



Towards GS1 based supply chain data exchange and visibility (UNFPA)

Health & Humanitarian Logistics
7-9 Jun 2017

Agenda

- Introduction
- Business Drivers
- End Objective
- Challenges
- GS1 – Global Standard 1
- Towards GS1
- Pilot and POC (proof-of-concept)
- Vision

UNFPA

Delivering a world where
every pregnancy is wanted
every childbirth is safe and
every young person's
potential is fulfilled

3 GOOD HEALTH
AND WELL-BEING



4 QUALITY
EDUCATION



5 GENDER
EQUALITY



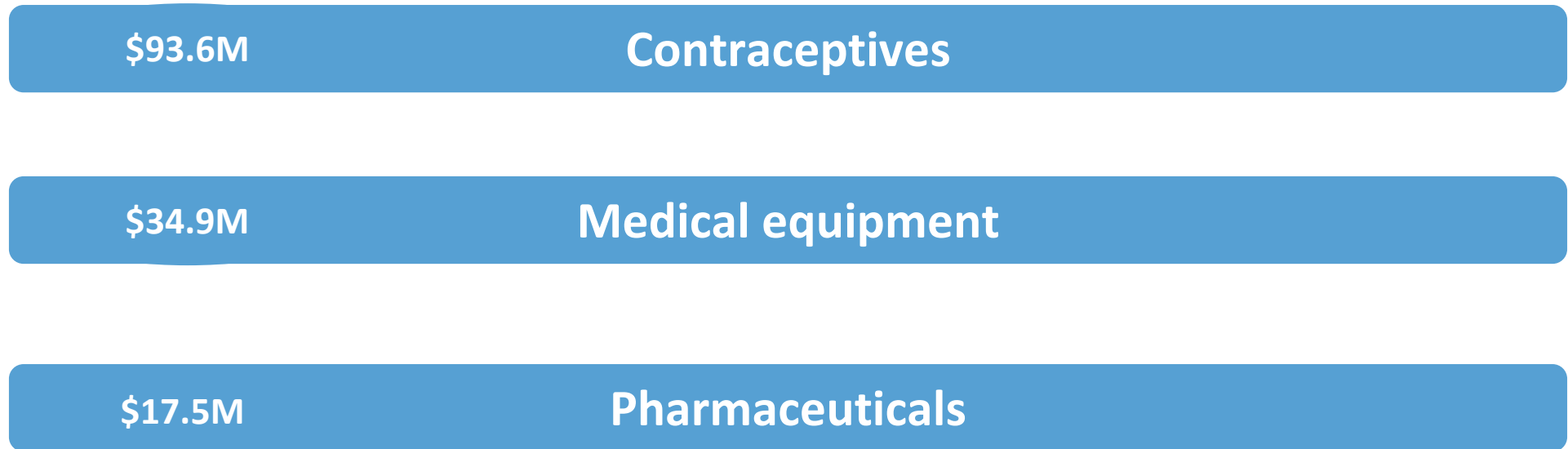
We are the lead United Nations agency that expands the possibilities for women and young people to lead healthy sexual and reproductive lives. We are on the ground improving the lives of millions of women and young people in more than 150 countries and in humanitarian crises.



World's largest public procurer of contraceptives



RH commodities procured in 2016
over \$146M



Business Drivers

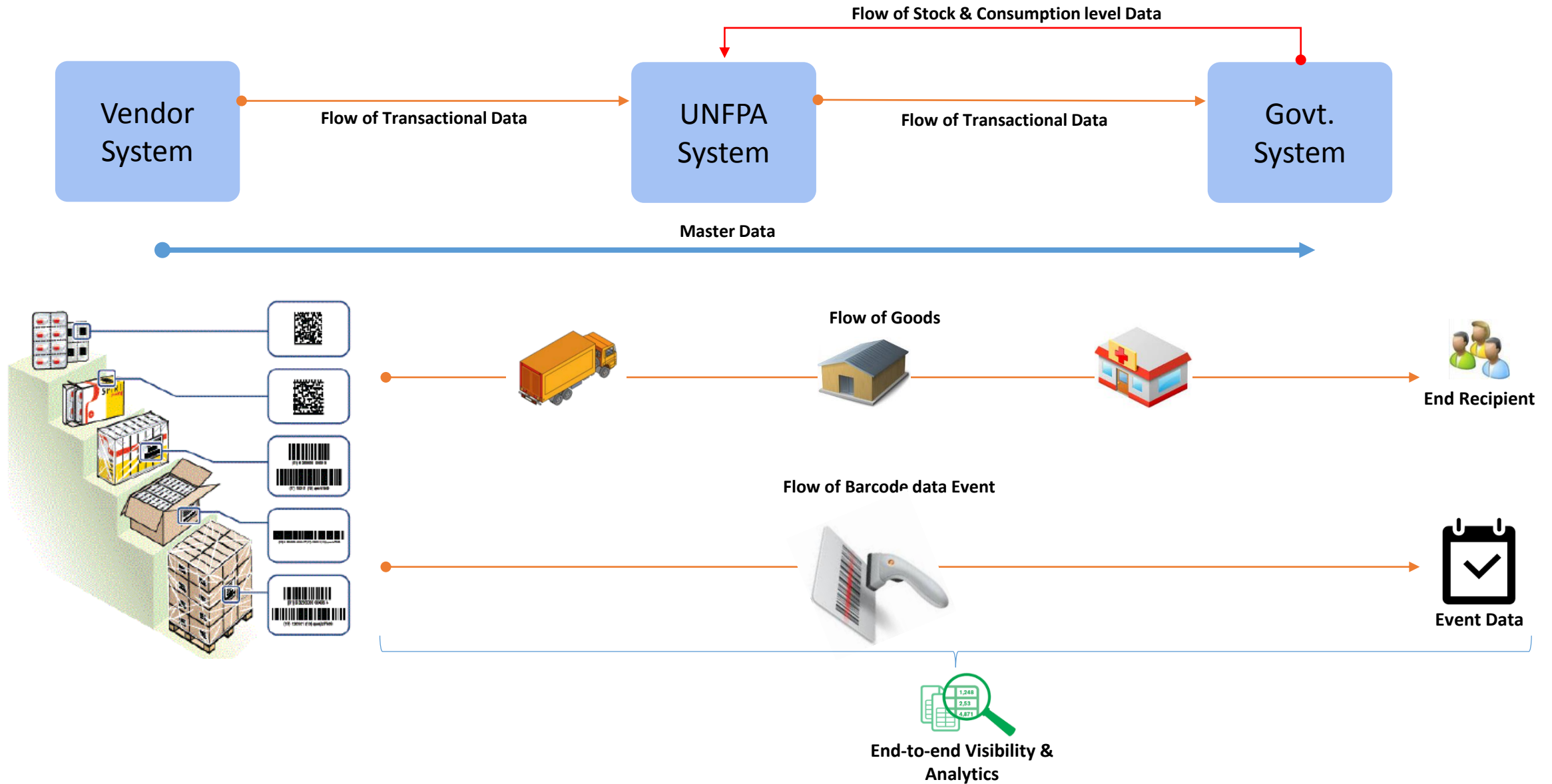
Visibility

- Product identification (authentication, returns, recalls)
- Track and Trace (end-to-end)
- Stock levels in-country
- Last Mile in-country

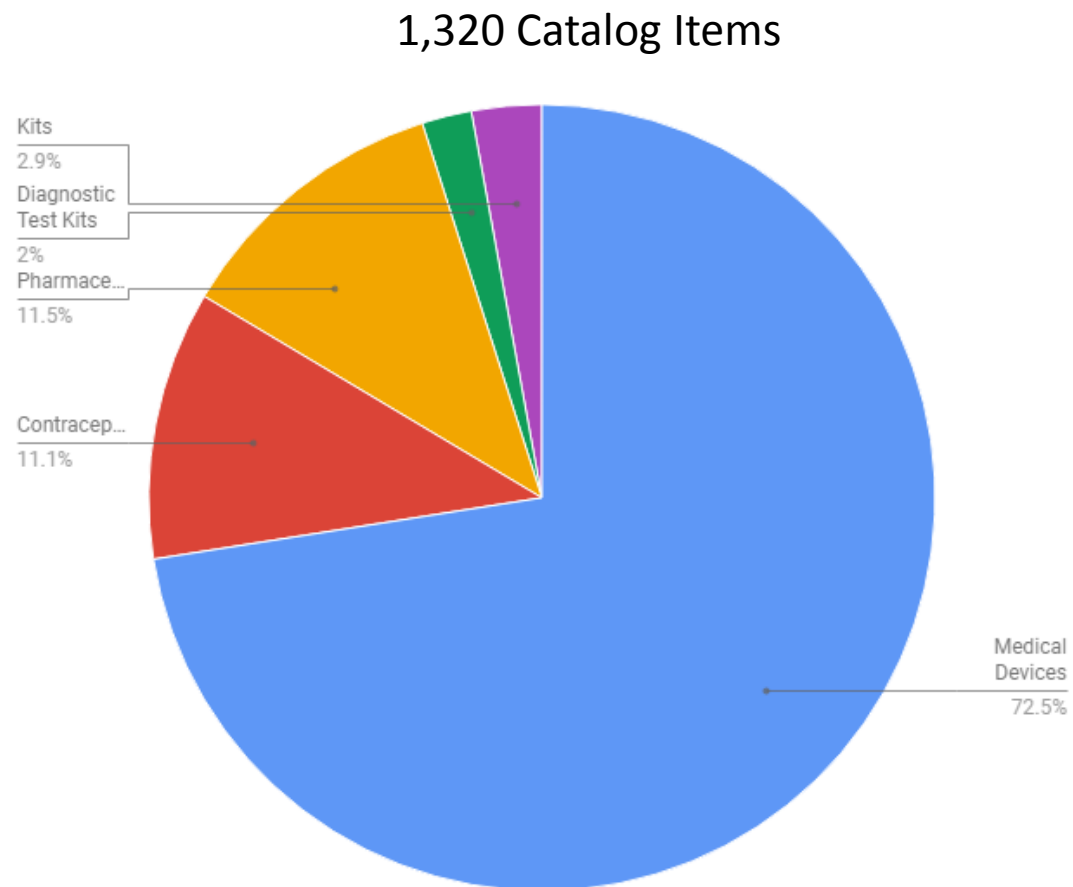
Analytics

- Demand/Unconstraint/Constraint planning, Trends, etc

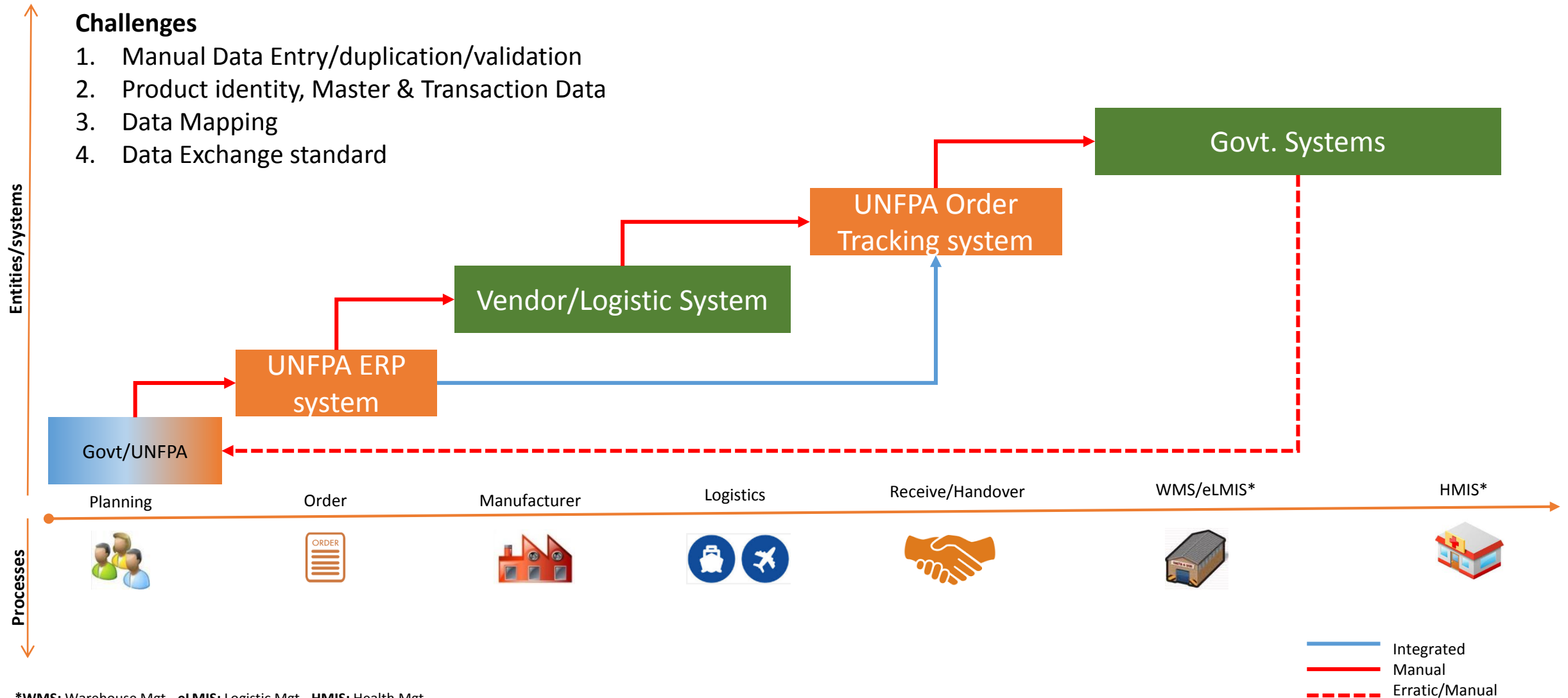
End Objective – GS1 based



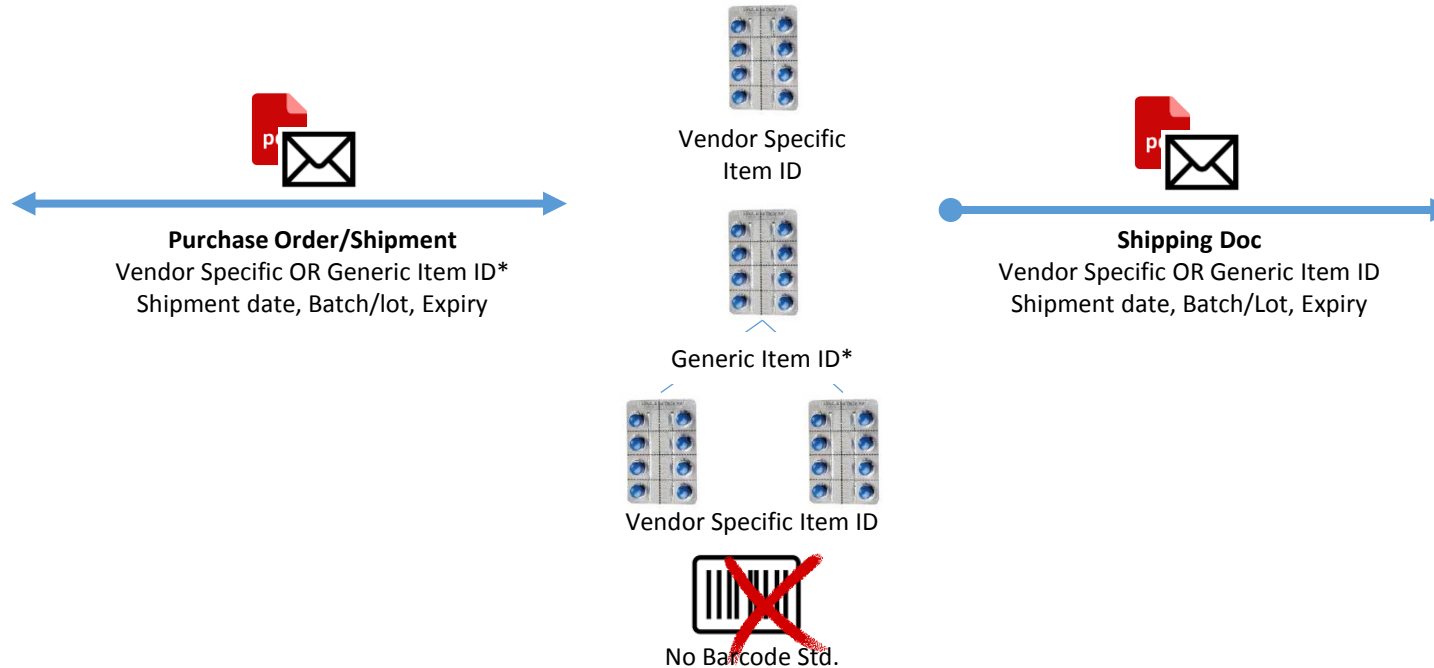
UNFPA Product Catalogue



Challenges: UNFPA Supply Chain system overview



Challenges: overview



Challenges interfacing Vendors

1. Global setting (standards)
2. Unknown IT landscape

Internal Challenges

1. ICT landscape
2. Business need and alignment
3. Resource

Challenges interfacing Govt.

1. Global setting (scale, political, standards)
2. Unknown IT landscape
3. Resource

Challenges: Building block

Visibility and Analytics

Data Exchange

Mapping Data

Data Integration

Dynamic data

Order Data

Shipment data

Batch/Lot & expiry Data

Tracking Data

Static Data

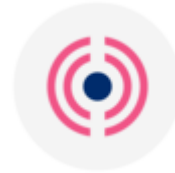
Identity/Barcode Carrier

Master Data

Global Standard 1 (GS1.org)



IDENTIFY



CAPTURE



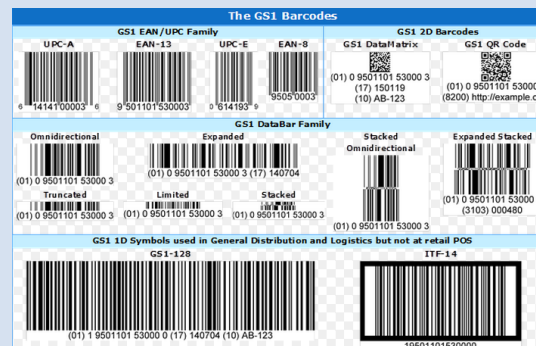
SHARE

GS1 Standards for Identification

- **Company & Location:** (GLN-Location)
- **Product:** (GTIN-Item, SGTIN-Serial)
- **Logistics & Shipping:** (SSCC-Container, GSIN-Shipment ID, GINC-Consignment no.)
- **Assets:** GIAI-Asset ID, GRAI-Returnable Asset
- **Service & More:** GSRN-Service relation no., GDTI-Document type, GCN-Coupon number

GS1 Standards for Barcode and EPC/RFID

• GS1 Barcode

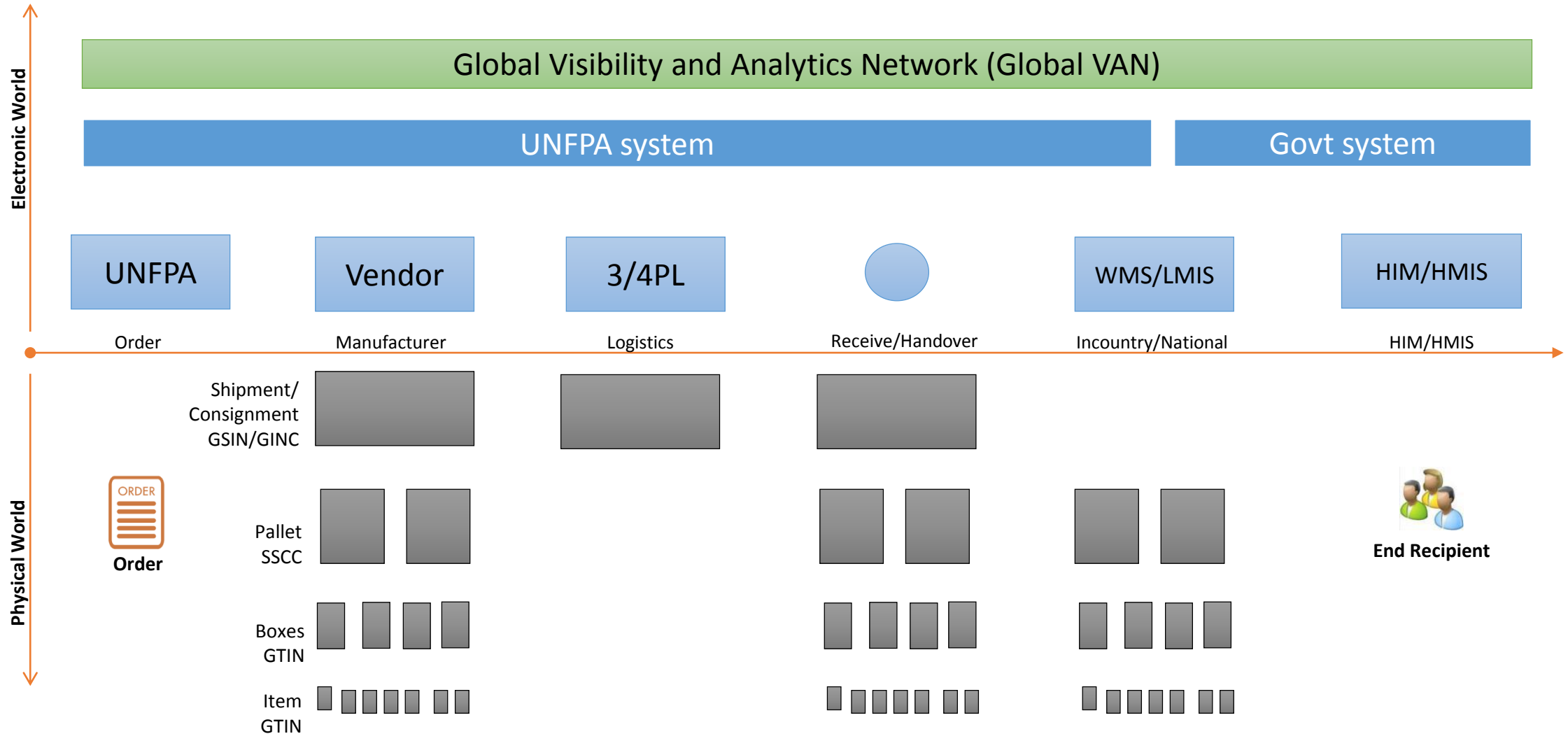


• RFID

GS1 Standards for Data Exchange

- **Master Data:** GDSN-Global Data Sync.
- **Transaction Data:** eCom, EDI (EANCOM, GS1 XML)
- **Event Data:** EPCIS-Information Services

Physical and Electronic World – GS1



Towards GS1 – 2 approaches

Business

- USAID/UNFPA/GS1/Vendors, RH GTAG (advisory group)
- **Identification recommendations for RH pharma products (Guideline Doc.)**
- Hormonal contraceptives
- Barcode/Data submission/Serialization

Technical

- Initiate Shipment Data Exchange with Vendors
- Web services for Govt. system
- Data model & system design existing system for GS1 compliance

Towards GS1 – low hanging fruit



Identify

Globally unique identification keys

[ID Keys >](#)



Capture

Automatic data capture

[Barcodes >](#)

[EPC/RFID >](#)



Share

Exchange of business-critical information

EDI (Transaction Data)

[eCom XML >](#)

[EANCOM >](#)

Product Data Sharing (Master Data)

[Global Data Synchronisation Network \(GDSN\) >](#)

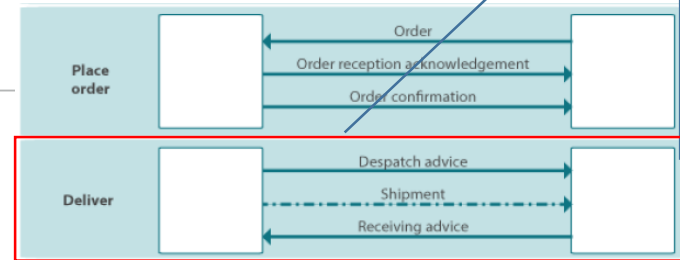
[GS1 Source >](#)

[Global Product Classification \(GPC\) >](#)

[GTIN+ on the web >](#)

Visibility Event Data

[EPCIS and Core Business Vocabulary \(CBV\) >](#)

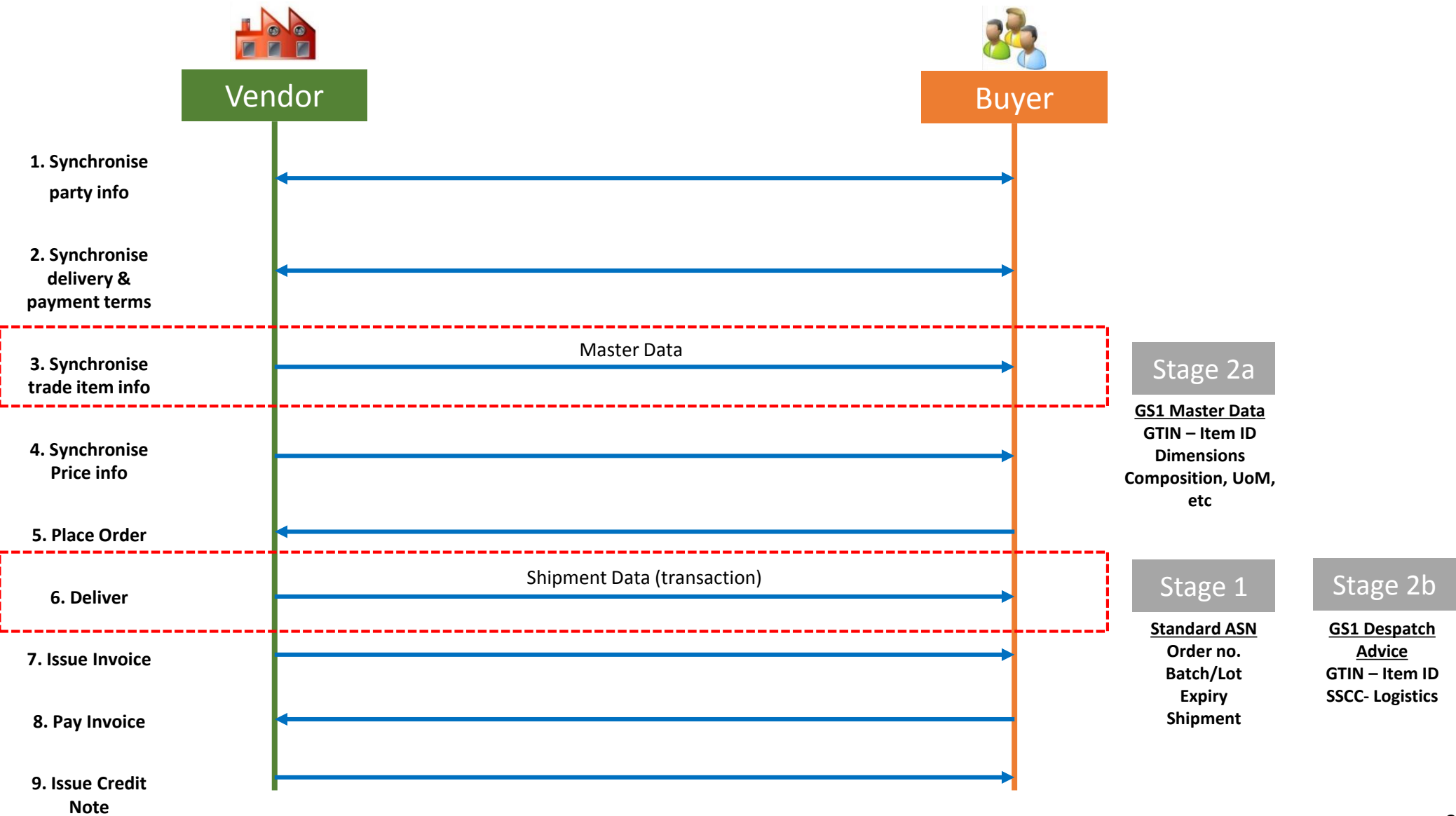


ASN Advance Shipment Notice (X12)

Despatch Advice (GS1)

- Order Number
- Delivery Date
- Batch/Lot Number
- Expiry Date

Towards GS1 – Order to Cash



Ethiopia Pilot - POC (Proof of Concept)



Objective

- Pilot - POC to **gain experience**
- Automate **i)shipment date, ii) Itemized Batch/Lot, iii)expiry date** exchange
- Transfer electronic data exchange between **Supplier, UNFPA & Govt. LMIS** systems

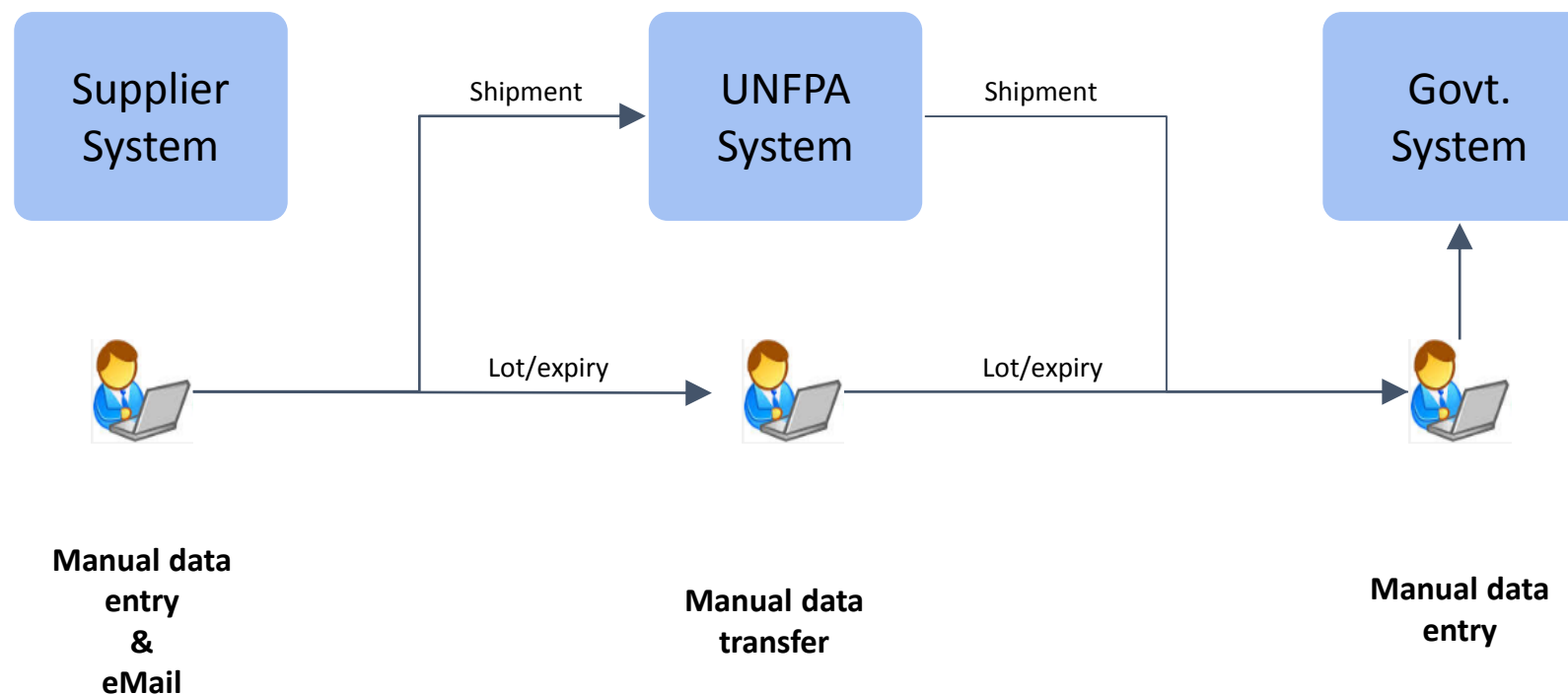
POC1 delivered

- Successful electronic **shipment data** from UNFPA to Ethiopia Govt. using in-house web services technology, no cost

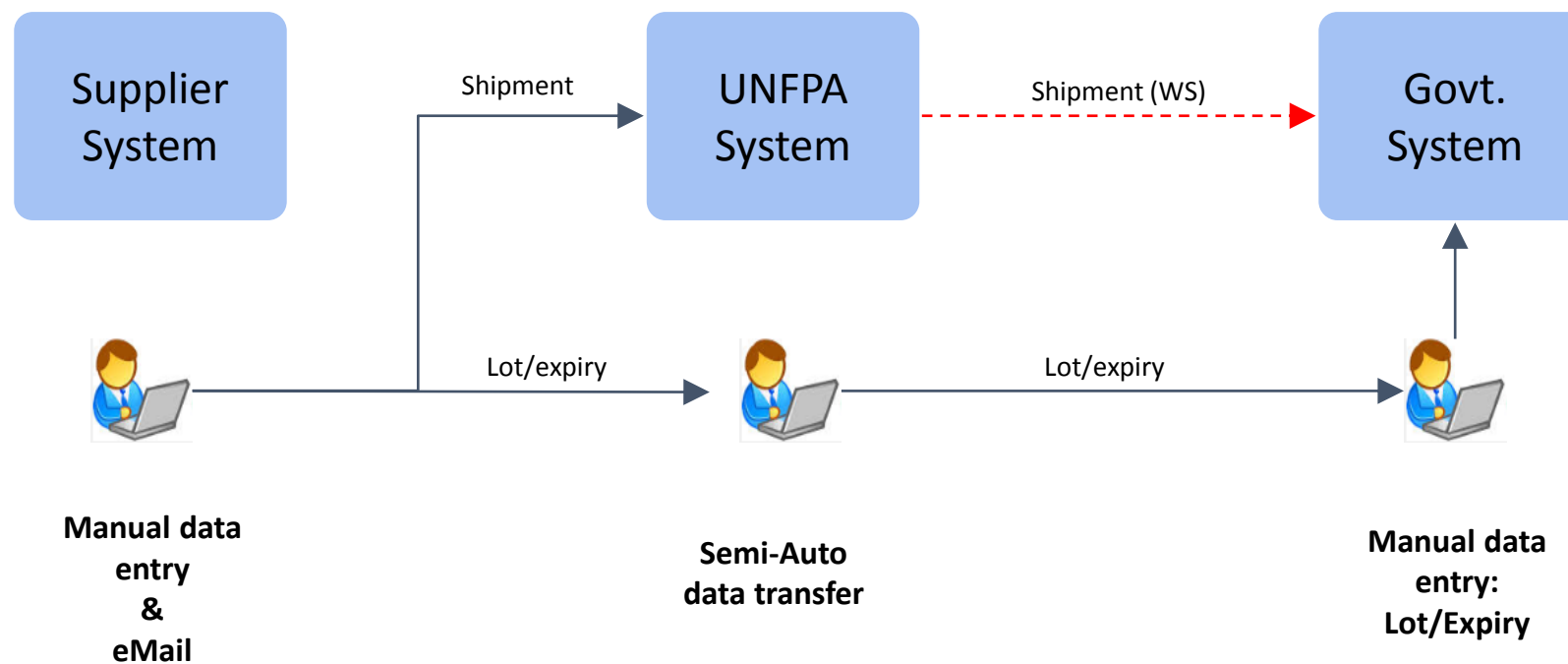
POC2 ongoing

- Ongoing POC activity on receiving **shipment, Batch/Lot & Expiry data** directly from supplier system and transferring it to Ethiopia Govt. system

Existing - Supply Chain dataflow



POC1 - Supply Chain dataflow



Data flow for UNFPA PO 31030



UNFPA ERP System

Purchase Order Inquiry

Purchase Order

Unit: UNFPA
PO ID: 0000031030
Change Order: 2

PO Status: Compl
Budget Status: Valid
POA Status: Initial Dispatch
Acknowledged

Backorder Status: None

Receipt: Received

☐ Hold From Further Processing

Amount Summary

Merchandise: 219,292.00

Freight/Tax/Misc.: 0.00

Total: 219,292.00 USD

Select Lines To Display

Lines									
Line	Item	Item Description	Category	PO Qty	UOM	Amount	USD	Status	
1	IMPLANON_NXT	Etonogestrel 68 mg x 1 (single	357350	25056.0000	SET	212,976.00	USD	Closed	
2	FREIGHT	AirFreight Services	710000	1.0000	EA	6,316.00	USD	Closed	
3	IMPLANON_TRAINER	IMPLANON NXT Placebo Applicato	357350	36480.0000	SET	0.00	USD	Closed	

[Return to Items](#)

UNFPA Order Tracking System

PO Number: 0000031030
Buyer: alfredo.gaddi
Customer ID: MSDBV-001 (MSD B V)
PO Date: 10.03.2016
Vendor: 0000170522
Atlas PO Header Status: Completed (C)
PO Approval Date: 10.03.2016

[Add/Update Ship. Info.](#)

Order Details

Print

Save

Filter:

Line No.	Ship. Line No.	Item	Quantity	Unit of Measure	Sampling & Testing	Due Date	ETD	ETA	ATD	ATA	Physically Received	Ship To	
1	1	IMPLANON_NXT	25056	SET		30.06.2016	14.06.2016	17.06.2016	24.06.2016	26.06.2016		ETH40	View More Info
2	1	FREIGHT	1	EA		30.06.2016	14.06.2016	17.06.2016	24.06.2016	26.06.2016		ETH40	View More Info
3	1	IMPLANON_TRAINER	36480	SET		30.06.2016	24.06.2016	26.06.2016	24.06.2016	26.06.2016		ETH40	View More Info

Ethiopia Central Warehouse System

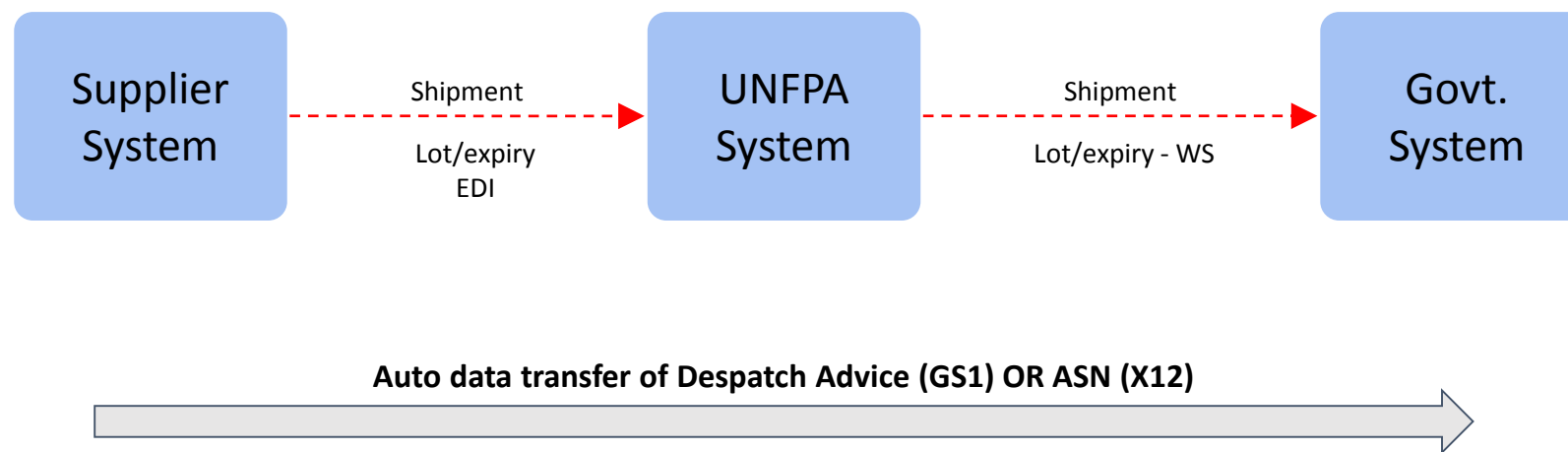
0000031030

Mar 10, 2016

Jun 17, 2016

LN	Item Id	Item	Qty	Vendor	Ship	UOM	DD	EDD	ADD	EAD	AAD
1	IMPLANON_NXT	Etonogestrel 68 mg x 1 (single rod 357350nt). Consist of non-absorbtive ethylen and vinylacetat copolym.	25,056	MSD B V	ETH40	Set	Jun 30, 2016	Jun 14, 2016	Jun 24, 2016	Jun 17, 2016	Jun 26, 2016
2	FREIGHT	AirFreight Services	1	MSD B V	ETH40	Each	Jun 30, 2016	Jun 14, 2016	Jun 24, 2016	Jun 17, 2016	Jun 26, 2016
3	IMPLANON_TRAINER	IMPLANON NXT Placebo Applicator Trainer	36,480	MSD B V	ETH40	Set	Jun 30, 2016	Jun 24, 2016	Jun 24, 2016	Jun 26, 2016	Jun 26, 2016

POC2 - Supply Chain dataflow



Vision of hybrid GS1



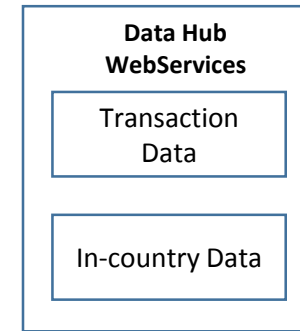
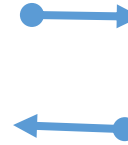
Vendor



Agency 1



Govt



Agency 2



Adopt GS1

Benefit

1. Manual Data Entry/duplication/validation
2. Product identity, Master & Transaction Data
3. Data Mapping
4. Data Exchange standard

Benefit

1. Manual Data Entry/duplication/validation
2. Product identity, Master & Transaction Data
3. Data Mapping
4. Data Exchange standard
5. Reduce Cost & Reduce data source

GS1 GDSN** Data Pool

Data Pool

Thank you