



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



BRIDGE Partners

GS1

Global Office
(Coordinator)
China
France
Germany
Poland
Spain
UK

7

Labs/ Universities

Cambridge
ETH Zürich
Fudan
TUG Graz
UPC Barcelona

5

End users

Bénédicta
Carrefour
El Corte Inglés⁽¹⁾
gardeur
Kaufhof
Nestlé UK
Northland⁽²⁾
Sony

(1) Leaving partner

(2) New partner

7

Solution Providers

AIDA Centre
AT4 wireless
BT
CAEN
Confidex
Domino
JJ Associates
Melior
SAP
UPM Raflatac
Verisign UK

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Horizontal
Activities

WP15: Innovation policy and public policy

WP14: Project management

WP13: Dissemination & Adoption Tools

WP12: Training Platform, Courseware & Certification

Business
Development

WP5: Anti-Counterfeiting

WP6: Pharma Traceability

WP7: Textile industry

WP8: Manufacturing

WP9: Reusable Asset Mgt

WP10: Products in Service

WP11: Non-Food Item level

Technical
Development

WP4: Security

WP3: Serial-Level Supply Chain Control

WP2: Serial-Level Lookup Service

WP1: Hardware Development





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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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)



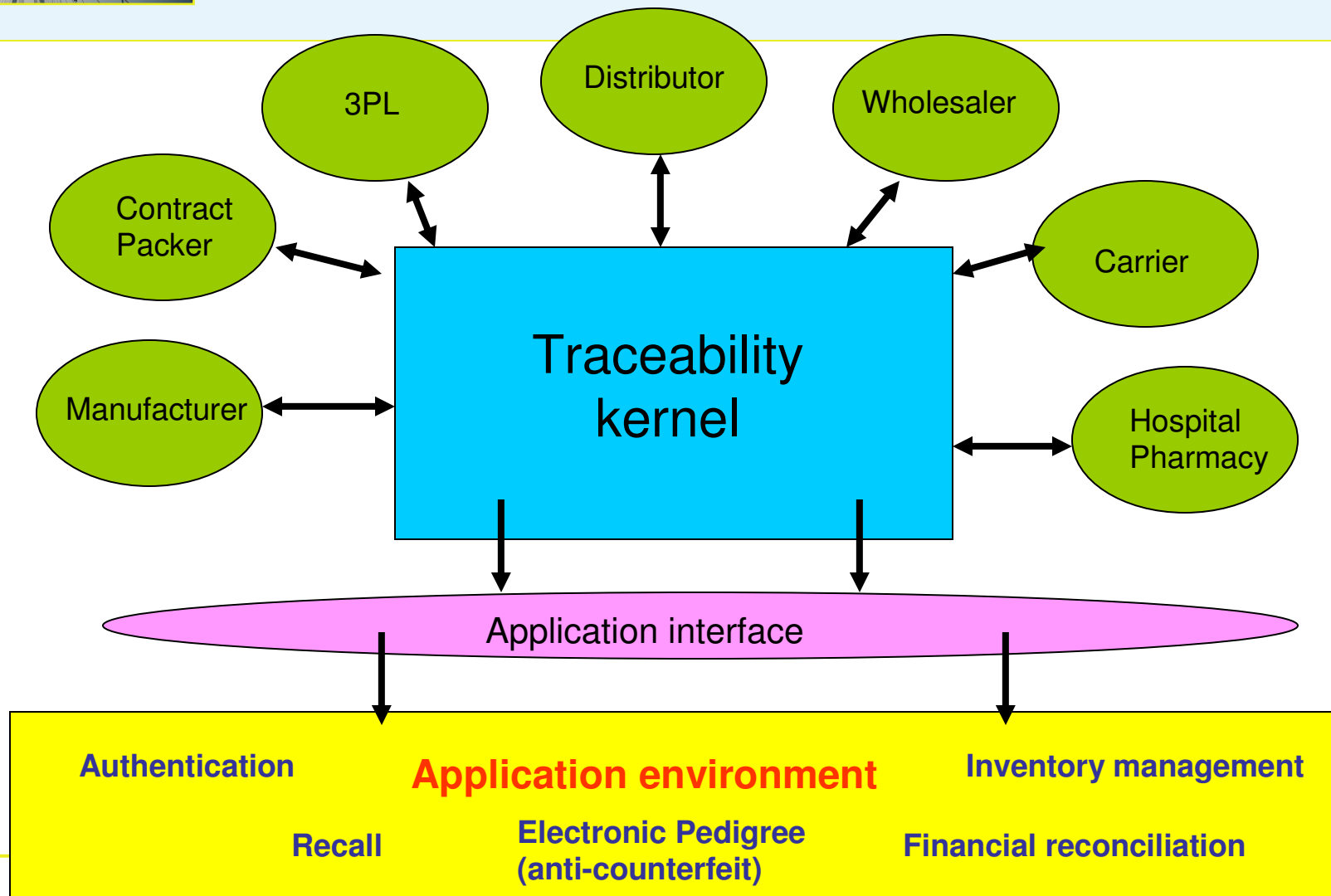
What are the problems?

- 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



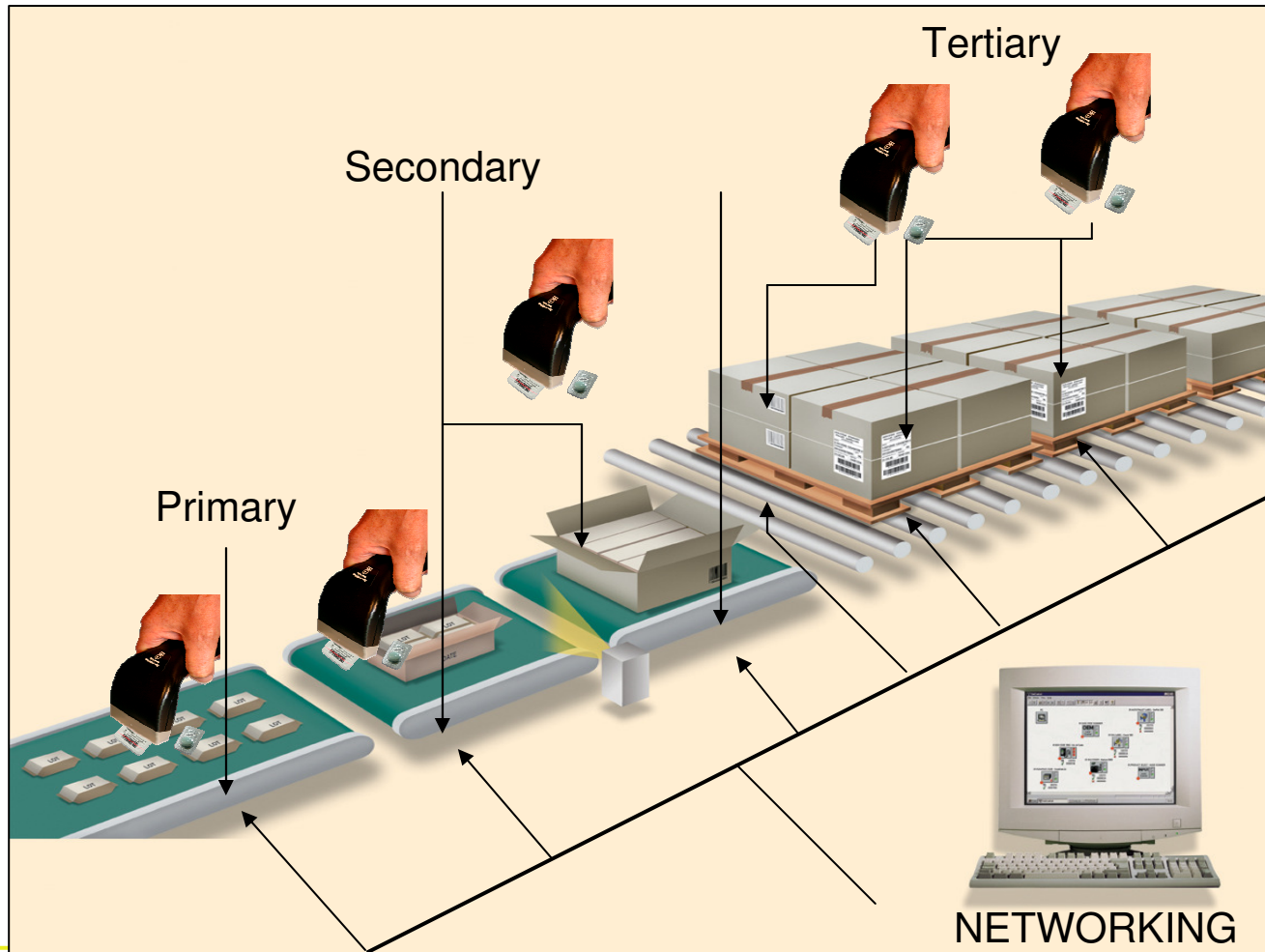
Pharma Traceability Pilot

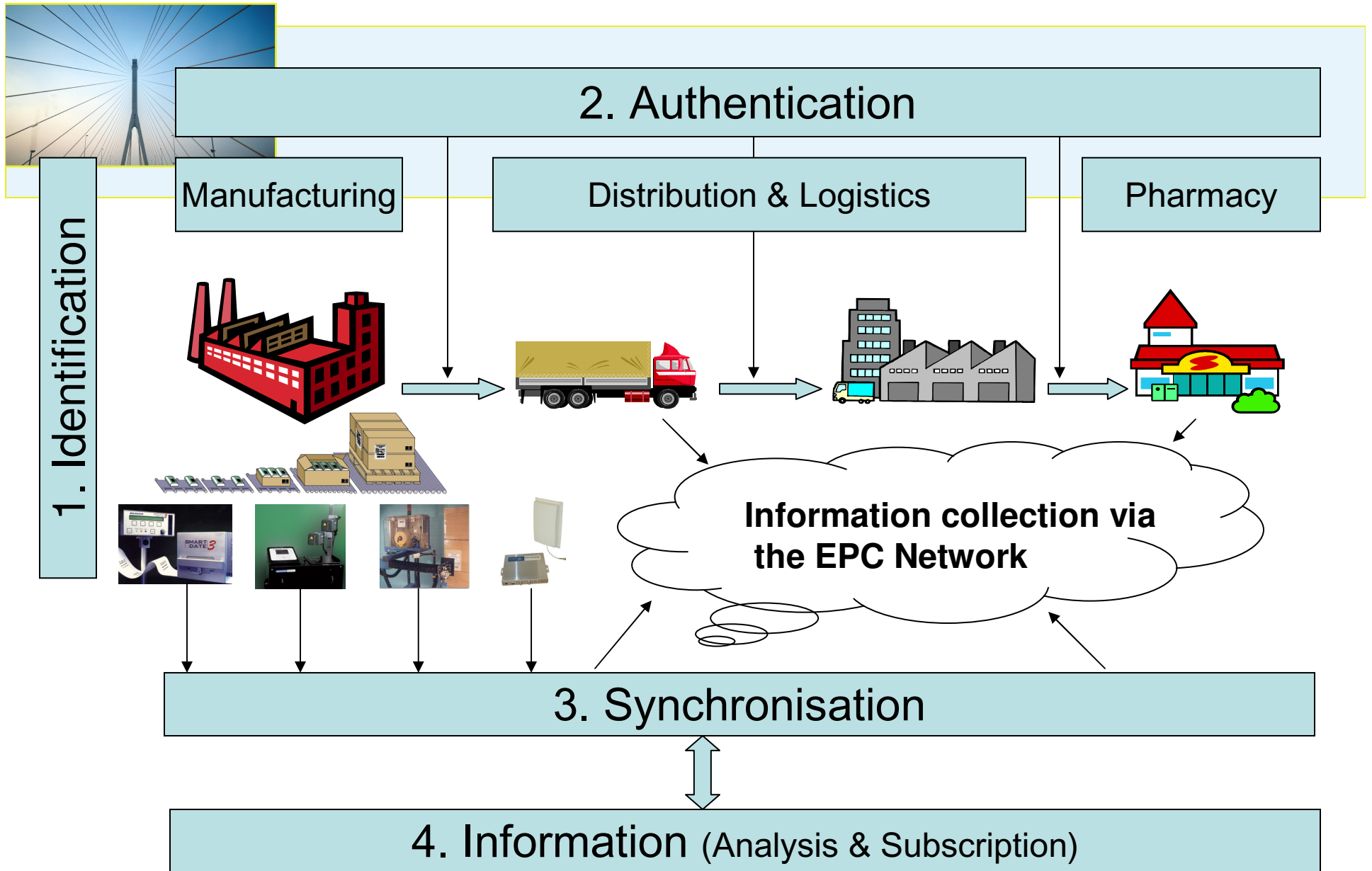
e-Traceability enabling multiple applications





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







WP Partners

Leader:

- JJ Associates

BRIDGE Partners:

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





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

Barts and The London 
NHS Trust





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**









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





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



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



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



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



For More information

Website: www.bridge-project.eu

- A Newsletter (bi-monthly edition), registration on the website
- Public deliverables available from the web site
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