



GS1 Turkey Yeliz Geriş

İTS -Turkish
Pharmaceutical Track
and Trace System





ITS-Pharmaceutical Track & Trace System

- What is ITS?
- Project Phases –Implementation Timeline
- Objectives
- Scope
- Labeling
- Workflow
- Working Principles
- Benefits
- Statistics
- In the Future





What is ITS?



ITS is the application of the well-known Track & Trace System into the pharmaceutical industry; it defines the infrastructure constructed to track and trace all units belonging to each pharmaceutical product in Turkey.

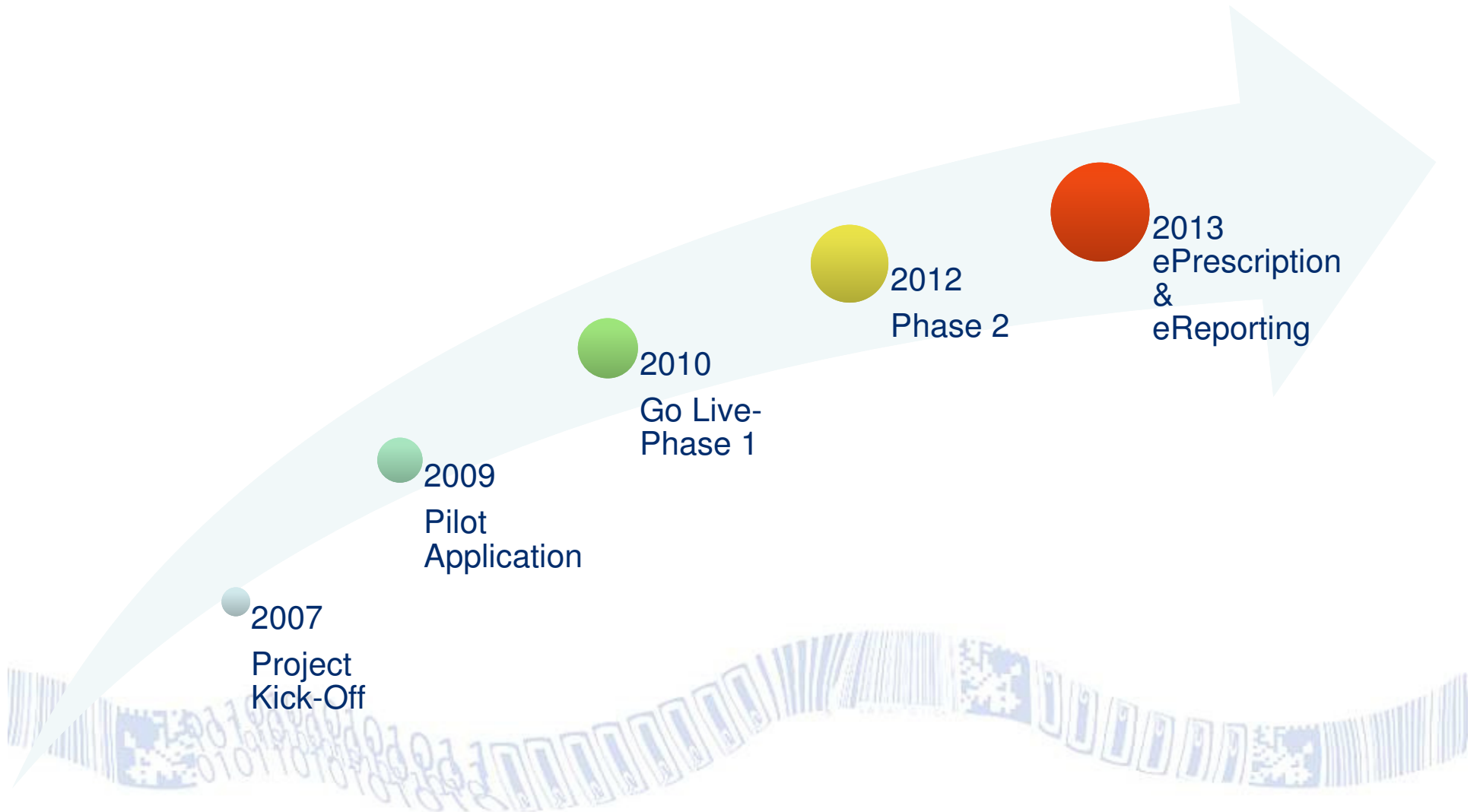
Owner: Turkish Ministry of Health

Main features:

- Unique identification of products and locations
- Use of DataMatrix
- Every single step and action of the unit in the supply chain is saved & stored in a live data source –linear transactions



Phases –Implementation Timeline





Objectives

Patient Safety- ensuring reliable supply of drugs to patients

Prevent counterfeiting/
fraud/smuggling
and illegal sale of
drugs

Efficient product
recalls

Prevent barcode
and package
scams

Prevent double
payments by
reimbursement
agency & Tax
frauds

Support rational
drug use – Supply
data to control
market



Scope of ITS -Stakeholders

ITS has been designed in order to track drugs at each point of the supply chain

Stakeholders:

- Hospitals
- Health Centers
- Family Physician Centers
- Pharmacies and Pharmacy Warehouses
- Manufacturers
- Importers
- Reimbursement Institutions





Scope of ITS -Products

Products within the scope of the Pharmaceutical Track & Trace System:

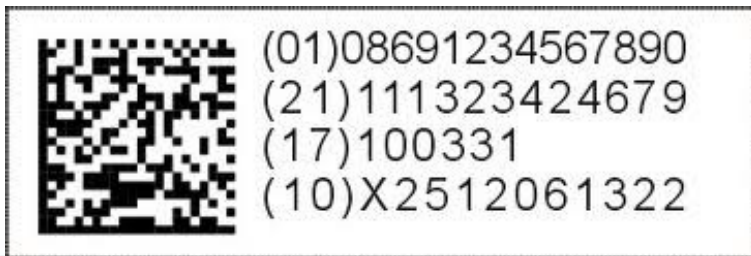
- Drugs
- Medical Nutrition Products





Labeling

- ✓ **GTIN:**
- ✓ **Serial Number**
- ✓ **Expiration Date**
- ✓ **Batch Number**





Workflow

MANUFACTURER IMPORTER

Product is marked with DATAMATRIX after serialized by GTIN and SN

The package and inside product information relations are recorded While aggregating

MANUFACTURE NOTIFICATION

Order taken

Package information is uploaded to PTS

SALE NOTIFICATION

Shipping

SALE NOTIFICATION

Package information is uploaded to PTS

Packaging

Order Taken

Stored

PURCHASE NOTIFICATION

Package Information is downloaded from PTS

WHOLESALER

Receiving



HOSPITAL

Package Information is downloaded from PTS

PURCHASE NOTIFICATION

Stored

CONSUME NOTIFICATION

PATIENT



PHARMACY

Package Information is downloaded from PTS

PURCHASE NOTIFICATION

Stored

SALE NOTIFICATION

PATIENT

The invoices are sent to the reimbursement company at the end of the financial calendar



REIMBURSEMENT COMPANY OR ASSOCIATION

QUERY SALE NOTIFICATION



Invoice is paid



Workflow

- Production of units (single box)
- Product is marked with Datamatrix after serialization-by GTIN&Serial Number
- Aggregation(The package and inside product info relations are recorded)
- Production Notification to ITS
- Package information uploaded to PTS according to order/ cargo on its way
- Cargo taken by Wholesaler, Hospital or Pharmacy
- Sale or consumption notification uploaded by Hospital and Pharmacy



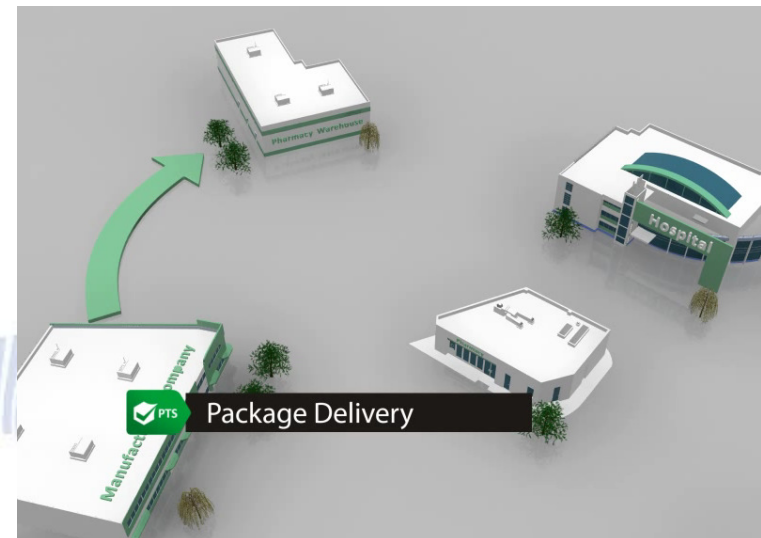


Working Principles

The system has been designed according to the product transactions in real environments using linear processes.

Transaction –Notification messages

- Production Notification
- Consumption Notification
- Product Purchase Notification
- Product Return Notification
- Sale Notification
- Sale Cancellation Notification
- Product Transfer Notification
- Product Transfer Cancellation
- Export Notification
- Export Cancellation Notification
- Deactivation Notification





Achievements -Benefits

- is 100% safe in fighting against corruption
- tracks the drugs until they get to the patient
- prevents the sale of counterfeit drugs
- prevents the sale of smuggled drugs
- offers exact solutions for barcode scams
- prevents the repackaging of drugs in unknown places
- provides safe and original drugs for patients
- supports the process of rational drug use
- prevents the resale of the drugs, which have already been sold to the reimbursement institutions
- helps to solve the problems between the pharmacies and the reimbursement institutions



Achievements-Benefits

- Immediate and absolute actions can be taken on recalls after side effects are found
- Market control can be done more effectively and more accurately
- Data mining & reporting
- Prevents tax frauds





Statistics



- Number of stakeholders: 40 000
- Number of drug types in ITS: 18 900
- Number of drug units in ITS: 7 000 000 000
- Number of daily operations in ITS: 45 000 000
- Number of operations per second in ITS: 520
- Response time of system: < 1 sec





Future developments ?

In the future, successful implementation of the ITS & lessons learned during the implementation phases can be used to develop traceability solutions for:

- **Cosmetics**
- **Medical Devices (spectacles/eyeglasses –pilot)**





Thanks for your attention...

- Visit www.its.gov.tr for more information





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