The Impact of Standards-Based Open Source LMIS for Sustainable Supply Chain Management

The goal

Today, I hope that you leave with a better understanding of:

1. **What OpenLMIS is and its main features**

2. **Where OpenLMIS fits into a country's information system landscape and where it can provide value**

3. **Ways to engage with the OpenLMIS Community and learn more about potential implementation**

If I don't meet this goal or if you'd just like to learn more, please get in touch after the presentation

Presenter & Topics

Rebecca Alban

OpenLMIS Community Manager

Manage communications, advocacy, and new business opportunities. Coordinate partners and community

Topics

- Community
- Vision
- Features
- Impact
- Standards
- Getting involved

OpenLMIS

Vision

The OpenLMIS Software Vision

Shared Investment, Shared Benefit

Promoting code reuse through microservices architecture and community approach

Interoperable

Standards-based, API-driven interoperability to work with almost any other system

Configurable and Extensible

Modular architecture enables extensibility *without* forking

Community

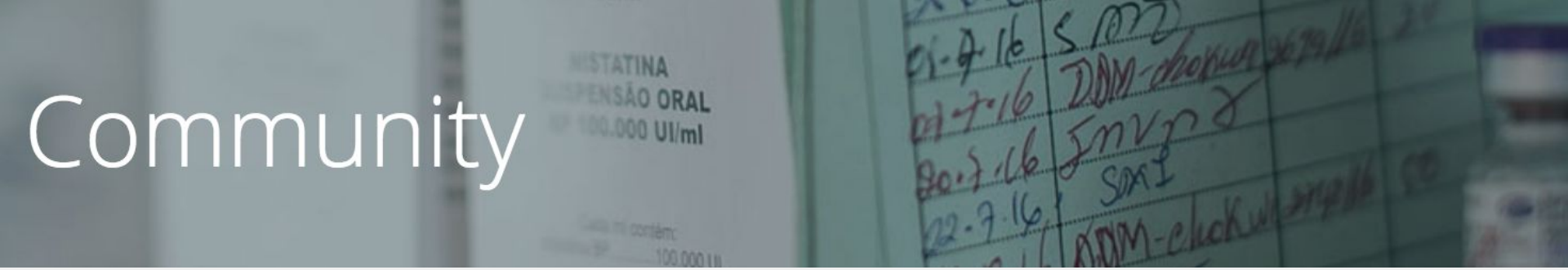
OpenLMIS Initiative-Strength in numbers

Trusted Partners

JSI
VillageReach — Starting at the Last Mile
SolDevelo — solutions development
EMPOWER
SOFTWORKS
ONA
Clinton Health Access Initiative
PATH
BAO Systems

Community Members

ThoughtWorks
NEXLEAF ANALYTICS™
OPENSRP
Chemonics
BrowserStack
amp — Agence de Medecine Preventive
Bill & Melinda Gates foundation
USAID — From the American People
digital square
The Rockefeller Foundation
PEPFAR — U.S. President's Emergency Plan for AIDS Relief
Life Saving Commodities — Improving access, saving lives
Gavi — The Vaccine Alliance



Community

Governance Committee

Leadership for the community.

- defines community processes
- leads fundraising and advocacy efforts

Members: Senior representatives of Trusted Community Partners

Product Committee

Helps "build the right product."

- discuss roadmap requirements and new features
- reviews contributions from implementations

Members: Community partners with technical experience

Technical Committee

Builds the product the "right way."

- manages the system architecture
- sets clear standards for code quality

Members: Software developers and active OpenLMIS developers

OpenLMIS Trusted Partners have experience implementing OpenLMIS and other Health Information Systems (HIS) tools.

These partners are available to support OpenLMIS implementations in a variety of ways.

OpenLMIS Trusted Partners

JSI
SOFTWORKS
VILLAGEREACH Starting at the Last Mile
EMPOWER
ONA
PATH
SolDevelo solutions development
CLINTON HEALTH ACCESS INITIATIVE
BAO SYSTEMS

Leaders in the global health, technology, system design, software development who implement and support OpenLMIS deployments.

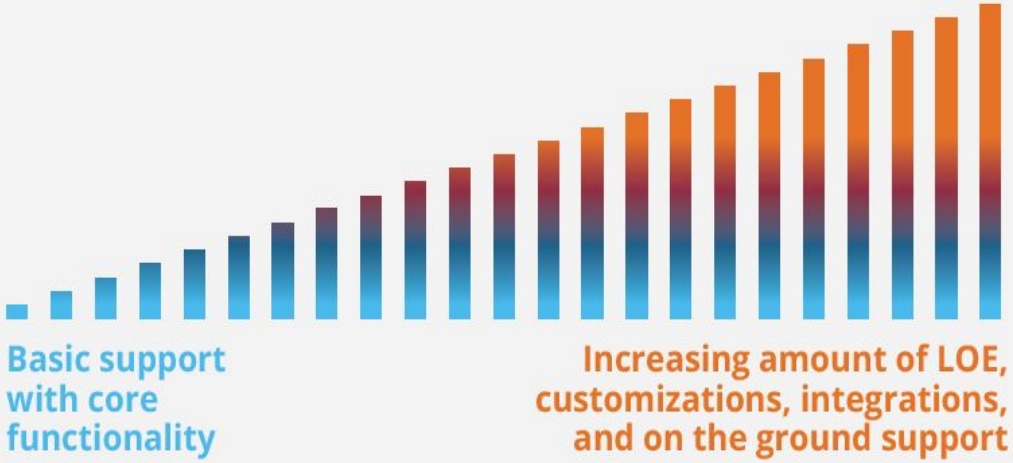
Expertise in:

- Information systems development, management & Implementation
- Requirements gathering, gap analysis
- Health supply chain management, including vaccines
- Integrations- mobile, ERP
- Training, stakeholder management

Flexible Hosting & Deployment Models

Range of implementation support offerings

The level of implementation support offered is flexible, and customized based on a country's specific needs:



- **Can be hosted in-country or in the cloud; can be hosted on premise or OpenLMIS managed services (SaaS)**

Features

OpenLMIS Features

Requisitions:

Use stock data to generate orders for a configurable approval process.

Analytics and Reporting:

Use and display data with intuitive visualization that support decision-making.

Order Fulfillment:

Fulfill and ship orders based on stock on hand and send a Proof of Delivery from the ordering facility.

Mobile Integration:

Connects dispensing and supply information at the point of care through an integration with OpenSRP.

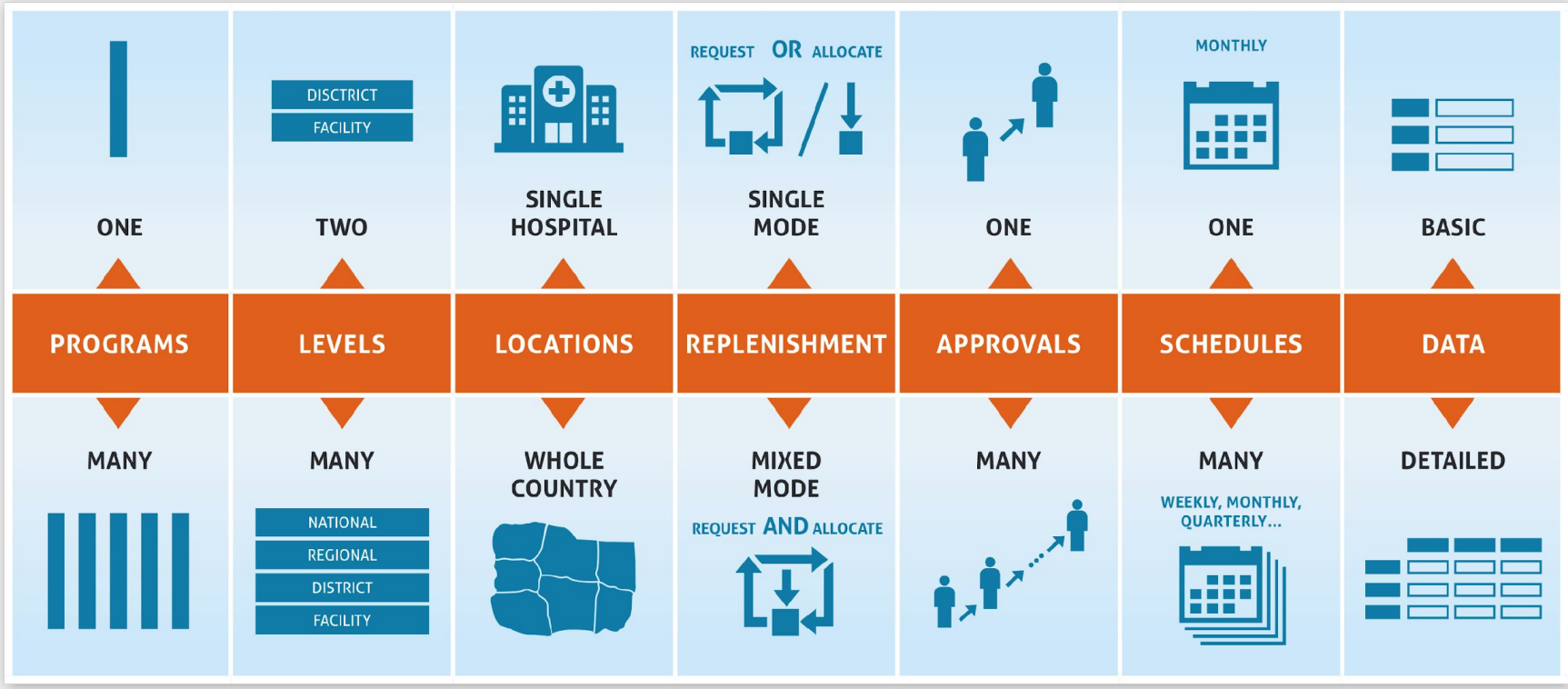
Stock/Inventory Management

Captures inventory data and stock movements to provide an overview of stock availability

Equipment (CCE):

Track cold chain equipment inventory, functional status and receive real-time alerts on device temperature.

Configurability



Integrations

- Connects dispensing and supply information at the point of care
- Proof-of-concept built with Ona

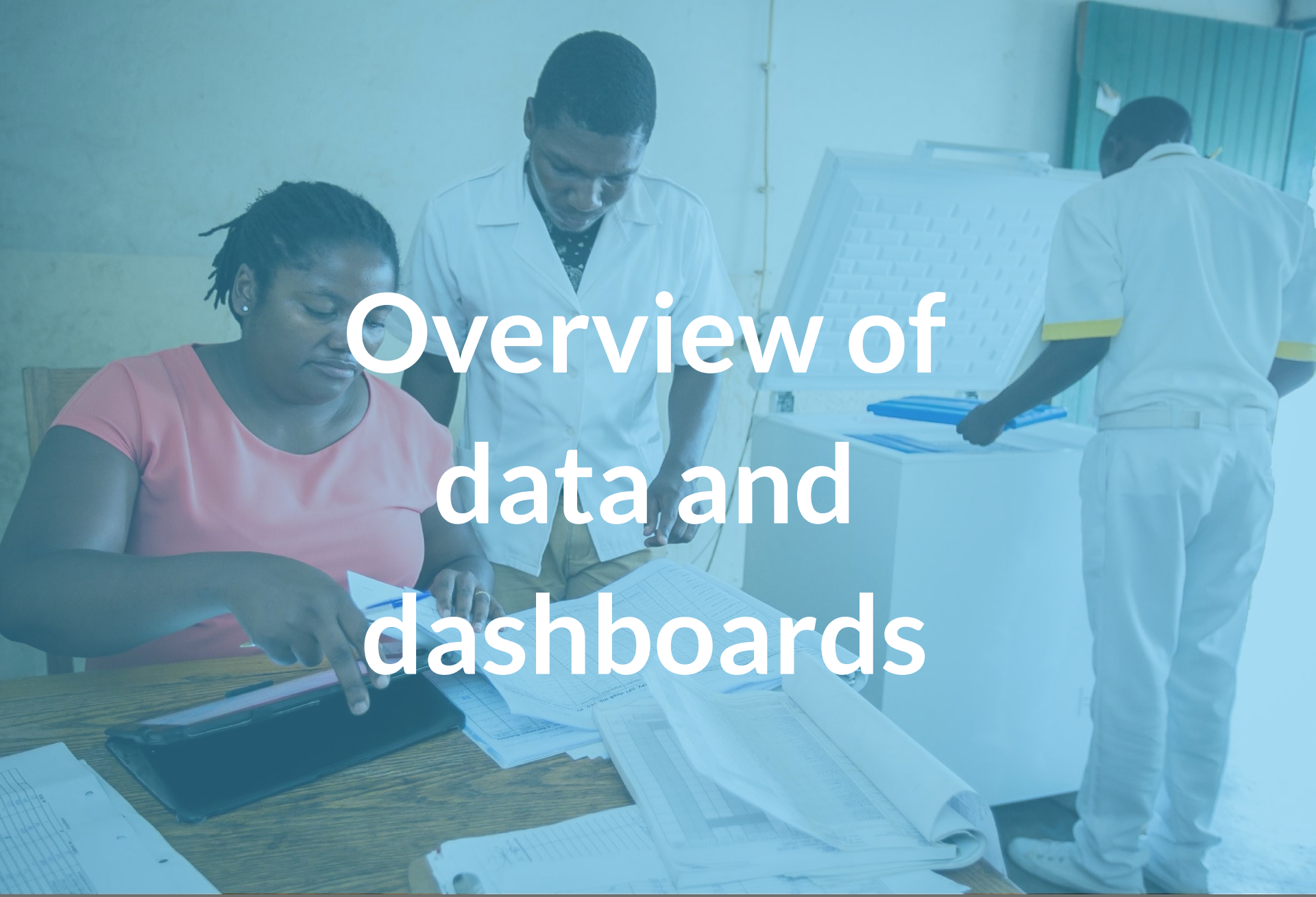
Supports offline health records for all registered clients

Manages stock and is able to match the client to commodity disbursement

- First time RTM data is directly available within the OpenLMIS core platform
- Leverages the FHIR standard for exchanging information on facilities and devices

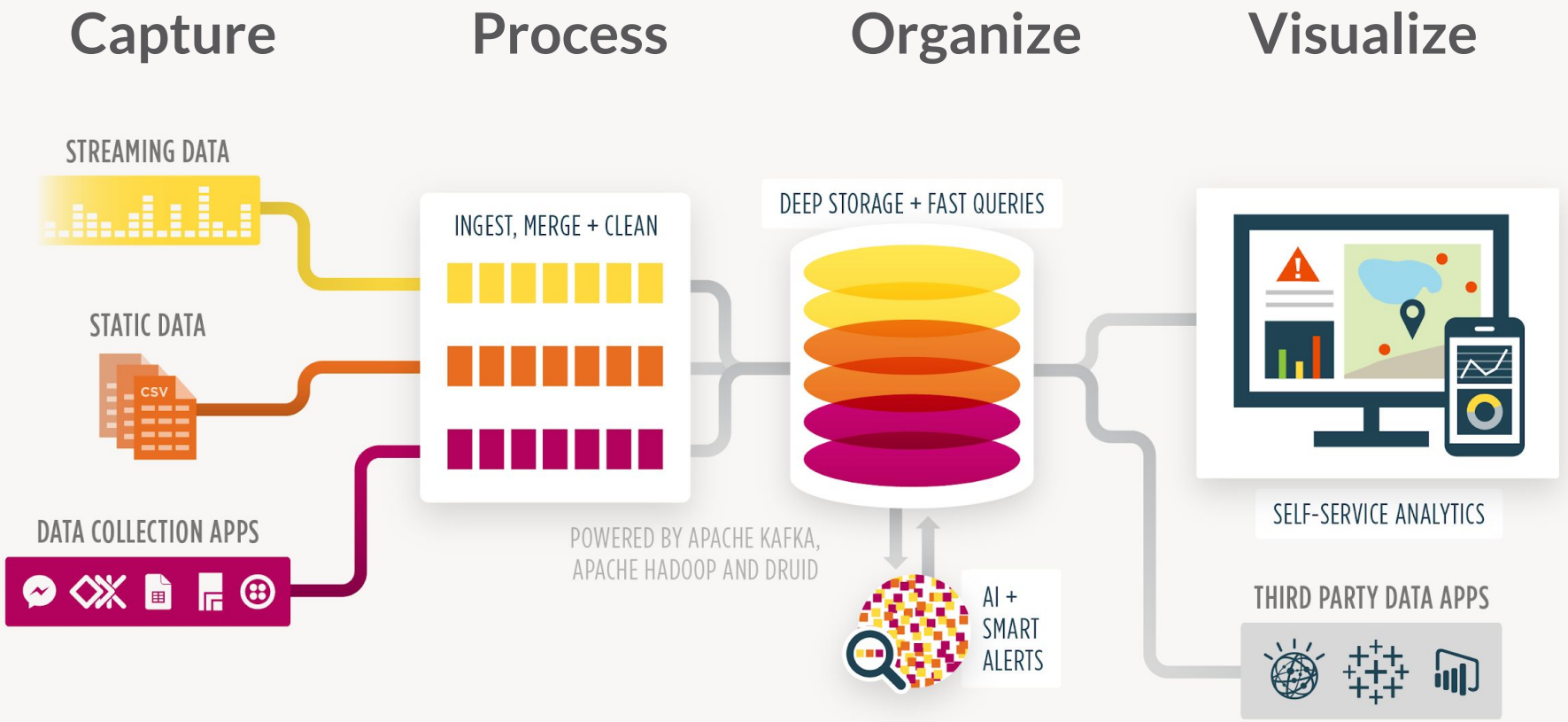
Notifies users about outages in cold chain equipment

Within OpenLMIS, logisticiens can review CCE status when planning resupply

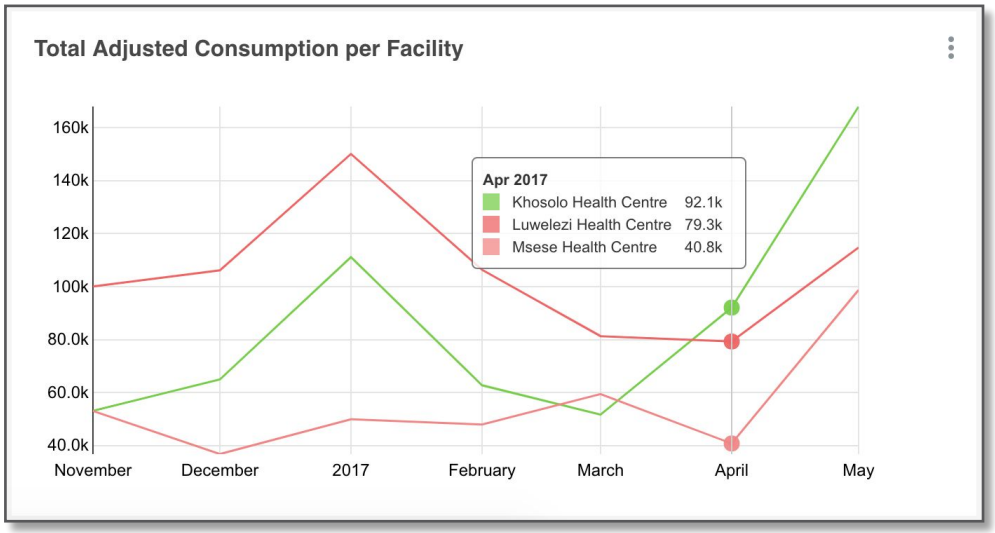


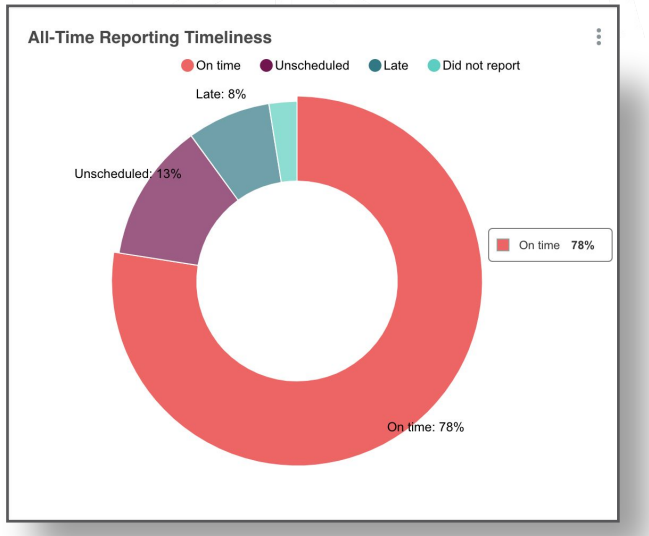
Overview of data and dashboards

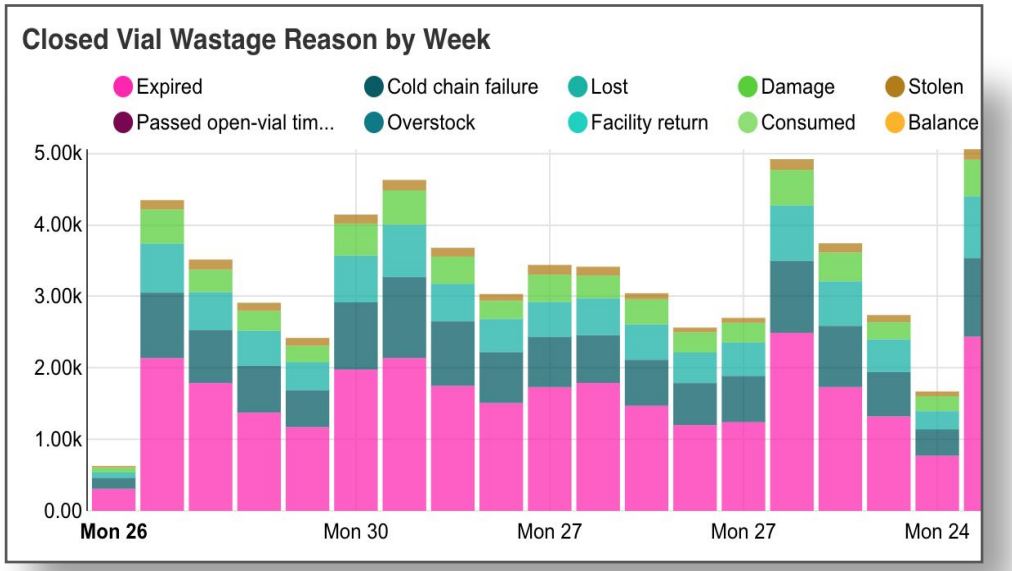
Analytics Infrastructure

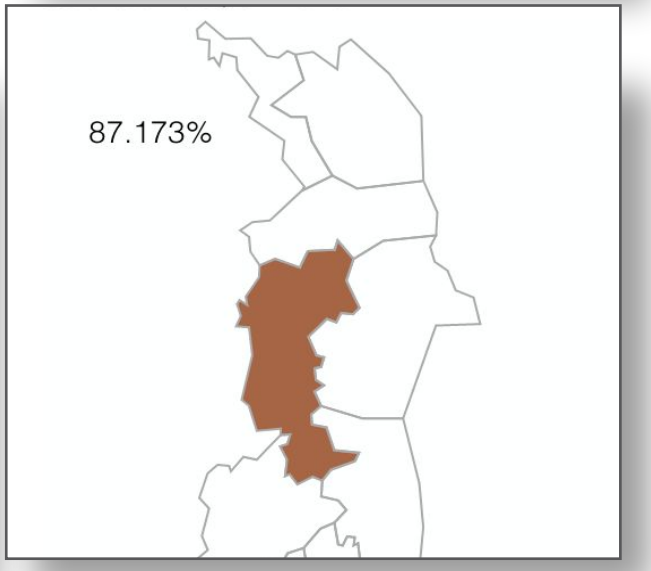


Auto-Generated Reports









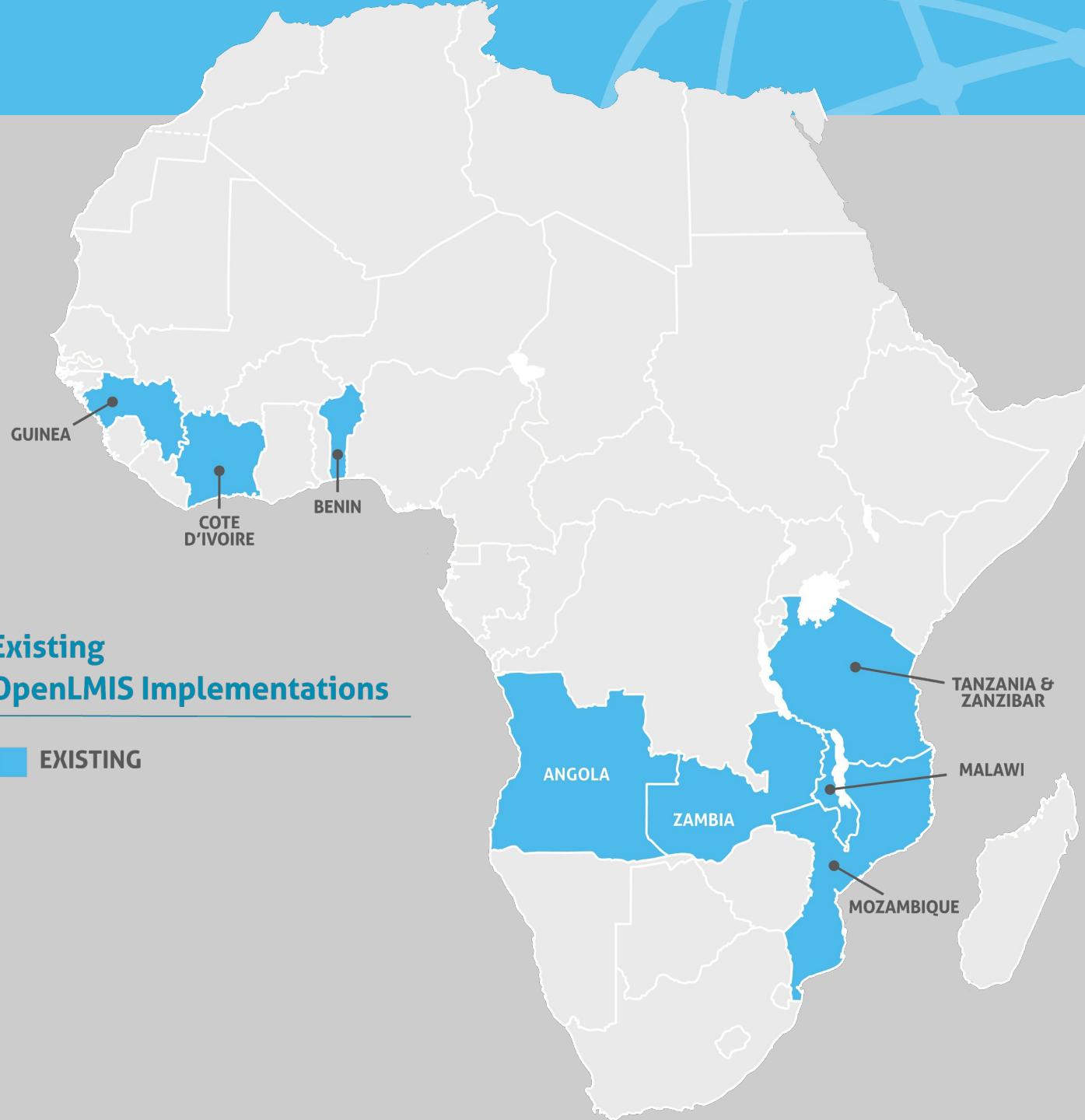
Impact

Through 9 implementations

OpenLMIS manages logistics processes for over 11,000 health facilities across Africa

Increasing data visibility and timeliness

Reducing stockout frequency and duration



OpenLMIS makes it easier for me to elaborate reports at the end of each distribution.

Mumino Amisse, Provincial EPI Manager (Cabo Delgado)

With OpenLMIS we have an accurate view of actual consumption. Before, it was hard to know what we actually needed. Having access to this data has helped to reduce stockouts and also address the issue of overstocking."

Provincial Medical Chief,
Mozambique (Bertur Alface)

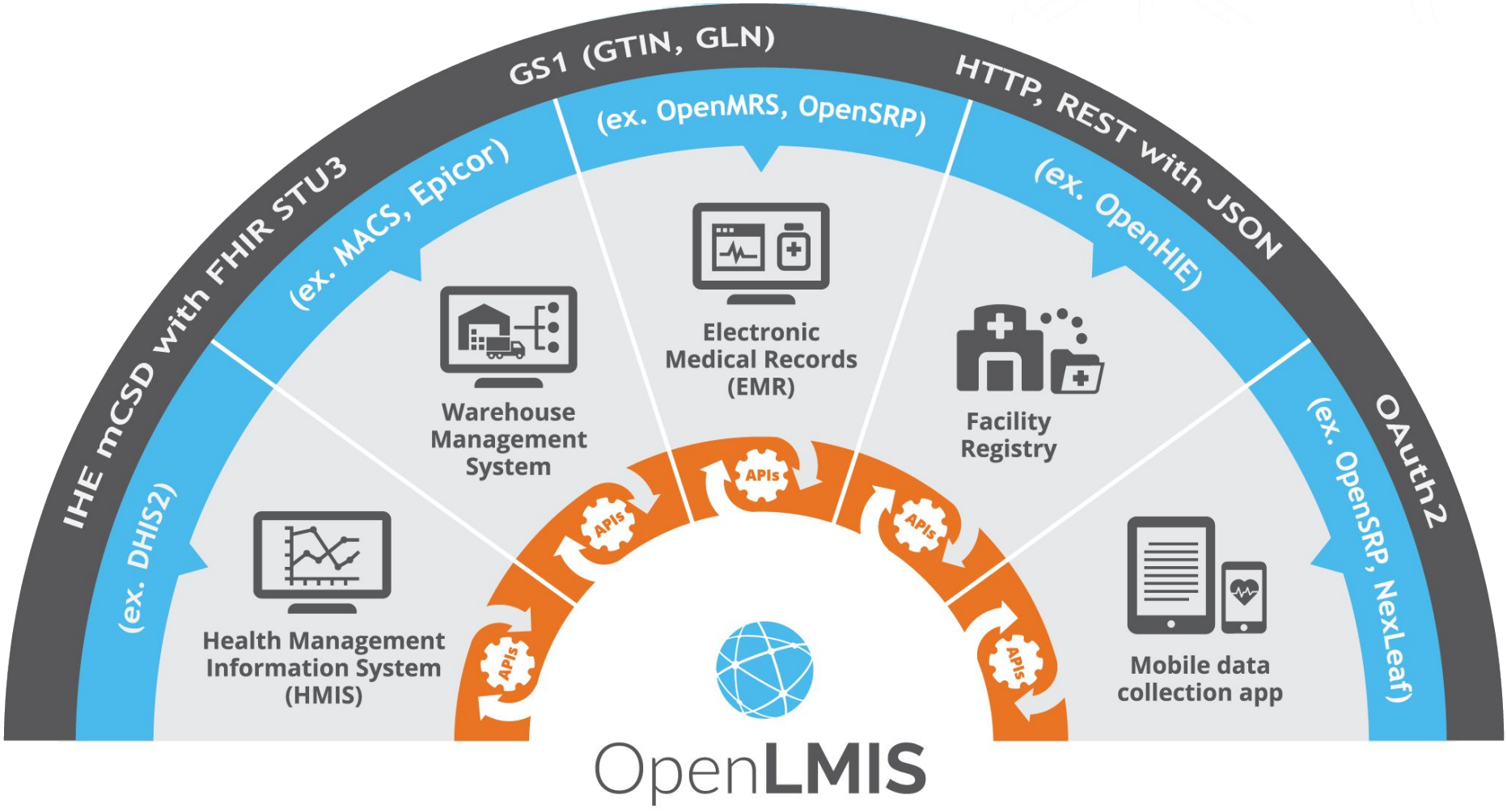
How countries have performed with OpenLMIS

	Without OpenLMIS	With OpenLMIS
Time taken to perform order calculations	3 hours	1 minute
Stockout rates	19%	5%

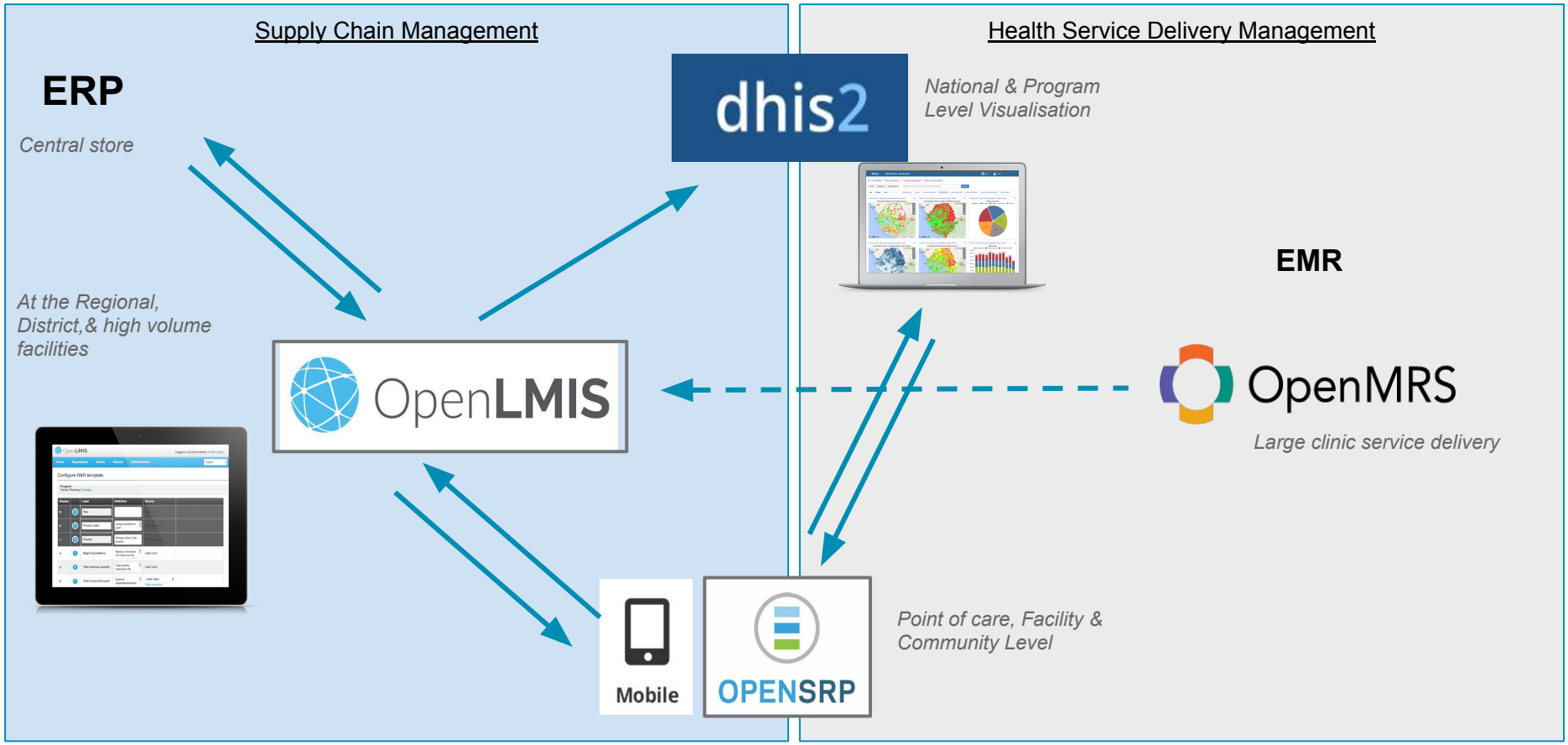
Source: User Satisfaction Survey, Mozambique, 2014

Standards

Standards based interoperability



Open Source Ecosystem-shared benefits



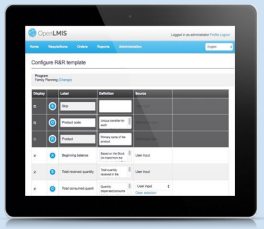
Open Source Ecosystem-shared benefits

Supply Chain Management

ERP

Central store

At the Regional, District,& high volume facilities



OpenLMIS

Mobile

OPENSRP

Health Service Delivery

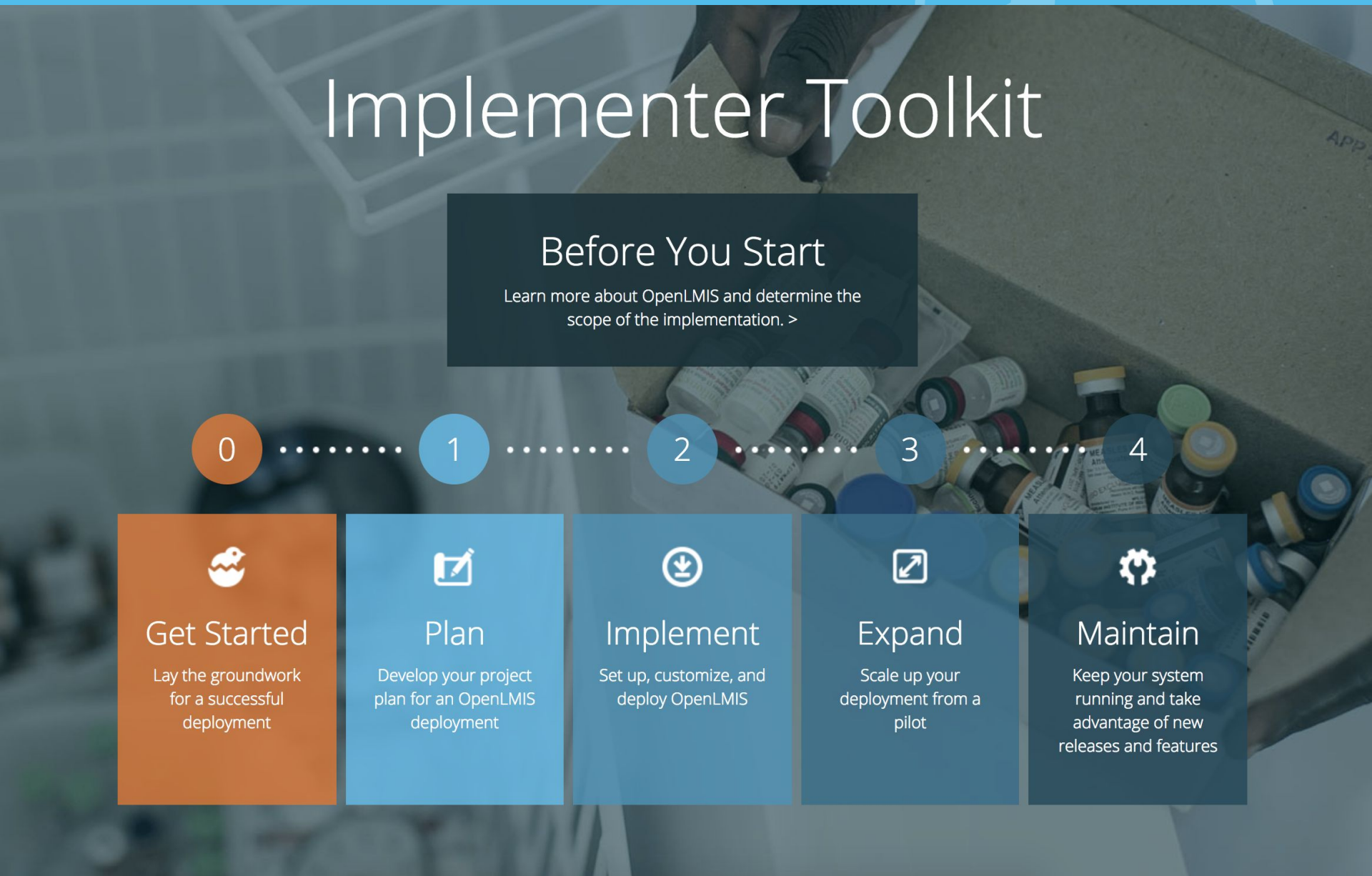
dhis2

National & Program Level Visualisation

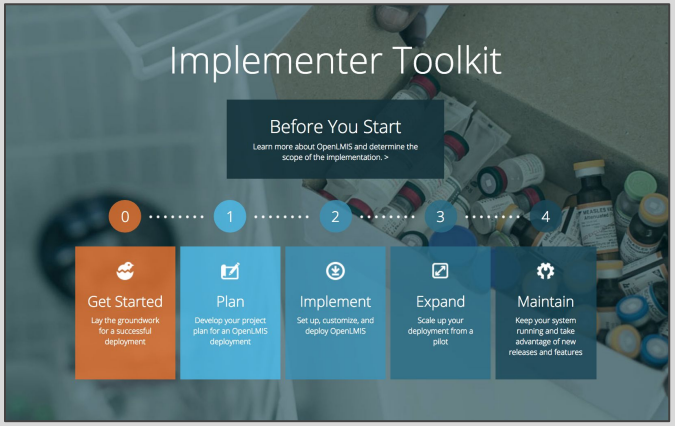
Point of care, Facility & Community Level

Getting Involved

New Support Materials



Getting involved



Contribute to the toolkit

The OpenLMIS Implementer Toolkit is only as good as its contributors!

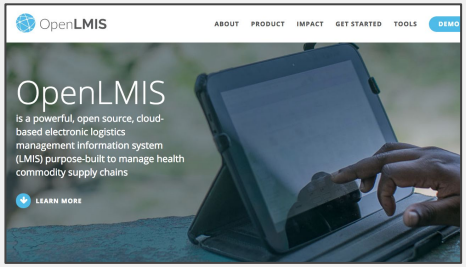
We welcome feedback and additional resources to help make the Toolkit a valuable and useful guide

Join the Community

What sets OpenLMIS apart is the support of highly skilled and experienced partners

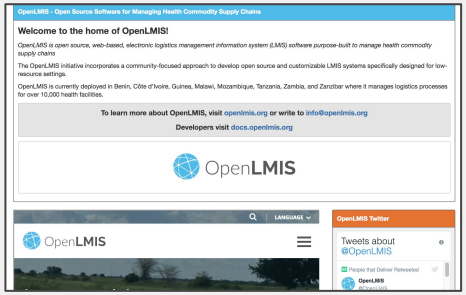
Add your voice to this growing community of global health leaders and help make OpenLMIS even better

Learning more



openlmis.org

Blog posts, implementation map, features, tools, and the Implementer Toolkit can be found on the OpenLMIS website.



Wiki

The wiki is the source for community meeting notes, committee descriptions, product design considerations, project management, and the living product roadmap.

Documentation

ReadtheDocs contains developer-oriented OpenLMIS documentation. Users can find developer docs, ERD schemas, an OpenLMIS coding style guide, and API documentation.

Visit the OpenLMIS YouTube channel for demo videos and more

Takeaways

1. WHO WE ARE

An **open source** technology solution and **initiative** that can help countries **actively manage** their complex supply chains.

2. WHAT WE CAN DO

End-to-end data visibility, with improved access and quality data to address barriers to data usage--- OpenLMIS **improves data reporting** and makes it enticing.

3. WHAT SETS US APART

OpenLMIS strives for **standards-based interoperability** and provides a **highly configurable and extensible system** to meet countries where they are at.

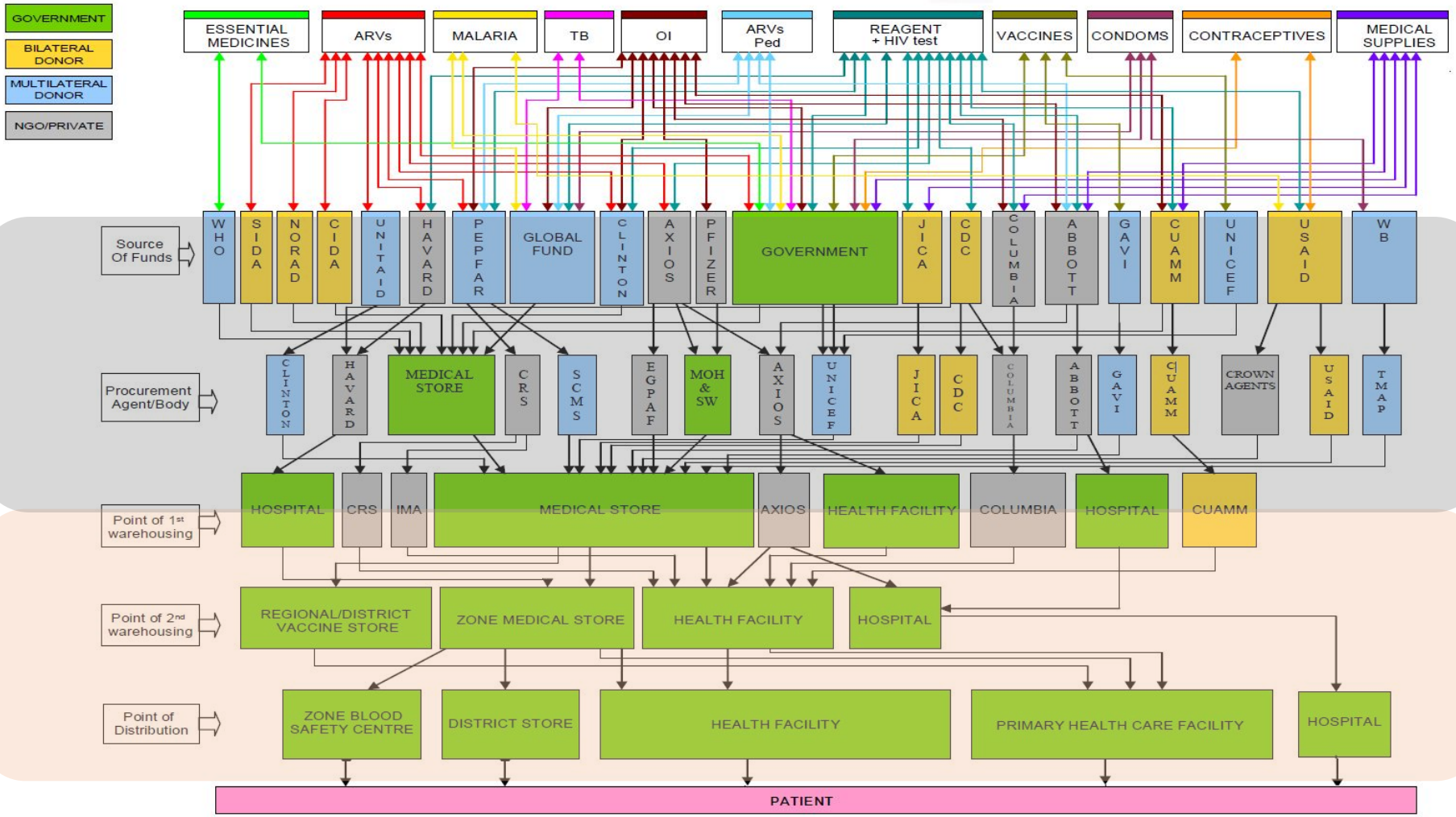
4. HOW CAN WE WORK TOGETHER

OpenLMIS has **no software licensing fee** – allowing countries to focus investments on people, processes, and improving local health systems.

Thank you
OpenLMIS
Come chat now with questions
openlmis.org
info@openlmis.org

Additional slides

Complex Supply Chain Environment



Information System Challenges

Fragmented Solutions

Program Specific

Country Specific

Level Specific

Low Reporting Rates

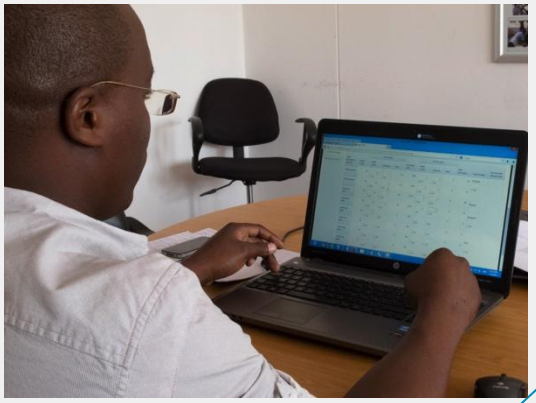
Hard to Maintain

Costly to Donors

Expensive

Late

Proprietary

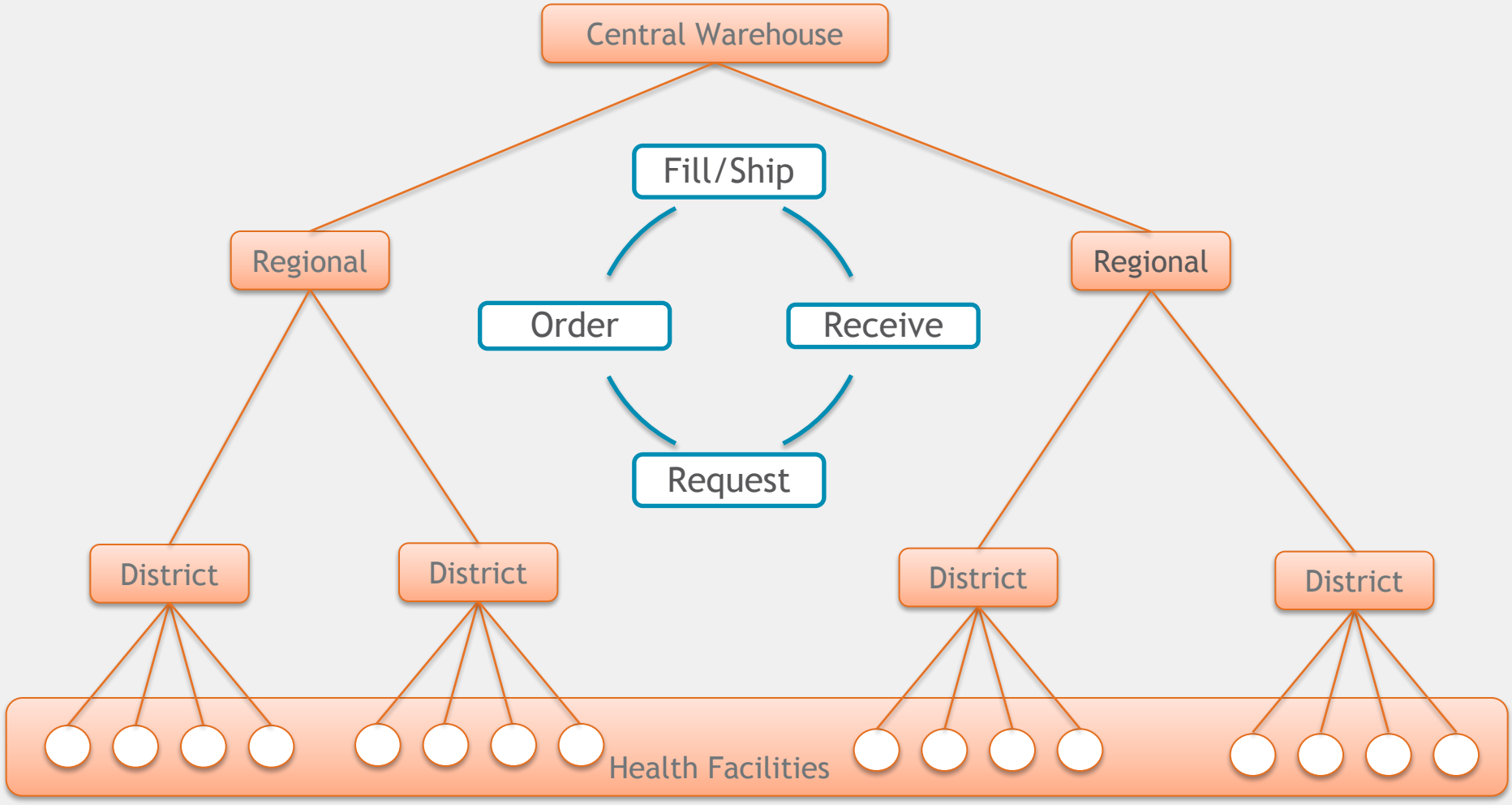


Poor Data Quality

Inaccurate

Paper Systems

OpenLMIS Requisition Workflow



“Pull” System Workflow

Facility

Store Room Clerk

Submit Requisition

In-Charge

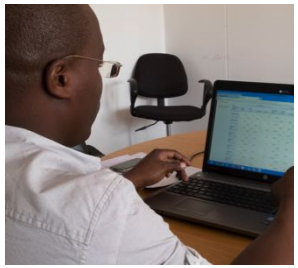
Authorize Requisition

District

District Manager

Approve Requisition

Warehouse



Warehouse Clerk

Release Order

Pack and Ship in Warehouse System (ERP)

Delivery Site

Delivery Driver

Enter Proof of Delivery

System Administration

Example workflow. Actual workflow can be configured to match target fulfillment process.