

# Implementing Traceability for Patient Safety

## Pfizer Global Serialization Program

### African GS1 Healthcare Conference – Ethiopia

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# Agenda

- Introduction to Pfizer
- GS1 Standards Application
- Why Traceability?
- How to achieve traceability?



# About Pfizer

## Our Purpose:

*Innovate to bring therapies to patients that significantly improve their lives*

## Our Mission:

*To be the premier, innovative biopharmaceutical company*

## Our Four Imperatives:

1

Fix the innovative core and generate medicines that profoundly impact health

2

Make the right capital allocation decisions to maximize value and enhance shareholder return

3

Earn greater respect from society

4

Create an ownership culture

## Our Values



customer focus



community



respect for people



performance



leadership



collaboration



integrity



quality



innovation

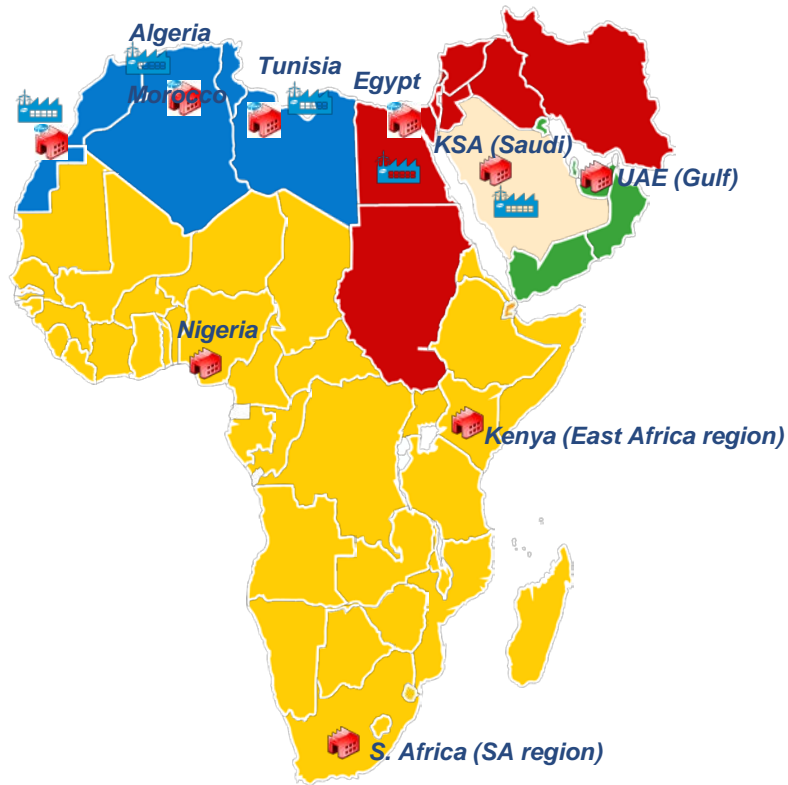


# Company Overview

- \$52.8 Billion in revenue
- 96,000+ employees
- ~ 63 Internal Manufacturing Plants
- ~ 450 Contract Manufacturers
- ~ 13,000 Supply Partners
- 850+ major product groups
- 25,000+ SKUs
- Diverse Operating Units covering key product areas such as:
  - Bio Pharmaceuticals
  - Vaccines
  - Solid Oral Dose
  - Aseptic
  - Sterile Injectables
  - Consumer Healthcare



# Pfizer Global Supply Operations



## PGS Operations:



**LMS Site (5)**



**In-house DC (4)**



**3PLs (5)**

# AfME Operations

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**68**

**Markets**

Saudi, Egypt, Sudan,  
Algeria, Tunisia, Libya,  
Morocco, NEAR, WAR,  
SAR, Gulf, Levant



**~3,000**

**#SKUs**



**5**

**PGS Mfg. Sites (LMS)**



**4**

**In-house DCs**

**5**

**LSPs**



**162**

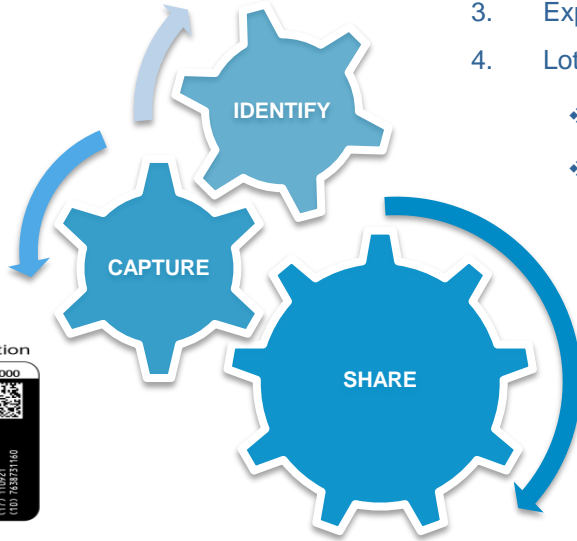
**GSC Colleagues**



# GS1 Standards Application

## GS1 DataMatrix as Data Carrier

- ❖ High-density and smallest size barcode
- ❖ Small footprint fits on most package sizes



## Key Data Elements / Application Identifiers:

1. GTIN (01)
2. Serial Number (21)
3. Expiry Date (17)
4. Lot Number (10)

GTIN (01)	00300694210304
SN (21)	100009876543
EXP (17)	YYMMDD
LOT (10)	L102034

- ❖ Unique identification of a unit
- ❖ Regulated by most worldwide mandates

## Interoperability

1. GS1 GDSN for master data
2. EDI for transaction data



- ❖ Common language between partners
- ❖ Master data is DNA for Serialization





# Why Traceability?

Simple interventions can save many young lives each year.



**Clean Water**



**Vaccination**



**Nutrition**

# Why Traceability?

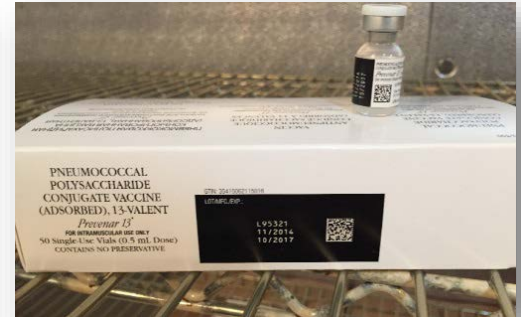
Are vaccines getting to the children in need?



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# A Solution - Barcodes

A focus on vaccine presentation and packaging.



# Why a Barcode?



## Accuracy

Scanning the 2D barcode will eliminate human data entry errors



## Efficiency

Scanning will speed up data entry



## Visibility

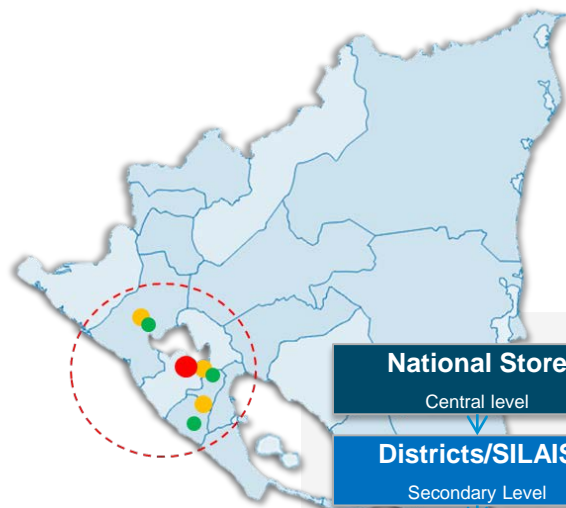
Real-time inventory reporting allows for quicker decision-making at intermediate and central levels



## Data Security

All system data is hosted centrally on a server – no need for local system copies at each site location

# Pfizer's 2D Barcode Pilot Program



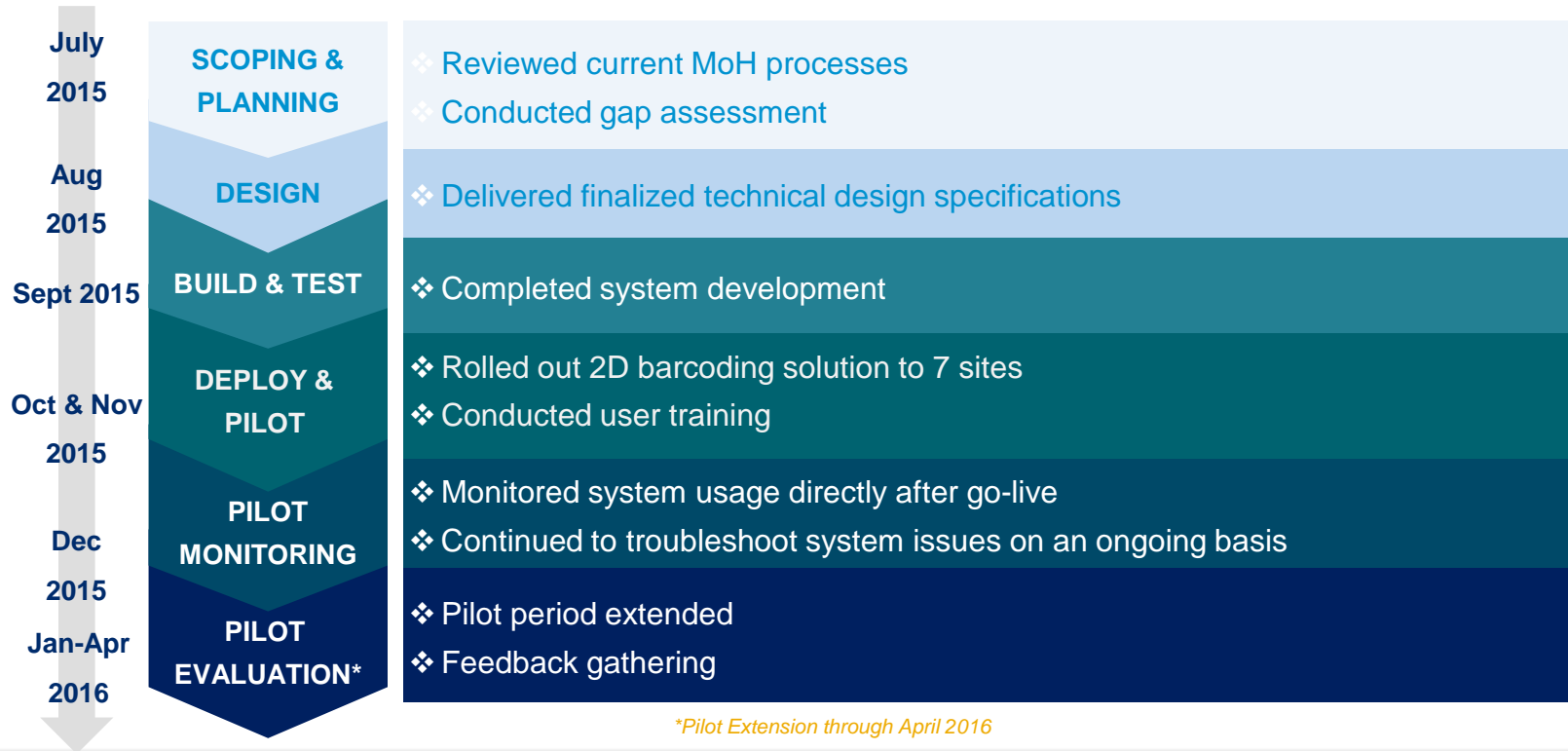
## PILOT SITES

1. **Cenabi**
2. **Managua**
3. **Masaya**
4. **León**
5. **Francisco Buitrago**
6. **Masatepe**
7. **Mantica Berio**

## Program Objectives

- Demonstrate compelling evidence and advance the dialogue
- Enrich open-source supply chain solutions
- Accelerate impact on global health

# Implementation Methodology



# Results



## Accuracy

Total number of adjustments made across all levels:

**One in 223 Transactions**



## Efficiency

**68% less time needed for one transaction  
vs. manual system**

*Manual entry: 1 minute*

*Scanned entry: 18 seconds*



## Visibility and Operational

Ability to see stocks at all levels:

**All levels of system used**

**100%**



## Data Security

- All system data hosted centrally
- Removes need for local system copies at each site location, reducing data management costs and possible security breaches

# Vaccine Presentation and Packaging Advisory Group

Established 2007 by the GAVI Alliance

- Initially Charged to Aid with Questions from Industry on Rotavirus and Pneumococcal Vaccines
- World Health Organization Assumed Responsibility in 2008
  - Expanded Scope to all Vaccines

## Barcode Working Group

- Established 2011
- Barcoding becoming prevalent for medicinal products to improve Inventory Visibility and patient safety in developed markets
- How to leverage for vaccines in Developing Markets
- Challenges – Data Definition, Structures, symbologies; Investment into Marking Technologies; Integration into existing systems in the field
- Alignment to Global Standards Critical

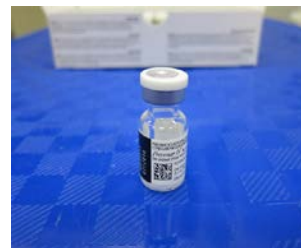




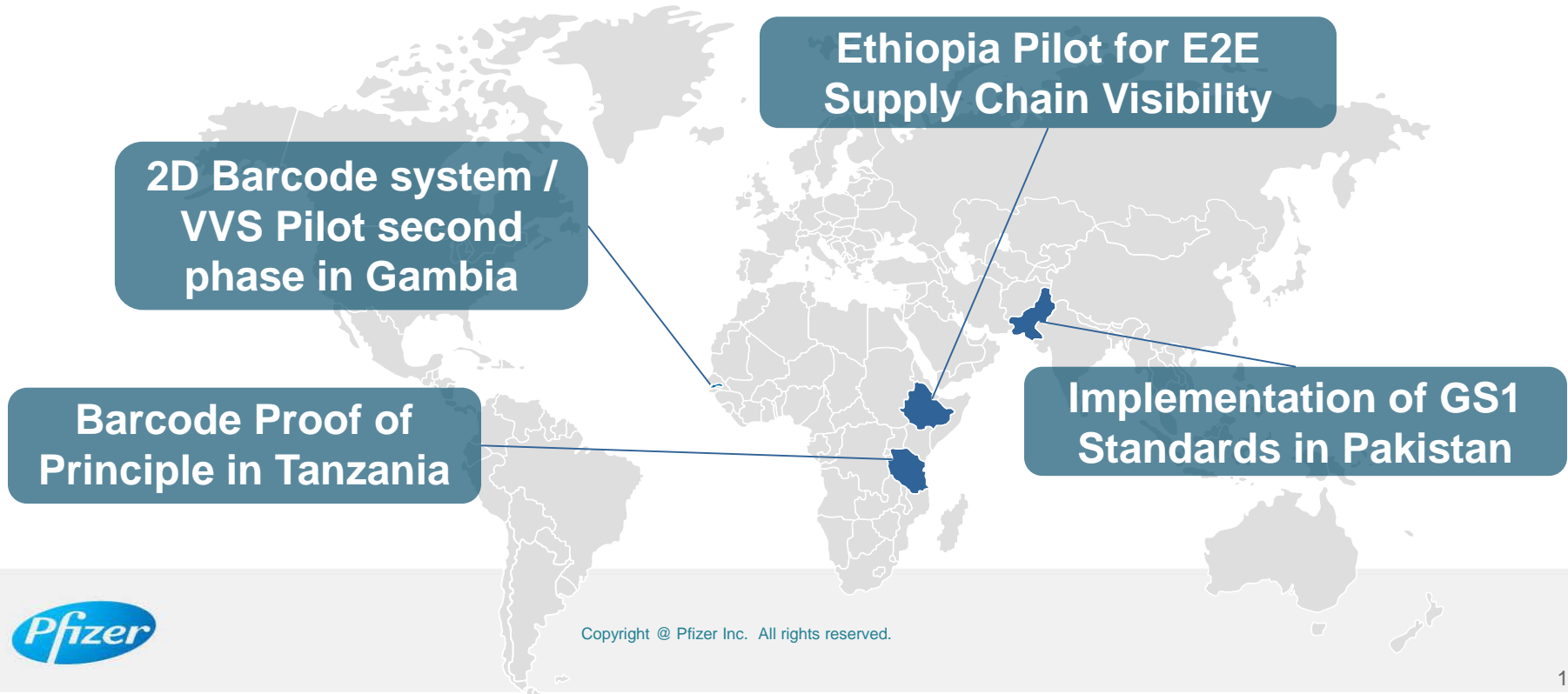
# Recommendations

Barcodes are recommended on all packaging levels used by manufacturers, with the exception of the primary packaging level, and should conform to GS1 standards and associated specifications.

Barcode data should include the Global Trade Item Number (GTIN), lot number, and expiry date.



# Barcode Landscape in the Developing World



# Call to Action

It's time to partner together – both governments and pharmaceutical companies – to operationalize and improve technology for the most impact.

## What We Need:

- Government participation
- Pharma EPI programs alignment
- Alliance partners engagement
- Get the message out!
- Make this a priority



# Conclusion

**Barcode technology can increase access to potentially life saving vaccines.**



**Safer, more efficient care starts with a simple scan.**



thank you!



# Contact Information

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