



It all depends on the right GLN

Guideline to Location Identification in
the Fruit and Vegetable Supply Chain

in collaboration with



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Introduction

■ Within the Fresh Food sector, companies are focused on improving their business processes in the areas of location identification, product identification and data transport by means of electronic data interchange (EDI) and ecommerce applications, and the utilisation of technologies like barcodes and RFID to realise efficiency benefits. This guideline helps companies in the fruit & vegetable sector and their supply chain partners to understand and share the same information about the uniquely identification of locations using the GLN (GS1 Global Location Number).

Why should I use a unique Global Location Number?

■ Legislations and regulations for food safety and traceability increasingly demand the identification of the producer (grower, packer, processor, etc.) and/or the supplier (distributor, trader, importer, broker, dealer, etc.). More and more trading partners, customers, certification bodies, quality organisations and government agencies want to know who is responsible for certain acts in the chain or the place where the operation occurred (cultivation field, glasshouse, packaging station, distribution centre, loading platform, etc.).

Any company may design its own internal system and code structure to identify all the locations covering its operating requirements. Although an internal solution might seem to be the easiest and fastest way forward when information is exchanged between computers of distinct companies, this may present several problems, if internal numbering systems are used instead of GLNs.

By using the GS1 GLN you can avoid:

Duplication: two or more trading partners may use the same code to identify their locations.

Complexity: internal codes will have a variety of structures and formats, making application programming more complex and application changes costly.

Problems due to significance: location codes that contain information related to the location in the code structure itself, will become difficult to handle as the coding structure evolves to incorporate new meanings.

Problems in packaging and labelling: the space on packaging is limited. The solution lies in a single number that can be used for different bodies and processes. The most obvious is to use the GS1 GLN, a worldwide used standard for location identification which is one of the fundamental pillars in using the GS1 System. It is also recognised by several other organisations and in this case replaces their internal numbering system.

As the name implies, the GLN is the GS1 Identification Key for Locations. The GLN can be used to identify physical locations and legal entities where there is a need to retrieve pre-defined information to improve the efficiency of communication with the supply-chain. Global Location Numbers are a prerequisite for electronic communication or for accessing information from the Global Data Synchronisation Network for product master data.

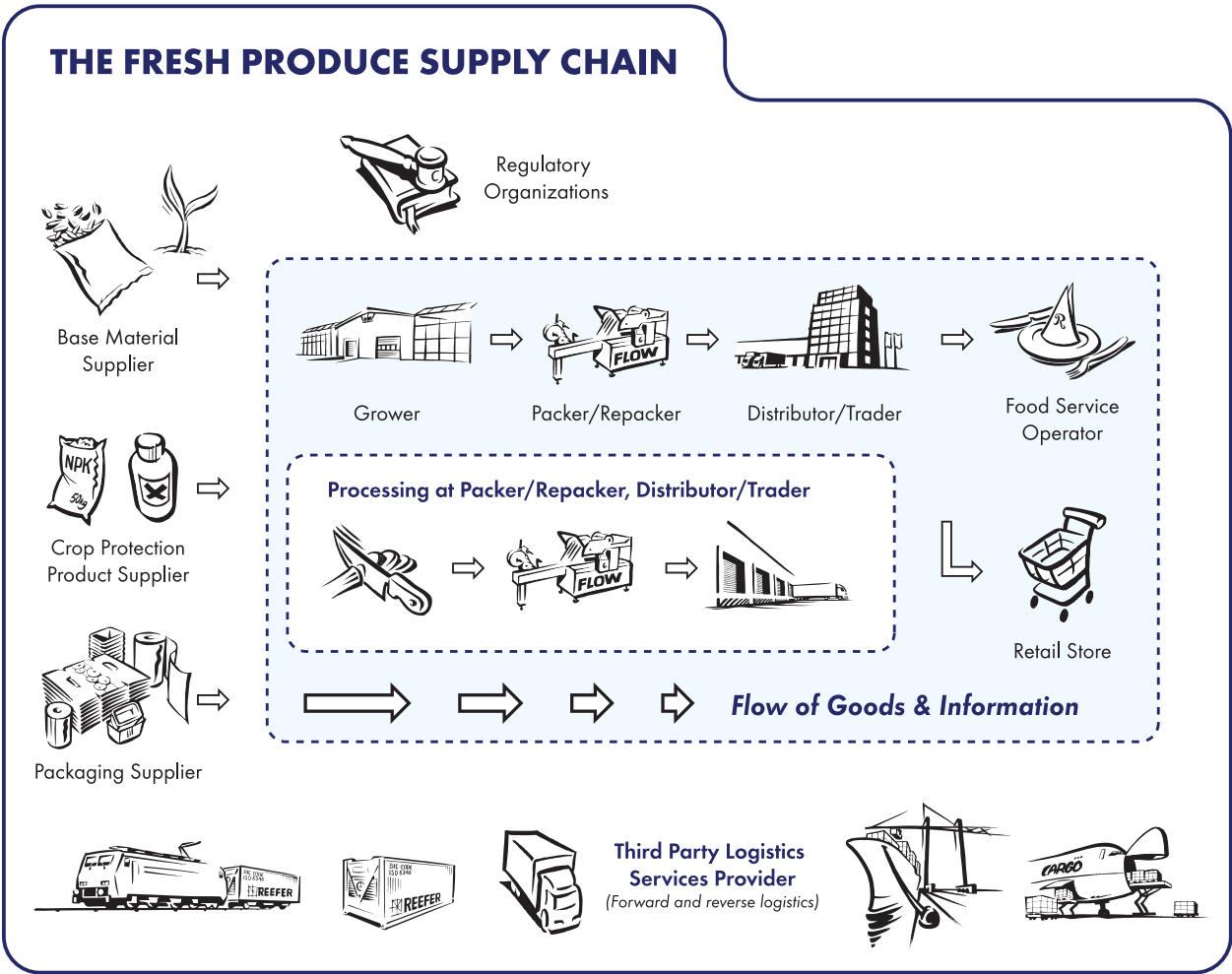
Customers use their GLNs whenever they communicate business transactions with suppliers and other trading partners outside of their organisation. The GLN is an identification number for business communications because it uniquely identifies your organisation across the entire supply chain with all suppliers, group purchasing organizations (GPOs), etc. Here are some more specific examples of when it is used:

- Ordering and delivering products;
- Processing supply-related order and invoicing inquiries;
- Claiming manufacturer rebates;
- Corresponding with trading partners;
- For all other standard business transactions with producers, cooperatives, suppliers, distributors, wholesalers and retailers.

Any party with a role or activity in the Fruit and Vegetable Chain can use GS1 Global Location Numbers for identification purposes.

The GLN in the Fresh Produce Supply Chain

- Each location is identified by a unique identification number. GLNs are reference keys for retrieving information from databases such as:
 - Activity/Role and relevant associated data of business partners like Grower; (Re)Packer; Trader; Importer; Exporter; Seller; Broker; Retailer; Buyer; Transporter; Delivery Point / Address; Buyer; Seller.
 - Type of location (cultivation field, glasshouse, packaging station, distribution centre, loading platform, manufacturing centre, warehouse, headquarters, etc.);
 - Bank account information;
 - The information provider (e.g., in a Data Synchronisation Network).



What is a Global Location Number?

- The GLN is designed to improve the efficiency of communication with trading partners and add value to the trading partners involved, as well as to consumers. The Global Location Number (GLN) is a 13-digit number for supply chain parties and/or locations. The associated name, address, and class of trade are “tied” to each unique number and are specific to only one exact and very precise location in the world. The GLN is a unique number that identifies any physical location or party that has meaning within a business scenario.
 - Physical locations:** a single point of access with a physical address, such as a greenhouse, growing field, packing station, packing line, particular room in a building, warehouse, warehouse gate, loading dock, delivery point, etc.
 - Parties:** This can be a legal entity and/or a specific role or activity that needs to be identified in a business scenario. Examples are:
 - whole companies, subsidiaries or divisions, cooperative, traders, distributors, freight carriers, wholesalers, retailers etc. as well as purchasing departments within legal entities, accounting departments, returns departments, cleaning stations, wards, etc.;
 - Roles like grower, packer, trader etc.;
 - Specific roles based on business processes and reflected in EDI communication: e.g. Invoice Issuer/Recipient, Payer, Payee, Ship-to/Ship-from, Message Sender/Receiver.

You can find more detailed information about the GS1 Global Location Number and how to assign GLNs at the website of GS1 (www.gs1.org/1/glnrules).



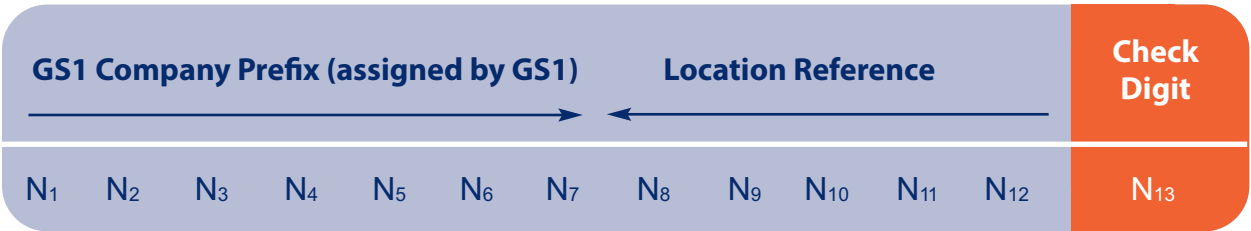
How is the structure of a GLN?

■ The GS1 GLN's have special features that ensure they are not confused with any identification key, for example on a barcode label. The GLN has a 13-digit numeric data structure and is usually composed of:

- **GS1 Company Prefix:** assigned by your local GS1 Member Organisation
- **Location Reference:** allocated by the company to a specific location
- **Check Digit:** calculated according to the standard algorithm

The management of the GS1 GLN is carried out locally by GS1 Member Organisations established in 111 countries. GS1 Member Organisations use their assigned prefix to allocate GS1 Company Prefixes to their member companies to enable them to create GS1 Identification Keys.

The general structure of a GLN is as follows:



Note: The length of the company prefix varies according to the desired numbering capacity and country. Only the complete 13-digit code is unique. Also in some countries so-called One-off GLNs are issued, meaning a single 13-digit GLN is issued to a company. These numbers do not have the possibility for self-assigning GLNs, but for example serve for small companies which only need one GLN to identify their business.

What are the advantages of using GLNs?

■ The use of GS1 Global Location Numbers (GLNs) provides companies with a method of identifying locations, within and outside their company, that is:

- **Simple:** An easily defined data structure with integrity checking that facilitates processing and transmission of data.
- **Unique:** GLNs are globally unique if used according to the GS1 GLN Allocation Rules.
- **Multi-sectorial:** The GLN allows any location to be identified for any company, regardless of its activity anywhere in the world. This allows for the GLN to be used across many industry sectors.
- **Global:** Implemented around the world and supported by the international network of the GS1 Member Organisations covering more than 111 countries.

Actors and Roles in the Fruit and Vegetable Supply Chain

■ We distinguish different responsibilities in the Fruit & Vegetable Supply Chain, i.e. the main responsibilities are reflected in the roles, specialised responsibilities are reflected by the different actors. An organization may carry out its activities in a combination of the above mentioned roles. The graphic below shows the main responsibilities on the left, on the right side typical examples of actors are displayed. Each organisation in the fruit and vegetable supply chain fulfils one or more of the defined four roles.

Main Responsibilities (Roles)	Specialised Responsibilities (Actors)
<ul style="list-style-type: none">▪ Grower▪ Packer▪ Trader▪ Retailer	<ul style="list-style-type: none">▪ Agricultural Cooperative▪ Broker▪ Distributor▪ Importer/Exporter▪ Logistic Service Provider▪ Cash & Carry▪ Food Service Distributor▪ Terminal Market▪ eTailer

Scenarios in the Fruit and Vegetable Supply Chain

■ As mentioned above, the Global Location Number (GLN) is the globally unique GS1 System identification key used to identify physical locations as well as parties (legal entities and/or activities/roles) within a business or organisational entity. Each location/party is allocated a unique identification number. One GLN can identify different roles/functions if there is no need to distinguish it in the business process.

How many GLN's are needed depends on your business needs, on your role, on your position in the supply chain and the agreements with your business partners. When you are an SME in the Fruit and Vegetable Supply Chain with only one or two roles on one location, you can decide (and agree) that one GLN is enough to identify your organisation. But if you want to distinguish your quality activities from your logistics activities, you might decide to use two or more GLNs. In a complex scenario, it is recommended that each role and activity be identified with its own GLN.



Scenario 1: Small or Medium Enterprise (SME) with one Role

SCENARIO 1

SME - GROWER

One physical location – One role – One GLN

- One legal entity
- One physical location
- One role
 - Growing (production unit including harvesting and sorting)
 - No packing activities
- Results in: One GLN

ONE PHYSICAL LOCATION

1



ONE ROLE

A



ONE GLN

1A

GLN

5012345000008

Scenario 2: Small or Medium Enterprise (SME) with two Roles

SCENARIO 2

SME - GROWER & PACKER

One physical location – Two roles – One GLN

• One legal entity

• One physical location

• Two roles

Role A - Growing (production unit including harvesting and sorting)

Role B - Packing

• Results in: One GLN, because they are not doing any packing activities for other SME's

ONE PHYSICAL LOCATION

1



TWO ROLES

A



B



ONE GLN

1 A + 1 B

GLN

8400001000009

Scenario 3: Small or Medium Enterprise (SME) with three GLNs

SCENARIO 3

SME - GROWER & PACKER

One physical location – Two roles – Three GLNs

Each GLN is based on the same Global Company Prefix (GCP)

• One legal entity

• One physical location

• Two roles


Role A - Growing (production unit including harvesting and sorting)

Role B - Packing

• Results in: Three GLNs, because they are also doing packing activities for other SME's

ONE PHYSICAL LOCATION

1




GLN no. 1 (main)


3027000001001

TWO ROLES

A



B



THREE GLNs

1 A

GLN no. 2

3027000001018

1 B

GLN no. 3

3027000001025

Scenario 4: Small or Medium Enterprise (SME) with four GLNs

SCENARIO 4

SME - GROWER & PACKER

Two physical location – Two roles – Four GLNs

Each GLN is based on the same Global Company Prefix (GCP)

One legal entity

Two physical locations

Two roles

Role A - Growing (production unit including harvesting and sorting)

Role B - Packing

There are no packing activities at physical location no. 2

Results in: Four GLN's, because they are doing packing activities for other SME's

ONE LEGAL ENTITY



GLN no. 1 (main)

8712345000004

TWO PHYSICAL LOCATIONS

1



2



TWO ROLES

A



B



FOUR GLNs

1A



GLN no. 2

8712345000011

1B



GLN no. 3

8712345000028

2A



GLN no. 4

8712345000035

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Guideline to Location Identification in the Fruit and Vegetable Supply Chain

www.gs1.eu

Scenario 5: Complex Scenario for bigger organisations

SCENARIO 5

Organisation tree for more roles. Each GLN is based on the same Global Company Prefix (GCP).

COOPERATIVE/TRADER

1



GLN no. 1 (main)

4012345600001

MULTIPLE ROLES - PHYSICAL LOCATIONS - LEGAL ENTITIES

1A

ADMINISTRATION



GLN no. 2

4012345600100

1B

PURCHASE



GLN no. 3

4012345600209

1C

PACKING



GLN no. 4

4012345600308

1D

SALES



GLN no. 5

4012345600407

1E

DISTRIBUTION



GLN no. 6

4012345600506

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Internet Resources

■ The following links provide additional resources regarding GLN allocation as well detailed information on the referenced food marketing standards.

GS1 in Europe

<http://www.gs1.eu/>

GS1 Member Organisations in Europe

<http://www.gs1.eu/?european>

GS1 Global Office

www.gs1.org

GLN Allocation Rules

<http://www.gs1.org/1/glnrules/>

Check Digit Calculator

http://www.gs1.org/barcodes/support/check_digit_calculator

GS1 Identification Keys (ID Keys)

http://www.gs1.org/barcodes/technical/id_keys#gln

GEPIR – GS1 Global Electronic Party Information Registry

<http://www.gepir.org>

UNECE Standards for Fresh Fruits and Vegetables (FFV)

www.unece.org/trade/agr/standard/fresh/FFV-StandardsE.html

UNECE Standards for Dry and Dried Produce (DDP)

www.unece.org/trade/agr/standard/dry/DDP-Standards.html

EU Regulation on Fruit & Vegetables EU 543/2011

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:157:0001:0163:EN:PDF>

Partners involved in the development of this document

Frug I Com (Foundation Platform Fresh Chain Information)

Frug I Com is a unique collaboration of the Dutch Potato, Fruit and Vegetable Supply Chain. The ultimate goal is to establish electronic exchange of information between the participants in the Potato, Fruit and Vegetable Supply Chain by means of uniform labelling using electronic messages. Working with information standards allows Fruit and Vegetable Supply Chain companies to make optimum use of the information available in the supply chain and to apply it to order processing, tracing of products, optimising logistics and quality improvement. The result? A faster and more efficient supply chain which is less error-prone.

GS1 in Europe

GS1 in Europe is a collaboration of 46 GS1 member organisations and leads the creation and implementation of harmonised, user-driven solutions for improving the supply and demand chain of European companies.

Where can you request a GLN?

■ To get your own GLN or GS1 Company Prefix contact your local GS1 organisation (<http://www.gs1.eu/index.php?european>).

A GS1 Company Prefix not only allows you to create your GLNs. It gives access to all the applications using GS1 identification keys, i.e. identification of items (GTIN e.g. for consumer or trade units (see brochure “It all depends on the right GTIN”), services, locations, logistic units, returnable containers, etc. The GS1 Company Prefix is the part of the GS1 data structures and consists of the GS1 Prefix (allocated by GS1 Global Office to a GS1 Member Organisation) and a Company Number allocated by the GS1 Member Organisation to a respective user company.



Contact GS1 in Europe locally:

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One world. One system. One global language of business.



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