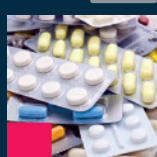


ESM

European Stakeholder Model



# A European Medicines Verification System

*Fighting counterfeit medicines to ensure patient safety in Europe*

**Speakers:**

Grant Courtney, John Chave

Monika Derecque-Pois

**Event:**

Global GS1 Healthcare Conference 2012

**Date:**

24 October 2012



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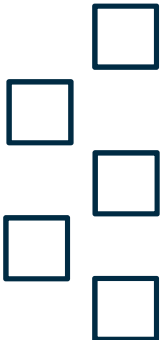
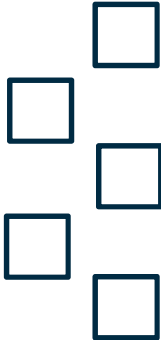
## Who are we



- Grant Courtney
  - Part of EFPIA team working on the ESM
  - Member of the GS1 Healthcare Leadership Team
  - 16 years in product security for GlaxoSmithKline
  
- John CHAVE
  - Secretary General
  - Pharmaceutical Group of the European Union (PGEU)
  
- Monika Derecque
  - Director General
  - European Association of Pharmaceutical Full-line Wholesalers (GIRP)

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# About EFPIA



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- ❑ Founded in 1960, GIRP is the umbrella organisation of pharmaceutical full-line wholesalers in Europe
- ❑ The members of GIRP
  - Employ about **140,000** staff
  - Hold products on stock from over **3,500** manufacturers
  - Supply above **100,000** medicines across the continent to more than **170,000** pharmacies

GIRP's members, the European pharmaceutical full-line wholesalers, guarantee the safe and efficient supply of all medicines to all patients through their public service function - **providing the vital link in healthcare.**

# What is GIRP?



# Pharmaceutical Group of European Union

*Members: Professional Bodies & Pharmacists' Associations*



Austria  
Belgium  
Bulgaria  
Cyprus  
Czech Rep  
Denmark  
Estonia  
Finland  
France  
Germany  
Greece  
Hungary  
Ireland  
Italy  
Luxembourg  
Malta



Netherlands  
Poland  
Portugal  
Romania  
Slovakia  
Slovenia  
Spain  
Sweden  
United Kingdom  
Croatia  
FYR Macedonia  
Norway  
Serbia  
Switzerland  
Turkey



**PGEU GPUE**

*Pharmaceutical Group of European Union  
Groupement Pharmaceutique de l'Union Européenne*

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## 1. Introduction

- Context & Background
- What is the ESM?

## 2. Fighting falsified medicines

- What are falsified medicines?
- What is the EU doing?
- What are ESM partners doing?

## 3. The ESM in practice

- Timeline
- 2D barcodes
- Process
- Testing and evolution

## 4. Next steps

## 5. Why it works

# Contents

ESM

European Stakeholder Model



# 1. Introduction

# ESM

## European Stakeholder Model

# Context & Background



- ❑ The threat of falsified medicines penetrating the European supply chain is substantial and growing
- ❑ The adoption on July 1, 2011, of the EU Falsified Medicines Directive (FMD) is an important step in protecting patients from counterfeit medicines
- ❑ European Pharmaceutical Supply Chain actors are developing a system that will meet the requirements of the FMD, provide a high level of security for patients, be cost-effective and integrate effectively into existing supply chain practises; the ESM



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## What is the ESM?

- ❑ The ESM is
  - A pan-European **end-to-end system** enabling medicines to be verified at point of dispensing
  - **Developed by the stakeholders** who will use it on a day-to-day basis
  
- ❑ The ESM is a tried-and-tested, interoperable pan-European system
  - Ensures **safe access** to medicines
  - Is **a cost-efficient interoperable** solution
    - Run on a non-profit basis. Has additional benefits
  - Is **transparent and partnership-based**

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## 2. Fighting falsified medicines

# What are falsified medicines?



- ❑ **Growing threat to public health** and safety in Europe
- ❑ Counterfeit medicines seized at the outer border of the EU tripled between 2006 and 2009, reaching approximately 7.5 million items
- ❑ **Over 30 million counterfeit medicines** have been seized by customs at EU borders, internal and external, over the last five years
- ❑ Fake medicines may:
  - Contain low quality ingredients or the wrong doses
  - Have their identity or source deliberately mislabelled
  - Have fake packaging or the wrong ingredients

# ESM

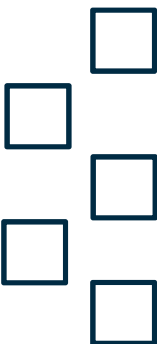
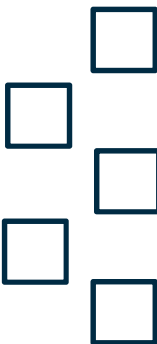
## European Stakeholder Model

# What is the EU doing?



- ❑ 2011 EU Falsified Medicines Directive has measures to increase security of the medicinal supply chain
  - Manufacturers to apply safety features to allow verification of authenticity and identification of individual packs
  - Repository systems must be established to house information on safety features
- ❑ Costs to be borne by Manufacturing Authorisation Holders
- ❑ **ESM partners want to deliver an effective system** on time – mandatory compliance expected in 2017

# What are ESM partners doing?



- EAEPC, EFPIA, GIRP, and PGEU
  - Have agreed **a joint position paper** “Ten Core Principles to Protect Patients from Falsified Medicines”
  - Have elaborated and formally endorsed a **Memorandum of Understanding** providing the foundation for the pan-European system
  - The **tender process for the first phase** of the European Medicines Verification System (EMVS) is ongoing – to be operational Q2 2012
- Talks ongoing with AESGP, EAHP, EGA and HOPE

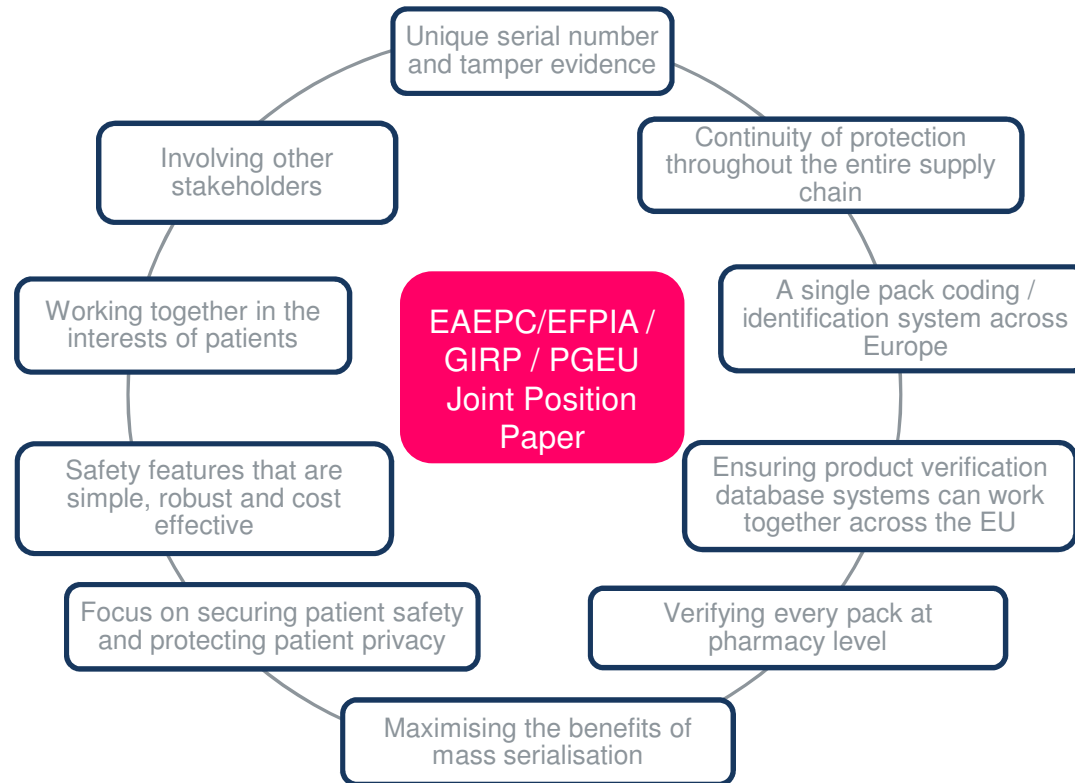
- AESGP Association of the European Self-Medication Industry
- EAHP European Association of Hospital Pharmacists
- EGA European Generic Medicines Association
- GIRP European Association of Pharmaceutical Full-line Wholesalers
- HOPE European Hospital and Healthcare Federation
- PGEU European Association Representing Community Pharmacists



# What are ESM partners doing?



- ❑ Ten Core Principles to Protect Patients from Falsified Medicines



- ❑ ESM partners are set to consult and engage patient groups

# ESM

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## ESM view on implementation of the FMD

### Safety Features

- Combine tamper-evident packaging and a unique randomised serial number
- Verify product authenticity by checking each pack against a central database at the point of dispensing

### System Design

- Harmonised standard coding system across the EU that allows national codes to be incorporated as necessary
- Sufficient flexibility to implement national or multi-country solutions within an overall EU technical framework

### Data

- Manufacturers do not seek, and will not have access to, individual patient / prescribing profile information
- Transactional data belongs to stakeholder that created it e.g. pharmacists for dispensing data

### Governance

- Systems should be established and managed by the stakeholders that will use them day-to-day
- Systems governed by independent non-profit organisations jointly managed by relevant stakeholders

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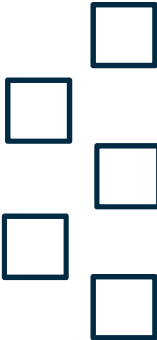


## 3. The ESM in practice



# ESM milestones

## stakeholders converge on a single product verification system for Europe



# ESM

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- ❑ The ESM uses a 2D barcode, developed to internationally recognised standards
  
- ❑ Four key data elements:
  - 14 digit Manufacturer Product Code
  - Randomised Unique Serial Number
  - Expiry Date
  - Batch Number (up to 20 alphanumeric characters)

- ❑ Example:

**Product #:** (01)09876543210982  
**Batch:** (10)A1C2E3G4I5  
**Expiry:** (17)140531  
**S/N:** (21)12345AZRQF1234567890



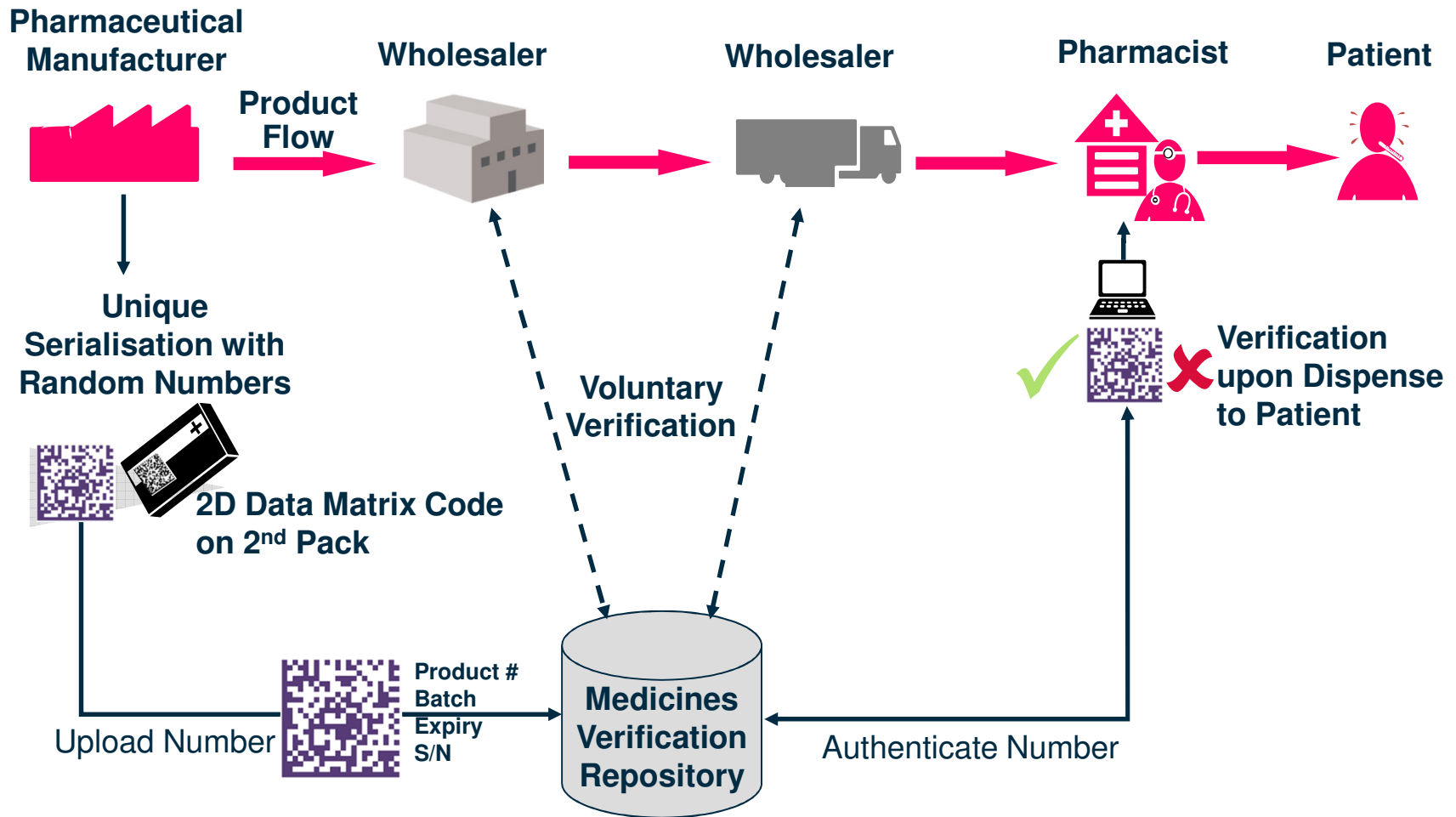
## 2D barcodes



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# Process



The key stakeholders all support the Point-of-Dispensing verification concept

## ESM

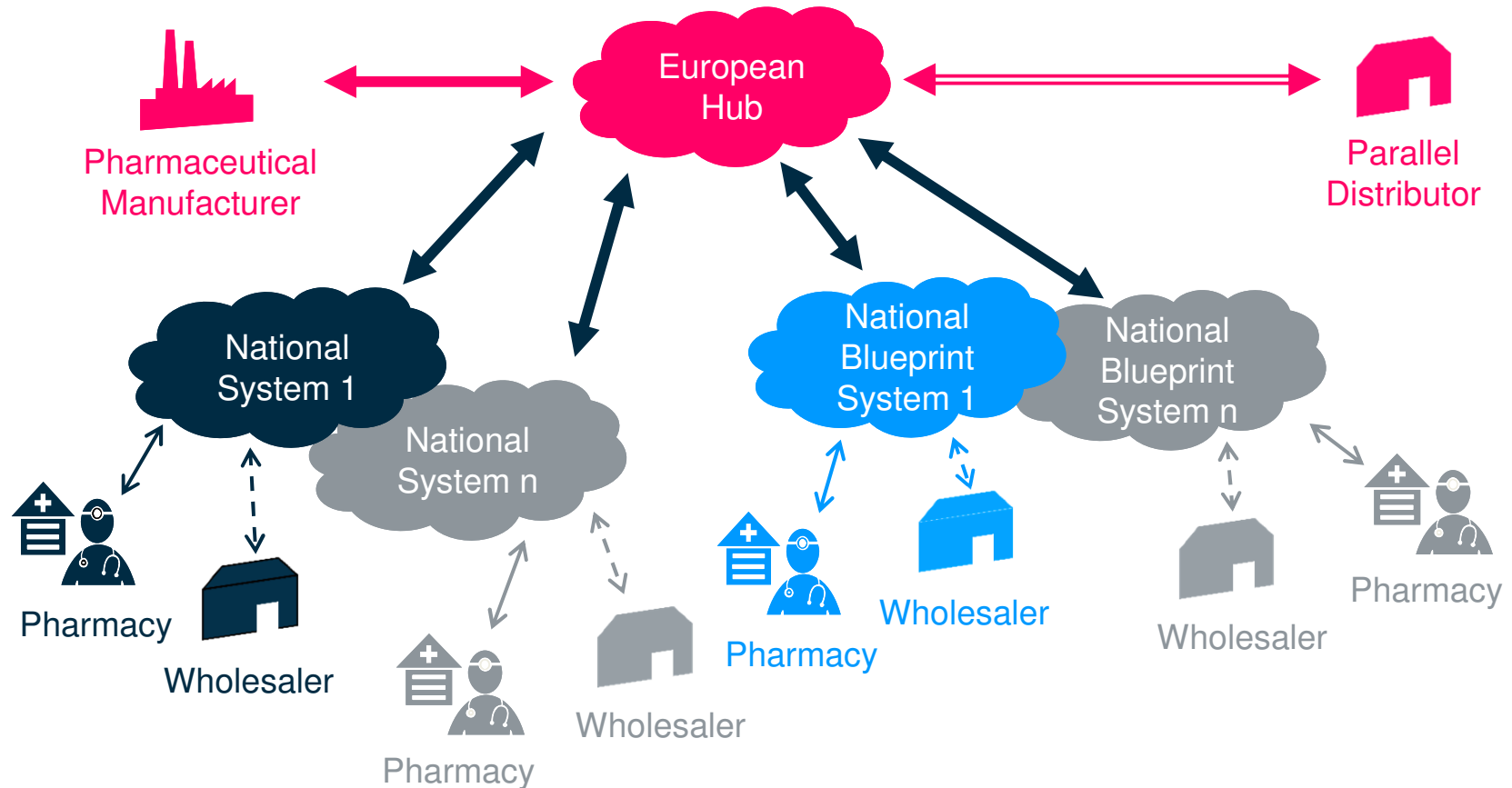
European Stakeholder Model



## Verification by wholesale distributors

- Systematic verification at point of dispense with additional **random/risk-based** verification by wholesale distributors:
  - Wholesale distributors to check packs received from other authorised sources (other than MAH and marketing authorisation holders or persons made responsible by them) and returns from pharmacies
- Full verification at the level of wholesale distributors is not useful

## European Stakeholder Model



- Parallel Distributor: mandatory verification + data upload
- Manufacturer: data upload + voluntary verification
- Periodic cross-region update
- Pharmacy: mandatory verification
- Wholesaler: voluntary verification

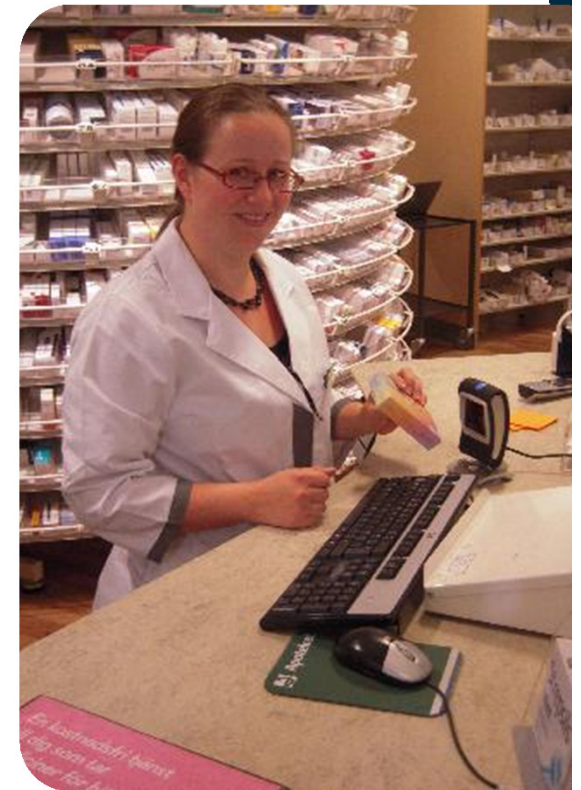
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# Testing and evolution

- ❑ Swedish pilot project (Sep 09 - Feb 10)
- ❑ 25 pharmacies in greater Stockholm. 180 dispensing points
  - 25 products. 110,000 packs. 14 manufacturers
- ❑ Key findings
  - Allows pharmacists to **work at normal pace**
  - Is customised to **existing workflows**
  - Is **integrated** into existing pharmacy software
  - Pharmacists and wholesalers are keen to get expiry date and batch number in machine-readable form



**ESM partners continue work on national interface with 2013 'SecurPharm' project in Germany**

# ESM

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### 4. Next steps

# ESM

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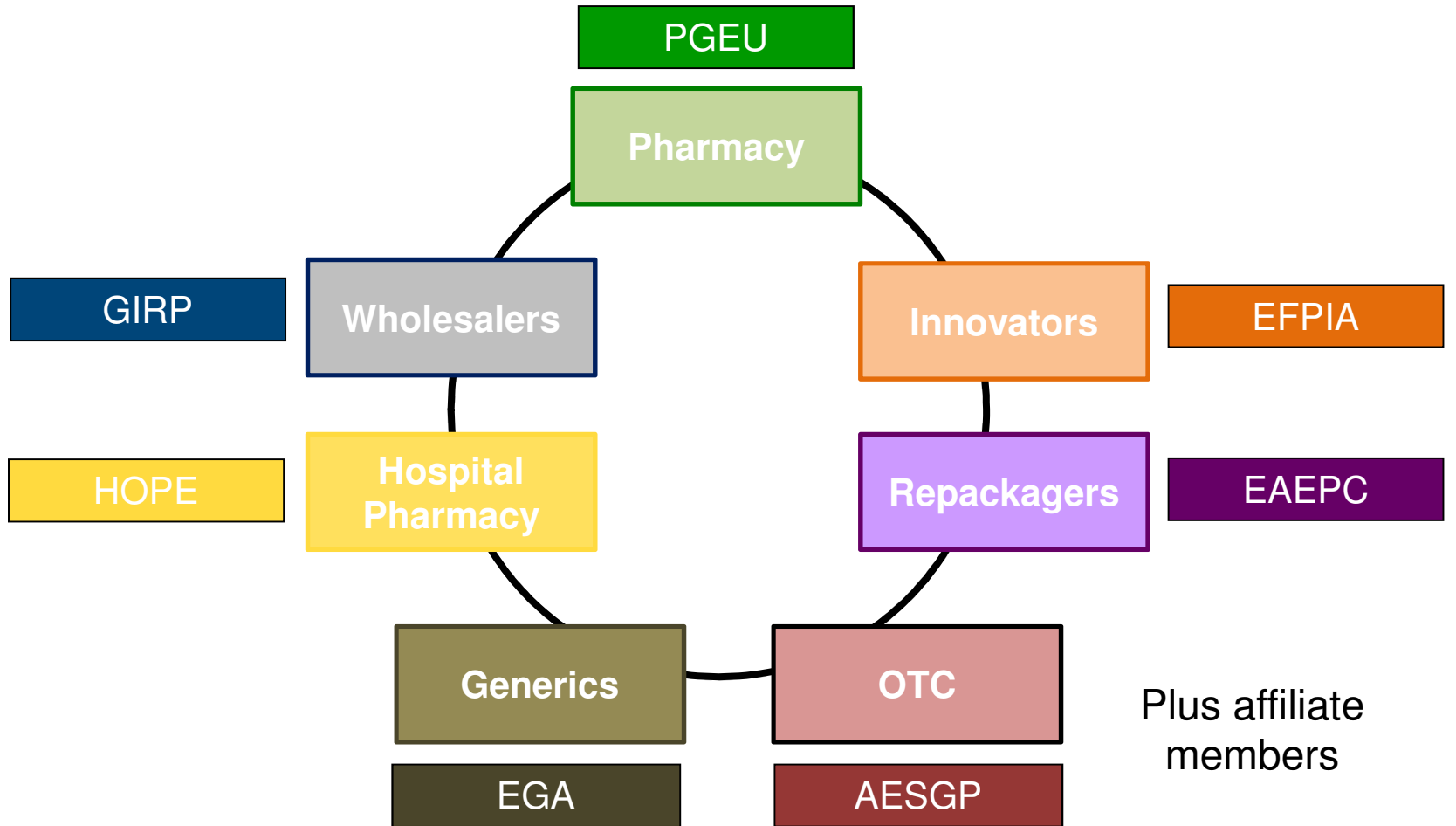
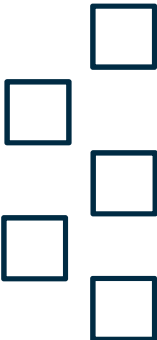
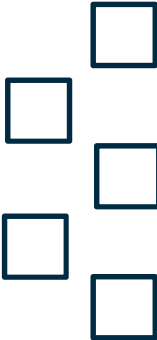
## Next steps



- ESM is an effective, interoperable, cost-efficient and partnership-based system to combat counterfeit medicines and ensure patient safety across Europe
  - ESM ensures **safe access** to medicines
  - ESM is a **cost-efficient interoperable** system
  - ESM is **transparent and partnership-based**
  
- Focus now on:
  - Dialogue with end users inc. patients and public authorities
  - Continue to work with the remaining constituencies/ associations
  - Pilot project in Germany
  - Establishing the European Medicines Verification Organisation (EMVO)
  - Continue phased implementation of the ESM



Members Are Allocated to a Constituency

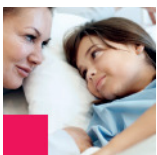


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## 5. Why it works



### The ESM for Patient Safety

- Patient safety**: joining forces across the pharmaceutical supply chain means increased security for the patient
- Interoperability**: the ESM paves the way for an interoperable system across the EU, avoiding the challenge of 27 different systems
- Cost-effectiveness**: stakeholder governance puts those who operate the supply chain every day in the front seat when it comes to design and set-up



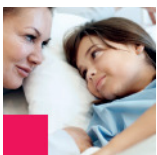
- Keeping the speed** of commissioning and delivery
- Inclusion of batch number** in harmonised, machine-readable code as pre-condition to fulfill new legal obligation from Falsified Medicines Directive (article 80 e)
- Verification at point of dispensing with additional risk-based verification** by wholesale distributors
  - Protects against entry of falsified medicines in supply chain
- Stakeholder-led approach** combining full market expertise to make system robust, cost-efficient and effective

# ESM

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# EAEP C



## Key Issues Resolved

### What the FMD requires parallel distributors to do:

- Replace (under GMP conditions) safety features with 'equivalent' ones
- Verification of product authenticity prior to repackaging
- Inform competent authorities and MAH (where applicable) in case of suspicion of falsification
- As MAH, bear the costs of the system

### Achievements:

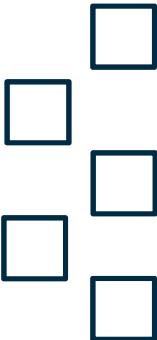
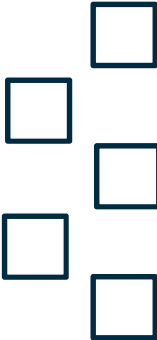
- Data handling, ownership and data protection**
  - Legal principle "Who generates, owns" and restrictive access rules defined in URS → secure handling of data and NO traceability
- Linking of codes of outgoing and incoming packages at batch level**
  - Recall function: PD is immediately informed of recalled batches and must perform own recall if required, following national procedures
- Reboxing as mandatory form of repackaging for those products meeting the FMD safety feature requirements (i.e. tamper evidence and unique identifier)**
  - In combination with bilateral understanding on equivalence of replacement of safety features
- Costs and cost sharing**
  - EU Hub provides for cost-effective interface for verification and upload
  - Overall system costs driven by number of regional DBs attached
  - Costs per pack a combination of volume and value

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PGEU



### Pharmacists wish to develop a system which:

- Puts patient safety first and nothing else
- Is consistent with current pharmacy practice
- Causes the minimum of delays, disruption and complexity for pharmacists and the supply chain as a whole
- Uses stakeholder knowledge and experience
- Is cost effective
- Can provide, where appropriate, enhancements to patient safety through for example, the detection of expired stock and improved recall processes

# Thank you



Joining forces to provide  
the best solution for patients

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ensuring patients have  
access to safe medicines