OpenLMIS

19 April 2018

Our goal

Today, we hope that you leave with a better understanding of

1. What OpenLMIS is and how it works

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

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

If we haven't met this goal or if you'd just like to learn more, please come see us after the session

OpenLMIS Team

Tenly Snow

Community Manager: define and support community processes, facilitate communication between partners, identify opportunities

Brandon Bowersox-Johnson

Governance Member: advise on strategy and direction for the overall OpenLMIS initiative

Vidya Sampath

iSC Advisor: identify iSC user needs, define requirements, & liaise with global and country EPI stakeholders

OpenLMIS Initiative

Donors

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

Implementers

JSI

Chemonics

VILLAGEREACH Starting at the Last M

PATH

amp AGENCE DE MEDECINE PREVENTIVE

UNFPA

CLINTON HEALTH ACCESS INITIATIVE

Technology Partners

ONA

NEXLEAF ANALYTICS

OPENSRP

BAO SYSTEMS

SolDevelo solutions development

ThoughtWorks

BrowserStack

OpenLMIS

Through **9** implementations

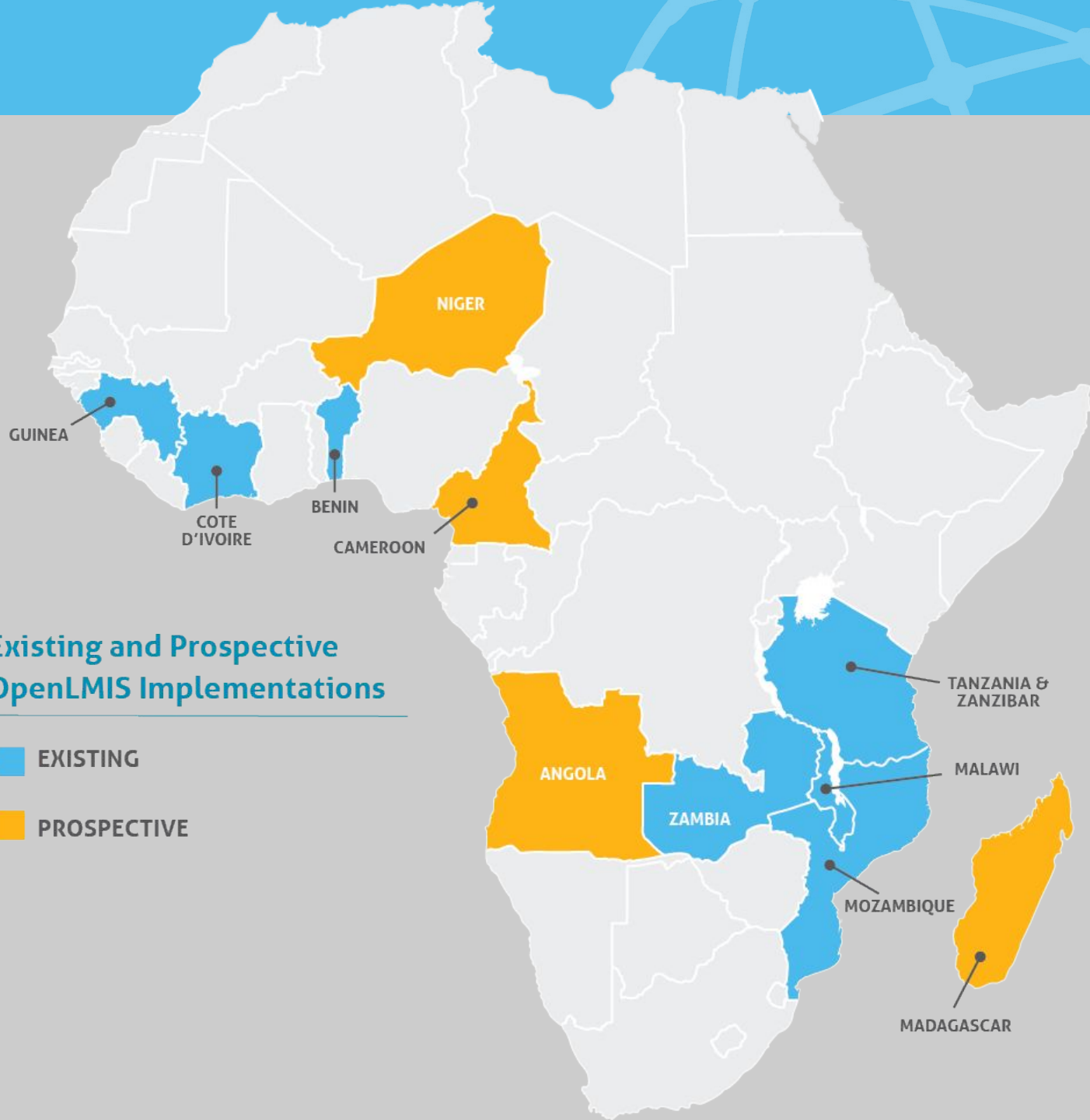OpenLMIS manages logistics processes for over **10,000** health facilities across Africa

Increasing data visibility and timeliness

Reducing stockout frequency and duration

Existing and Prospective OpenLMIS Implementations

EXISTING

PROSPECTIVE

NIGER

GUINEA

COTE D'IVOIRE

BENIN

CAMEROON

TANZANIA & ZANZIBAR

MALAWI

ANGOLA

ZAMBIA

MOZAMBIQUE

MADAGASCAR

The OpenLMIS Software Vision

Shared Investment, Shared Benefit

Promoting code reuse through microservices architecture and community approach
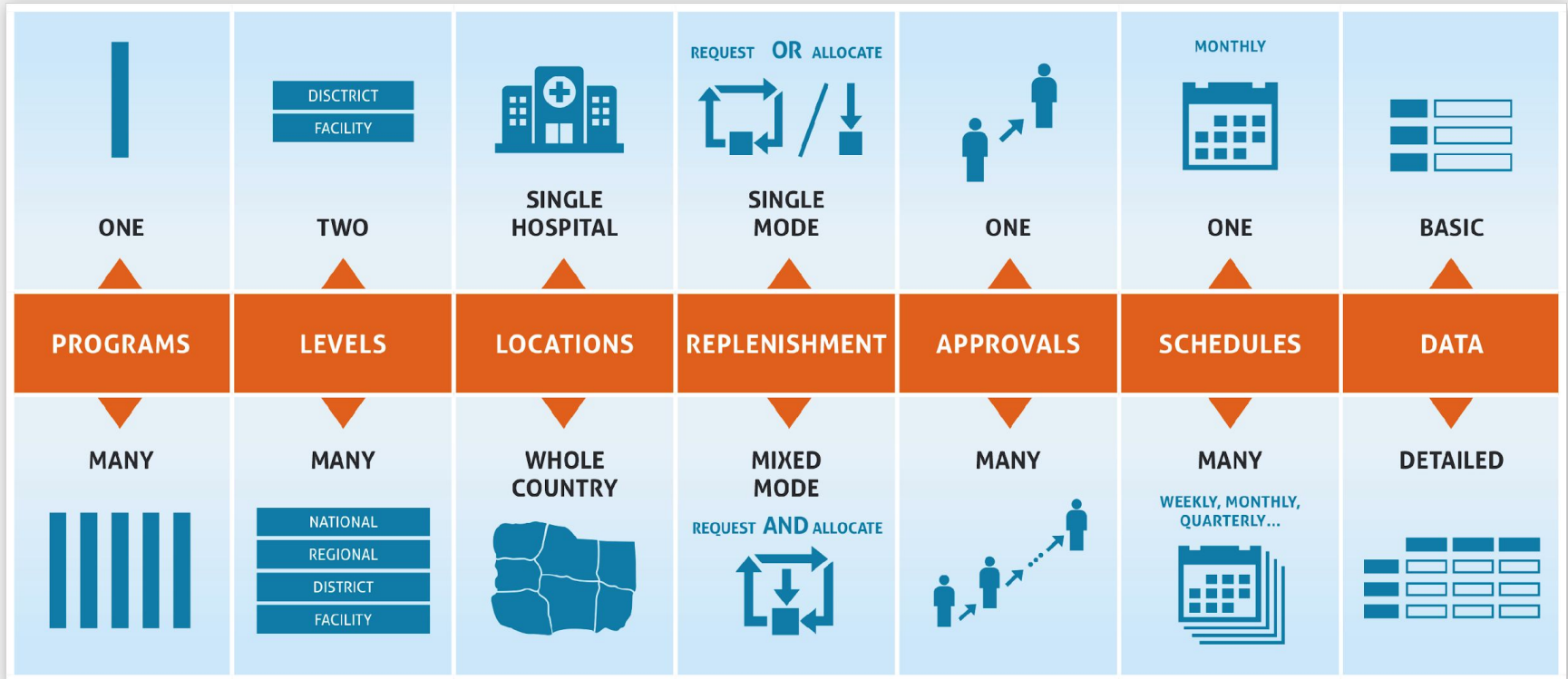
Interoperable

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

Configurable and Extensible

Modular architecture enables extensibility *without* forking

Configurability

PROGRAMS	LEVELS	LOCATIONS	REPLENISHMENT	APPROVALS	SCHEDULES	DATA
ONE	TWO	SINGLE HOSPITAL	SINGLE MODE	ONE	ONE	BASIC
MANY	MANY	WHOLE COUNTRY	MIXED MODE	MANY	MANY	DETAILED

OpenLMIS Features

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

Stock Management:
Captures inventory data and stock movements to provide an overview of full stock availability. Record vial wastage and VVM status.

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

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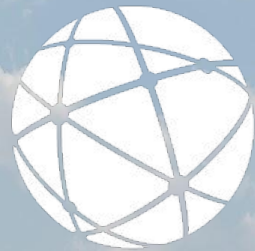Use and display data with intuitive visualization that support decision-making.

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

Equipment (CCE):
Track cold chain equipment inventory, functional status and receive real-time alerts on device temperature.
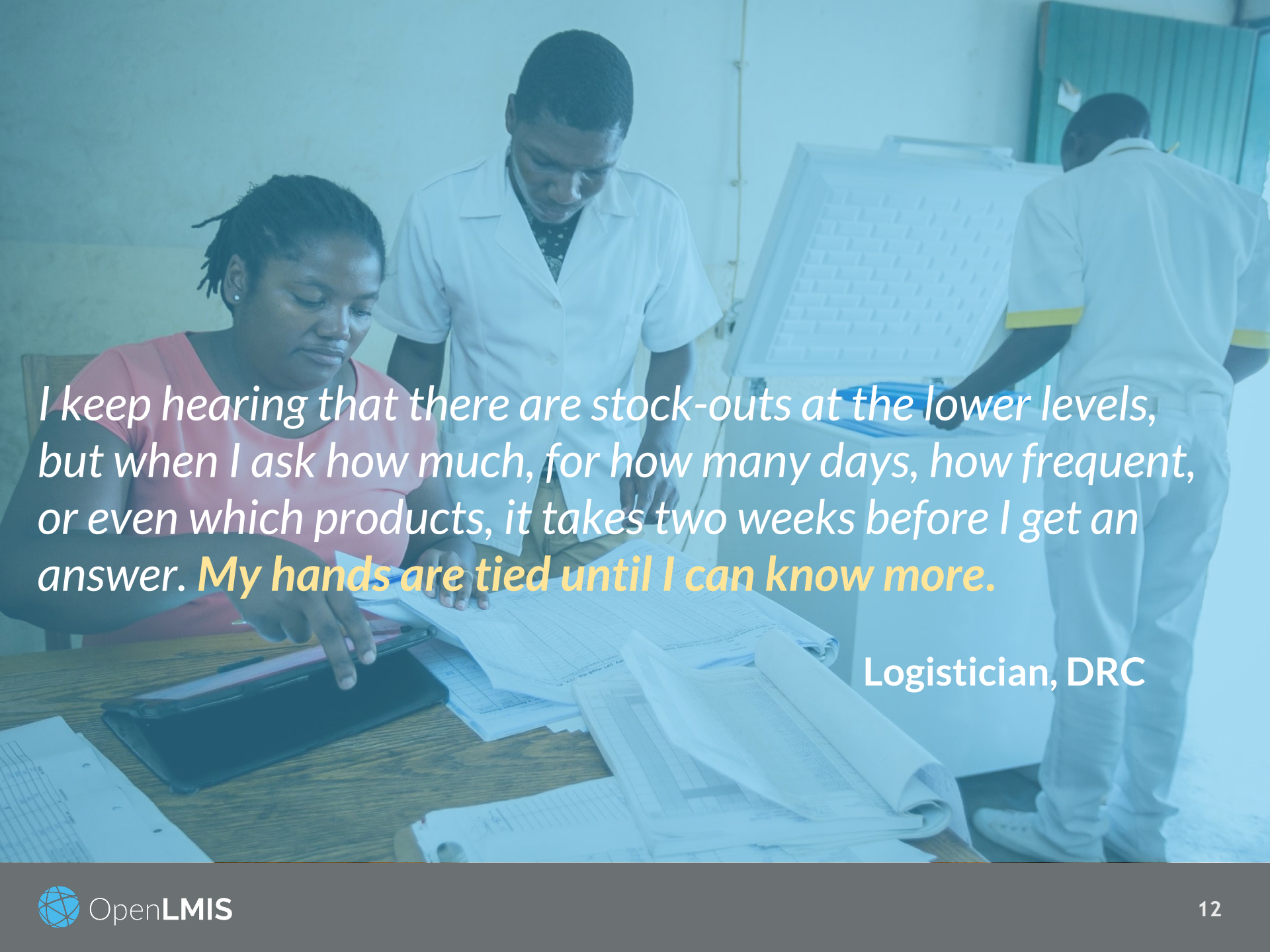
Open**LMIS**

The HMIS says 110% children are immunized last quarter but the stock ledgers say there were stockouts the same time.
Which data should we trust?

EPI Manager, Zambia

I keep hearing that there are stock-outs at the lower levels, but when I ask how much, for how many days, how frequent, or even which products, it takes two weeks before I get an answer. **My hands are tied until I can know more.**

Logistician, DRC

*There are some facilities that I'm afraid to send vaccines to because I know in the past their cold chain was a problem. I have to call or send in batches because **I don't know for sure** what's happening with the fridge.*
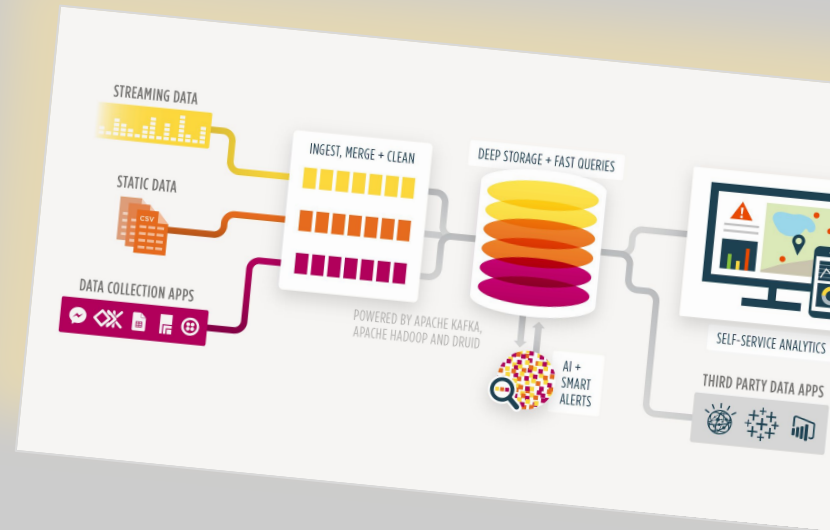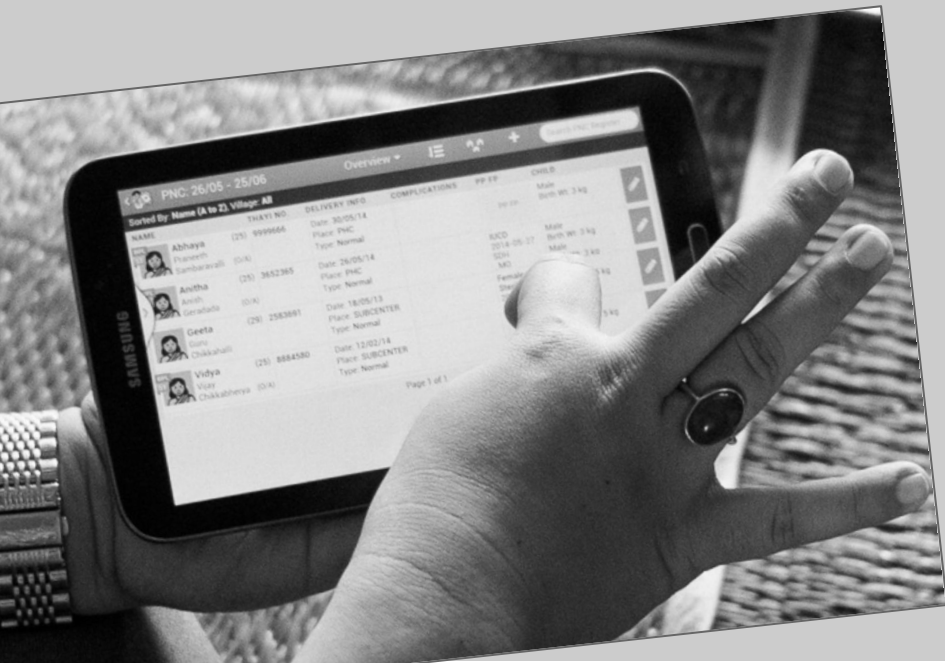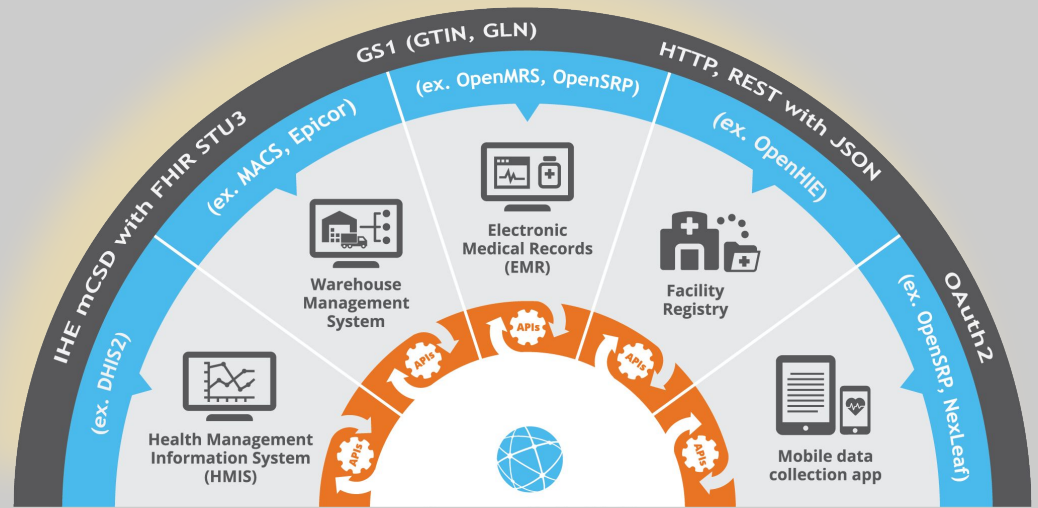
Sub-national Vaccine Depot Manager, Benin

5 Inventory Items

- Fridge #125
- Fridge #166 🔔
- Fridge #2 🔔
- Fridge #43 🔔
- Fridge #84 🔔

Facility CCE Status

🟡 Not fully functioning 🔔

IHE mCSD with FHIR STU3 (ex. DHIS2)

GS1 (GTIN, GLN)

(ex. MACS, Epicor)

(ex. OpenMRS, OpenSRP)

HTTP, REST with JSON

(ex. OpenHIE)

OAuth2

(ex. OpenSRP, NexLeaf)

Warehouse Management System

Electronic Medical Records (EMR)

Facility Registry

Health Management Information System (HMIS)

Mobile data collection app

APIs

STREAMING DATA

STATIC DATA

DATA COLLECTION APPS

INGEST, MERGE + CLEAN

DEEP STORAGE + FAST QUERIES

POWERED BY APACHE KAFKA, APACHE HADOOP AND DRUID

AI + SMART ALERTS

SELF-SERVICE ANALYTICS

THIRD PARTY DATA APPS

Analytics Infrastructure

Capture **Process** **Organize** **Visualize**

STREAMING DATA

STATIC DATA

CSV

DATA COLLECTION APPS

INGEST, MERGE + CLEAN

DEEP STORAGE + FAST QUERIES

POWERED BY APACHE KAFKA, APACHE HADOOP AND DRUID

AI + SMART ALERTS

SELF-SERVICE ANALYTICS

THIRD PARTY DATA APPS
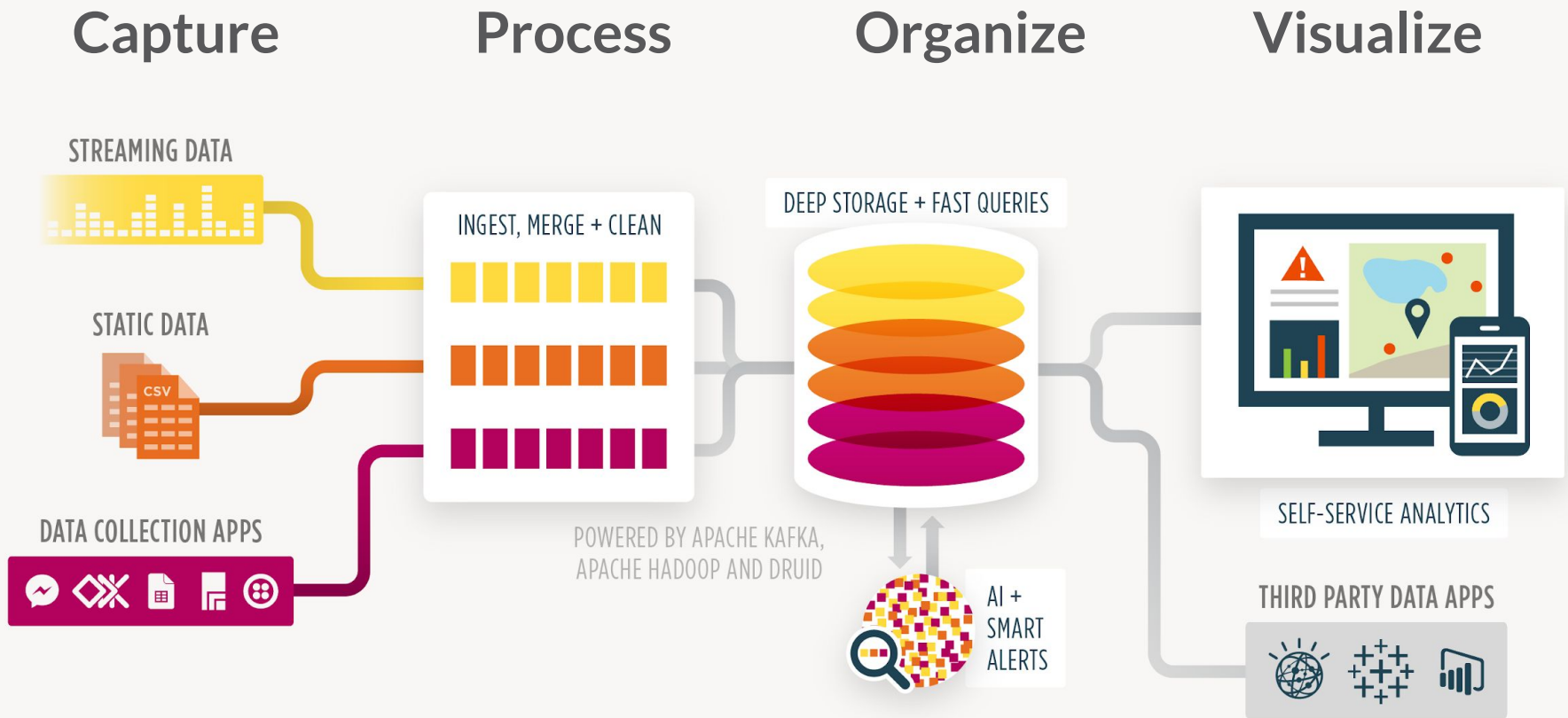
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Reporting and Analytics

What is happening?

⬇

What data is driving that state?

⬇

Where should I focus?

Standards based interoperability

GS1 (GTIN, GLN)

(ex. OpenMRS, OpenSRP)

HTTP, REST with JSON

IHE mCSD with FHIR STU3

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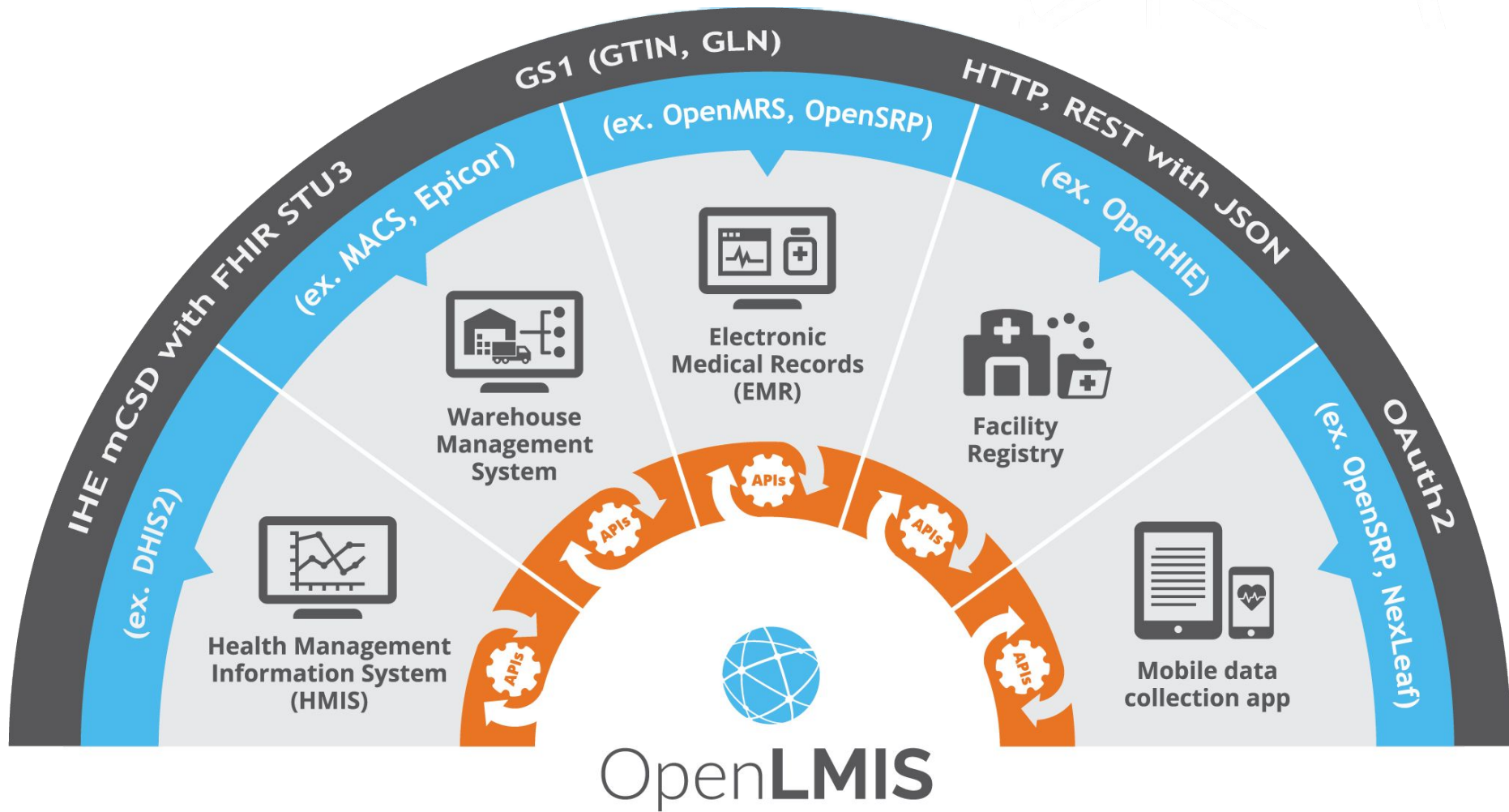
OpenLMIS

Health Management Information System

Warehouse

(ex. MACS, Epicor)

Warehouse Management System

APIs

OpenLMIS

Electronic Medical Record

Facility Registry

Mobile

Mobile data collection app

(ex. OpenSRP, NexLeaf)
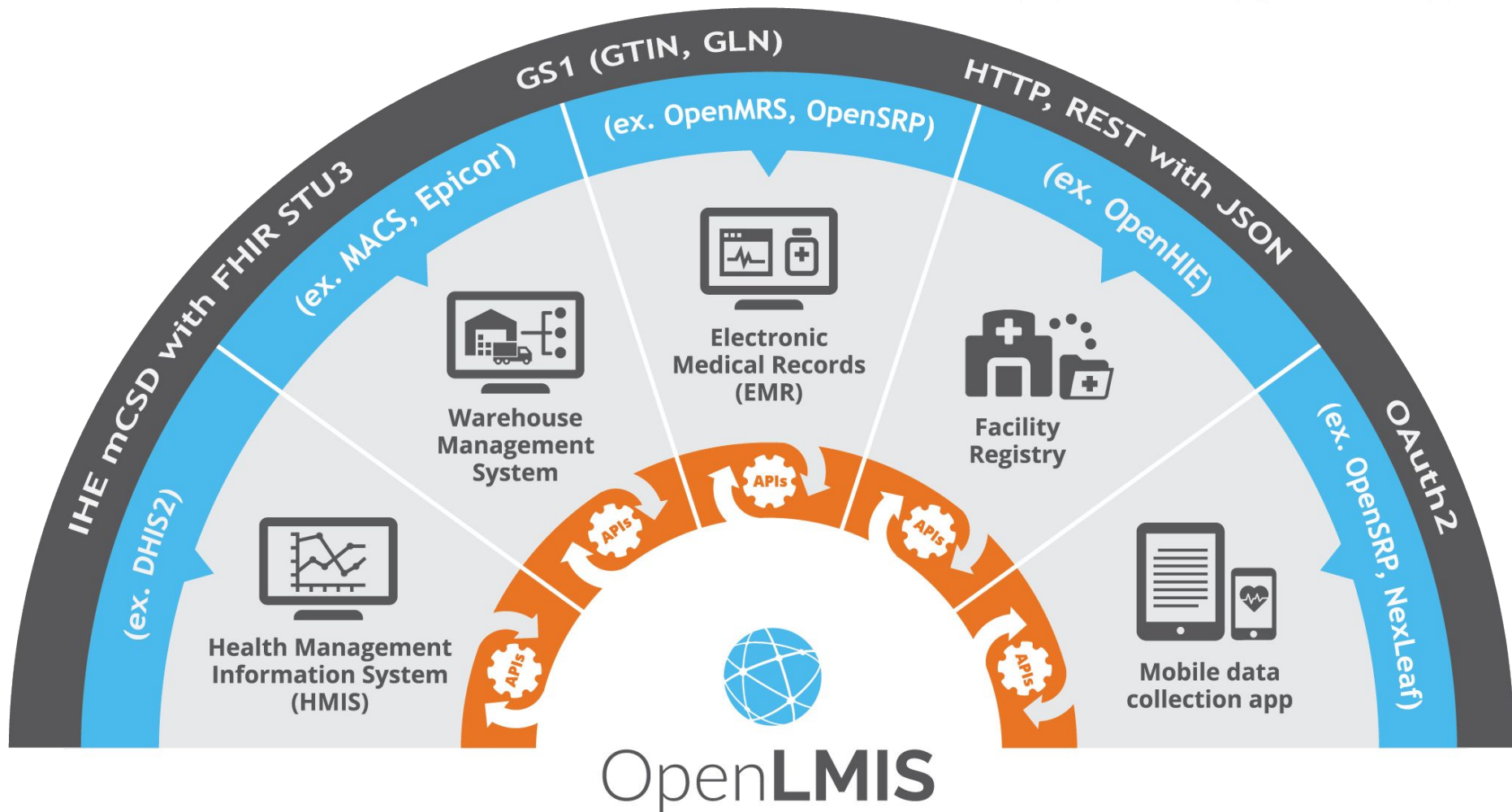
OpenLMIS

The whole pie

New Support Materials

Implementer Toolkit

Before You Start

Learn more about OpenLMIS and determine the scope of the implementation. >

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Get Started

Lay the groundwork for a successful deployment

Plan

Develop your project plan for an OpenLMIS deployment

Implement

Set up, customize, and deploy OpenLMIS

Expand

Scale up your deployment from a pilot

Maintain

Keep your system running and take advantage of new releases and features

Get Started
Lay the groundwork for a successful deployment

Laying the groundwork for a successful deployment
Common Ground & CRDM - Requirements - Country Landscape - Cost Estimates

Plan
Develop your project plan for an OpenLMIS deployment

Planning your project
Community - Scoping - Project Planning - Project Governance & Management - Interoperability & Standards - Monitoring & Evaluation

Implement
Set up, customize, and deploy OpenLMIS

Setting up, customizing, and deploying OpenLMIS
Community - Software Development & Technical Setup Guide - Configuration Guide - Training and Support - Testing/QA

Expand
Scale up your deployment from a pilot

Scaling up your deployment
Community - Governance - Project Management - Training

Maintain
Keep your system running and take advantage of new releases and features

Keeping your system running
Community - Maintenance & Support - Training

OpenLMIS

Getting involved

Contribute to the toolkit

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

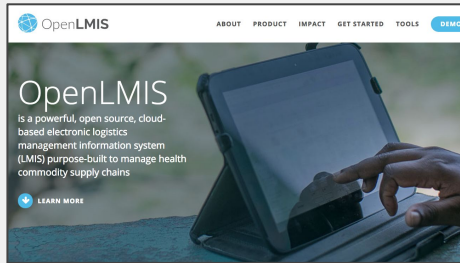**We welcome feedback and additional resources to help make the Toolkit a valuable and useful guide**
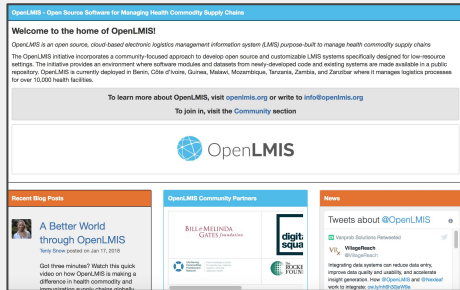
Join the Community

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.

OpenLMIS

Obrigado!
Merci!
Thank You!

Come see us right now if you want to see a quick demo of any of the features mentioned today

OpenLMIS

Contact us by emailing info@openlmis.org

Or by reaching out to Tenly directly
tenly.snow@openlmis.org

Audience

PATH country directors and senior leaders (interested in PATH role/relevancy to support Ministries of Health, including devices, innovation, system design)

Aggressively introductory, know where it fits in, what its value is, how to engage
Brandon's idea: What problem does it solve? > reframing
Focus new slides on how we tell what OpenLMIS does > what software actually does
Interoperability
Q & A – Team
   (and afterwards other country alignment issues where relevant based on attendees)

Goals

1. Participants walk away understanding OpenLMIS - what it is, what problems it can solve
2. Bring PATH up to speed on OpenLMIS as a leader for interoperability with open data standards, and an ability to support multiple public health programs, levels, users, facility types
3. Work on better alignment (case-in-point is DRC) (alignment in terms of what? Good to get a little bit more specific here)

Notes:
Slides pre-13: Beef up (possibly add 1-2 additional slides)
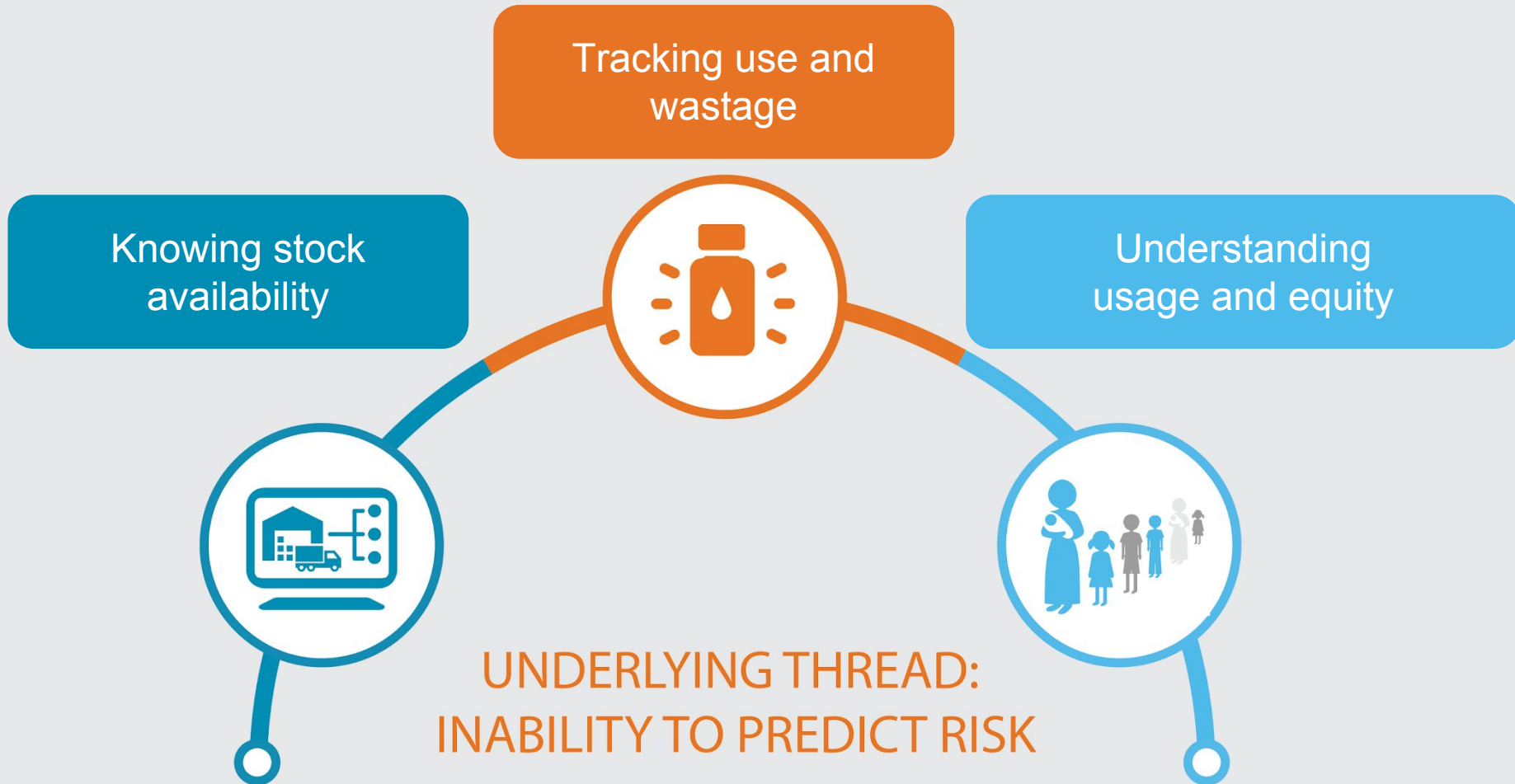Post-13: Look at continuing the conversation on 35/36/37
14-33 probably shouldn't be used unless there is a specific message to convey
Slide 21 - insert after 10 or 11 - major investment, or could put w 19

Assignments:
  -   Brandon Demos (OpenSRP and Reporting and OpenLMIS; see slide 22 to prep; schedule prep Weds)
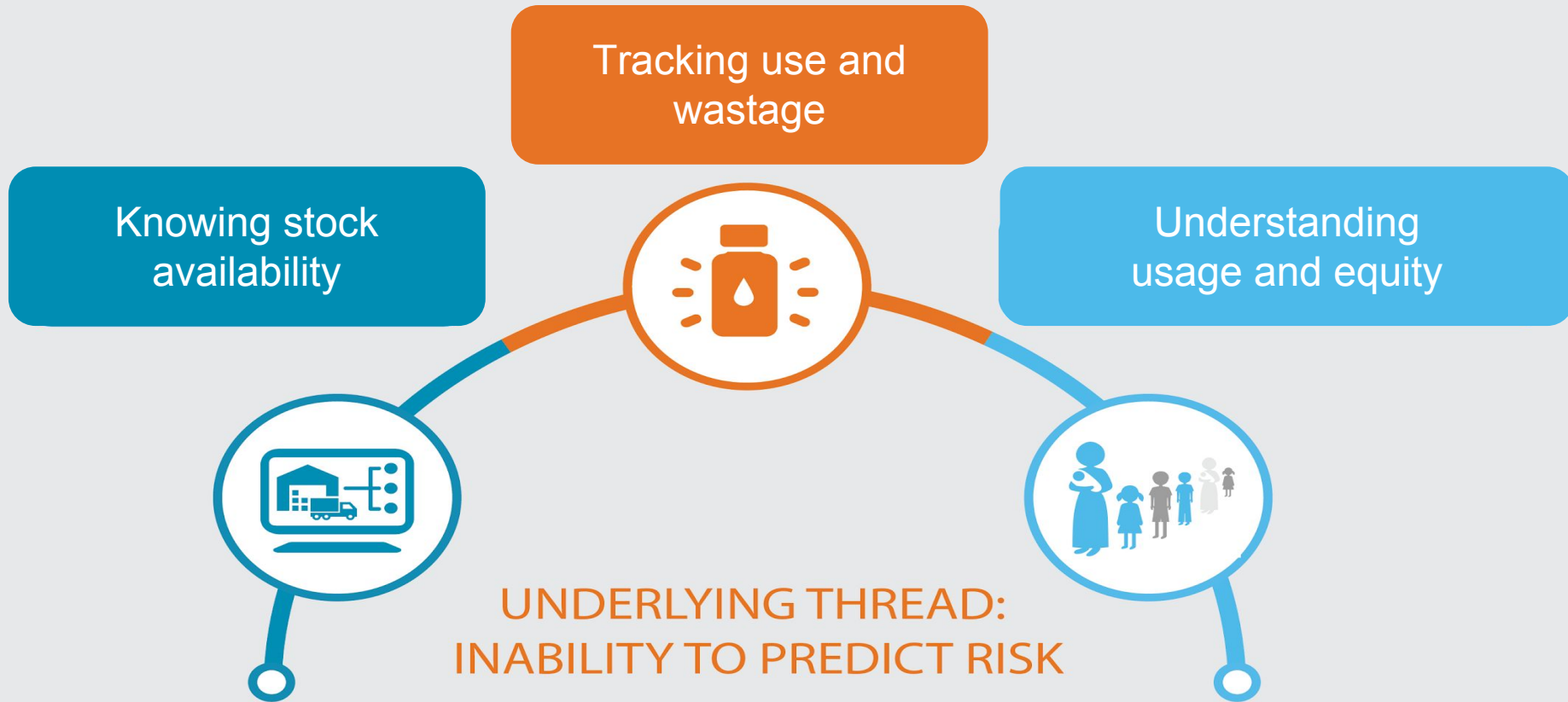
Common challenges…

Tracking use and wastage

Knowing stock availability

Understanding usage and equity

UNDERLYING THREAD:
INABILITY TO PREDICT RISK

Impactful data is the key to meeting these challenges proactively

…OpenLMIS can help

Tracking use and wastage

Knowing stock availability

Understanding usage and equity

UNDERLYING THREAD:
INABILITY TO PREDICT RISK

Impactful data is the key to meeting these challenges proactively

OpenLMIS provides a solution to address these challenges