



The Global Language of Business

The use of GSRN for Patient and Care provider identification

Christian Hay





The Global Language of Business

GS1 in a nutshell



Who is GS1?



GS1 is a not-for-profit organisation dedicated to the design and implementation of **global standards** to improve the efficiency and visibility of **supply chains** globally and across sectors

GS1 Global Office

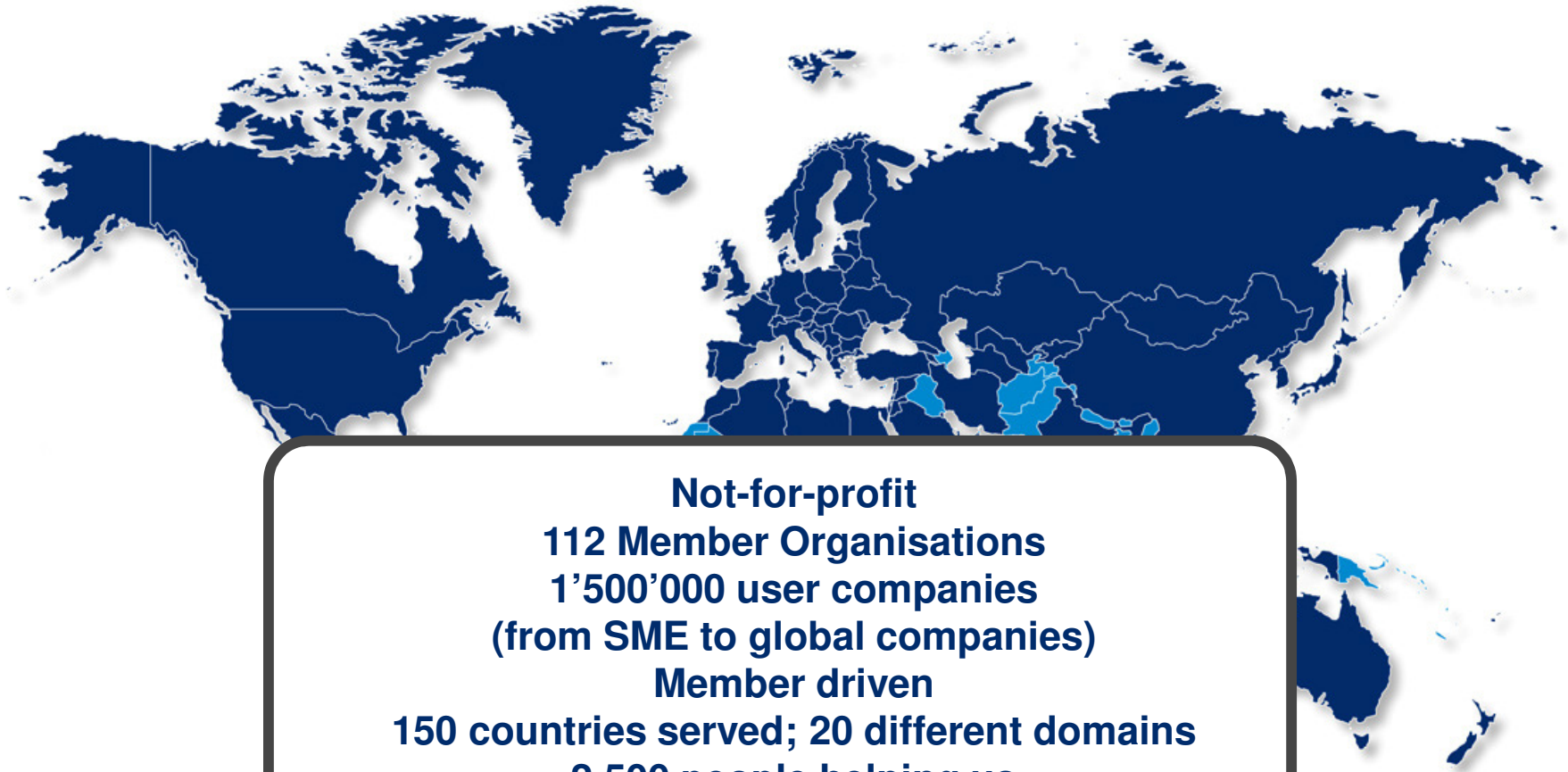
Identification, creation, development and maintenance of standards and our foundational architecture, coordination with other international bodies, development of training programmes...

GS1 Member Organisations

Local offices in 112 countries around the globe
Implementation of standards, local regulatory adjustments, community management and relationship management with local governments and regulatory agencies...



Global reach, local presence



Not-for-profit
112 Member Organisations
1'500'000 user companies
(from SME to global companies)
Member driven
150 countries served; 20 different domains
2,500 people helping us
Over 6 billion transactions a day

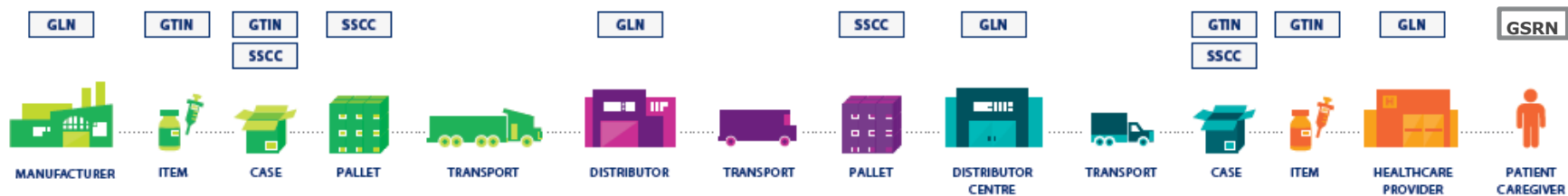


GS1 system of standards



IDENTIFY: GS1 Standards for Identification

GLN Global Location Number **GTIN®** Global Trade Item Number **SSCC** Serial Shipping Container Code **EPC** Serialized Global Trade Item Number



CAPTURE: GS1 Standards for Automatic Identification & Data Capture

GS1 BARCODES

EAN/UPC



GS1-128



ITF-14



GS1 DataBar



GS1 DataMatrix



GS1 EPC/RFID

EPC HF Passive



EPC UHF Passive



SHARE: GS1 Standards for Automated Data Exchange

MASTER DATA GLN Registry for Healthcare®, Global Data Synchronization Network™ (GDSN®) **TRANSACTIONAL DATA** eCom (EDI) **EVENT DATA** EPC Information Services (EPCIS)



GS1 extended collaborations in Healthcare



World Health
Organization



World Customs
Organization



International
Society for Blood
Transfusion



European
Association of
Hospital
Pharmacists



European
Association of
Medical Device
manufacturer



International Society
for Quality in
Healthcare



We care about secure processes





The Global Language of Business

GSRN – *the* GS1 key to safe care



Positioning the problem



- Identification of subject of care is recognised priority and key to secure health care
- Which solution would be acceptable and efficient?

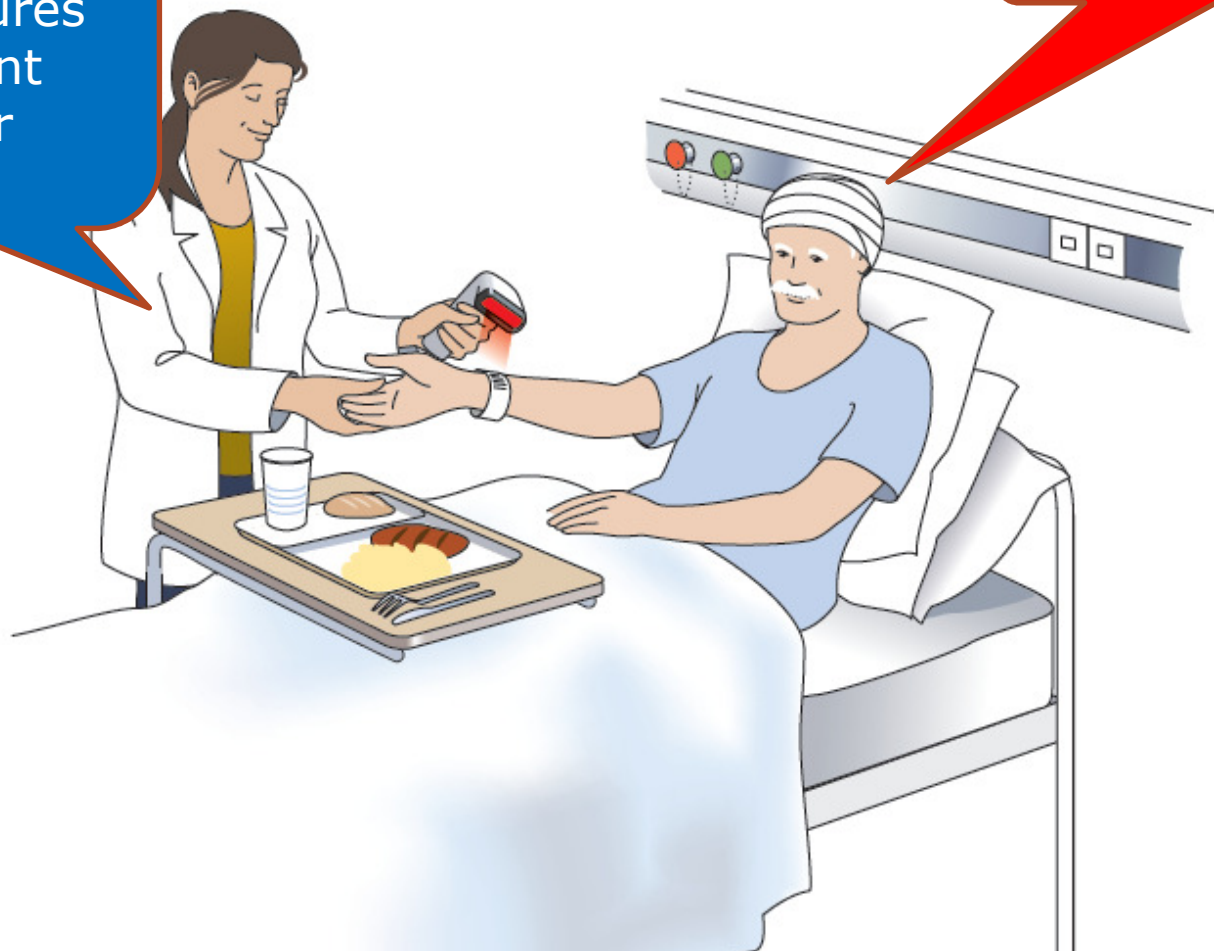


How to identify...



You'll be happy to know we have new procedures that'll prevent mistakes, Mr **Brown**

My name's **Smith** !



Distinguish «provider» from «recipient»



Definition GSRN (Global Service Relation Number)

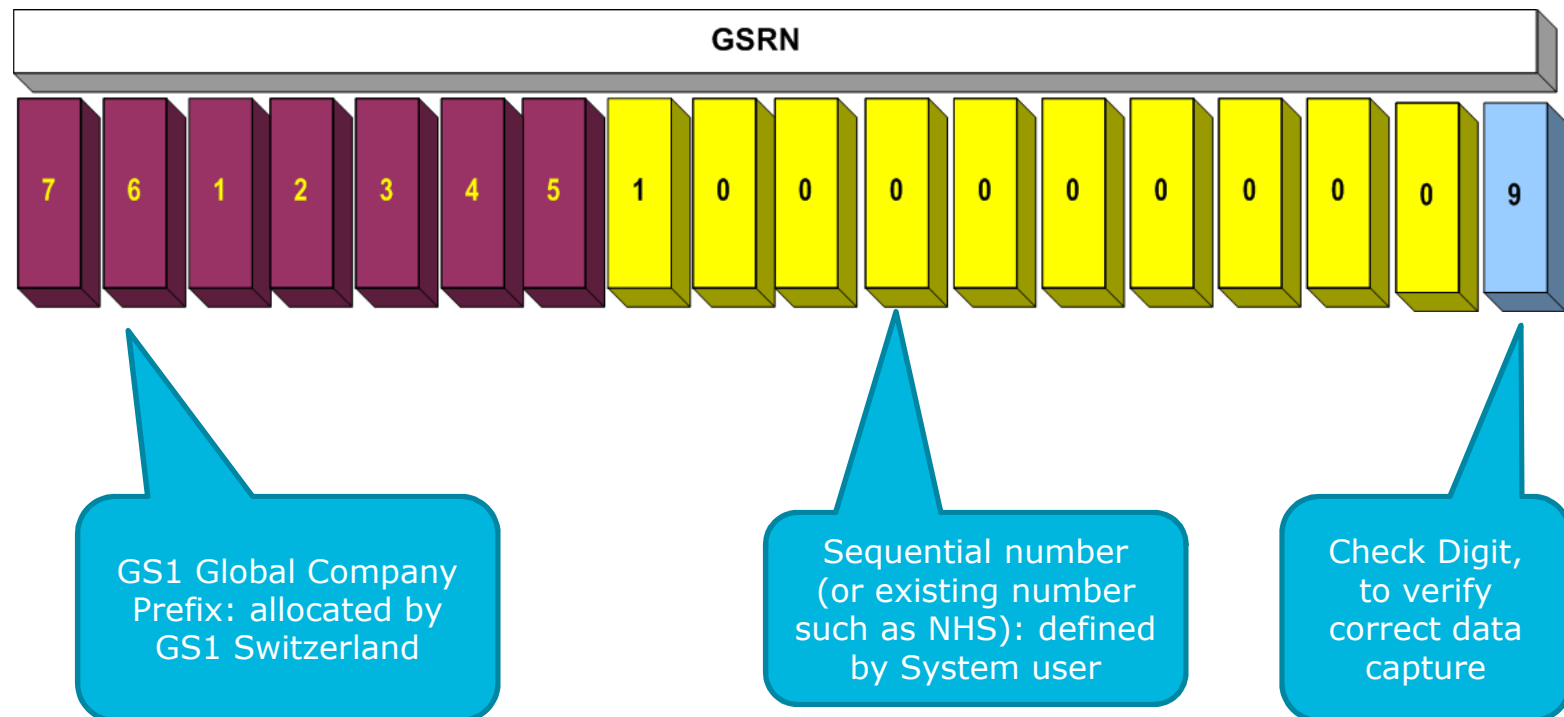


- Global Service Relation Number (GSRNs) can be used to identify the **service provider** and/or **service recipient** in any service relationship. A separate, unique number can be issued, normally by the organisation offering the service to identify the service provider and/or the service recipient, to identify any given service relationship. Once assigned, the GSRN becomes a unique and universal reference that can be used by all parties involved in the service relationship.
- A GSRN with either AI 8018 or AI 8017 are **mutually exclusive**, that is, a GSRN can only be assigned to a single role, recipient or provider, but not both.



Format of GSRN

Format for both Subject of Care Identification and Individual Provider Identification is the « Global Service Relationship Number » (GSRN)



Application Identifiers 8018 - 8017



Distinguish provider from recipient of service

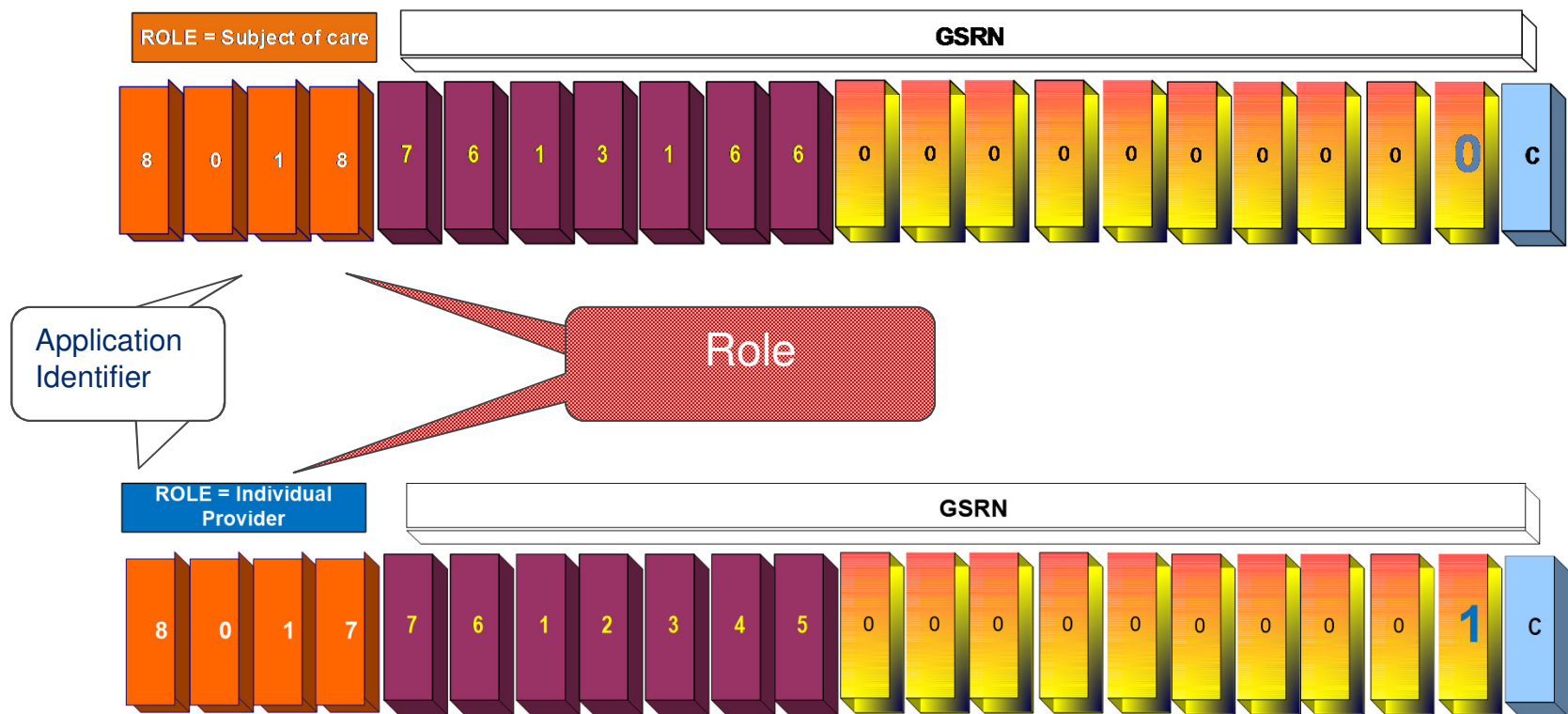




Diagram illustrating a sequence of 21 elements (bars) representing a sequence of numbers and a final character 'C'. The elements are grouped into four categories based on color and position:

- Group 1 (Orange):** 8, 0, 1, 8 (4 elements)
- Group 2 (Purple):** 7, 6, 1, 3, 1, 6 (6 elements)
- Group 3 (Blue):** 0 (1 element)
- Group 4 (Yellow):** 0, 0, 0, 0, 0, 0, 0 (7 elements)
- Group 5 (Blue):** C (1 element)

The sequence is labeled **ROLE = Subject of care** and **GSRN**.

Role

Extension GCP by user to avoid overlaps

Diagram illustrating the structure of a 32-bit GSRN (Global Service Request Number) for a Role = Individual Provider. The GSRN is divided into four groups of eight bits each, represented by colored blocks:

- Group 1 (Orange):** Bits 8, 0, 1, 7.
- Group 2 (Purple):** Bits 7, 6, 1, 2, 3, 4, 5, 5.
- Group 3 (Yellow):** Bits 0, 0, 0, 0, 0, 0, 0, 0.
- Group 4 (Light Blue):** Bits 1, c.



-
- Diagram illustrating the proposed GSRN architecture. The architecture consists of the following components:
- ROLE = Subject of care** (Red box)
 - GSRN** (Green box) containing a sequence of blocks:
 - Orange blocks: 8, 0, 1, 8
 - Purple blocks: 7, 6, 1, 2, 3, 4, 5
 - Yellow blocks: 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0
 - C** (Blue box)
 - SRIN** (Red box) containing a sequence of blocks: 8, 0, 1, 9
 - Instance Number.....** (White box) containing a sequence of 10 green blocks.

- SRIN can only be used with AI 8018 (recipient of service); change request pending for use with 8017 (provider of service)



The Global Language of Business

About CEN ISO TS 18530



Patient Identification



- ISO standard – developed together with other standard organisations and ICCBBA
- Existing AI 8018 – has the ability to embed existing numbers such as NHS number
- New AI 8019 - Service Relation Instance Number (SRIN)
- Optional attribute to capture «instances» in the care processes

Automatic identification systems are able to reduce medication errors due to patient misidentification by 65-86% (Source: US Department of Veterans Affairs)

CEN ISO TS 18530 scope



- This Technical Specification outlines the standards needed to identify and label the Subject of Care (SoC) and the Individual Provider on objects such as wrist bands, identification tags or other objects, to enable automatic data capture using data carriers in the care delivery process.
- It provides for a unique SoC identification that may be used for other purposes, such as recording the identity of the SoC in medical health records.
- This Technical Specification serves as a reference for any organization which plans to implement or improve Automatic Identification and Data Capture (AIDC) in their delivery of care process. It is to be used in conjunction with the GS1 system of standards.
- ...



CEN ISO TS 18530 – Use cases



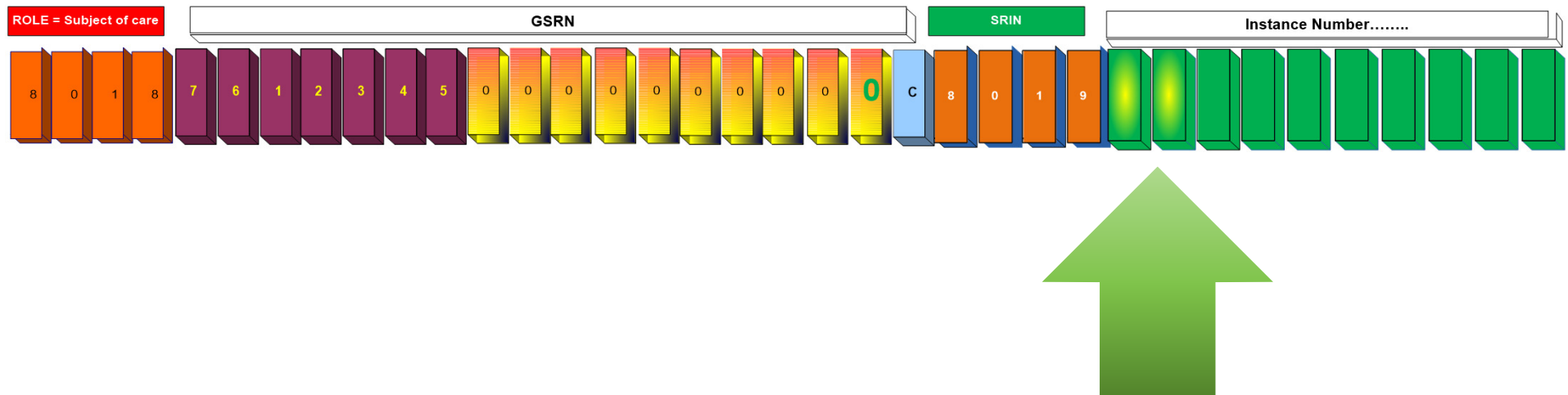
Table 1 — Overview of supported processes

Usage Requirements	SoC identifier	SRIN	Individual Provider Identification
SoC and Individual Provider Identification as a recognized priority	X		X
Machine readable coding for clinical purpose (point of care)	X	X	X
Machine readable coding in complex point of care environments	X	X	X
Machine readable coding to avoid workarounds	X	X	X
Machine readable coding in the blood transfusion processes	X	X	X
Machine readable coding for chronic outpatient	X	X	X
Machine readable coding by integrating nationwide SoC identification	X	X	X

CEN ISO TS 18530 particularity for SRIN



- For the purpose of CEN ISO TS 18530, for compliance **with ISBT 128**, the SRIN shall be used as a fixed length string with the first two digits (NN) reserved for the ISBT 128 location code (Table RT018); the selection of the remaining eight (8) digits is left to the discretion of the user and may be incremental.





The Global Language of Business

Homogeneous scanning environment

Homogeneous environment?



Source: inspired by Prof. Chr. Lovis, Univ. Hospitals Geneva (2010)

Efficiency by providing a homogeneous scanning environment



Homogeneous environment for scanning implies that one single system of standards is used



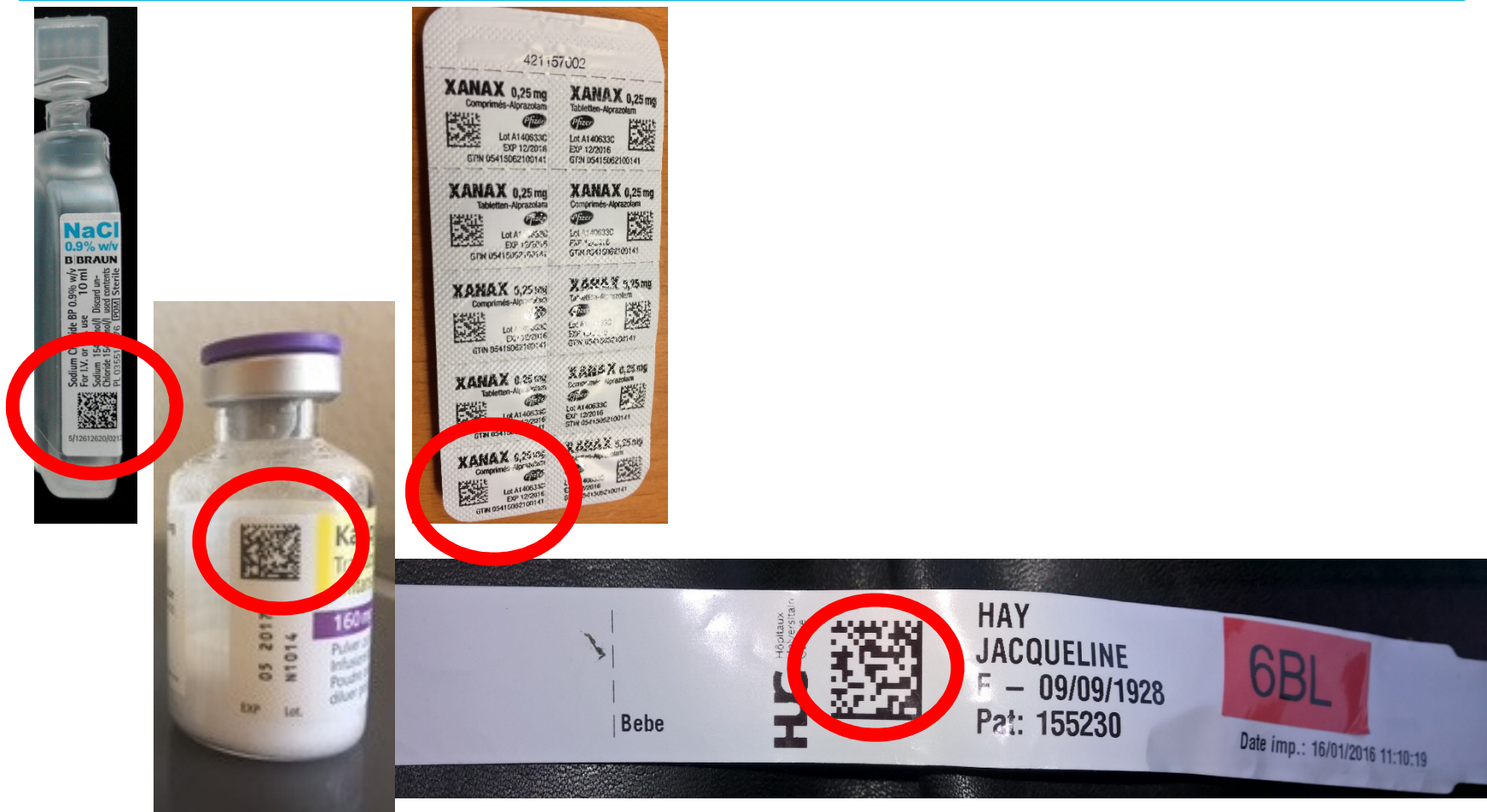
Efficiency by providing a homogeneous scanning environment



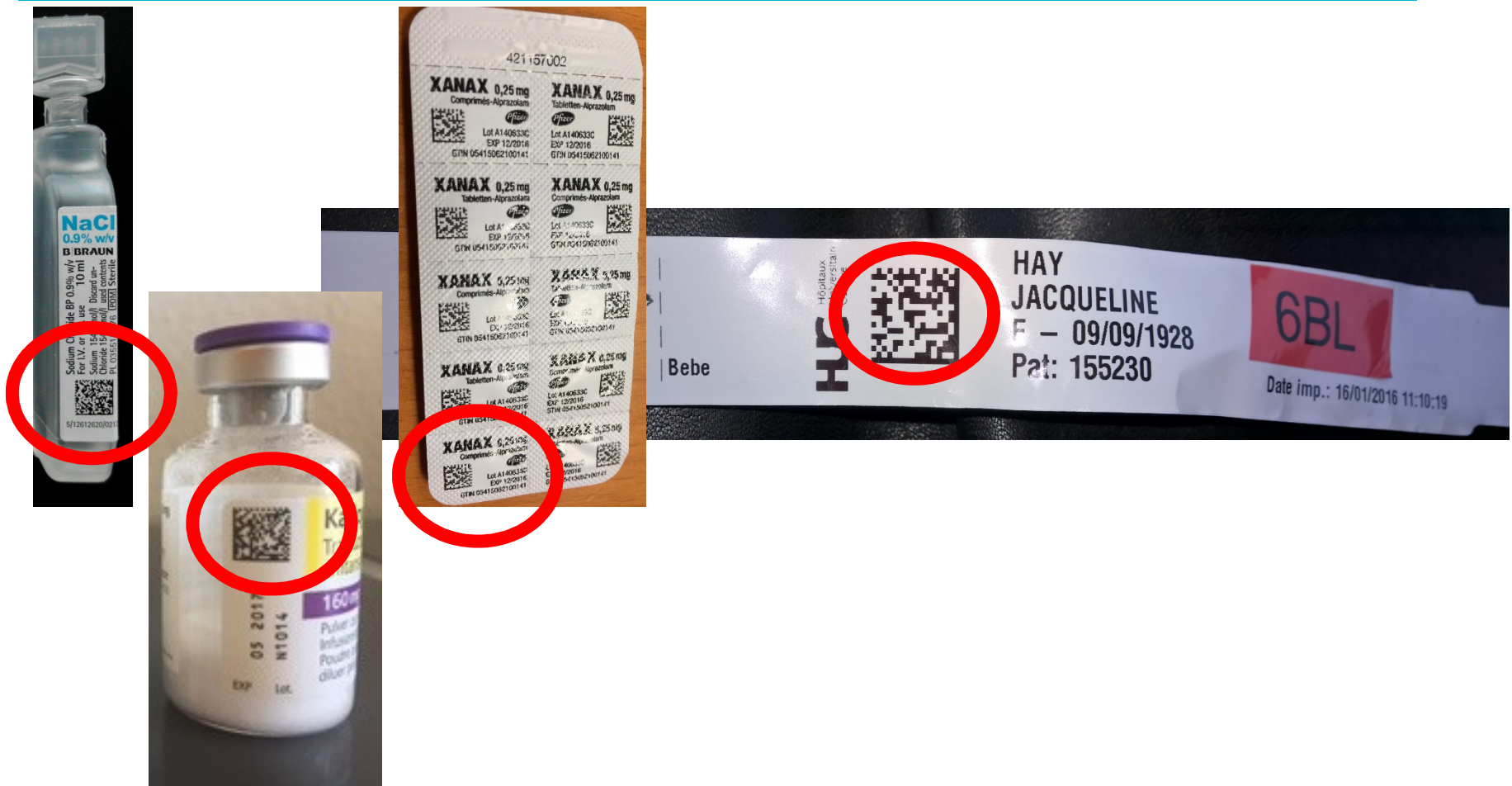
Homogeneous environment for scanning implies that one single system of standards is used



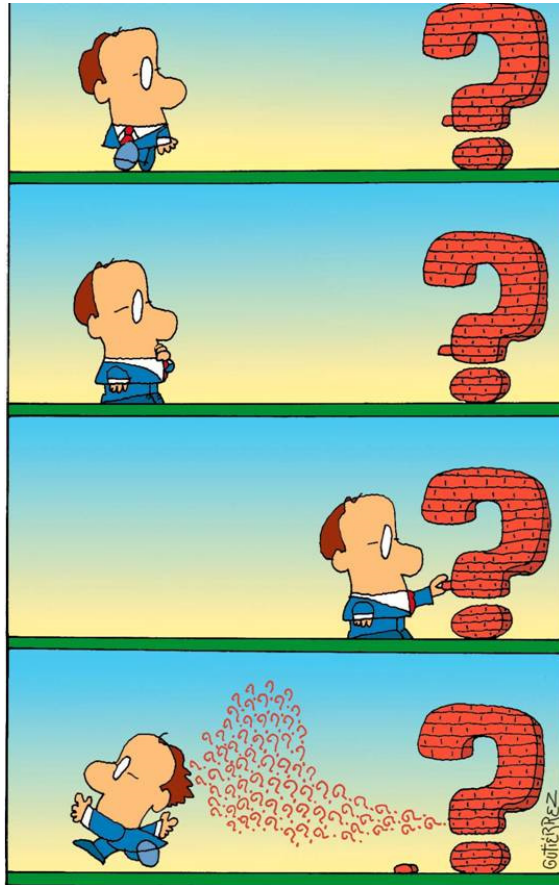
Homogeneous scanning environment



Homogeneous scanning environment



Contact



Christian Hay
Sr Consultant Healthcare
GS1 Global Office

Tel +41 21 825 32 19
Mob +41 76 369 10 54
christian.hay@gs1.org