GS1 in Defence

Agenda

1. Intro Defence

2. GS1 & NATO

3. NCS (NATO Codification System)
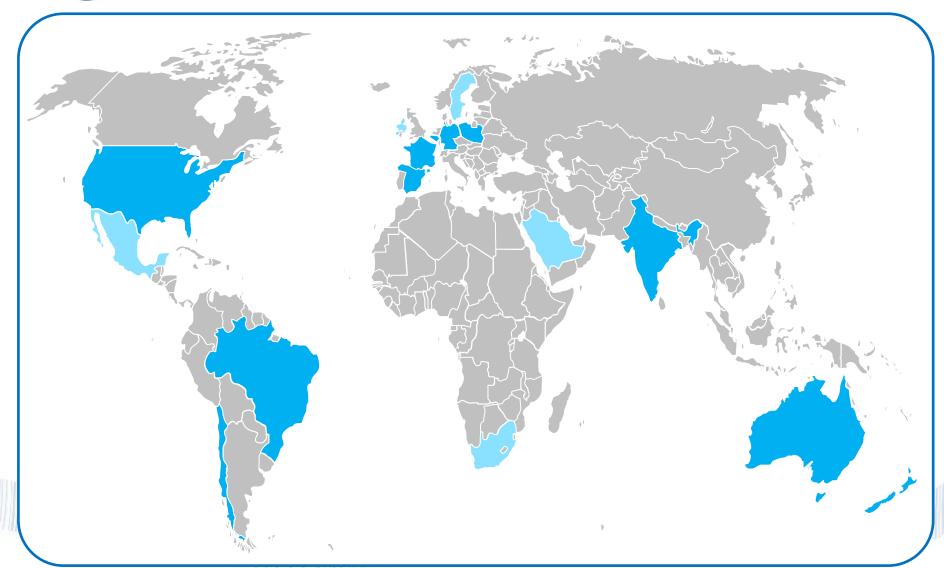
4. Next Steps

Intro

- Areas of interest for standardization (first line)
  - Identification of equipment (internal logistics)
    - Acquisition
    - Warehousing, mgt and distr. of resources
    - Maintenance
      - Spare parts change ID yearly, but not communicated
    - disposal
  - Relationship with (civilian) suppliers
  - Logistics during operations (interoperability)

Intro (2)

- Drivers for linking NCS & GS1
  - Efficient logistics
  - Defence budgets shrinking

- External drivers
  - Enhance technical dialogue amongst users & contractors
  - Promote (international) co-operation / intensify contacts
  - Facilitate effort of standardization agencies
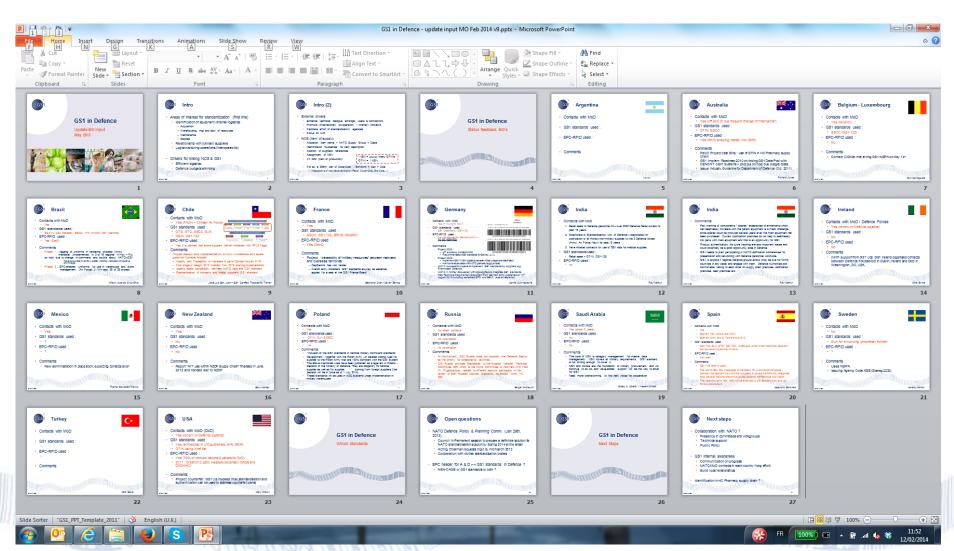 - Focus on UID

MOs involved with / interested by Defence

MOs involved with / interested by Defence

GS1 and NATO

Engaging
RE-Engaging

History

- 1999-2002 : NCS/EAN/UCC working group (5 meetings)

- 2006 : Techn. Coop. Agreement NATO & GS1
  - Intro of GS1 standards (EPC/RFID) in some NATO standards

- 2008 : NATO policy to use suitable civilian standards – joint meetings started with GS1 and 8 other standard bodies

- 2009 : STANAG 2290 (1st edition)
  - Standardise the Unique Identification of Items (UID) using a Unique Item Identifier (UII)
  - GS1 is mentioned as an Issuing Agency and the GCP as an authorised identifier of a company
  - Recognised UII equivalents : GRAI (8003) & GIAI (8004)
  - Reference to GS1 Gen Specs
  - Over time some references to GS1 were taken out

- 2011 : Strategy Paper on NATO relationship
  …..regular contacts faded out since…

Today

- 2013 (January) : we have actively picked up the relationship

- Two high level meetings (April & August 2013) with NSPA

- GS1 Workshop @ NATO World Codification Forum (Nov 2013)

- Proposal to AC/135 for joint GDSN pilot (Dec 2013 – March 2014)

AC/135 and NSPA

- Re-engagement with NATO through AC/135 and NSPA (NATO Support Agency)

- NCS is managed and run by
  - **National Directors on Codification Allied Committee 135 (AC/135)**.
    - NCB National Codification Bureau
  - Committed to increase effectiveness and efficiency of global logistics systems and operations

- **NSPA**
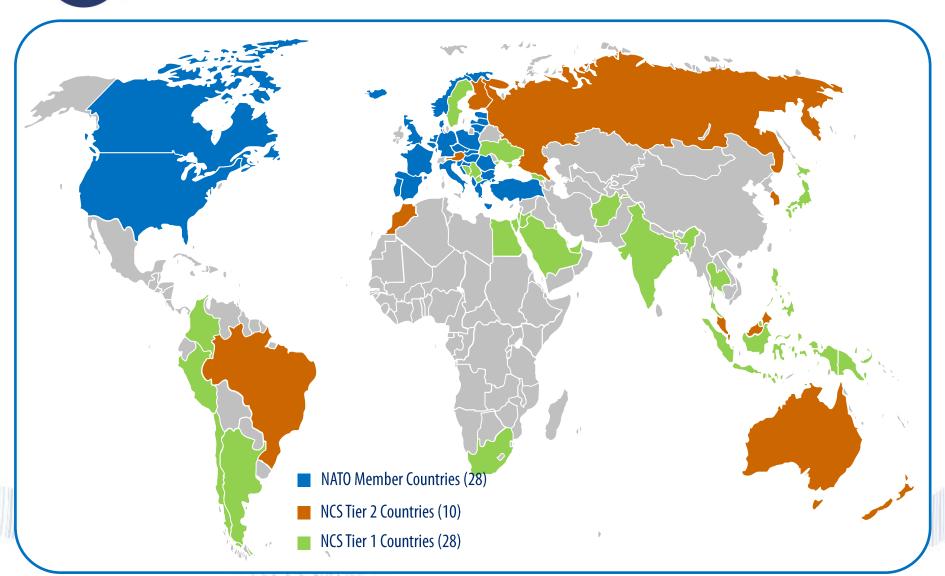 - provides specific technical and administrative support

NCS

NATO Codification System

NCS (NATO Codif. System) Countries

NATO Member Countries (28)
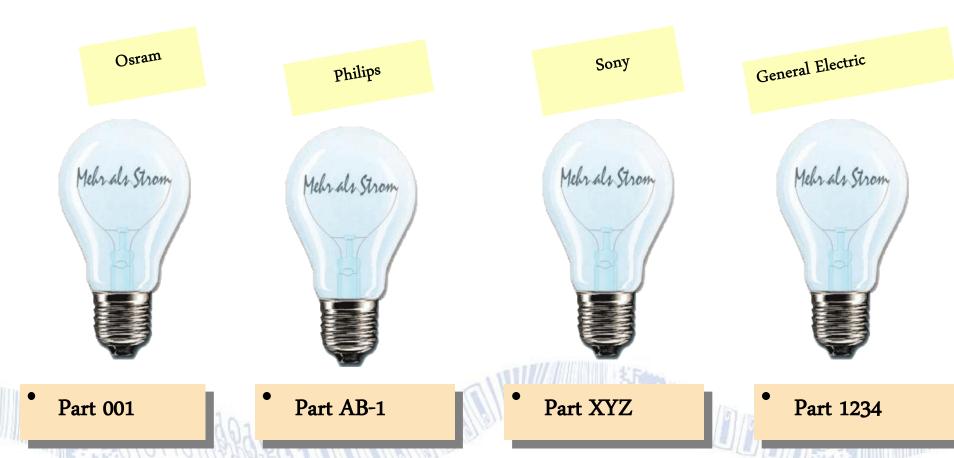
NCS Tier 2 Countries (10)

NCS Tier 1 Countries (28)

NSN and GTIN

- The NATO Stock Number (NSN) identifies a type of article
  - Item of supply ("same form / fit / function")
  - Allocation item name + NATO Supply Group + Class
  - Identification Guidelines for item description
  - Addition of suppliers references
  - Assignment of NSN

  - For ex. a 355ml can of Coca-Cola : Softdrink > Can > Cola
    – Irrespective of manufacturer/brand (Pepsi, Coca-Cola, Afro-Cola,…)

- The Global Trade Item Number identifies actual products that are traded
  - Item of production

- One NSN typically corresponds to several GTINs (but 1 GTIN = 1 NSN)

- Maintaining the relationship between NSN and GTINs can facilitate trade and logistic processes

- GTIN may meet the requirements of the NATO Supplier Source Codification (SSC)

Many Items of Production

Osram

Philips

Sony

General Electric

- Part 001

- Part AB-1

- Part XYZ

- Part 1234

One Item of Supply

Osram

Philips

Sony

General Electric

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GS1 Standards in use at NATO

- Several GS1 Identifiers meet the requirements of STANAG 2290 (NATO **Unique Identification of Item**)

  UID
  - → (S)GTIN for "civilian" products
  - → GIAI /CPID : for individual asset or part of it
  - → GRAI : for returnable/exchangeable asset
    - (transport equipment such as container, pallet, case, crate,..)

- Standard NATO Agreements based on GS1 standards:
  - STANAG 4329, NATO Standard for **Bar Code Symbology**
  - STANAG 4281, NATO Standard for **Marking for Shipment and Storage**

- **Application Identifier 7001 and 241** indicates that the GS1 data field contains an NSN-NATO stock number (7001) or NCAGE/Part nr. (241)
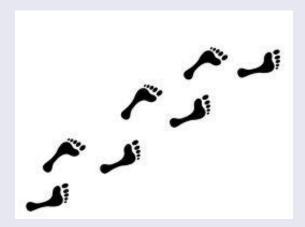
- **SSCC, GLN, GSIN**

Other coding / messaging opportunities

- The **ATC** (Anatomical Therapeutic Chemical) Code is an optional attribute of GDSN

- GS1 Electronic Product Code (**EPC**) formats are used extensively by Defence organisation in some countries for applications using RFID

- **eCom** (EDI, EanCom, XML) use of electronic messages by various Defence organisations worldwide
  - PRICAT, DESADV, RECADV, Invoice, etc…)

Next Steps

Next Steps

- *Proposal Joint GDSN Pilot (GS1 – NCS)*

  1. **Determine the range of data** that could be exchanged based on the following procedure:
     a) Review the level of crossover in item types between GDSN and NCC (Network Coordination Centre) and
     b) Determine the range of data that could be exchanged between GDSN and NCS based on the common Item Types.

  2. Create a **protocol for automated data exchange** between GDSN and the NCS and do some tests with transaction requests for data

  - most significant task of this project will be to **map data between GDSN and NCS**. The mapping would include classes (item names) and properties and property values.
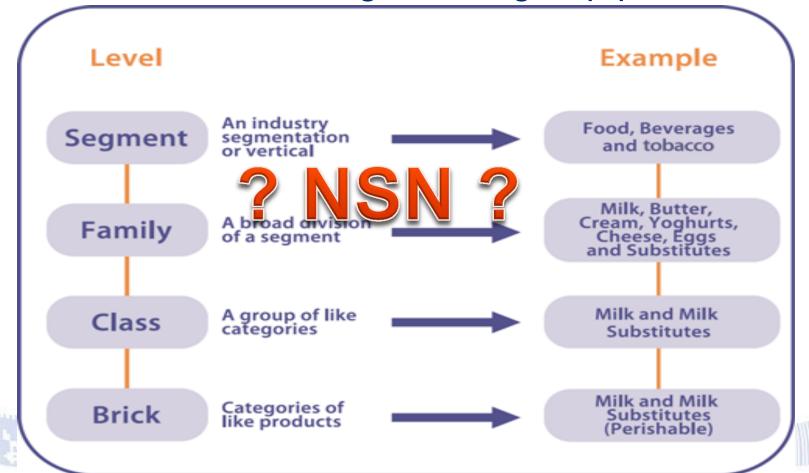
Cross reference GPC & NSG

30 NSG

out of

36 GPC

GPC Segments	NATO Supply Groups (NSGs)
Arts/Crafts/Needlework	
Audio/Visual/Photography	67 – Photographic Equipment
Automotive	23 - Ground Effect Vehicles, Motor Vehicles, Trailers, and Cycles
Baby Care	
Beauty/Personal Care/Hygiene	85 - Toiletries
Building Products	56 - Construction and Building Materials
Camping	Textiles, Leather, Furs, Apparel and Shoe Findings, Tents, and Flags
Cleaning/Hygiene Products	79 - Cleaning Equipment and Supplies
Clothing	84 - Clothing, Individual Equipment, and Insignia
Communications	58 - Communication, Detection, and Coherent Radiation Equipment
Computing	70 - Automatic Data Processing Equipment (Including Firmware), Software, Supplies and Support Equipment
Electrical Supplies	59 - Electrical and Electronic Equipment Components
Food/Beverage/Tobacco (FBT)	89 - Subsistence
Footwear	84 - Clothing, Individual Equipment, and Insignia
Fuels	91 - Fuels, Lubricants, Oils, and Waxes
Healthcare	65 - Medical, Dental, and Veterinary Equipment and Supplies
Home Appliances	73 - Food Preparation and Serving Equipment
Household/Office Furniture/Furnishings	71 – Furniture
Kitchen Merchandise	73 - Food Preparation and Serving Equipment
Lawn/Garden Supplies	37 - Agricultural Machinery and Equipment
Live Animals	88 - Live Animals
Lubricants	91 - Fuels, Lubricants, Oils, and Waxes
Music	77 - Musical Instruments, Phonographs, and Home-Type Radios
Personal Accessories	
Pet Care/Food	
Plumbing/Heating/Ventilation/Air Conditioning	47 - Pipe, Tubing, Hose, and Fittings
Safety/Security/Surveillance	42 - Firefighting, Rescue, and Safety Equipment; and Environmental Protection Equipment and Materials
Safety Protection - DIY	
Sports Equipment	78 - Recreational and Athletic Equipment
Stationery/Office Machinery/Occasion Supplies	75 - Office Supplies and Devices
Storage/Haulage/Containers	81 - Containers, Packaging, and Packing Supplies
Textual/Printed/Reference Materials	76 - Books, Maps, and Other Publications
Tool Storage/Workshop Aids	51 – Hand Tools
Tools Equipment - Hand	51 - Hand Tools
Tools Equipment - Power	51 – Hand Tools
Toys/Games	

Global Product Classification

- Set of common categories to group products

Level		Example
Segment	An industry segmentation or vertical	Food, Beverages and tobacco
Family	A broad division of a segment	Milk, Butter, Cream, Yoghurts, Cheese, Eggs and Substitutes
Class	A group of like categories	Milk and Milk Substitutes
Brick	Categories of like products	Milk and Milk Substitutes (Perishable)

? NSN ?

Next Steps (2)

Some reflections on GDSN :

- *NCS database has been designed to meet the needs of defence, but approx. **25 to 33% of items** that have NSNs are also sold at retail and thus may be found in the GDSN network.*

- *One outcome of this study would be to **define** with more precision the **crossover** between GDSN and NCS data and develop a list of commodities that comprise the crossover.*

- *Potential for GS1 to **draw more sectors** into the GS1 Member community and into GDSN*

Independent of these NATO/NSPA and GO activities

→ **Continue liaising locally with MoD and the NCB**
(National Codification Bureaus)

Thank You

Questions ?

Contact Details

Enzo Blonk : enzo.blonk@gs1.org

GS1 Global Office
Avenue Louise 326, bte 10
B-1050 Brussels, Belgium
T + 32 2 788 78 00
W www.gs1.org

GS1 Australia

- GDSN Pilot in Australia

GS1 Brasil

Update EPC for Logistics

GS1 Germany

TLB for (S)GTIN and AIT

GS1 United States

Authentication Study