities. This includes:

- Providing consultative support to member governments on Digital Public Infrastructure (DPI) implementation, encompassing training, the sharing of best practices, and assistance with the development of policies and procedures.
- Organizing Pan-African events and workshops dedicated to DPI and interoperability. In conjunction, SATA governance meetings will be held with government officials to foster engagement with key stakeholders.
- Developing a suite of tools and resources designed to aid organizations and governments in the implementation of DPI and interoperability standards across Africa. These tools and resources will then be marketed to interested parties, ensuring widespread adoption and compliance.

Certification and Compliance

This means practical certification of market-based and SATA own solutions according to established standards, plus the keeping of relevant trust lists and periodic auditing to ensure rules are continuously followed.

SATA approves and manage certification and compliance experts (certified in accordance with agreed requirements) to manage and serve the pipeline of SATA Customer requests for certification.

Core Platforms

This workstream is for building and providing technological solutions to practically connect digital identities, information systems and exchange data in a trusted environment – within Africa and beyond.

SATA creates and operates cross-border platforms for data and identity interoperability, where necessary and efficient digital architecture requires a central or a federated platform. SATA does not centralize or collect data, only enables interoperability and trust.

Essential services

The activities of this pillar will be performed to make sure that practical digital tools exist to make cross-border identity and data interoperability happen stronger and faster. If a need is determined, SATA will either:

- seek and guide through partnerships the emergence of necessary services from the market that make data exchange and digital identity use possible in practice;
- In absence of suitable offerings, create and operate necessary services itself to inspire innovation as the lighthouse and complement the market in case of market (entry) barriers.

SATA operates all such services on market terms and as self-sustainable operations. The aim should be that once the market becomes ready itself, SATA can exit from relevant operations, too.

3.4. SATA Use-cases: Potential Examples

To explain the impact and benefits of SATA, here are some potential use cases that emerged in the initial SATA concept and strategy discussions:

| Domain | Example use-case |
|--------------------|--|
| Telecom | Verifying the validity of national ID documents from home government registries, when getting a new SIM-card with a telecom company in another country |
| Health | Sharing and access to medical history data / digital medical file of the person when he/she goes to another service provider (in another country or even same country) |
| Financial Payments | Connecting cross-border payments data between African central banks for common overview ('dashboard') or faster clearance Data exchange between financial payment operators for faster and wider transfer service service |
| Trade | Digital / automatic proof of company registration, representation rights and tax clearance in case of cross-border business |
| Education | Digital proof of academic accreditation / degree received in another country |
| Immigration | Air Travel: Enable verification of national e-ID cards for citizens traveling by air between Member States. Land Travel: Facilitate national e-ID card verification for citizens at land borders between Member States. |

SATA facilitates seamless data sharing and digital identity recognition across economic sectors and between them. Its development includes piloting various applications by ideating potential use cases, testing and validating them with actual users and within real-world value chains, and scaling those that prove successful.

Beyond top-down experimentation with national authorities and public services, SATA also supports bottom-up entrepreneurial exploration and scaling. Through awareness-raising and support mechanisms, SATA encourages businesses to innovate by creating new services and products or enhancing existing ones in B2B and B2C segments, even without involving government data or institutions.

In essence, while several initial use cases guide the development of SATA, its framework is designed to stimulate broad experimentation and innovation across the widest range of sectors and stakeholders.

4. SATA in Action

4.1. SATA Governance and Standards for DPI

Since its launch in 2023, the Smart Africa Trust Alliance (SATA) has rapidly become a cornerstone in accelerating Africa's digital integration and setting a foundation for the continent's Single Digital Market (SDM). SATA's mission to build a trusted and interoperable digital ecosystem is progressing with notable achievements and ongoing activities.

To date, 14 countries have signed the SATA Declaration, officially committing to a shared digital trust framework. This coalition—which includes Benin, Comoros, Congo-Brazzaville, Gabon, Ghana, Guinea, Madagascar, the Central African Republic, Rwanda, Senegal, Togo, Tunisia, Zambia, and Zimbabwe—represents a combined market of over 194 million people. This commitment signals growing continental momentum toward breaking down digital barriers and enhancing access to digital markets and services across borders.

To support these ambitious goals, SATA has established a governance structure that provides effective oversight and agile decision-making. The structure includes two primary bodies:

1. **SATA Supervisory Committee** – Composed of ICT ministers from member countries and selected private sector CEOs, this committee offers high-level strategic direction and aligns SATA's initiatives with the digital agendas of each member state.
2. **Smart Africa Secretariat** – Oversees daily operations, coordinates initiatives, and implements strategic decisions from the Supervisory Committee, ensuring SATA's goals remain action-oriented and responsive.

SATA regularly engages stakeholders through knowledge-sharing sessions to discuss best practices and address emerging challenges. SATA has published two strategic frameworks—the Digital ID Blueprint championed by Benin and the Digital Payments Blueprint championed by Ghana. These blueprints serve as practical guides, outlining standardized approaches for digital identity, payments, data exchange, and interoperability, which are essential for harmonizing Digital Public Infrastructures (DPIs) across the continent.

4.2. SATA First Use Case: Cross-Border Verification for Citizen Movement

At the heart of SATA's initiatives is the Smart Africa Data Exchange (SADX) platform, a DPI designed to interconnect digital markets across Africa. SADX provides a scalable, secure foundation for cross-border digital identity verification and data exchange, enabling seamless, trusted transactions that extend beyond national borders. By building this cross-border DPI, SATA is empowering citizens and businesses to access digital services continent-wide.

Challenges to Africa's Single Digital Market

01

Limited access to digital services and goods across African countries

02

Difficulty working and traveling between African countries

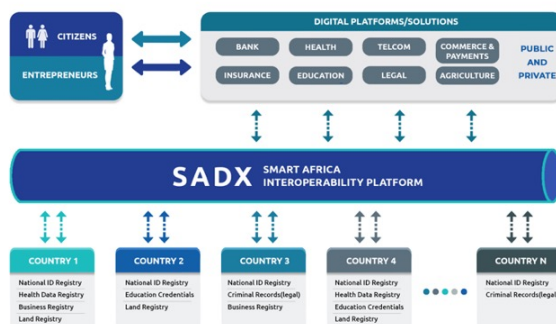
03

Fragmented regulations limit trade, business growth and job creation

04

Inconsistent standards and trust issues discourage the use of digital platforms

Smart Africa Data Exchange Platform (SADX)



Benefits of SADX

01

Digital services and products available across African borders, boosting business opportunities

02

Simplified bureaucracy for businesses and citizens, increasing cross-border activities

03

Enhanced opportunities for jobs, innovation and entrepreneurship

04

Safer and more reliable digital service experiences

Figure 3: SATA's Smart Africa Data Exchange (SADX) is a DPI designed to interconnect digital markets across Africa

SATA first use case for the pilot is "Cross-Border Verification for Citizen Movement Using National Electronic Identification (e-ID) Cards". The proposed scope for this use case includes:

- **Air Travel:** Enable verification of national e-ID cards for citizens traveling by air between Benin and Rwanda.
- **Land Travel:** Facilitate national e-ID card verification for citizens at land borders between Ghana and Benin.

This use case supports a practical application of SATA's trust framework¹⁵, enabling secure, efficient cross-border movement for African citizens and laying a critical foundation for further digital integration.

¹⁵ Smart Africa Alliance, Blueprint on Digital Identity

5. SATA Alignment with Continental & Global Initiatives

While the initial focus of SATA strategy will have to be in realizing the Africa's SDM, it should always be kept in mind that the ultimate vision is interoperability beyond Africa, too. SATA should also enable digital trade with Europe and other regions of the world for Africa.

This can be ensured from the start by moving to common standards and frameworks which are based on global best practice, and existing working arrangements. For example, when adopting an electronic identity trust framework that would be harmonized to European eIDAS, the foundation would be laid for mutual acceptance and use of eID and digital signatures with European countries later on. This way, the benefits of SATA will be amplified by a magnitude.

SATA is designed to be fully aligned – and indeed support the realization of – several other related global initiatives.

5.1. SATA & AfCFTA

SATA is well-positioned to be the main solution and platform for the practical implementation of African Continental Free Trade Area (AfCFTA) digital trade protocol.

The aim of the protocol is to “promote consumer confidence and trust in digital trade”. It is expected to cover (among other things) digital identity and cross-border data transfer matters, which are the heart of SATA.

SATA will offer both a trust framework and platforms for any digital trade, current or future. It will enable trust in e-commerce, digital payments, digital health, online education, and so much more. By connecting African business and country ecosystems, it increases connections between markets and creates new business opportunities.

In addition, trade in goods and services widely is facilitated by cross-border use of data and digital identity, reducing trading costs and raising delivery speeds.

As such, SATA will boost intra-Africa trade, leading to efficiency gains, job creation and greater financial autonomy for Africa – the whole continent.

5.2. SATA & GovStack

SATA is fully aligned with the GovStack initiative, which aims to break down the barriers to building sustainable digital infrastructure and help governments create human-centred digital services that empower individuals and improve well-being.

These are the synergy points between the initiatives:

- GovStack work on standards and reference models will inform and feed into SATA work on standards and guidelines
- GovStack building blocks can be in the future the basis for SATA platforms and solutions - if there is a match between SATA needs and the GovStack offering
- Smart Africa is involved in GovStack governance already (board-level) and SATA team would be involved in the GovStack communities, to make sure of synergies and also infuse further SATA needs to the further development of GovStack building blocks

5.3. SATA & Digital Public Goods

SATA is fully aligned with Digital Public Goods (DPG) principles and contributes to reaching the five-year objectives (2021-26) of the DPG Alliance in the following ways:

- SATA will be discoverable, sustainably managed and governed, and accessible for government institutions and other relevant implementing organisations.
- SATA will be built and operated in a way that supports adoption of its standards, solutions etc. in low- and middle-income countries: supporting them with knowledge, capacity-building, incentives, also through reliance on open-source solutions and open standards
- Low- and middle-income countries can build vibrant commercial ecosystems to create, maintain, implement and incubate SATA components or affiliated solutions locally

6. A CALL TO ACTION FOR INTERNATIONAL COLLABORATION AND DIGITAL SOVEREIGNTY

Africa's digital transformation presents a unique opportunity for global partners to collaborate in meaningful ways that align with the continent's aspirations for digital sovereignty while delivering mutual benefits. At the heart of this transformation lies data, an invaluable asset that is both an economic driver and a focal point of political interest. The quest for data sovereignty and protection is a shared priority for Africans and Europeans alike.

To truly benefit from the digital era, we must ensure that data sovereignty is upheld, allowing individuals to control which data they protect and which they choose to share. To this end, the African Union unveiled a Continental Data Policy Framework, which sets a clear path for harmonizing data laws across the continent, starting with personal data protection. Smart Africa is at the forefront of implementing this framework, promoting cross-border data flows and sharing as catalysts for innovation. The framework is thus an important step towards Smart Africa's goal of creating a Single Digital Market in Africa. It offers enormous opportunities and unleashes the market potential of 1.4 billion people.

At the same time, the Smart Africa Trust Alliance (SATA) addresses critical challenges, such as fragmented digital systems and the lack of cross-border trust. By establishing trusted, interoperable systems, SATA creates opportunities for collaboration and growth. Its foundational work on digital identity is laying the groundwork for a Single Digital Market, connecting the continent and unlocking unprecedented economic growth and inclusion.

For Africa to realize its full potential in the digital age, international collaboration must align with its vision for digital sovereignty, balancing the continent's priorities with global opportunities. SATA exemplifies this balance, ensuring that partnerships respect Africa's autonomy while fostering innovation and development. Below are actionable recommendations to foster impactful collaborations that advance Africa's digital transformation:

Recommendation 1: Collaborate in skill development initiatives that empower African tech professionals to manage, maintain, and expand digital identity systems independently, ensuring Africa's DPI remains sovereign and self-sustaining.

Recommendation 2: Support the empowerment of individuals through increased digital access and control of their electronic personal data, at national level and continent-wide.

Recommendation 3: Advocate and provide technical expertise for African countries to establish robust data privacy laws and protection frameworks, aligned with global standards, while respecting Africa's unique social and regulatory needs.

Recommendation 4: Partner with SATA in co-developing secure, sovereign and scalable digital platforms that serve as the backbone of Africa's Single Digital Market, ensuring trust among all users.

Recommendation 5: Encourage the use of open standards that foster technical neutrality and allow for flexibility, preventing vendor lock-in.

Recommendation 6: Collaborate with African innovators by supporting hubs and incubators that develop locally relevant solutions that will leverage DPIs, ensuring digital products are aligned with Africa's needs and drive economic growth within the continent.

Recommendation 7: Actively involve African stakeholders in international DPI forums and initiatives to ensure their voices are heard and their interests are represented.

7. Conclusion

Africa stands at a pivotal moment in its digital transformation journey, with Digital Public Infrastructure (DPI) laying the groundwork for economic growth, social inclusion, and cross-border collaboration.

This white paper highlights the critical role of interoperable digital IDs, digital payments, and data exchange systems, and how initiatives like the Smart Africa Trust Alliance (SATA) are overcoming barriers to build a connected, continent-wide digital ecosystem.

SATA empowers African countries to advance their digital agendas while preserving digital sovereignty, aligning national priorities with continental goals. By fostering regional collaboration and adhering to international standards, SATA is laying the groundwork for a resilient, inclusive digital public infrastructure that facilitates economic mobility and integration.

The vision for Africa's Single Digital Market is bold but attainable. With an interoperable DPI as its foundation, Africa can unlock new avenues for growth, reduce inequality, and enhance access to digital services. Realizing this potential will require coordinated efforts from governments, the private sector, and global partners.

As Africa's digital future unfolds, collaboration, innovation, and a commitment to trust and inclusion will be vital. This digital transformation, underpinned by digital sovereignty and self-determination, will position Africa as a global leader in digital innovation. By prioritizing interoperability, standards, capacity-building, and governance, SATA and its partners are helping to create a digital future that is inclusive, sustainable, and prosperous for all African citizens.



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