

- Sponsors/organisation of the project
- Objectives/Scope
- **Technical Concept**
- Timeframe
- Expected results

Deutsch

### Willkommen bei Smartlog!

**Wer sind wir?**

Smartlog ist ein Kooperationsprojekt der **Stiftung Refdata, Swissmedic, GS1 Schweiz und e-mediat AG.**

**Projektziel**

Testung eines einfachen Frühwarnsystems zur Identifikation von gefälschten Produkten.  
 Im Rahmen des laufenden Pilotprojektes werden Einzelpackungen von ausgesuchten Betäubungsmitteln mittels Barcode speziell ausgezeichnet und können dadurch über einen Webservice vom Produzenten bis zur Abgabe an einen anonymisierten Patienten verfolgt werden.

```

            graph LR
            A[Produzent] --> B[Grosshandel]
            B --> C["Einzelhandel  
(Apotheke, SD Arzt)"]
            C --> D["Patient (anonym)"]
            
```

**Details...**

Möchten Sie mehr über die vorliegende Medikamentenpackung erfahren? Dann geben Sie den Strichcode manuell oder mit einem Lesegerät ein.

Strichcode

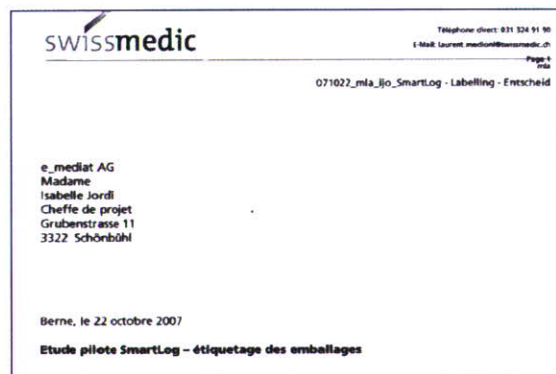
- cross organisational online platform, additional and parallel to existing local client-server systems
- modern scanner technology in combination with ASP technology
- GS1 standards for labelling issues
- Monitoring flow of goods (not flow of funds)
- Centrally managed data pool for all parties, with the design option of later migration to decentralised data management



- Retail packs are labelled with sticker containing in parallel
  - 1D Code:
    - Product-ID (GTIN),
    - Serial number
  - 2D Code:
    - Product-ID (GTIN),
    - Batch number,
    - Expiry Date,
    - Serial number



- Labelling by manufacturer / pre wholesaler
  - According GDP
  - Special Swissmedic agreement to consider labelling outside manufacturing rules for the purpose of the pilot (limited number of product, limited time frame)



15

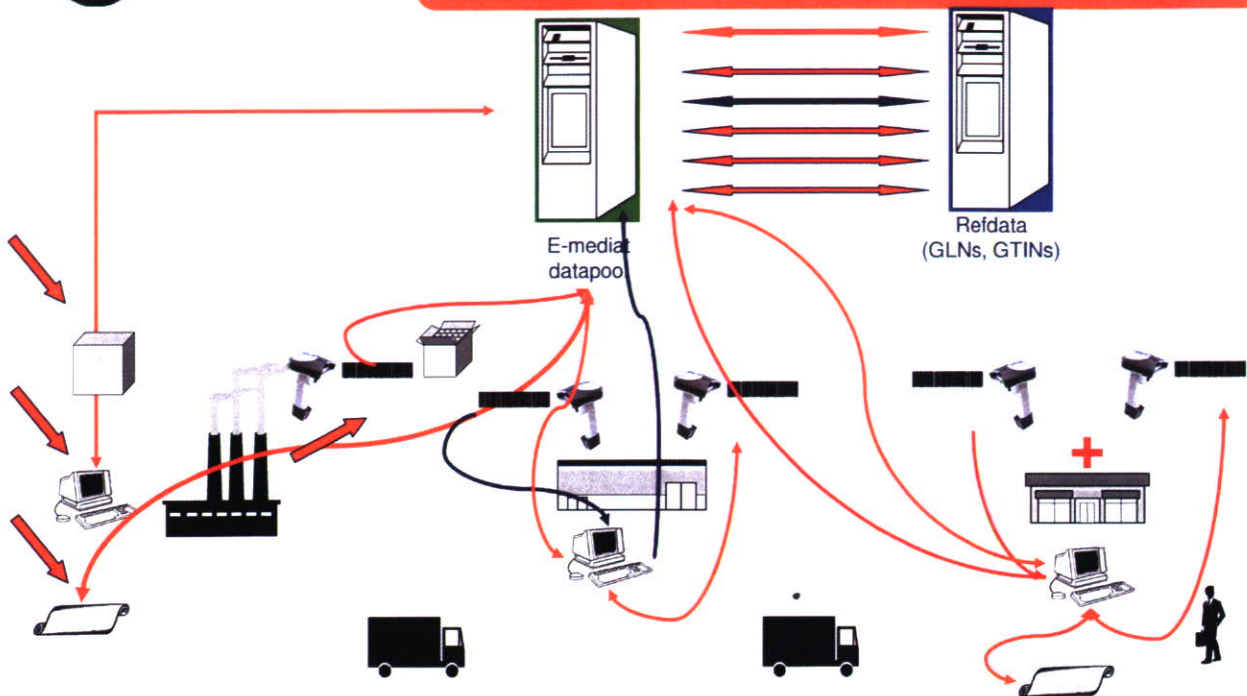
©2007 GS1

Why:

- Controlled Narcotic Substances:
  - existing workflow,
  - clear legal basis regarding deliveries towards federal authorities,
  - little critical business intelligence to be gained from pilot
  - Validation of pilot outcome with data collected and managed by Swissmedic within the usual narcotic declaration processes

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**INT SmartLog / Willkommen** Janssen-Cilag AG **e-mediat**

HOME  
Sie sind angemeldet als: Marek Cichocki (uamck)

**Tracking**

Janssen-Cilag AG

**Registrieren**

Ersatzetikette drucken

**Versand erfassen**

**Wareneingang erfassen**

Abgabe erfassen

Retoure erfassen

**Administration**

Tracking der Einzelpackung oder Versandeinheit anzeigen

Einzelpackung und Versandeinheit registrieren

Ersatzetikette für Einzelpackung oder Versandeinheit drucken

Versand Einzelpackung oder Versandeinheit erfassen

Wareneingang Einzelpackung oder Versandeinheit erfassen

Abgabe der Einzelpackung erfassen

Retoure Einzelpackung oder Versandeinheit erfassen

Parameter verwalten

© e-mediat Integration - SmartLog 1.0 - Janssen-Cilag AG - uamck 28.09.2007 09:17:36

INT SmartLog / Tracking e-mediat  
 HOME > Tracking

Strichcode

**7680562490421 / CONCERTA Tabl 54 mg 30 Stk**

	7601001000902 Janssen-Cilag AG	Registrierungsdatum 27.09.2007 09:57 uecrc
↓		Ausgangsdatum 27.09.2007 10:34 uecrc
	7601001374669 Amedis-UE SA Prewholesale	Eingangsdatum 27.09.2007 10:35 uecrc
↓		Ausgangsdatum 27.09.2007 10:39 uecrc
	7601001026285 Apotheke Zum Gellert AG	Eingangsdatum 27.09.2007 10:39 uecrc
↓	7601000123602 Feiner Erica	Ausgangsdatum 27.09.2007 10:40 uecrc

© e-mediat Integration - SmartLog 1.0 - uamck 28.09.2007 09:18:38



INT SmartLog / Tracking e-mediat  
 HOME > Tracking

Strichcode

**7680562490421 / CONCERTA Tabl 54 mg 30 Stk**

	7601001000902 Janssen-Cilag AG	Registrierungsdatum 27.09.2007 09:57 uecrc	SGTIN	event
↓		Ausgangsdatum 27.09.2007 10:34 uecrc	GLN	
	7601001374669 Amedis-UE SA Prewholesale	Eingangsdatum 27.09.2007 10:35 uecrc	GLN	
↓		Ausgangsdatum 27.09.2007 10:39 uecrc	GLN	
	7601001026285 Apotheke Zum Gellert AG	Eingangsdatum 27.09.2007 10:39 uecrc	GLN	
↓	7601000123602 Feiner Erica	Ausgangsdatum 27.09.2007 10:40 uecrc	GLN	Prescribing MD
			GLN	Patient (anonym)

© e-mediat Integration - SmartLog 1.0 - uamck 28.09.2007 09:18:38



- Sponsors/organisation of the project
- Objectives/Scope
- Technical Concept
- **Timeframe**
- Expected results



- Project definition
- Enrolment of project participants
  - Pharmaceutical companies, Pre wholesalers,
  - Wholesalers (all)
  - Pharmacies (~6)
- programming and documentation of the Webservices
- Communication about pilot
- training of the participants
- Pilot Start
- First Half year 2007
- Autumn 2007
- December 2007, on going
- January 2008, for 3 months

Problem of the renewal of the supply chain (when do new marked product cross the whole supply chain ?)



- Sponsors/organisation of the project
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- proof of concept for track & trace, anti-counterfeit functions
- Cross check by Swissmedic with official data collection for narcotic trade

*Minimal requirements/definition of interfaces between various systems with respect to future integration with existing infrastructures and processes*

**Structure of decentralised data centre organisation,**  
*allowing for maximum system interoperability without compromising data confidentiality*

**Security of access** to and necessary level of encryption of shared databases

*Identification of future implementation and roll out problems*

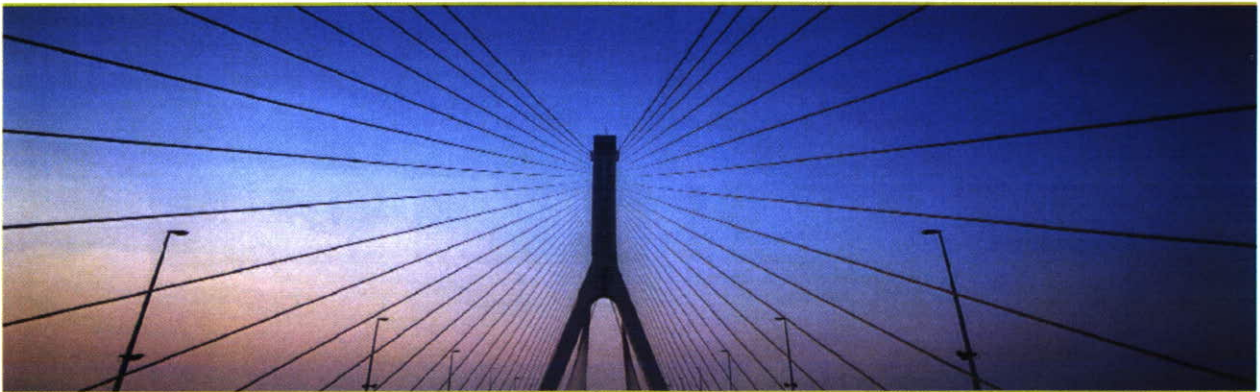




# Questions ?



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Building Radio frequency IDentification solutions for the Global Environment

**BRIDGE Project**  
**Pharma Traceability**  
GS1 Healthcare conference, 31 October 2007







# Bridge Objectives

- To research and develop a set of technologies facilitating the deployment of RFID and EPCglobal network applications in Europe
- To perform trials and pilots leading to best practice guidelines for implementing RFID in seven different sectors
- To deliver demonstration tools, a comprehensive education package as well as economic and policy studies on the technology and its applications



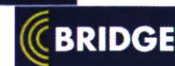
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# BRIDGE Partners

GS1	Labs/ Universities	End users	Solution Providers
Global Office (Coordinator) China France Germany Poland Spain UK	Cambridge ETH Zürich Fudan TUG Graz UPC Barcelona	Bénédicta Carrefour El Corte Inglés <sup>(1)</sup> gardeur Kaufhof Nestlé UK Northland <sup>(2)</sup> Sony	AIDA Centre AT4 wireless BT CAEN Confidex Domino JJ Associates Melior SAP UPM Raflatac Verisign UK
7	5	7	11

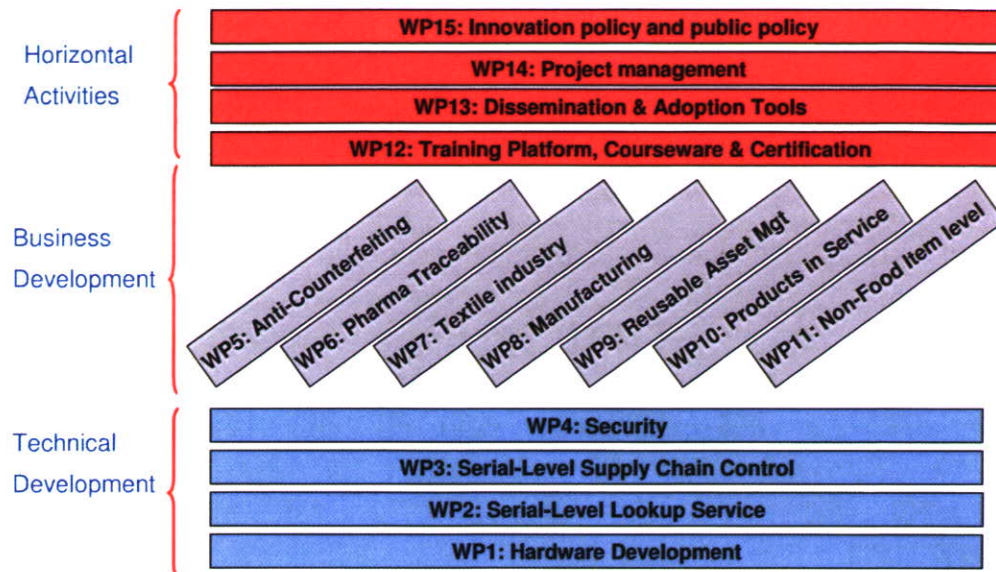
(1) Leaving partner  
(2) New partner



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## Building Radio frequency IDentification solutions for the Global Environment



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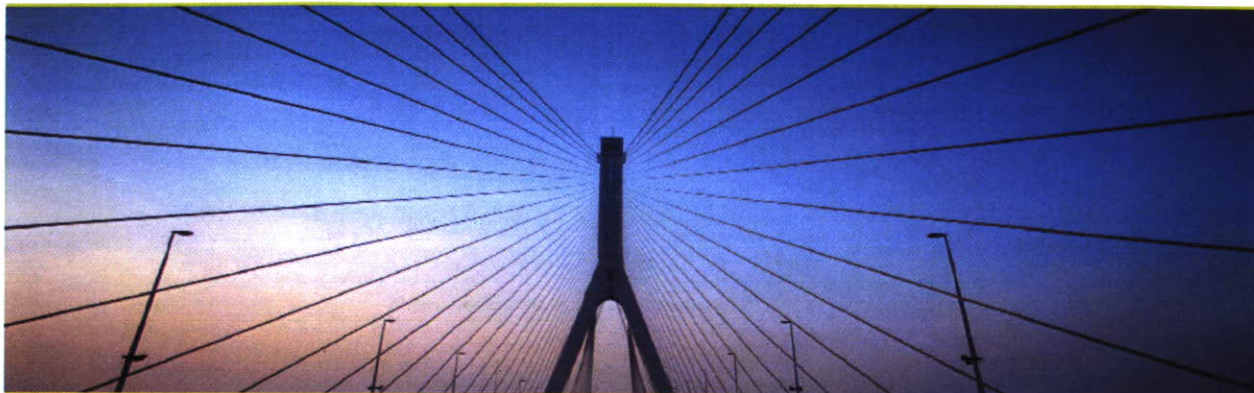


## BRIDGE: A few facts

- A 3 years project
- Started on July 1st 2006
- 15 work packages
- Total estimated cost: €13 millions
- Total EU Funding: €7,5 millions



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Building Radio frequency IDentification solutions for the Global Environment

# BRIDGE

## WP6 – Pharma Traceability Pilot



## WP6: Pharma Traceability Pilot - objectives

- Implement a complete supply chain traceability system for Pharma products
- To enable the development of related supply chain applications e.g. *Product authentication, Recall, Inventory management, Financial reconciliation*
- Demonstrate a business case regardless of:
  - Pharma product packaging level and product type
  - Serialised data tag (RFID and/or Data Matrix code)



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## What are the problems?

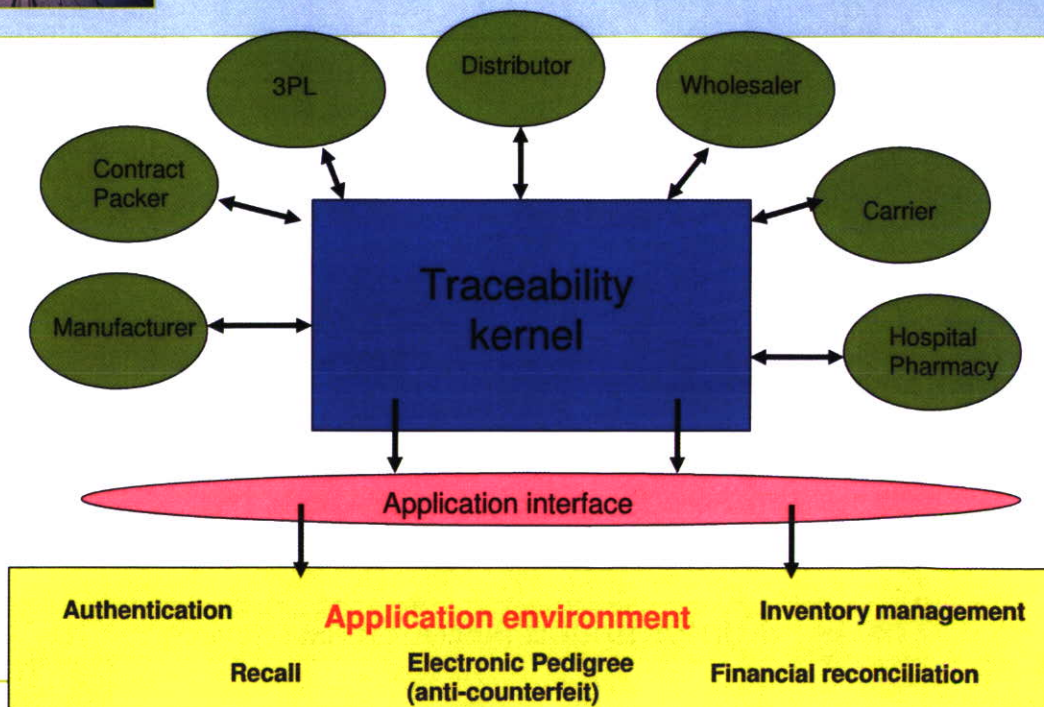
- Medication errors
  - Mis-identification of medicines
  - Harm and death to patients
- The threat of counterfeit medicines – for branded and generic products
  - European wide and Globally
  - Multiple industry, regulatory bodies & media recognise the problem
- Supply chain inefficiency
  - Lack of automation
  - too much administrative overhead



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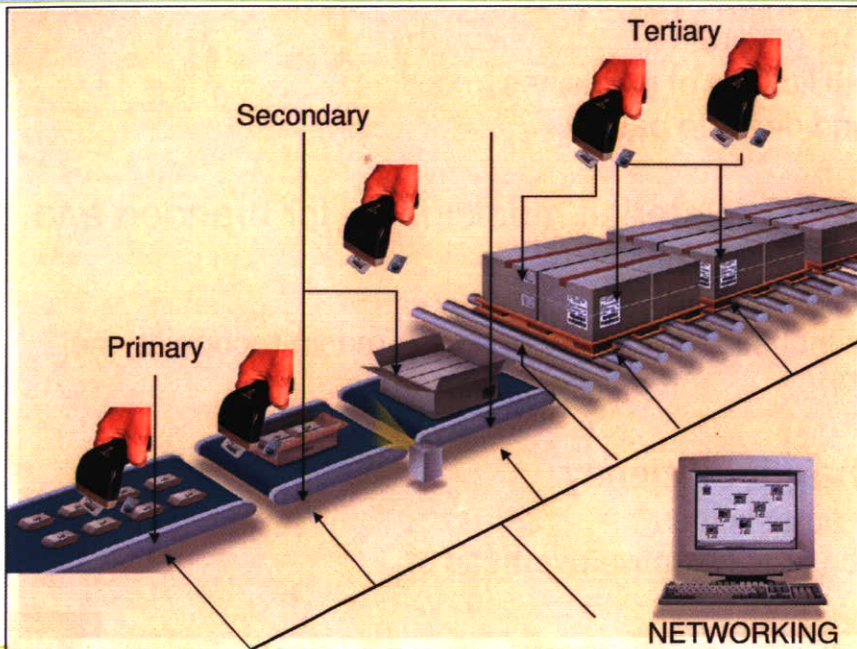
## Pharma Traceability Pilot e-Traceability enabling multiple applications



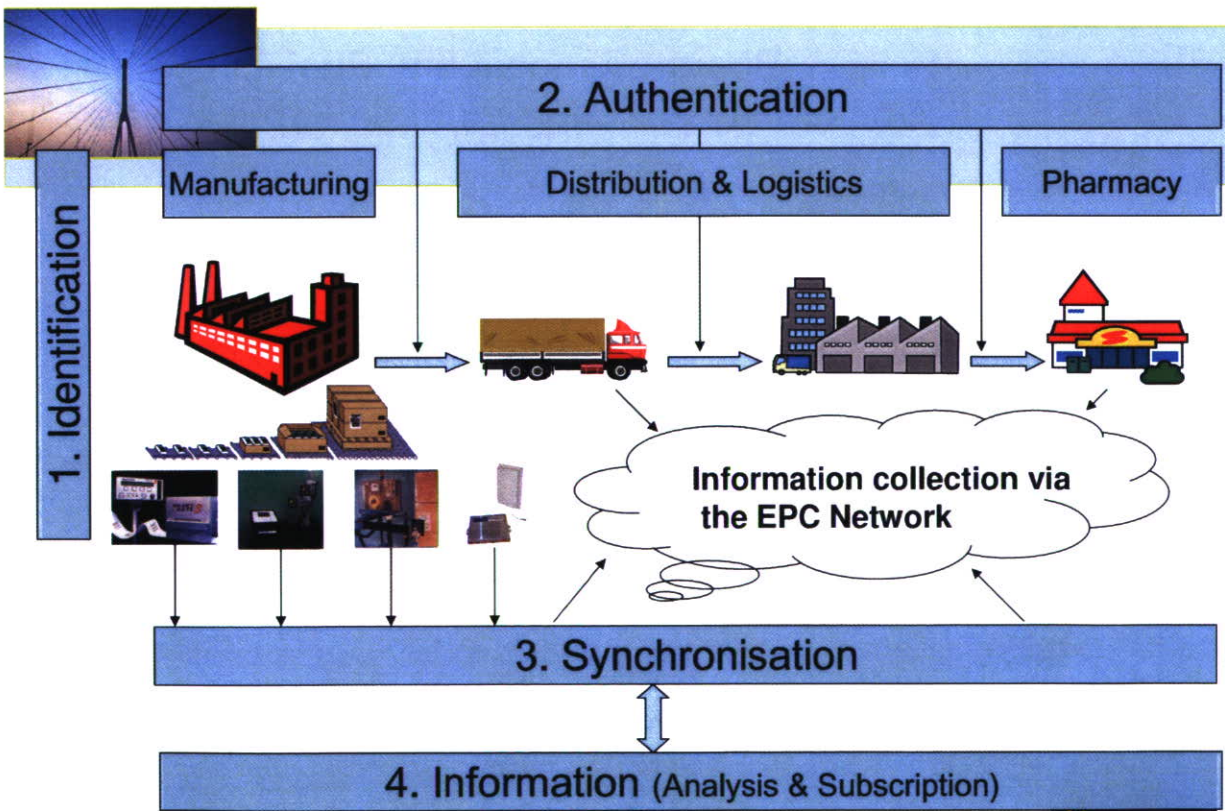
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Print and/or Tag and validate at each level of packaging – patient pack, case & pallet – at the point of production



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## WP Partners

### Leader:

- JJ Associates

### BRIDGE Partners:

- Domino Integrated Solutions
- GS1 UK
- Melior Solutions
- Verisign



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## Our User Community

- Manufacturers
  - Actavis (UK)
  - Athlone Laboratories (Ireland)
  - Sandoz (UK)
- Contract packer
  - Tjoapack (The Netherlands)
- Pre-wholesaler
  - CPG (UK)
- Distributor/Storage
  - Kent Pharmaceuticals (UK)
- Transport & Logistics
  - Healthcare Logistics (integrated)
  - and others
- Wholesaler
  - UniChem (UK)
- Hospital
  - Barts and The London NHS Trust (UK)



Tjoapack

UniChem



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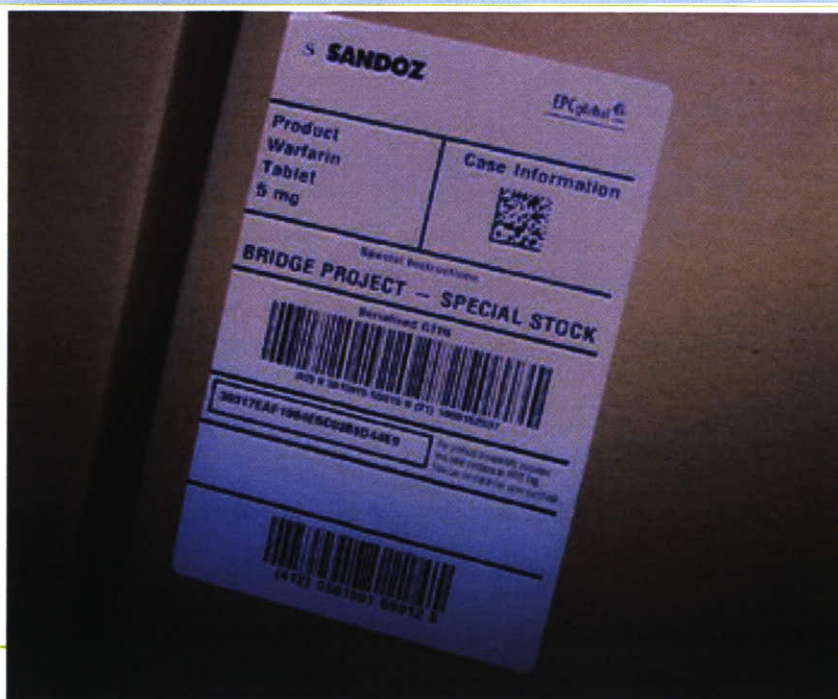
## Pilot Products

Product	Form	Pack
Aqueous Cream 500mg	Tubs	1
Warfarin 1/3/5mg	Tabs	28
Clindamycin 150mg	Caps	24
*Dihydrocodeine 30mg	Tabs	28
Prednisilone E/C 5mg	Tabs	28
*Co-Codamol 8/500mg	Tabs	30
Flucloxacillin 250 / 500mg	Caps	28
Penicillin V 250mg	Tabs	28
Amoxicillin 125 / 250mg	Susp/Sugar Free	100ml
Amoxicillin 250 / 500mg	Caps	21
Penicillin 125 / 250 mg	Susp/Sugar Free	100ml
Flucloxacillin 125 / 250mg	Susp	100ml

\* controlled substances



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## Problem Analysis

- Improving patient safety is the No. 1 priority for all players
- Medication error is one of the most significant hazards
- Counterfeit threat exacerbates the risk
- Supply chain inefficiency creates significant overheads
- End to end traceability supported by Bar Code and RFID technologies offers significant benefits



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## Requirements Analysis

- Track and trace is the critical element
- Mass serialisation needed to trace to item level
- Industry supported carriers e.g. Data Matrix, as well as RFID at higher levels of packaging
- Product code, serial number, expiry date and batch number data elements
- Use of GS1 standard keys adds to completeness of traceability system
- EPC Network offers information access and visibility for all parties
- Requirement is broader than just pedigree – financial reconciliation, inventory management, product recall, authentication are all key, all enabled by the traceability application



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## Business Case Report

- How can one value people's lives in a financial model?
- Mass serialisation and the granularity it provides strengthens the Business Case
- Financial benefits of cost reduction, efficiency gains, opportunities for additional revenue and cash generation
- Level of benefits depends upon supply chain role and extent of integration with internal and supply chain systems



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## Pilot Preparation

- Hardware solution outline - EPCglobal Network, coding and tagging by laser and inline inkjet printing, Class 1 Gen 2 UHF tags, Data Matrix codes, various inline data verification equipment,
- Software solution - web based software: manufacturer, distributor, wholesaler, pharmacy modules
- GPS tracking system for additional pallet level security
- User pilot process defined, installation and user training
- Performance and evaluation processes
- Promotion and publicity plans



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## Plan for the next 6-12 Months

- Pilot operation and management
  - Completion of Pilot Implementation report
- Pilot evaluation
  - Pilot Evaluation Report
- Increasing focus on information & experiences dissemination



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## For More information

Website: [www.bridge-project.eu](http://www.bridge-project.eu)

- A Newsletter (bi-monthly edition), registration on the website
- Public deliverables available from the web site
- Any question: Henri Barthel  
[henri.barthel@gs1.org](mailto:henri.barthel@gs1.org)  
Tel + 32 2 788 7823



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# **TURKISH DRUG & MEDICAL EQUIPMENT**

## **NATIONAL DATA BANK PROJECT**

### **Presentation Plan**

1. Goal
2. Current Situation
3. Recommended Model
4. Issued Performances
5. Developed System
6. Current Datas