



Embracing Digital Technology in Construction: Building a Better Future

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Market Director | iBUILD

THE FACTS



50,000,000

The deficit of units needed to close the shortfall of affordable housing in Africa.



154,575,000

The number of Nigerians living below the poverty line, roughly 70% of the total population.



71

The number of years it would take to close the housing unit shortfall if annual housing production met demand.



700,000

Total estimated number of housing units the entire continent builds annually.

THE FACTS

\$19

BILLION

The estimated investment in affordable housing in the last 10 years in Africa by public, private and philanthropic organizations.

Difficulty accessing affordable materials due to lack of data needed for manufacturing investment.

65%

OR HIGHER

The percentage of African homes that are incrementally constructed through self-build with an informal workforce.

Collapse rates are high due to inferior materials and lack of formally trained artisans.

80%

The percentage of the African workforce that is informally trained and informally organized.

Difficulty connecting with jobs and up-skilling; Workers treated as commodities.

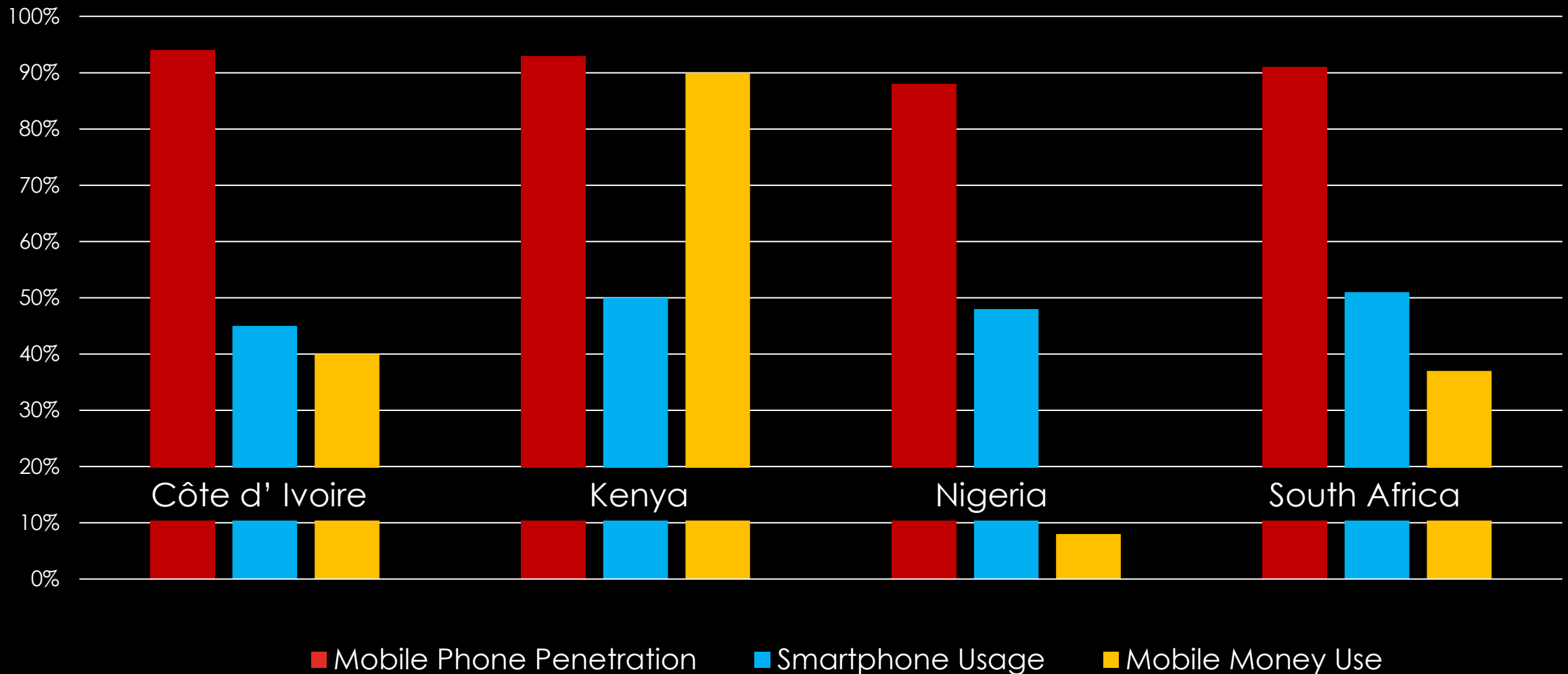
How Do We Solve This?

Technology that organically organizes the construction supply chain and housing finance markets providing a digitized entry point for workers, contractors, developers, finance and even insurance creates an incentive for everything and anything housing to come and collaborate.

Technology and its ability to organize, facilitate and curate both skilled workers and products in the construction sector has been difficult to institute despite wide-spread mobile/smart phone adoption.

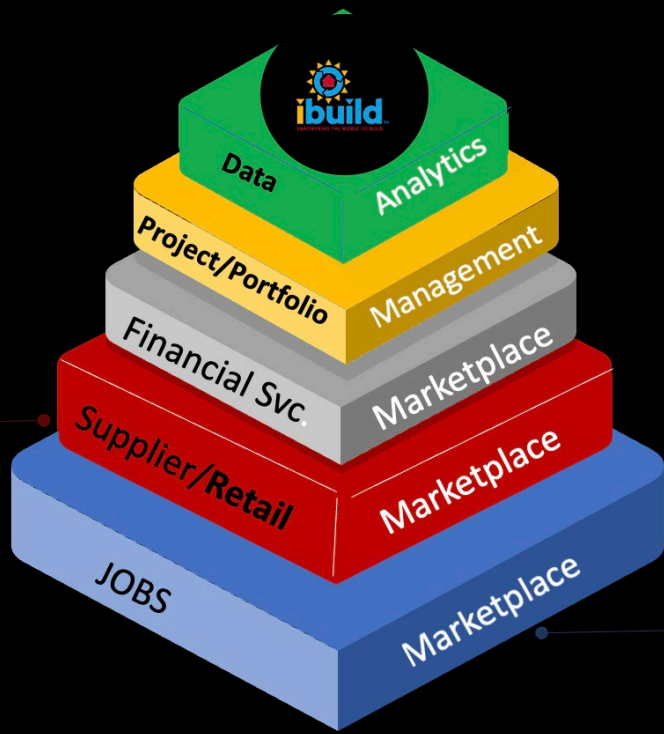
Most importantly any data is fragmented at best or non-existent. Spreadsheets are hiding in filing cabinets or files waiting to be scanned and collated.

MOBILE PHONE/MOBILE MONEY USAGE



AFRICAN COUNTRIES NEED LOCAL DATA

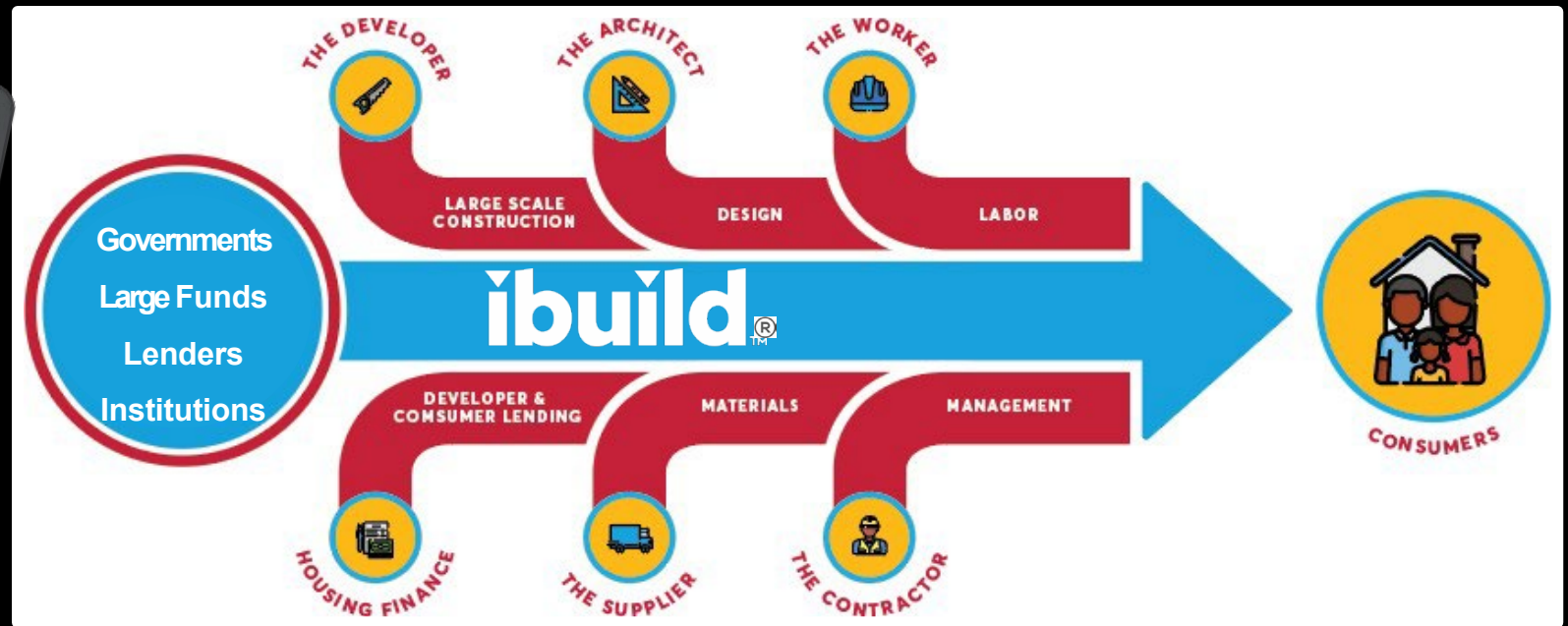
- 91% of Kenyans are using mobile money
- Smartphone usage and mobile money adoption rates are increasing year over year by double digits in many African countries.
- Construction sector is ready for digitization; it is necessary to attract capital
- Digitize to collect data because it is verifiable and immediately accessible
- Digitization brings transparency and accountability- 'de-risking' imperatives for international investment
- Developers can share and learn to improve cost efficiencies through comparative analyses between projects, markets & products using digital platforms



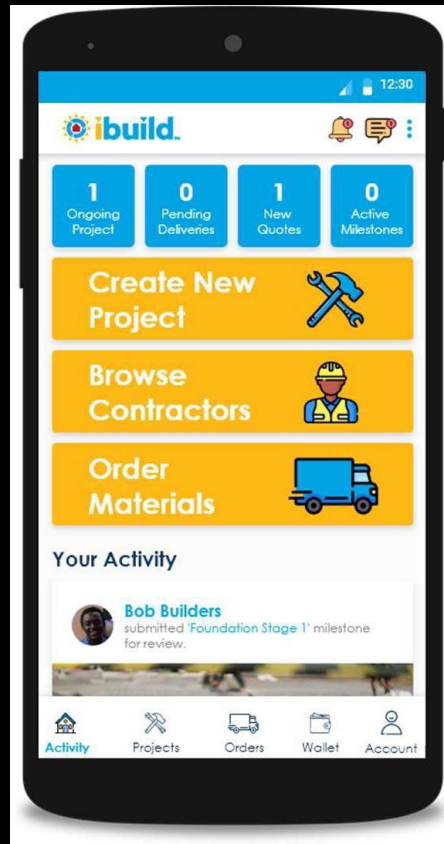
**HOW CAN
TECHNOLOGY DO
ALL THIS AND BE
EASILY APPLIED TO
MARKETS IN
AFRICA?**

PLATFORM TECHNOLOGY

The **iBUILD platform** digitizes people, process, projects and payments across an end-to-end housing construction value chain delivering the level of transparency and accountability that every project deserves.



IBUILD PLATFORM TECH



The iBUILD® platform is a cloud-based suite of digital tools that transform your housing construction loan products and programs into a fully connected digital ecosystem.

iBUILD manages and tracks:

- People
- Processes
- Projects
- Payments



◊ iBUILD® Functionality

◊ iBUILD® Users



Centre for Affordable
Housing Finance
in Africa



DIGITIZATION EXAMPLE: CAHF'S OPEN ACCESS INITIATIVE


Micro level data is produced by developers, investors and other market players on Product, Process, People and Performance.

DATA COLLECTION SIMPLIFIED

Knowledge is Power


Web App / Login

CA Centre for Affordable
HF Housing Finance
in Africa
Powered by iBUILD Global Inc.

 OPEN
ACCESS

Welcome back!

Email Address

Password 

[Forgot password?](#)



User Name
Account Type

Projects

Add Project

Projects

+ Add a filter

↑↓ Project ID	↑↓ Project Name	Scheme	↑↓ Developer Name	↑↓ Open Items	↑↓ Status
#4567-86	Lorem ipsum	Selling Renting	Generic Inc.	0	Complete
#4576-15	Lorem ipsum	Renting	Generic Inc.	12	In Process
#4512-98	Lorem ipsum	Rent-to-Buy	Generic Inc.	0	Not Started
#4571-96	Lorem ipsum	Selling	John Doe	0	Complete
#4567-86	Lorem ipsum	Selling	Generic Inc.	0	Complete
#4576-15	Lorem ipsum	Renting	Generic Inc.	12	In Process
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#4567-86	Lorem ipsum	Selling Renting	Generic Inc.	0	Complete
#4576-15	Lorem ipsum	Renting	Generic Inc.	12	In Process
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#4571-96	Lorem ipsum	Selling	John Doe	0	Complete



Project Summary

A0 - General Inputs

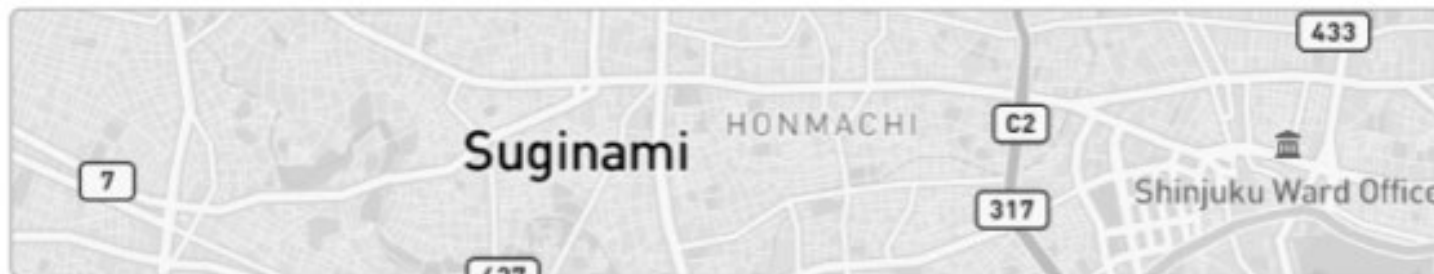
A1 - Capex Inputs

A2 - Opex Inputs

A3 - Revenue Input
(Sales)A4 - Revenue Input
(Rental)

B1-3 - Process Data

Project Summary

**Project Information****Location:** Country, County, Sub-county, City**Type of Scheme:** Scheme type**Description:** Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut**Developer:** Developer Name**Lender:** Lender Name**Property Information****Title Deed No.:** 456-789**Survey Map No.:** 987-654**Co-ordinates:** 14°25'36"N, 41°52'63"E**Purchased form:** Landowner**Property Rights Obtained:** Description**Project Scope & Parameters****Development Types:** Description**Building Typologies:** Description**Investment Information****Alliance Partner:** Alliance Partner Name**Investee:** Investee Name**Investment Name:** Name**Investment Type:** Type**Investment Value:** Value**Investment Tenor:** Tenor**Investment Term:** Term



Project Name

#4567-89

16/34 forms complete



Project Summary



A0 - General Inputs



A1 - Capex Inputs



A2 - Opex Inputs



A3 - Revenue Input (Sales)



A4 - Revenue Input (Rental)



BI-3 - Process Data

A0 - General Inputs

Section	Last Edited	Status	Progress	Actions
A0.0 - Project Status	last week	Approved	100%	
A0.1 - Type of Scheme	yesterday	Submitted	100%	
A0.2 - General Information About Investment	today	Complete	100%	
A0.3 - Project Information - General	today	Incomplete	60%	
A0.4 - Property Information	never	Not Started	0%	
A0.5 - Project Scope and Parameters	never	Not Started	0%	
A0.6 - Project Programme	never	Not Started	0%	
A0.7 - Construction Arrangements	never	Not Started	0%	
A0.8 - Infrastructure Notes	never	Not Started	0%	
A0.9 - Greening of Project	never	Not Started	0%	
A0.10 - Alternative Building Technologies	never	Not Started	0%	
A0.11 - Supporting Documents Provided	never	Not Started	0%	





Project Summary



A0 - General Inputs



A1 - Capex Inputs



A2 - Opex Inputs



A3 - Revenue Input (Sales)



A4 - Revenue Input (Rental)



B1-3 - Process Data



A1 - Capex Inputs

Section	Last Edited	Status	Progress	Actions
A1.1 - Project Inception & Initiation Costs	last week	Approved	100%	
A1.2 - Land Costs	yesterday	Submitted	100%	
A1.3 - Cost of Statutory Compliances	today	Complete	100%	
A1.4 - Infrastructure Costs	today	Incomplete	60%	
A1.5 - Building Construction Costs	never	Not Started	0%	
A1.6 - Associated Professional Fees	never	Not Started	0%	
A1.7 - Capitalised Sundry Land Holding Costs	never	Not Started	0%	
A1.8 - Initial Marketing, Promotions, Selling/Leasing Costs	never	Not Started	0%	
A1.9 - Overall Development Contingency	never	Not Started	0%	
A1.10 - Capitalised Interim Development/Construction Finance Costs	never	Not Started	0%	
A1.11 - Taxes (VAT, etc.)	never	Not Started	0%	



Project Summary



A0 - General Inputs



A1 - Capex Inputs

**A2 - Opex Inputs**

A3 - Revenue Input (Sales)



A4 - Revenue Input (Rental)



B1-3 - Process Data



A2 - Opex Inputs

Section	Last Edited	Status	Progress	Submit
A2.1 - Company Overhead Costs Allocated to Property	last week	Approved	100%	
A2.2 - Total Annual Direct Property Operating Costs	yesterday	Submitted	100%	
A2.3 - Maintenance: Long-Term Capital Refurbishment Reserve	today	Complete	100%	



< Project Name

#4567-89

16/34 forms complete



Project Summary

A0 - General Inputs

A1 - Capex Inputs

A2 - Opex Inputs

A3 - Revenue Input (Sales)

A4 - Revenue Input (Rental)

B1-3 - Process Data



A3 - Revenue Input (Sales)

Section	Last Edited	Status	Progress	Submit
A3.1 - Total Gross Annual Pre-Tax Income	last week	Approved	100%	



< Project Name

#4567-89

16/34 forms complete



Project Summary

AO - General Inputs

A1 - Capex Inputs

A2 - Opex Inputs

A3 - Revenue Input (Sales)

A4 - Revenue Input (Rental)

B1-3 - Process Data

A4 - Revenue Input (Rental)

Section	Last Edited	Status	Progress	Submit
A4.1 - Total Gross Pre-Tax Income	last week	Approved	100%	





Project Summary



A0 - General Inputs



A1 - Capex Inputs



A2 - Opex Inputs



A3 - Revenue Input (Sales)



A4 - Revenue Input (Rental)



B1-3 - Process Data



B1-3 - Process Data

Section	Last Edited	Status	Progress	Submit
B1.1 - Design	last week	Approved	100%	
B2.1 - Initiation	yesterday	Submitted	100%	
B3.1 - Land Assembly & Acquisition	today	Complete	100%	
B3.2 - Title & Tenure	today	Incomplete	60%	
B3.3 - Development Approvals & Compliances	never	Not Started	0%	
B3.4 - Land Survey & Pegging	never	Not Started	0%	
B3.5 - Building Plan Approval & Construction Permit	never	Not Started	0%	
B3.6 - Infrastructure	never	Not Started	0%	
B3.7 - House Construction	never	Not Started	0%	
B3.8 - Sales, Transfer, & Rental	never	Not Started	0%	
B3.9 - Maintenance & Management	never	Not Started	0%	

CREATING MANDATES AND ADOPTING TECHNOLOGIES THAT ARE INTEROPERABLE AND INCLUSIVE IS THE KEY.

- Without real collaboration through technology for all the attributes that compromise housing and housing finance we will never come close to solving the housing crisis .
- Organizations who are stuck in a one-dimensional approach to production are wasting the resources that could make the difference in creating sustainable momentum for addressing the housing shortage in Africa.
- Data informs and with the emergence of Artificial Intelligence we now have the ability with large data sets to ensure we are designing and implementing effective strategies to maximize the precious resources we have and encourage investment in quantifiable and risk mitigated results.
- Governments do play a role but they are only *part* of the solution. First, we must build trust by Identifying problems within institutions and markets using digital tools to assure transparency and build our knowledge and insights. Once financing institutions can see real data, tied to irrefutable impact, there is a realized reduction in risk and the capital will flow.

YOU ARE INVITED!

- Come join the Open Access Initiative with CAHF, powered by iBUILD
- Embrace the mission to digitize construction projects and processes across Africa; powered by iBUILD
- Start TODAY! Find me after this session and I will help you get started with a plan.

AGGREY.MARISIA@iBUILD.GLOBAL