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Five practical steps to large-scale identification

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Published for ID4Africa 2017,
Windhoek, Namibia.

Introduction

Countries across Africa are making major strides towards strengthening their identity infrastructure. The ultimate aim is clear: to create an inclusive and universal system that provides identification for all. What's less clear is exactly how to achieve it.

When setting up an identity system, governments face a choice: either to invest in registers based on functional needs, or to take a more systematic, foundational approach, building a universal system from scratch. Alongside this fundamental decision, there are other questions to consider. For example, how can identity systems win public confidence, and the long-term commitment of all the key stakeholders involved? In the absence of regulatory frameworks, can these systems be trusted to protect individuals' right to privacy and avoid abuse? And as digital technology continues to proliferate and evolve, how can anyone be sure that an identity system will be sustainable and fit for purpose in the long-term?

These are complex challenges. However, there are certain overarching principles that are critical to building a successful identity system. These can be grouped into five practical steps, across the lifecycle of an identity system.

1 → 2 → 3 → 4 → 5

Design and RFP **Start small** *and grow.*

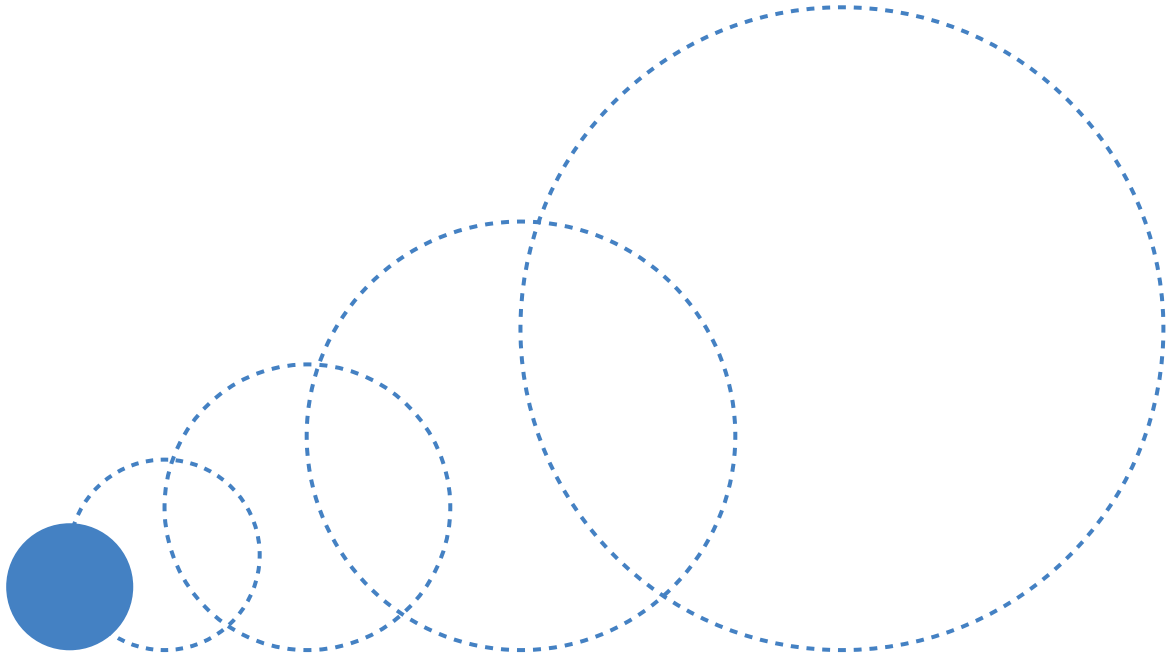
Procurement **Set-up for long-term success.**

Design **Invest in solutions, not hardware.**

Delivery **Include everyone.**

Sustainability **Build sustainability through harmonization.**

1 **Phase: Design and RFP**



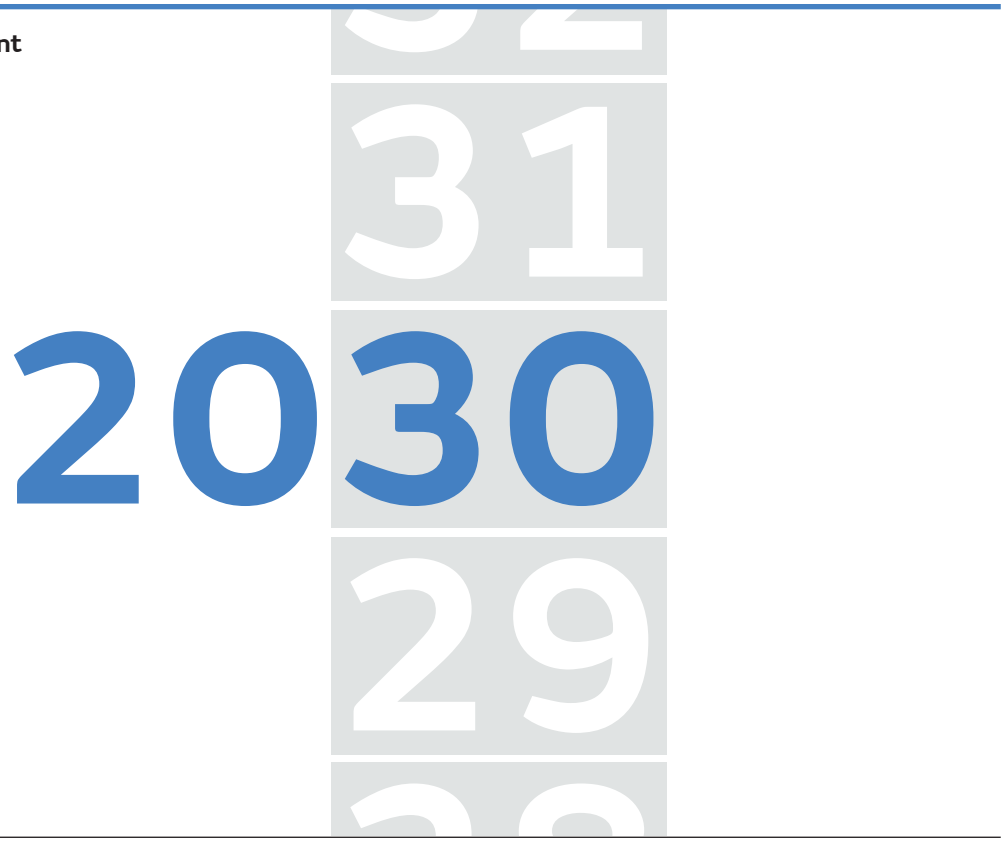
Start small *and grow.*

With the majority of countries having some form of identity system in place, most governments rightfully opt to strengthen what already exists, investing in new functional registers (for the purposes of an election, health insurance scheme and so on) when the need arises.

For many governments this is often a pragmatic decision, but not necessarily a compromised one. Functional registers offer several advantages to foundational systems, being quick to action and requiring less stakeholder buy-in. There is also greater competition, with many best-in-class and experienced vendors operating in the market at every level. This not only drives quality and innovation standards, but also enables the tender process to be more easily benchmarked. Functional registers also have the benefit of being needs driven. They often have a clear call-to-action that motivates end users to register their information. This helps to drive turn-out numbers, something more general registers struggle to do, especially in rural areas where awareness and access is limited.

By investing in functional registers, an identity ecosystem emerges that can be linked, given the appropriate legal rights and protections. For many governments, this represents a more manageable, stepped approach towards a unified, universal and unique identity system.

2 **Phase: Procurement**



Set-up for long term success.

Getting the procurement process right is key to a project's success and ultimately public confidence in it. Too often, projects fail to get beyond the procurement phase due to a lack of financial planning. Governments should put in place financial protections that are enshrined by the State, securing the long-term sustainability of the system. For many countries, this continues to be a challenge with limited funds and a short-term 'one-off cost' mindset.

Governments should also adopt a competitive tender-based approach at every level and stage of the process. This not only results in a more competitive bid process, but is more likely to attract best-in-class vendors globally. Governments should establish a consortium of private sector partners with proven solutions, global certifications (such as ISO/IEC, NIST and MINEX) and offer open standards of interoperability.

Apart from securing funds and setting up a transparent tender process, by far the biggest risk to any procurement process is corruption, where private interest is put before the public. Irregularities in the tender process have led to several high profile cancellations at the procurement stage. At best, this can result in legal challenges to the bidding process causing delays and added costs. At worst, it can hinder the public's confidence in the entire program. The UNECA's 2016 report cites corruption as one of the major impediments to structural transformation in Africa and to the broader social-economic development of countries. With this in mind, it is vital that a proper legal framework exists and that the tender process is audited by credible, independent observers.

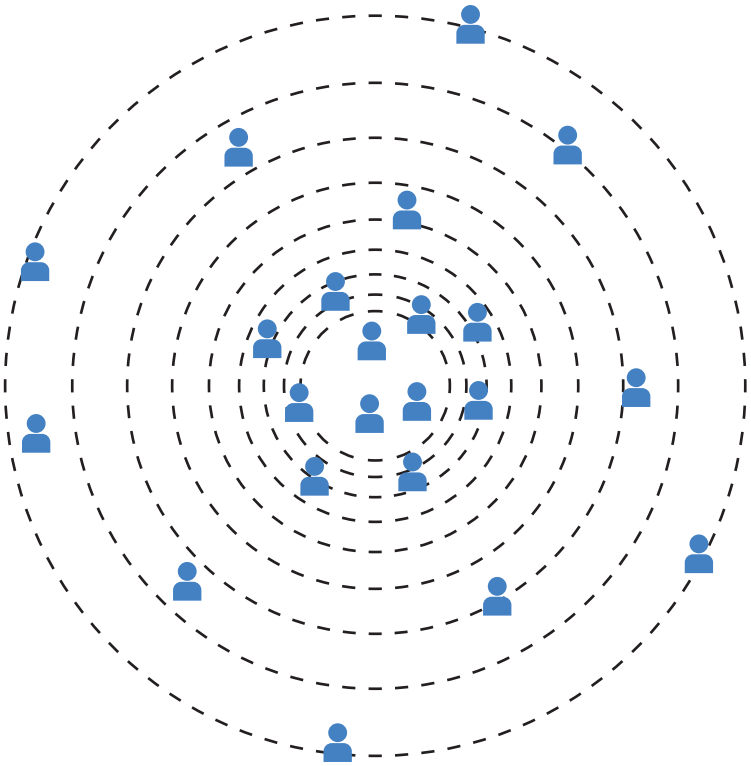
3 **Phase: Systems architecture**

Invest in solutions, not hardware.

Biometric technology is becoming more prevalent in our lives. For example, it's estimated that all smartphones with be biometrically-enabled by 2020. As identity technology becomes increasingly commoditized, identity systems based on today's hardware are likely to be outdated in a few years, undermining the long-term sustainability of the system. In short, hardware can quickly become 'oldware'.

For this reason, it's a mistake to prioritize hardware, even though it still constitutes the bulk of the budget in many tender processes. Robust and long-lasting identity systems depend instead on sustainable solutions built around open design principles that can run on any hardware. This ensures that the performance and efficiency of a system can be upgraded over time, and that it can be adapted to the changing needs of a register, as the system grows and its value to governments increases.

4 **Phase: Delivery**



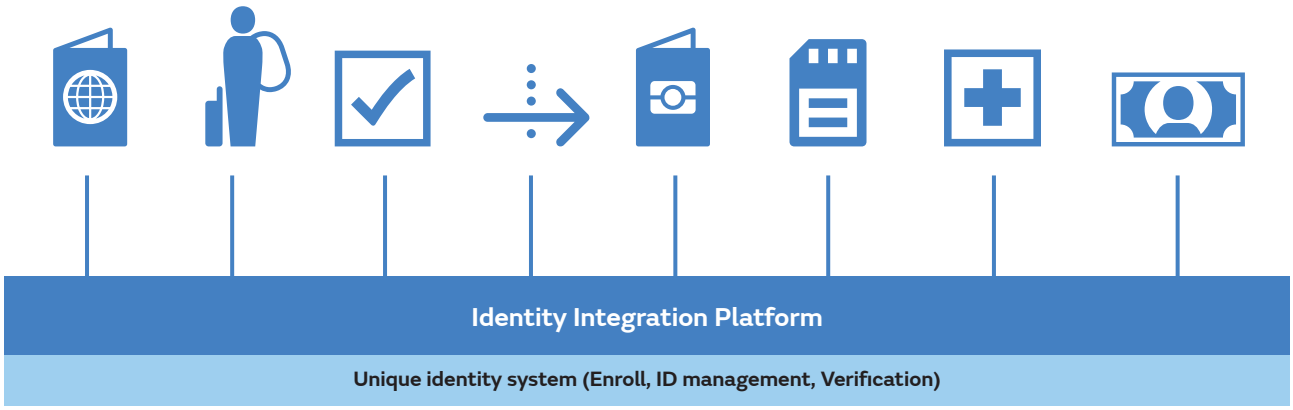
Include everyone.

For any identity system to be successful, it must have the confidence of the end user. For that reason, the delivery and execution of the program must be considered from the their point of view at all times. Every step of the customer journey needs to be designed from the outset, with particular focus on accessibility and the points of human interaction.

By definition, an inclusive register must be accessible to everyone, even in the most remote rural locations. The identity program should be committed to covering every last mile, from the outset and for its duration. Thanks to recent advances in mobile technology, the registration process for example can now reach further into locations with limited or no internet connectivity. To ensure uninterrupted use, systems should support both on and offline registration, ID management and verification.

The points of interaction between end users and the identity system are critical to the process. Public confidence can be undermined if operators do not manage these interactions efficiently. The operators are the frontline of the program, and should be well-trained not only in the technical systems (which are becoming increasingly user friendly), but also to help guide end users through a process that may be new and unfamiliar to them.

5 **Phase: Sustainability**



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Build sustainability through harmonization.

As functional registers grow, so does their value and use to governments. When countries progress from 'Intermediate' to 'Advanced' levels of identification (as categorized by the World Bank), there's a greater need to integrate databases to form larger, universal identity systems. By combining and harmonizing functional registers, governments are able to move towards a more centralized system without the high risk, cost and complexity of a foundational approach.

In order to achieve this end result, identity systems should be designed with interoperability in mind from the outset. This enables registers designed initially for separate functions to communicate with each other and to exchange information in a more efficient way. Systems designed following open standards can be integrated with other ID databases, behaving as one system with a common set of procedures and protocols.

As systems become more integrated, there are obvious implications for the rights of the identity owner and the way their data is managed, stored and shared for different purposes. Governments should refer to the Fair Information Practices (FIPs), which offer guidance and specifications on the usage of personal data.

Integrating systems also opens up opportunities beyond the public sector. Private sector organizations, such as financial institutions and telecoms providers across Africa are increasingly demanding better authentication services in order to comply with industry standards. Extending the reach of identity systems to the private sector can have a cost benefit to governments as well as improving the country's commercial and regulatory practices.

Summary

Whether a country takes a functional or foundational approach to delivering universal identification depends on its own circumstances and capacity. For many African countries, where some identification infrastructure already exists but budgets and resources are often limited, the functional approach is undoubtedly the right direction to take.

In some parts of the world, there are examples of the foundational approach achieving results. Aadhaar in India, which was set up in January 2009 and now covers 99% of the population, is a highly ambitious and successful foundational initiative. However, few countries are able to deliver a project of this scale. In Africa, similar foundational registers launched prior to Aadhaar are still years away from completion and being operational. By focusing on building function-specific registers designed with future integration in mind, African countries can begin the phased journey towards a truly sustainable, universal identification system, while also delivering the identity services that are urgently needed today.

Author
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Michiel is a business leader, entrepreneur and a keen cycling enthusiast. He is a regular industry contributor and thought leader, addressing issues around Digital Identity, Security and Biometrics and the challenges facing emerging markets in their drive to achieve identity for all.

Michiel has a Ph.D from the Federal Institute of Technology (ETH Zurich) and further business education from Stanford. In 2008 he founded priv-ID and since 2011, he's been CEO of GenKey, a global leader and one of the most trusted brands in identity and biometrics.

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