

Three key takeaways from today's session

1. **Digital transformation** of health campaigns needs a different approach - **tool oriented versus digital public infrastructure oriented**.
2. Countries need to be able to evolve their own **digital transformation roadmaps**. Health campaign management on DIGIT **empowers** partners and sovereigns.
3. Introduction as **Digital Transformations partners** and NOT as Vendors

Digital Transformation of Health Campaigns

Using The Platform Approach



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Digital Transformation of Health Campaigns in Mozambique



Attribution 4.0 International (CC BY 4.0)

Health campaigns in LMICs face multiple challenges

Health Ministry

No visibility of progress and problems

Poor data to plan and make decisions in run time



Health Supervisors

Inadequate information and limited resources

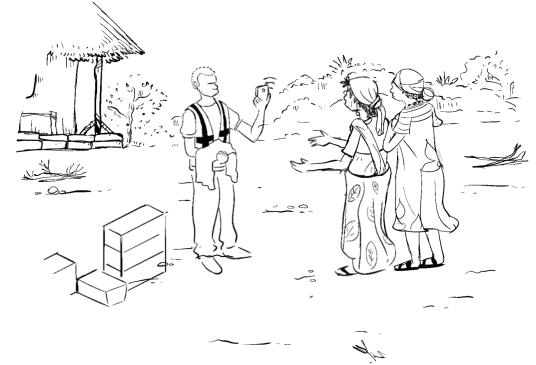
Constantly firefighting



Frontline Workers

Limited training, run-time issues

Repetitive tasks, delayed payments



Low campaign effectiveness

Logistical complexities

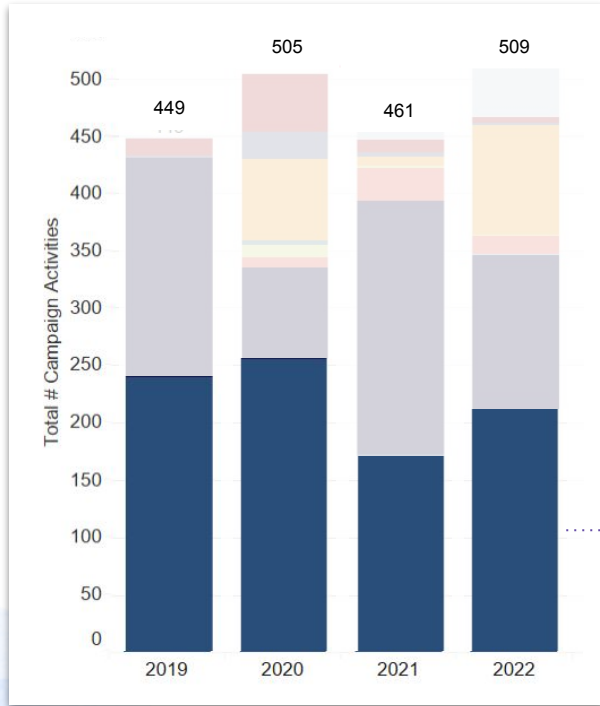
Limited visibility

Siloed approach

Limited ownership

~50 % of campaigns globally don't conclude

Campaign Activity completion



 Completed Campaigns

Every year
~ 50%
do not complete
(2019-2022)

- Assumed completed
- Postponed
- Unknown

Countries are rapidly digitalising campaigns to address these challenges

But

Current digital efforts are sub-optimal & have low impact on effectiveness

Duplicative approach

Data locked in silos

No interoperability between systems

Difficult to scale & sustain

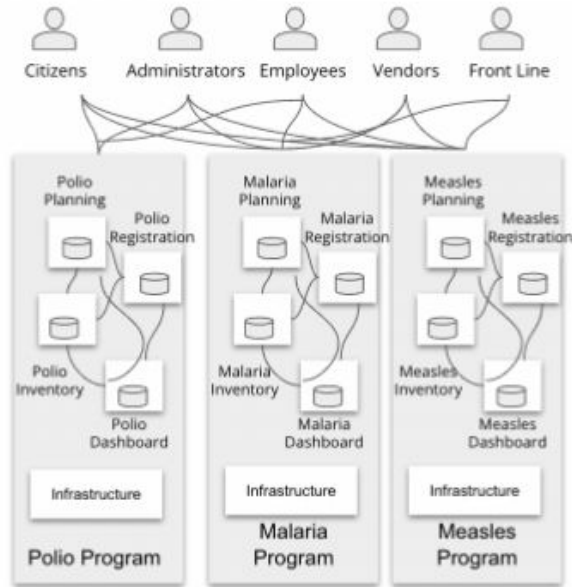
No ownership of digital assets and data



**To address these
challenges
a new approach is needed**

From a Siloed Application Approach to a Platform Approach

Current Approach

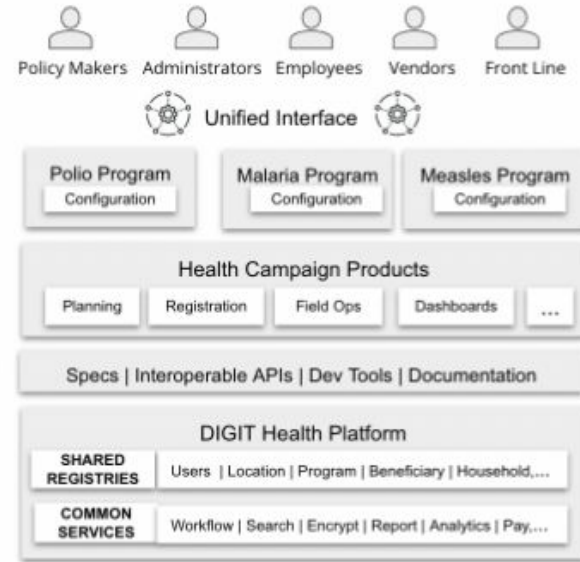


Data is **fragmented in multiple system** leading to poor data quality and lack of integrated data for decision making

Poor experience for employees, citizens and administrators leading to poor adoption.

Point to point integration between system will lead to spaghetti code making system difficult to change.

Platform Approach







Shared Data Repository ensures "Single Source of Truth" and controls data quality.

Integrated Portals and Dashboards for employees, citizens and administrators ease of use and adoption.

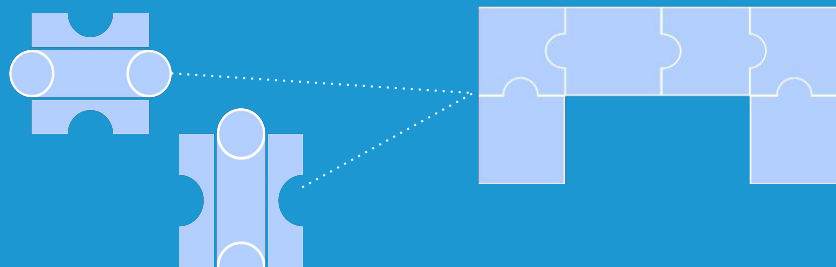
Well defined APIs and messaging bus ensures interoperability and ease of integration without compromising the modularity and future evolution of individual services.

Platform approach for health campaigns in Mozambique

	What it does	What it solves
 <p>Reusable building blocks</p>	<p>Digital assets that can be easily reworked for different campaigns.</p>	<p>Solutions for one type of campaign can not be used in another case</p>
 <p>Shared data registries</p>	<p>Single source to create & use data across campaigns, avoid repeat enumeration</p>	<p>All data is siloed; data from different campaigns don't talk to each other</p>
 <p>Interoperability</p>	<p>Integrate with multiple systems such as DHIS2; enable coordination at scale</p>	<p>Poor coordination across campaigns and diseases</p>
 <p>Free and open source software</p>	<p>Countries own and evolve the digital assets as public infrastructure</p>	<p>Country teams do not own systems; lack agency to innovate as needed; high cost</p>

MODULAR BUILDING BLOCKS

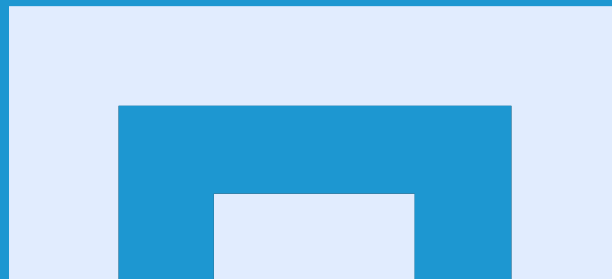
Reusable assets
for all campaigns



- **Easy to adapt to local needs**
Highly configurable - easy to rework
- **One asset for all campaigns**
Multiple campaign types, diseases
- **Maximize Leverage**
Additive Blocks - Create new solutions

Why reusable building blocks are a game-changer

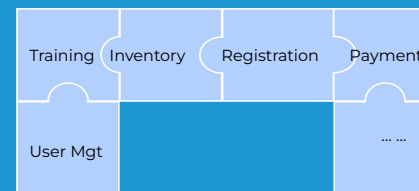
This is the **Problem**



Now, the **solution** can be either



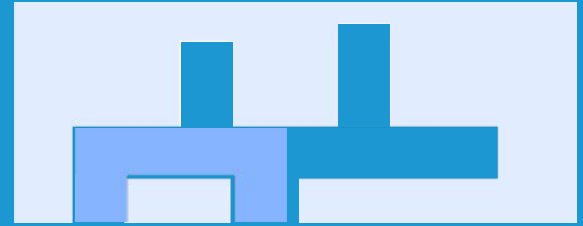
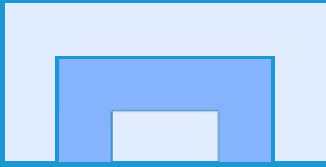
A tightly integrated
end-to-end monolith



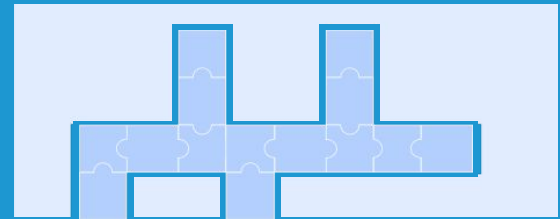
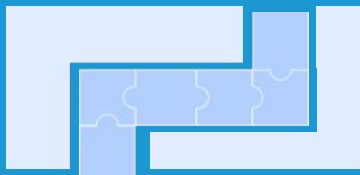
An aggregate of smaller
reusable components

Building blocks can be evolved to solve the evolving problem

Solutions designed for a specific context serve once, do not evolve



Solutions made from bundling building blocks can be evolved easily



How shared registries help avoid duplication, improve quality data

Current Siloed Approach

Discrete data creation for every Campaign

Malaria '21



Polio '21



NTD '21



Malaria '22



Polio '22



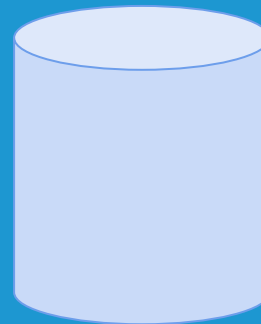
NTD '22



Shared Registries

Reusable, single source of truth

Shared Data Registry



Malaria Update



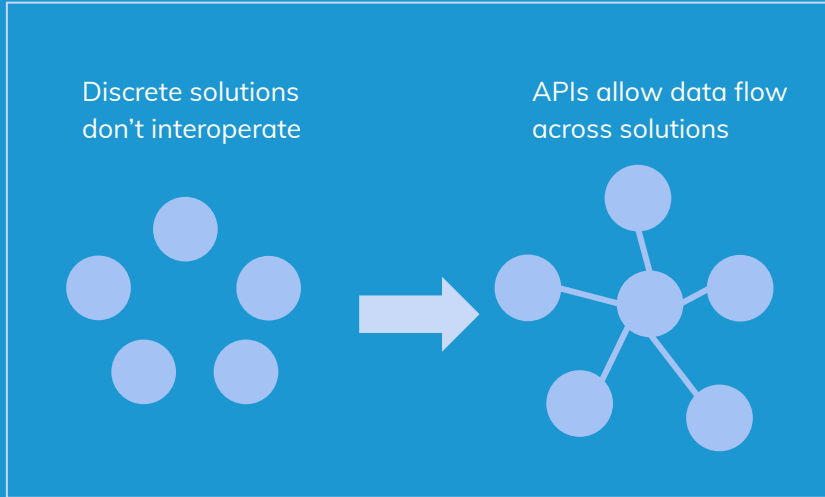
NTD Update



Polio Update

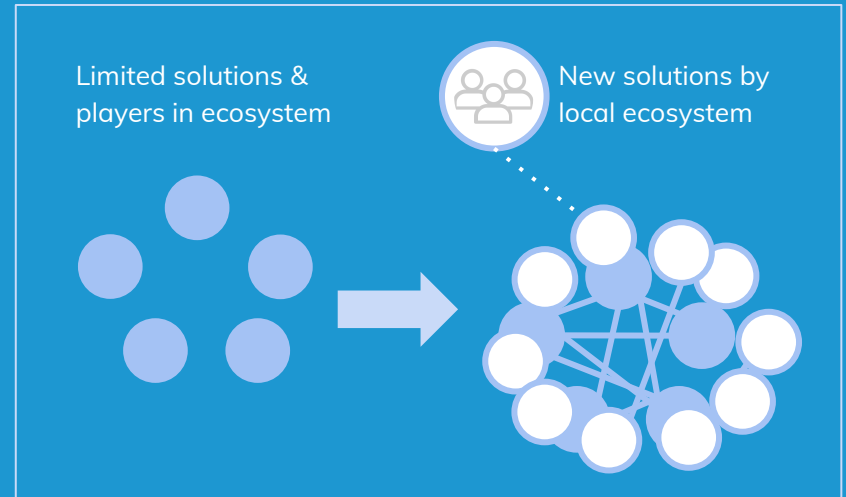
Open
APIs

APIs enable data exchange for digital assets to work together



With Open APIs, data can be exchanged between any solutions leading to interoperability by design

Open Specs unlock the local ecosystem to leverage tech



With open specs, local players use common standards to build different new solutions by leveraging existing assets

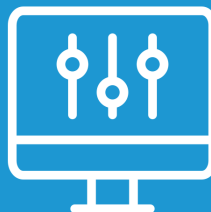
DIGITAL PUBLIC INFRASTRUCTURE

Drive Sovereign
Health Outcomes



Digital Sovereignty

All data and digital assets
belong to the country



Strategic Agency

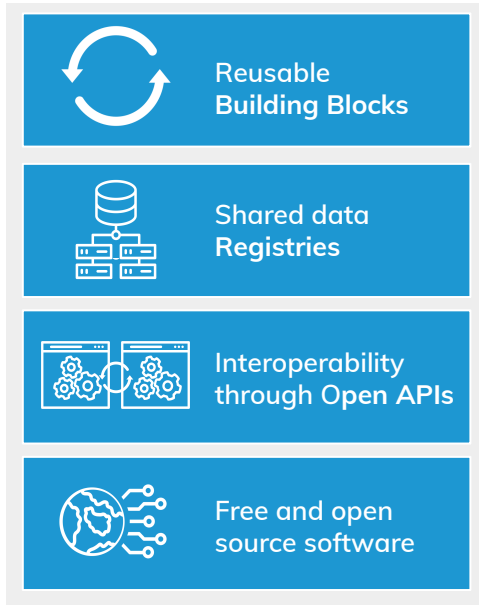
National Agencies own
and evolve the product



Ecosystem Participation

Common standards enable the
growth of collaborative local market

Mozambique is a Pioneer in Health Campaigns Using the Platform Approach



One product can be repurposed for all campaigns

Enumeration is done once, enriched continuously

Data flows across systems, solutions interoperate

Use the building blocks to create new solutions*

Lowers the cost of software and of running programs

Sovereigns own & evolve digital assets as public infra

*Ecosystem has built 29 solutions on DIGIT Urban

Agenda

- Context
- Introduction to the platform approach
- **How we got to version 1.0 of the product**
- Product roadmap and overview



Making of DIGIT Health Campaign Management Product

v1.0



We collaborated with multiple partners to arrive at our understanding and product roadmap



BILL & MELINDA
GATES *foundation*



Early field visits to shadow the public health campaigns in India



← IRS Campaigns in Kushinagar,
-May 2022

Village Nutrition and RI day,
Kushinagar -May 2022 →



← MDA LF Campaign in Gorakhpur
- May 2022

MDA LF Campaign in Jharsuguda
-April 2022 →



Spent 3 weeks on ground to understanding the actors & their interactions during our field visits.



LLIN Campaign in Nampula, Mozambique
October and November 2022

Shadowed the CHAI and NMCP teams closely to understand the processes on ground



Campaign Planning



Campaign Execution



Monitoring & Supervision

20 days on the field in Nampula, Mozambique: October and November 2022

Conducted Product Usability test to validate design assumptions



Usability test with Frontline health workers associated to Mumbai Municipal Health Center



Agenda

- Context
- Introduction to the platform approach
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Digitally Empowering Health Campaign Teams

Integrated Planning

Macro-planning
Micro-planning

Streamlined Ops

Centralised helpdesk
Manage complaints
Manage trainings
Manage inventory
Automated payments

Delivery Simplified

Registrations
Service delivery
Daily checklists
In-app job aids

Quick Set-up

Quick campaign set up
User management
Role assignment
Create forms easily

Real-time Monitoring

Real time Dashboards
Tailored Reports

Health Campaign Management

Run campaigns for all diseases

Modular | Configurable | Reusable | Integratable

Integrated with DHIS2

Offline capabilities

Shared registries

Guided UI

Assisted navigation

Open apis

A digital partner for the frontline workers

Easy to use app with offline capability, guided user flows and analytics support.

Simplified routine tasks, built-in checks to reduce errors and provides on-call assistance.



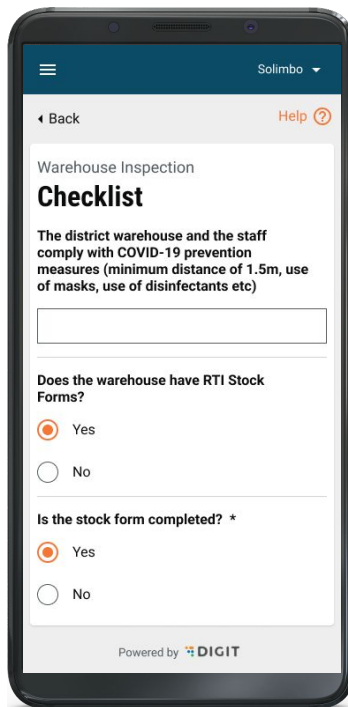
Simplified routine tasks

Quick Support

Ready for the job

All the basics covered

A digital partner for the frontline workers



Solimbo

Back Help

Warehouse Inspection

Checklist

The district warehouse and the staff comply with COVID-19 prevention measures (minimum distance of 1.5m, use of masks, use of disinfectants etc)

Does the warehouse have RTI Stock Forms?

Yes

No

Is the stock form completed? *

Yes

No

Powered by DIGIT

Simplified routine tasks

Daily checklists

Proximity based search

GPS navigation

Quick Support

Ready for the job

All the basics covered

Registration

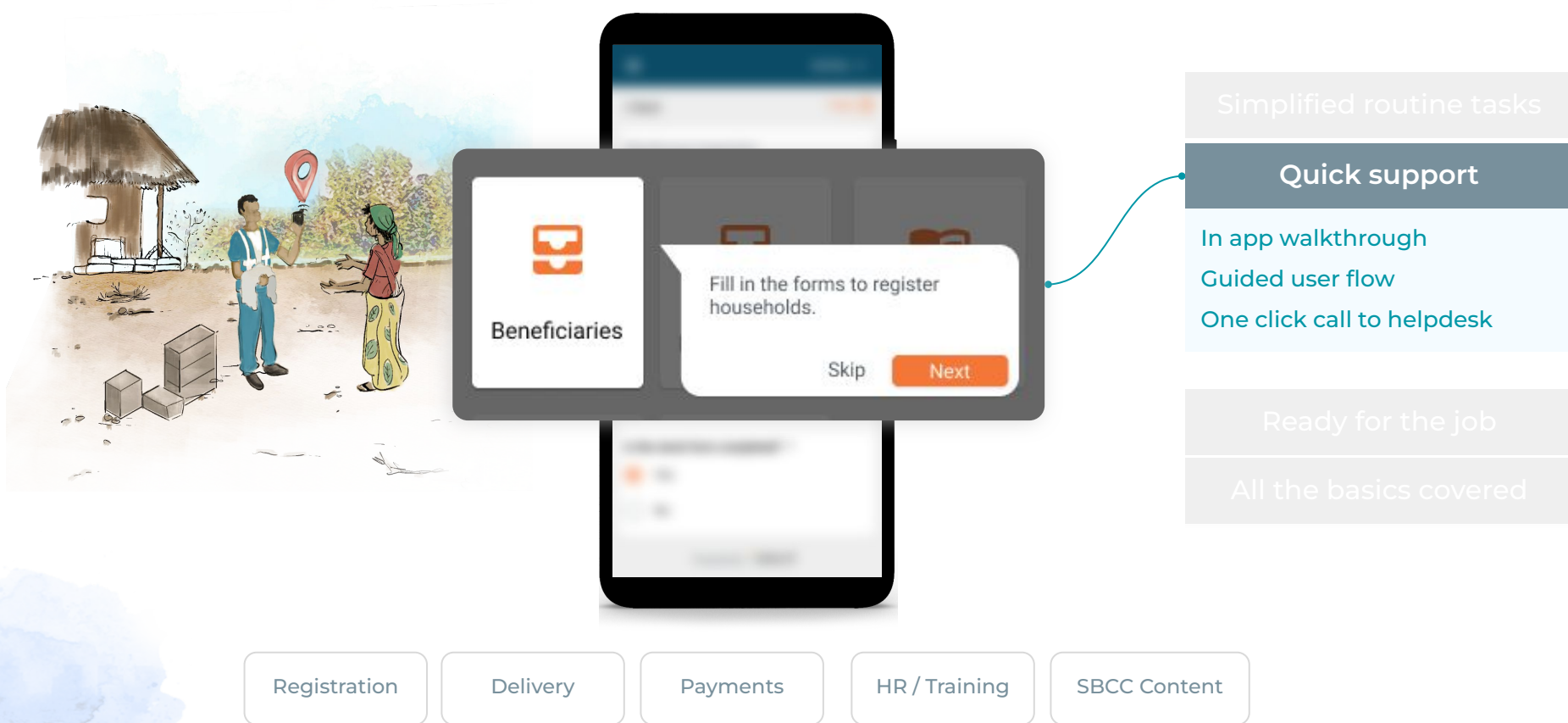
Delivery

Payments

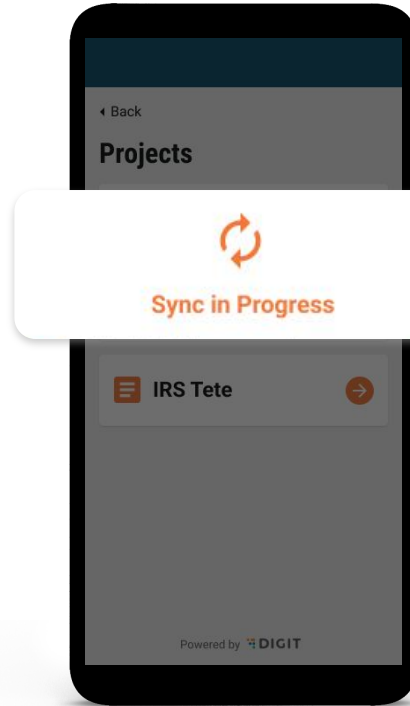
HR / Training

SBCC Content

A digital partner for the frontline workers



A digital partner for the frontline workers



Simplified routine tasks

Quick support

Ready for the job

Offline capability

Built in error checks

Access to SBCC material

Reminders for due tasks

Job aids for handy assistance

In-app training content

All the basics covered

Registration

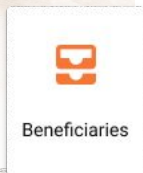
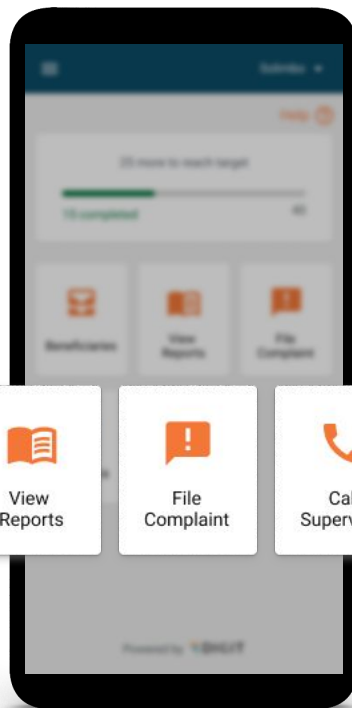
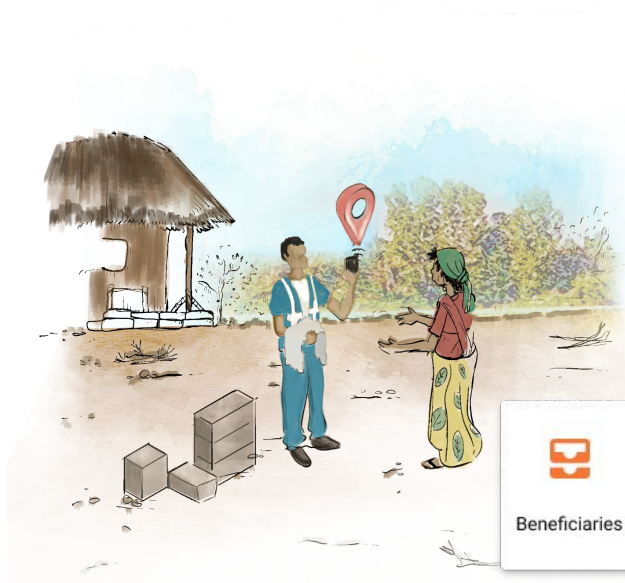
Delivery

Payments

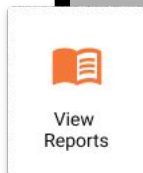
HR / Training

SBCC Content

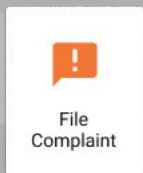
A digital partner for the frontline workers



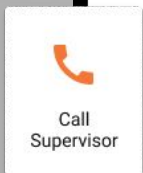
Beneficiaries



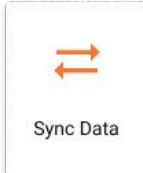
View Reports



File Complaint



Call Supervisor



Sync Data

Simplified routine tasks

Quick support

Ready for the job

All the basics covered

Registration & Service delivery

Search and enrich data

Proof of work for staff

Smart payments with approval

Registration

Delivery

Payments

HR / Training

SBCC Content

Co-pilot for managers and supervisors

Run campaigns efficiently.

Track training, registration, service delivery, complaint status, campaign progress.

Drive effective campaigns through shareable SBCC and real-time data.

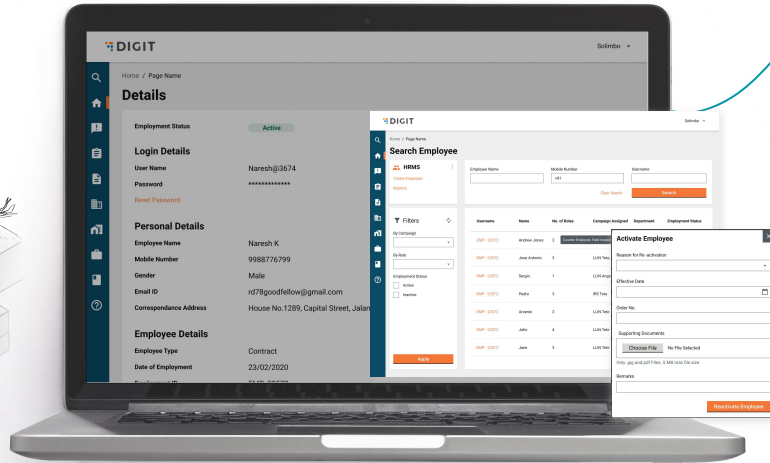


Plan campaign inside out

Be on top of operations

Manage all that matters

Co-pilot for managers and supervisors



Plan campaigns inside out

- Configurable microplanning
- Target setting
- Stock & storage planning
- Team distribution planning
- Transportation planning
- Task planning & assignments
- Staff management

Be on top of operations

Manage all that matters

Planning

Training

Inventory Management

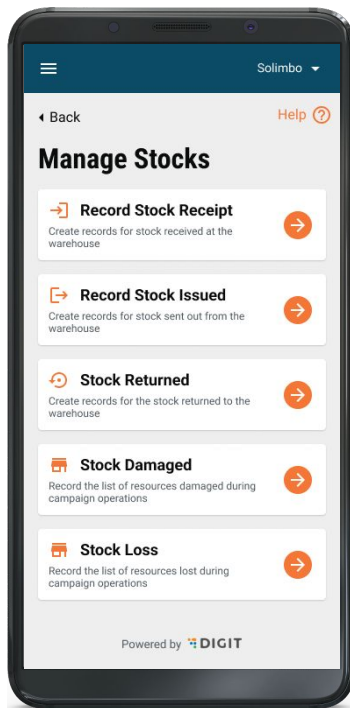
Supervision

Digital SBCC

Payments Management

Monitoring

Co-pilot for managers and supervisors



Plan campaign inside out

Be on top of operations

Plan & monitor trainings

Check attendance

Manage payments

Complaint tracking & resolution

Stock management

Manage all that matters

Planning

Training

Inventory
Management

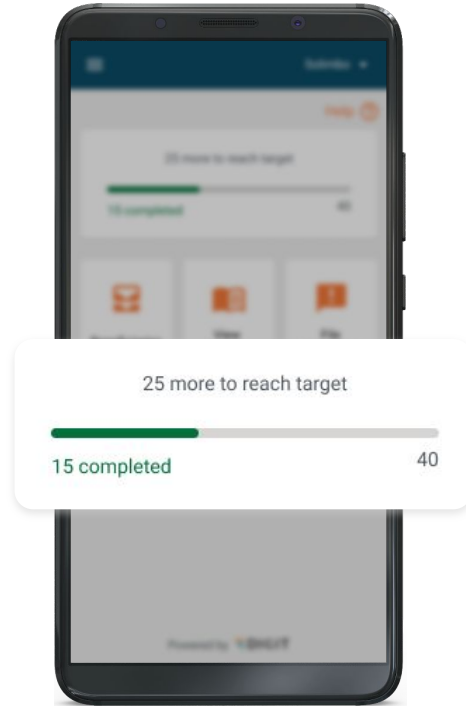
Supervision

Digital SBCC

Payments
Management

Monitoring

Co-pilot for managers and supervisors



Plan campaign inside out

Be on top of operations

Manage all that matters

Real time progress against target

Decision support to manage all from registrations to delivery

Actionable Predictive Analytics

Complaint tracking & resolution

Training & performance of staff

Planning

Training

Inventory
Management

Supervision

Digital SBCC

Payments
Management

Monitoring

Digital headquarters for the health ministry

Set-up and configure multiple campaigns, track campaign progress and measure progress through real-time data dashboards.

Improve effectiveness through centralised help desks and complaint management.

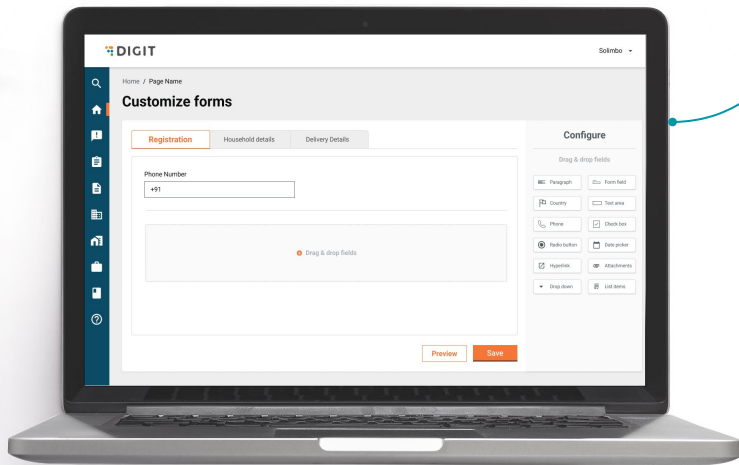


Quick set-up & launch

Avoid bottlenecks & delay

Easy integrations

Digital headquarters for the health ministry



Quick set-up & launch

Federated campaign set-ups
User & role Management
Configurable data collection

Avoid bottlenecks & delay

Easy integrations

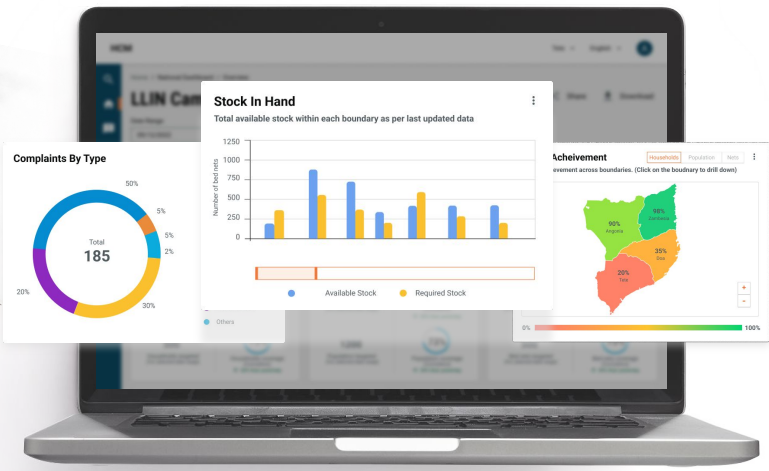
Campaign
Set up

Real Time
Monitoring

Macro
Planning

Macro
Monitoring

Digital headquarters for the health ministry



- Quick set-up & launch
- Avoid bottlenecks & delay
- Centralised help desk
- Real-time dashboards
- Define your own reports
- Easy integrations

Campaign Set up

Real Time Monitoring

Macro Planning

Macro Monitoring

Digital headquarters for the health ministry



- Quick set-up & launch
- Avoid bottlenecks & delay
- Easy integrations**
- Easy integration with DHIS2 and other open source products

Campaign
Set up

Real Time
Monitoring

Macro
Planning

Macro
Monitoring

V1

Campaign Types



- **Single round Household & Individual campaign**

System Setup



- Web Portal for user management
- Configuration based Role-access management

Registration & Delivery



- Door to Door campaign
- Fixed Post Campaign
- **Register beneficiaries**
- Update existing beneficiary details
- Auto-calculation of Bednets for delivery

Monitoring and Supervision



- **Supervision Checklists**
- **Manage and view complaints**
- Dashboards to monitor campaign operations

Inventory



- **Stock Management**
- Auto-reconciliation of stocks

V2

Campaign Types



- Multi-round Household & Individual campaign

System Setup



- Form Engine
- Campaign Manager Web App
- Create and schedule custom reports

Registration & Delivery



- Mobile Post Campaign
- **Geo-guided routing assistance**
- Voucher generation and scanning
- Auto-calculation of Drugs for administration
- Report and track Adverse events

Monitoring and Supervision



- **Attendance Management**
- Create and Assign Tasks
- Dashboard with Predictive analytics

SBCC



- **In-App SBCC Checklist**
- Post service delivery survey

Training



- On-demand access to training content
- **Pre- and Post-evaluation**

Payments



- View Payment Due to campaign Staff

Planning



- Create and Share Microplans

V3

System Setup



- **Form Designer**
- Dashboard Manager

Registration & Delivery



- **Beneficiary Eligibility checker**
- Reminders and Notifications to field teams
- Auto Duelist generation

Monitoring and Supervision



- Track Field team operations using GIS dashboard
- GIS enables near-real time monitoring
- Dashboards with prescriptive analytics
- **WhatsApp integration for communication with field team**

Planning



- **GIS Enabled Microplanning**

Training



- Virtual content delivery

Payments



- Approve payment invoice
- **Electronic Payment transfer**
- Track status of payment

Campaign Types Supported



Single Round Household and Individual Campaigns



LLIN Campaign



IRS Campaign



MDA Campaign



Campaign and System Setup



Easy User Interface for User Management



Create Campaign at any administrative level (Standalone or hierarchy based)



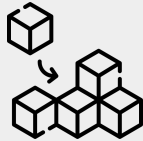
Configuration based Role-Permission Management



Configure the App and dashboards to support any language as required



Registration and Service Delivery



Registration & Service Delivery modules can be used together or as separate modules



Can be configured to support Door-to-Door Campaign and Fixed Post Campaigns



Enables data reuse by allowing teams to search existing beneficiary and update records



Rule based configuration to auto-calculate resources to be distributed to beneficiaries



Deduplication check before creating new beneficiaries



Monitoring and Supervision



Dashboards to view accurate operations data in near real time



Easily create standard and custom reports to data review meetings



Export & Share Dashboard metrics via email, WhatsApp



Configure Supervision Checklists



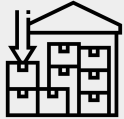
Manage and Resolve Complaints from field teams



Inventory Management



Record stock movement between warehouses and between warehouses and field teams for multiple products



Record Stock
Received



Record Stock
Issued



Record Stock
Returned



Record Stock
Damages



Record Stock
Lost



Auto- Reconciliation
of Stock



V1

Campaign Types



- **Single round Household & Individual campaign**

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V2

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Registration & Delivery



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Monitoring and Supervision



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SBCC



- **In-App SBCC Checklist**
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Training



- On-demand access to training content
- **Pre- and Post-evaluation**

Payments



- View Payment Due to campaign Staff

Planning



- Create and Share Microplans

V3

System Setup



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Registration & Delivery



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Monitoring and Supervision



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- GIS enables near-real time monitoring
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- **WhatsApp integration for communication with field team**

Planning



- **GIS Enabled Microplanning**

Training



- Virtual content delivery

Payments



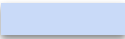
- Approve payment invoice
- **Electronic Payment transfer**
- Track status of payment

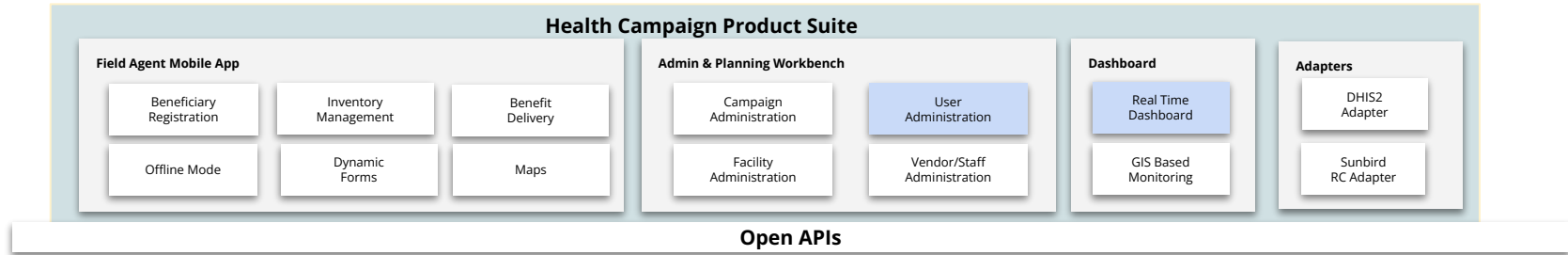
Base infrastructure is scalable and reusable across multiple countries and public health use cases...

Africa First Approach
*Offline Mobile App
 Integrated GIS*

Multi-Campaign Platform
*Configurable - Campaign, Forms, Master
 Data, Workflows*

Real Time Dashboards
*Near Real Time Event Monitoring
 Visualisations including Maps*

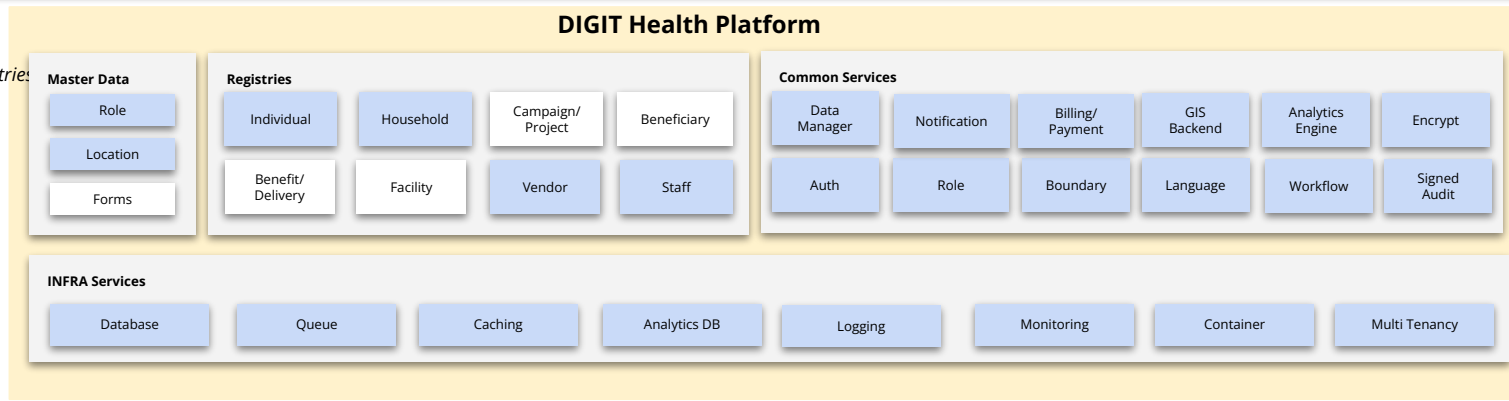

 Re-used from DIGIT



Re-Usable
Shared Data Registries

Interoperable
*Open API
 Specifications
 DHIS2 Adapter*

Scalable
*Asynchronous
 DB Writes
 Auto Scaling*



Multi-Country Support
*Support for Infra
 Isolation
 Support for Data
 Isolation*

Multi-Lingual
*Support for Multiple
 Languages*

Security
*Authentication
 Role Based
 Access Control
 Signed Audit*

DIGIT supports Digital Transformation through ecosystem capacity build & partner enablement

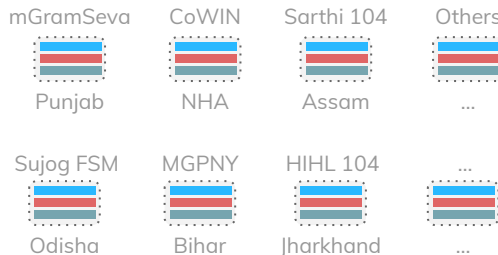
Multiple Programs Leveraging DIGIT

Illustrative
(Non Exhaustive)

Programs in Urban Governance



Programs in Health, Water & Sanitation



Govt & Ecosystem partner to leverage DIGIT and run national & subnational transformation programs

Ecosystem



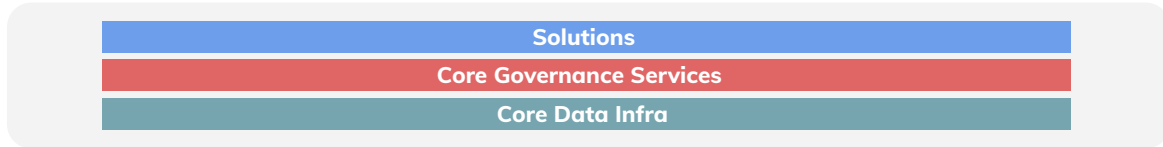
eGov commits resources to build ecosystem capacity across 150+ partners

Enabling & Capacity Building



Open APIs

DIGIT Digital Public Infra



Open APIs + protocols ensure interoperability and reusability

>30% Investment in effort, time and resources for partner enablement



Infra and references



Tools & Training



Ecosystem of Solvers

170+
Open APIs

50+
Open Specs

500+
Resources Trained

50+
Partners Enabled

42
Solutions built by
the ecosystem

190+
Reusable
Microservices

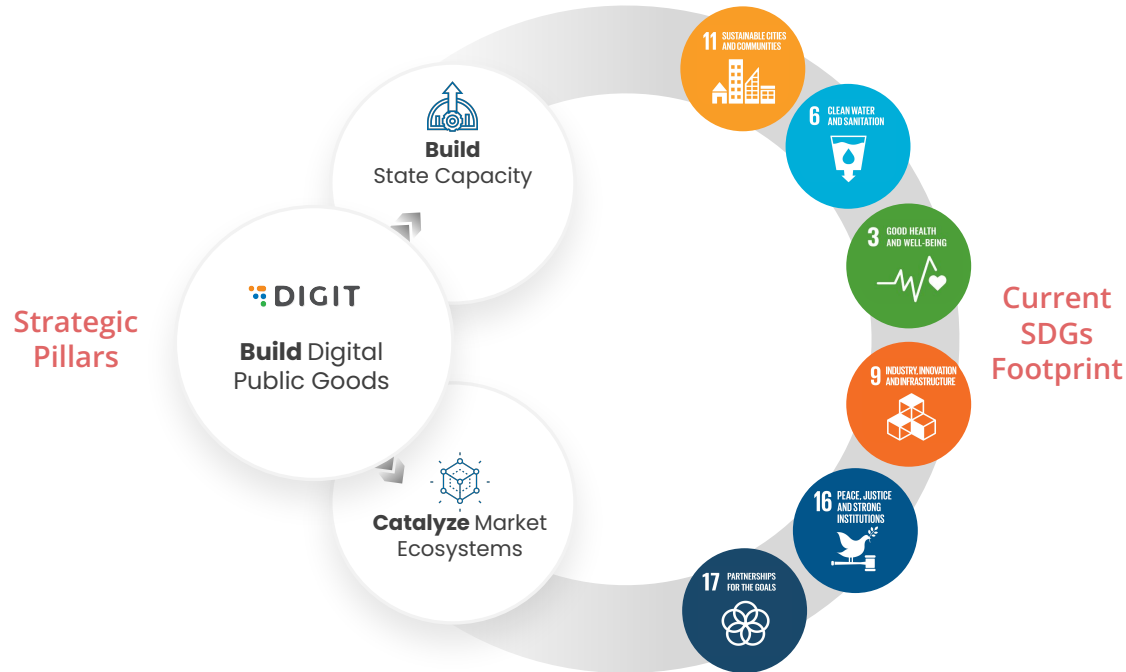
500k+
Lines of Code

17k+
Hours of training

400+
Playbooks & Guides

\$400 Mn
Market on DIGIT

We build Digital Public Infra and work with governments & markets to drive population scale digital transformations that accelerate achievement of SDGs



Impact on Ground

7 countries & 16 sub-national Govts

Over 260 mn citizens serviced

2.3Bn+ Covid certificates issued

1.9Bn revenue mobilised

4 sectors- Urban, Public Health, Water & Sanitation, Public Finance Mgmt

Network effects - 150+ partners, 5 new sectors, 42 solutions

35X leverage -\$760mn market on DIGIT

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Three Key takeaways from today's session

1. **Digital transformation** of health campaigns needs a different approach - **tool oriented versus digital public infrastructure oriented.**
2. Countries need to be able to evolve their own **digital transformation roadmaps.** Health campaign management on DIGIT **empowers** partners and sovereigns.
3. Introduction as **Digital Transformations partners** and NOT as Vendors