



# Implementation of Electronic Registers in Austria

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# Prerequisites for efficient Electronic Data Processing

- Prerequisite for Electronic Data Processing
  - Structured information (classified / quantified)  
not free format
- Prerequisite for Electronic Data Exchange
  - Sender and receiver use same standards
- Prerequisite for Forward-looking System
  - International standard widely used in practice

# Principle for highest efficiency

- **Electronic transfer of structured data, by agreed message standards, from one computer application direct to another application with a minimum of human intervention**
  - **Manual Input** of a specific information into the electronic system - **only once** at that location where that specific data is created
  - Use of **data communications** (not via discs, tapes etc.)
  - Involvement of the **entire business procedure** in the **EDI**

# Identification system introduced by new Austrian Waste Management Act

- Efficient Electronic Data Processing is **based on numbers** instead of text-information!
- Use of numbers for identification of
  - Waste holders, Locations of production and waste treatment plants
  - Types of wastes, Recycling operations, Types of plants
- Use of existing Multi-Industry-Standard: EAN-System

# The world wide standard EANCOM, a subset of UN/EDIFACT

- Communication language between computers
- Definition of electronic messages
  - Types and formats of the information to be exchanged
  - Structure of the messages
- Definition of world wide unique identification numbers:
  - Locations
    - Legal locations (e.g. a whole company with subsidiaries)
    - Functional locations (e.g. a specific department)
    - Physical locations (e.g. a specific plant or a specific part of a plant)
  - Trade items
  - Containers
  - Services
  - Transport items

# Possible use of EAN numbers in waste management

- **Identification of all parties involved** by GLN –  
Global Location Number
- **Identification of types of waste** by GTIN –  
Global Trade Identification Number
- **Identification of operations** by GTIN –  
Global Trade Identification Number
- Obligatory use in Austria starting 2003
- EUDIN - optional segments in the messages

# Advantages of the EAN system

- International **unique number for identification** of locations and trade items (including waste items)
  - Facilitates standard identification through the entire supply and disposal chain
  - Improves master data alignment between trading partners
  - Facilitates the maintenance of accurate and synchronised databases for companies and authorities
  - Facilitates Computer Assisted Ordering (CAO)
  - Facilitates the use of Efficient Consumer Response (ECR) techniques
  - Guarantees the integrity of data (number includes a check digit)

# Advantages of the EAN system

- **Non-significant** and **non-hierarchical** identification number  
(GLN's and GTIN's mean nothing on their own, they serve as keys to retrieving information from databases)
  - Any location and any business regardless of its activity may be identified (multi-sectoral)
  - Changes to incorporate new information or new meanings are made easily

# Austrian Waste Management Act 2002

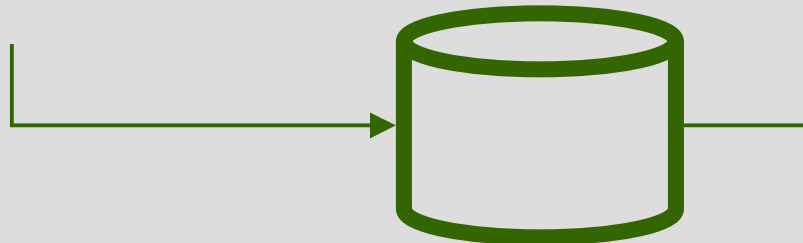
- Electronic recording and reporting instead of paper-based systems
- Centralised databases (registers)
  - **Identification databases** for waste holders, production and treatment plants („Register of Master Data“)
  - **Mapping databases** for correlation of GTIN's with types of waste, of treatment plants and of operations
  - **Databases for waste disposal and recovery** (direct access only for competent authorities)

# Use of Global Location Number (GLN) Strategy in Austria

- GLN should be the unambiguous identification number of companies/locations for all legal aspects!

**Global location number serves as a key to retrieving information from „Register of Master Data“**

**Centralised data base  
„Register of Master Data“**



**Representing master data:**

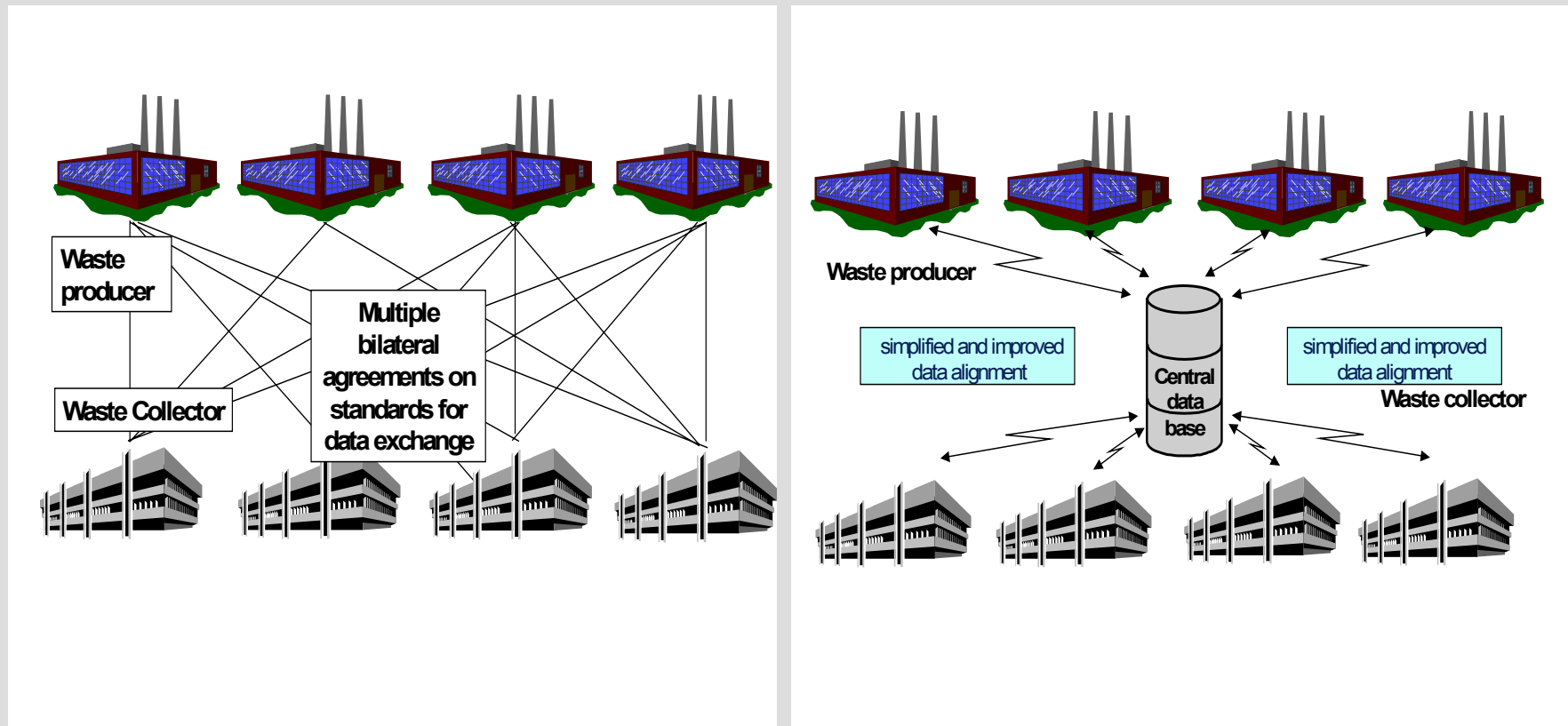
**Public access: Name, Address, Branch, Collection- and Treatment entitlement**

**Access only for authorities:**

***Detailed description of the plant, etc.***

# Advantages of centralised data bases

- Reducing bilateral interchange of master data



# Mapping

- Use of GTIN's for:
  - Identification of types of waste (based on the European Waste Catalogue)
  - Identification of treatment operations (Disposal and Recycling operations)
  - Identification of types of treatment plants (e.g. incineration plants for hazardous / non hazardous waste; landfill sites for inert / non hazardous waste, etc.)
- Centralised data bases with a list of the valid GTIN's and the corresponding information (corresponding type of waste, or corresponding type of treatment operation, or corresponding type of treatment plant)

# Mapping - waste catalogue - example

- GTIN's – corresponding to types of waste e.g.
  - EWC entry 030105: „sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 030104“ → e.g. 90 12121 00006 1
  - More detailed information necessary on national level e.g. for permission of an incineration plant:
    - Residues of treated wood → e.g. 90 12121 00010 1
    - Residues of non-treated wood → e.g. 90 12121 00011 1

# Mapping - waste catalogue - example

- GTIN's - Mapping to the European Waste Catalogue
  - All GTIN's of the described example are correlated with the entry of the EWC for wood (030105)
    - **90 12121 00006 1 --> 030105**
    - **90 12121 00010 1 --> 030105**
    - **90 12121 00011 1 --> 030105**
  - Additional entries are implemented easily without change of the structure or hierarchy (GTIN's are non-significant and non-hierarchical)
  - Future changes of the European Waste Catalogue to reflect the national needs can be implemented easily by changing only the correlation!

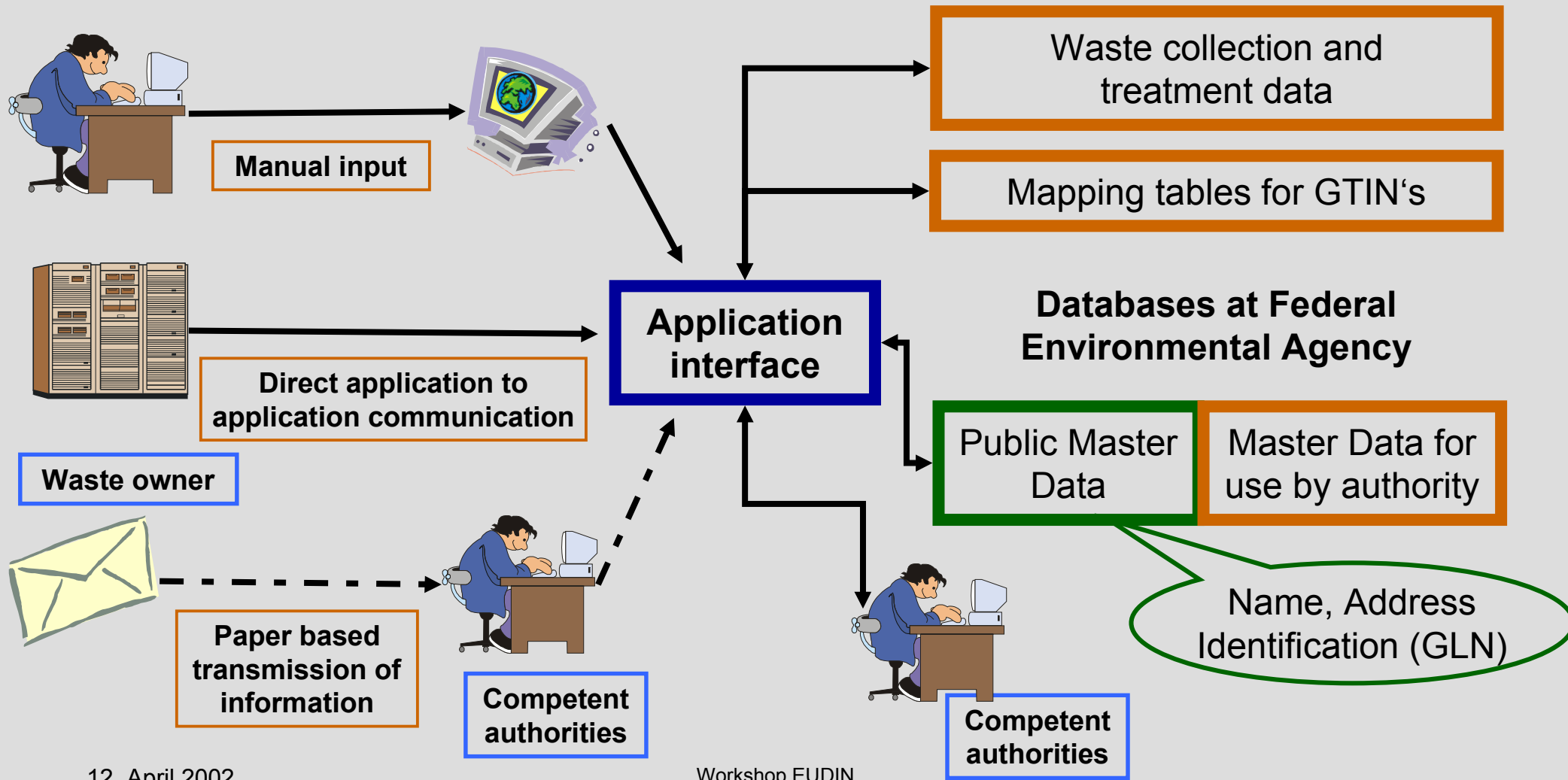
# Mapping - recycling operations - example

- GTIN's - corresponding to types of treatment operations based on the waste directive e.g.
  - R 3 Recycling/ reclamation of organic substances (including composting and other biological transformation processes) → 90 12121 00034 1
  - For reporting according to the national Compost Ordinance it is necessary to distinguish between:
    - Composting biowaste → 90 12121 05394 1
    - Composting sewage sludge → 90 12121 05395 1
    - Composting municipal solid waste → 90 12121 05396 1
  - All these GTIN's are correlated with the recycling operation R3 according to the waste directive

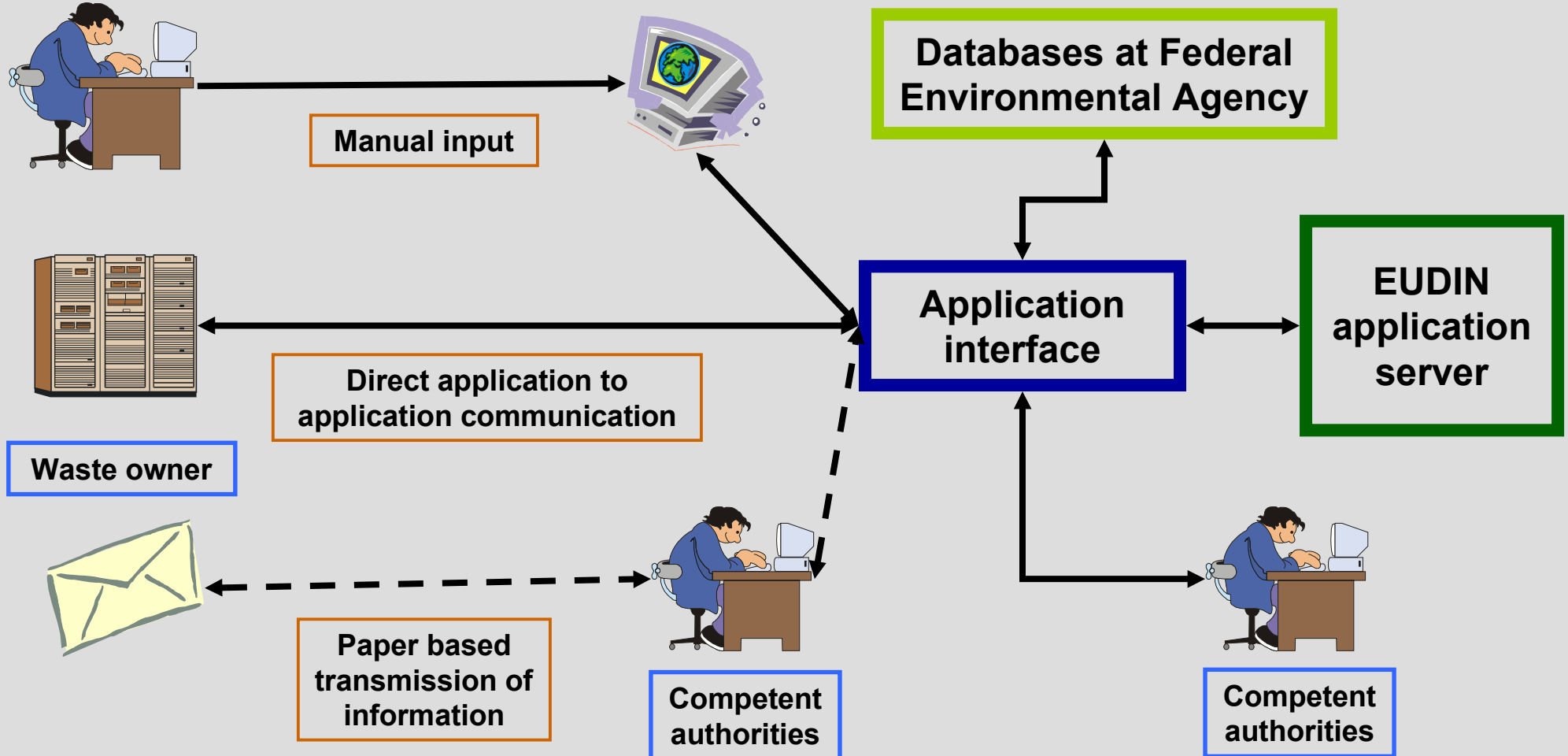
# Areas for Electronic Data Interchange in Austria within the next years

- Transfrontier Waste Shipment - starting with pre-, post and disposal notification
- Recording and reporting of Hazardous Wastes
- Recording and reporting of wastes landfilled
- Reporting for End-of-Life Vehicle Directive
- Reporting for EPER (European Pollution Emission Register)

# Information flow - Waste Management



# Information flow - EUDIN





# Thank you for your attention!

**Mag. Franz Mochty**

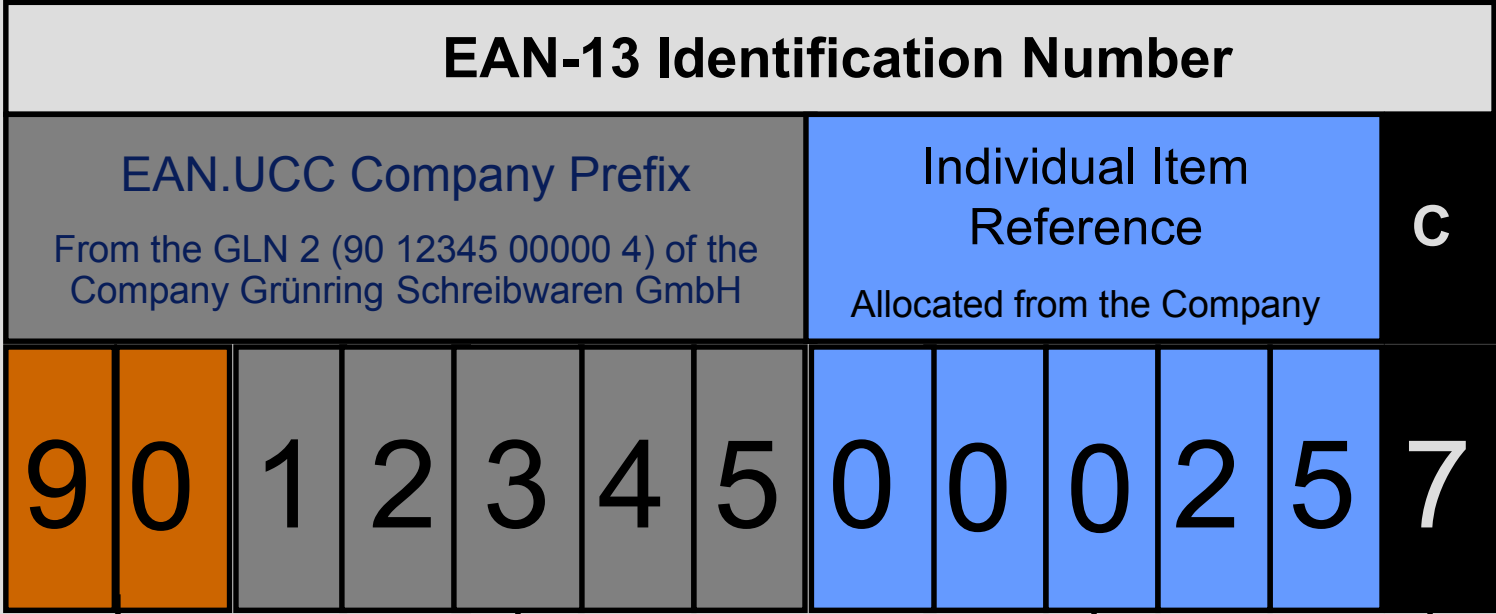
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# GLN - Global Location Number



EAN.UCC  
 Prefix –  
 country  
 code

From EAN-Organisation  
 Allocated Number

Allocation in the  
 responsibility of the  
 Company

Check Digit

# Advantages of master data base

**Global location number (GLN):**

**90 12121 12345 1**

