

Supply Chain Management for Fresh Fruit and Vegetables Integrated Guideline Part 2: Location Identification with GLN



Document Summary

Document Item	Current Value
Document Title	Supply Chain Management for Fresh Fruit and Vegetables - Integrated Guideline Part 2 - Location Identification in the Fruit and Vegetables Supply Chain with GLN
Date Last Modified	30 April 2014
Current Document Issue	Issue 1.0
Status	Initial issue, approved by GS1 in Europe Board
Document Description	This document serves as a guide to implementing GS1 Standards in the fresh fruit and vegetable industry supply chain.

Log of Changes in Issue 1

Issue No.	Date of Change	Changed By	Summary of Change
0.1	July 2013	Klaus Förderer	Initial issue, first draft
0.9	12 March 2014	Klaus Förderer	Initial issue, final draft
1.0	30 April 2014	Klaus Förderer	Initial issue, approved by GS1 in Europe Board

Consulted Literature

Version	Document	Release Date
Draft v11	GS1 Global – Fruit & Vegetable GTIN Assignment Implementation Guide	July 2013
Issue 13	GS1 Global – General Specification	2013
Final	GS1 Global Traceability Implementation for Fresh Fruits and Vegetables	July 2009

Contributors

Name	Organization
Bolduan, Tilo	UNIVeG Deutschland GmbH
Brown, Tim	GS1 UK
Casalini, Emanuela	GS1 Italy
Chatagnier, Isabelle	GS1 France
den Engelse, Johan	Frug I Com
Feldhof, Andre	FRESHFEL EUROPE
Förderer, Klaus	GS1 Germany GmbH
Geelen, Harry	The Greenery B.V.
Graf, Heinz	GS1 Switzerland
Jönsson, Peter	GS1 Sweden
Kranepuhl, Katrin	REWE Group
Krázli, Zoltán	GS1 Hungary
Lerch, Hanjörg	METRO Group
Luokkamäki, Mikko	GS1 Finland
Martoch, Tomas	GS1 Czech Republic
Moehrke, Axel	Dole Fresh Fruit Europe
Pielaat, Sarina	GS1 Nederland
Prenger, Reinier	GS1 Nederland
Purchase, Alaster	GS1 UK
Quets, Tom	CAPESPAN Continent NV
Röhl, Norbert	EDEKA ZENTRALE AG & Co. KG
Rosell, Pere	GS1 Spain
Rowe, Greg	GS1 Global Office
Schierloh, Gunnar	Internationale Fruchtimport Gesellschaft Weichert
Schmeitz, Harrij	Frug I Com
Steins, Marc-Oliver	GS1 Germany
Wockenfuß, Oliver-Martin	1WorldSync GmbH

Partners involved in the development of this document

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. Further information on GS1 in Europe and the activities in the area of fruit and vegetables can be obtained from www.gs1.eu

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. Further information see www.frugicom.nl

Disclaimer

Whilst every effort has been made to ensure that the guidelines to use the GS1 standards contained in the document are correct, GS1, GS1 in Europe and any other party involved in the creation of the document HEREBY STATE that the document is provided without warranty, either expressed or implied, of accuracy or fitness for purpose, AND HEREBY DISCLAIM any liability, direct or indirect, for damages or loss relating to the use of the document. The document may be modified, subject to developments in technology, changes to the standards, or new legal requirements. Several products and company names mentioned herein may be trademarks and/or registered trademarks of their respective companies.

Table of Contents

1.	Introduction	6
1.1.	Purpose and Scope of this Part	6
2.	About the Global Location Number (GLN).....	6
2.1.	Why should I use a unique Global Location Number?	6
2.2.	The GLN in the Fresh Produce Supply Chain	8
2.3.	What is a Global Location Number?	9
2.4.	How is the structure of a GLN?.....	9
2.5.	Where can you request a GS1 GLN?	10
2.6.	What are the advantages of using GLNs?	10
3.	Roles and Scenarios in the Supply Chain.....	11
3.1.	Roles and Actors in the Fruit and Vegetable Supply Chain	11
3.2.	Characteristics of the different Actors	12
3.3.	Scenarios in the Fruit and Vegetable Supply Chain	13
4.	The use of the GLN in practice	19
4.1.	Who is already using the GLN in the food sector?.....	19
4.2.	What is the first step for business partners to identify themselves with a GLN?	19
4.3.	Where can you find the address of your local GS1 organization?.....	19
4.4.	How do you assign GLNs?	19
4.5.	What is GEPIR?	20
4.6.	GLN Implementation in GS1 Standards	22
4.6.1.	Using Global Location Numbers on barcoded labels:.....	22
4.6.2.	Data is associated with a Global Location Number (GLN).....	22
4.6.3.	GLN plus Extension	22
4.7.	Internet Resources	23
5.	Annex: Actors and Roles in detail.....	24
5.1.	Roles in the Fruit and Vegetable Supply Chain	24
5.2.	Activities in the Fruit and Vegetable Supply Chain	25
5.2.1.	Supply-Side	25
5.2.2.	Wholesale.....	29
5.2.3.	Retail	30

1. Introduction

1.1. Purpose and Scope of this Part

Within the Fresh Food sector, companies are focused on improving their business processes in the areas of location identification, product identification, data transport through 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 and 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).

2. About the Global Location Number (GLN)

2.1. 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 the same number that can be used for different bodies and processes. The most obvious is to use the GS1 GLN, a worldwide standard used for location identification which is one of the fundamental pillars in using the GS1 System. It is also recognized by several other organizations and replaces in this case 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 is a need to retrieve pre-defined information to improve the efficiency of communication within the supply-chain. Global Location Numbers are a prerequisite for electronic communication or to access 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 organization. The GLN is an identification number for business communications because it uniquely identifies your organization 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, retailers.

Any party with a role or activity in the fruit and vegetable chain can use GS1 Global Location Numbers for identification purposes.



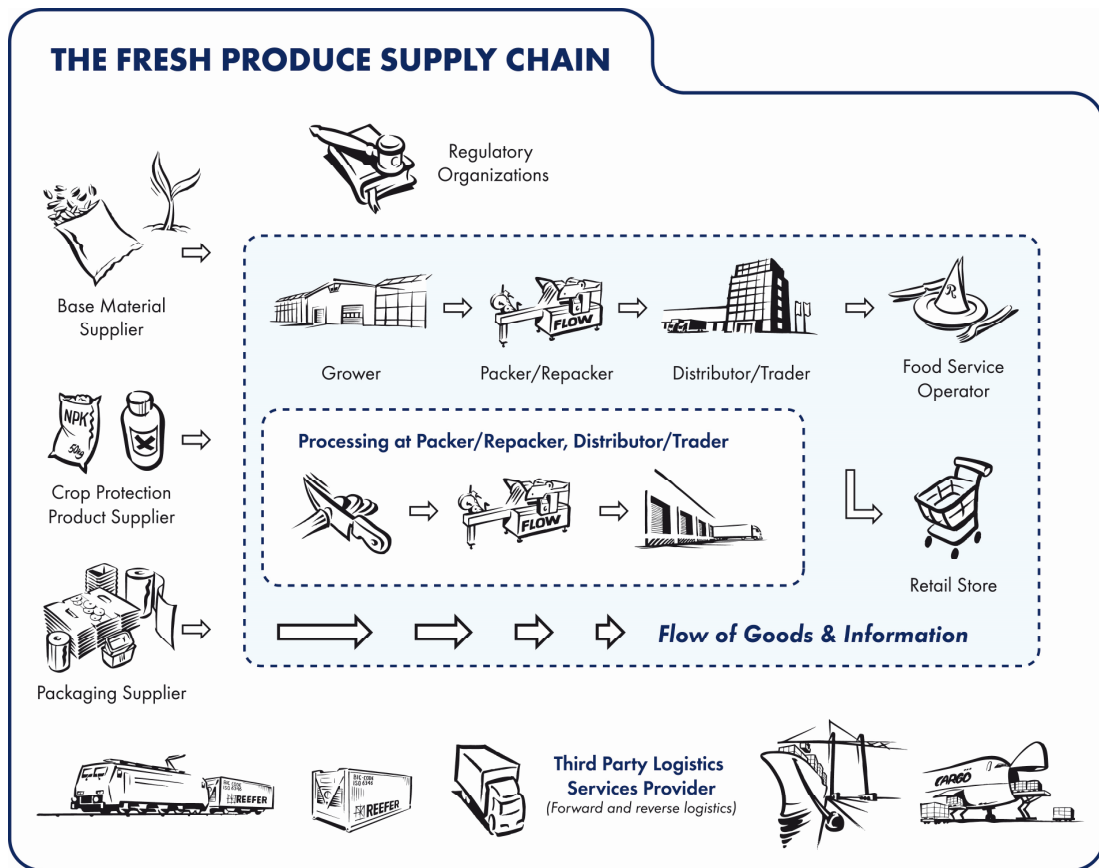
Comment:

Modern technology makes it possible that the GLN can also be used in the B2C processes, e.g. for identifying growers in a B2C smartphone application.

2.2. The GLN in the Fresh Produce Supply Chain

Each location is allocated 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, glass houses, packaging station, distribution centre, loading platform, manufacturing centre, warehouse, headquarters, etc.);
- Bank account information;
- The information provider (e.g., in a Data Synchronisation Network)



2.3. 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 within 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 stations, 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): [GS1 GLN Allocation Rules](#)

2.4. How is the structure of a GLN?

The GS1 GLN's have special features that ensure they are not confused with any other 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 over 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:

GS1 Company Prefix (assigned by GS1)												Check Digit
N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13

Example of a GLN structure:

The Greenery B.V.
Dierensteinweg 30
2991 XJ BARENDRECHT
Netherlands

GLN (GS1 Company Prefix) assigned by GS1 Netherlands

GS1 Company Prefix (assigned by GS1)							Location Reference (free) assigned by your company					Check Digit
N1	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13
8	7	1	0	1	4	7	0	0	0	0	0	1



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. Contact your local MO on details about GLN allocation and GS1 Company Prefix models.

2.5. Where can you request a GS1 GLN?

To get your own GLN or GS1 Company Prefix contact your local GS1 organization:
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"* or *GTIN-part of this Integrated Guideline*), 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 Organization) and a Company Number allocated by the GS1 Member Organization to a respective user company.

2.6. 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 Organizations covering more than 111 countries.

3. Roles and Scenarios in the Supply Chain

Within this chapter the basic scenarios in the fruit and vegetable supply chain as well as the roles and the information flows are introduced. These basic scenarios are the reference for the subsequent chapters of this guideline.

3.1. Roles and Actors in the Fruit and Vegetable Supply Chain

We distinguish different responsibilities in the fruit and vegetable supply chain, i.e. the main responsibilities are reflected in the roles, specialised responsibilities are reflected in the different actors. An organization may carry out her 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 organization in the fruit and vegetable supply chain fulfils one or more of the defined four roles.

<i>Main Responsibilities (Roles)</i>	<i>Specialized Responsibilities (Actors)</i>
<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



Note:

Food Processors and Convenience sector is out of scope, as other regulation and different business processes apply.



Note:

In the annex the roles and actors as well as typical scenarios are further explained

3.2. Characteristics of the different Actors

The distinctive characteristics of the business to business (B2B) trade activities:

Role/Actor	B2B Trade Activities				
	Stock		Trade	Transport	Customs
	Owner	On Behalf Of	Buy/Sell		
Supply					
Agricultural Cooperative		x	S		
Broker			B/S		
Distributor		x		x	
Grower	x		S		
Importer/Exporter	x		B/S		x
Logistic Service Provider		x		x	
Packer		x	S		
Trader	x		B/S	x	
Wholesale:					
Cash & Carry	x		B/S		
Food Service Distributor	x		B/S	x	
Terminal Market	x		B/S		
Retail					
Retailer	x		B		
eTailer	x		B		

The different actors in the supply chain fulfil different roles. The explanations below show the different actors that are relevant in the fresh fruit and vegetable supply chain and their activities:

Grower

The grower is responsible for the production, harvesting and despatch, as well as record keeping of appropriate information about the field and products sent to the packing station, to an importer or to the Agricultural Cooperative.

Packer/Re-packer

The packer receives the merchandise from the grower, an importer or another packer, packs them into boxes and may palletise them. After that, the packer despatches the merchandise to a third party: the wholesaler or the retailer.

Agricultural Cooperative

A co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise. Agricultural Cooperatives receive the merchandise coming from all associated growers and prepare it to be sent to the next step in the supply chain: an importer, a wholesaler, a packer or a retailer.

Trader, Broker, Dealer

A trader, broker or dealer for fruit and vegetables is a person or company that buys and sells products without handling them.

Wholesaler

A wholesaler buys goods in large quantities from their manufacturers or importers, and then sells smaller quantities to retailers, who in turn sell to the general public.

Importer

The importer is a person or company that imports products into a country and sells them there. The importer may receive merchandise from an agricultural cooperative or a packer and send it to a packer, wholesaler or retailer.

Retailer, eTailer

A retailer buys goods or products in large quantities from manufacturers or importers, either directly or through a wholesaler, and then sells individual items or small quantities to the general public or end user customers, usually in a shop, also called store. Retailers are at the end of the supply chain.

3.3. 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.

In the fruit and vegetable supply chain there are two scenarios applied: the simple scenario and the complex scenario.

The simple scenarios reflect a typical small or medium-size company and there is no need to distinguish different locations or roles with a GLN in the business process.

The complex scenario for bigger organisations shows the possibilities to better organise business processes internally and with trading partners by using various GLNs (usually out of the same company prefix) for different locations or functions.

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 a SME in the fruit and vegetable supply chain with only 1 or 2 roles on 1 location, you can decide (and agree) that 1 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 2 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 shows a typical example of a grower fulfilling only one role as grower without other activities. One GLN is needed to identify his company.

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

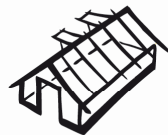
ONE PHYSICAL LOCATION

1



ONE ROLE

A



ONE GLN

1 A

GLN

5012345000008

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

Scenario 2 shows also a small grower who additional is packing and therefore fulfils also the role of a packer in one location. In this case trade also only one GLN can be used for identification purposes.

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

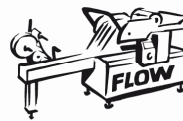
1



TWO ROLES

A

B



ONE GLN

1 A + 1 B

GLN

8400001000009

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

In Scenario 3 the company/farmer acts as grower and packer in one location for his own products, but also acts as packer for other growers as well. It is recommended to distinguish the two roles as packer. Apart from the main GLN, two separate GLNs should also be assigned due to the packing activities.

SCENARIO 3

SME - GROWER & PACKER

One physical location – Two roles – Three GLNs

Each GLN is based in 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

In Scenario 4 is similar to scenario 3, but the company is based in two physical locations and packing activities are also executed for other growers in only one physical location. In this scenario it is recommended to use 4 different GLNs in order to reflect the business processes.

SCENARIO 4

SME - GROWER & PACKER

Two physical locations – Two roles – Four GLNs

Each GLN is based in 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



TWO ROLES



FOUR GLNs



Scenario 5: Complex Scenario for bigger organizations

In bigger organizations it makes sense to distinguish all relevant roles and locations by different GLNs in order to optimise the business processes:

The activities are differentiated across multiple organizational units and the routing of information is automated. It is recommended to assign to each role and/or activity its own GS1 Global Location Number. Each different entity is to be assigned with its own GLN if there is a need to distinguish these entities in the supply chain.

The scenario below is an example only. The allocation of GLNs for different entities/locations varies according to company's needs and business scenarios. Another example for the allocation of GLNs can be a GLN for the invoicing department, the sales department Germany, the sales department Netherlands and the sales department Austria or GLNs may allocated to different delivery points. See chapter 2.3 for the details.



4. The use of the GLN in practice

GS1 Standards make it easy to do business globally using a unique set of identification numbers for products, companies, locations, assets, logistic units or customers at any point in the supply chain. No matter where in the world a business is based or what language you use, trading partners can always understand one another using these standards. The GLN provides the global supply chain solution for identification of physical locations and legal entities.

GLNs are widely used on a daily basis by more than 1,000,000 GS1 user companies involved in a variety of business activities, including food, chemicals, electronics, banking, healthcare, retailing and do-it-yourself (DIY) sectors.

The GLN is recognised by the United Nations working party responsible for UN/EDIFACT and by the International Standard Organisation (ISO 6523).

4.1. Who is already using the GLN in the food sector?

In the food sector the GLN is used by most of the retailers, suppliers and producers; also governmental and regulatory organisations are using the GLN. Trade partners use the GLN in their mutual digital information exchange.

More and more public and private Quality Control and Certification Agencies take the GLN in their applications; they allow their own identifications key is replaced by the GLN; e.g. the Dutch public Quality Control Bureau KCB (Kwaliteits-Controle-Bureau) also accepts the GLN in place of the internal KCB-number.

4.2. What is the first step for business partners to identify themselves with a GLN?

If a company does not have an assigned GS1 GLN or GS1 Company Prefix, contact the GS1 Member Organization in your country to obtain a membership application. If a company already has a GS1 GLN or GS1 Company Prefix, the company can begin assignment now!

4.3. Where can you find the address of your local GS1 organization?

Find your [local GS1 organisation](http://www.gs1.org/contact) on the website of GS1 (www.gs1.org/contact) or GS1 in Europe (<http://www.gs1.eu/?european>)

4.4. How do you assign GLNs?

Global Location Numbers should be neutral and be allocated sequentially and not contain "classifying" elements. For detailed information on assigning GLNs, see the [GS1 GLN Allocation Rules](http://www.gs1.org/1/glnrules/) (<http://www.gs1.org/1/glnrules/>).

After receiving a GS1 GLN or [GS1 Company Prefix](http://www.gs1.org/1/glnrules/), a company is ready to begin assigning identification numbers.

The process is fairly simple. You learn about [how to format each number](http://www.gs1.org/1/glnrules/) then use the GS1 Company Prefix in combination with reference numbers you assign. Your local [GS1 Member Organisation](http://www.gs1.org/1/glnrules/) can provide you with specific information about how many numbers you can assign based on the length of your GS1 Company Prefix.

The check digit is the last digit of the GLN and is calculated in a specific algorithm. In order to calculate check digits see http://www.gs1.org/barcodes/support/check_digit_calculator (The GTIN 13 check digit calculator can be used on this site as it is based on the same algorithm).

4.5. What is GEPIR?

GEPIR (Global Electronic Party Information Registry) is a unique, internet-based service that gives access to basic contact information for companies that are members of GS1. These member companies use GS1's globally unique numbering system to identify their products, physical locations, or shipments.

By simply typing the GS1 Identification number into GEPIR, anyone can find the owner's contact information. GEPIR search works with GLN (Location Identification) GTIN (Product Identification), SSCC (Shipment Identification) or search by company name.

GEPIR searches can be made through the above mentioned website as well as through the GEPIR webservice in order to integrate it into your systems as well as through smartphones (e.g. iGEPIR App)

You will find a link to GEPIR on the website of your local GS1 organisation, or you can find the link to [GEPIR on the website of GS1 org \(www.gepir.org\)](http://www.gepir.org):



The screenshot shows the GEPIR website interface. At the top, there is a GS1 logo and the tagline "The global language of business". To the right, there are links for "Contact your local GS1 office" and "Extranet Login", along with a search bar and a "Search" button. Below the header, there is a navigation menu with links: Home, About Us, Products & Solutions, Services, and Sectors & Collaborations. The main content area is titled "GEPIR: Global Electronic Party Information Registry" and includes a brief description: "GEPIR is a unique, internet-based service that gives access to basic contact information for companies that are members of GS1." Below this, there are four search options: "Search by Barcode (GTIN)", "Search by Container Code (SSCC)", "Search by Location Number (GLN)", and "Search by Company Name". Each option has a corresponding image or form: a barcode for GTIN, a container code for SSCC, a GLN code for GLN, and a company name form for Company Name.

Below you find an example for a GEPIR search on “The Greenery” in the Netherlands, the result shows you the different GLNs of the Greenery including address and contact:

Search by Company Name

[Hosted MO Login](#)

Locate enterprise by its name and country. In case you receive too many results precise “Street Address”, “Zip/Postal Code” or “City” information. “Company name” and “Country” are mandatory fields.

Company Name:

Street Address:

Zip/Postal Code:

City:

Country:

This information is provided on behalf of **GS1 Global Office**.

GLN	COMPANY	CONTACT	LAST CHANGE	GCP	STATUS	PROVIDER GLN
8716125000000	The Greenery B.V. Dierensteinweg 30 2991 XJ BARENDRECHT Netherlands	Tel:+31(0)180-655979 Fax:+31(0)180-655488 h.geelen@thegreenery.com www.thegreenery.com		8716125	0	9501101020023

4.6. GLN Implementation in GS1 Standards

4.6.1. Using Global Location Numbers on barcoded labels:

The GLN can be physically marked e.g. in a GS1-128 bar code symbol, using the appropriate Application Identifier, on a given location to enable an efficient delivery and routing of goods, e.g. room in the building, warehouse, warehouse gate, loading dock, delivery point, cabinet, cabinet shelf, etc. Additionally, they can be used on logistic units for providing transport information or for identifying parties on payment slips. The bar code symbology employed for this physical marking is GS1-128, with standard prefixes identifying the role of the GLN in the particular context in which it is used.

The Application Identifiers used with the GLN have been defined as:

- "Deliver to" location AI (410)
- "Invoice to" location AI (411)
- "Purchased from" location AI (412)
- "Ship to - Deliver to - Forward to" location AI (413)
- Physical Location AI (414)
- Location Number of the Invoicing Party AI (415)

4.6.2. Data is associated with a Global Location Number (GLN)

GLN is a reference key for retrieving information from databases such as:

- postal address
- type of location (manufacturing centre, warehouse, sales office, corporate headquarters)
- region
- telephone, fax numbers
- contact person
- bank account information
- delivery requirements or restrictions
- any other fixed attributes of a business party.

4.6.3. GLN plus Extension

Usually a unique GLN may be assigned to every physical location that needs to be distinguished by a business application. In some exceptional cases the GLN structure does not provide sufficient capacity for finer-grain location identifiers.

The GLN plus Extension provides a way to uniquely identify more physical locations than is possible with the GLN alone. The GLN plus Extension consists of a GLN, together with a GLN Extension as defined in the GS1 General Specifications. In the fruit and vegetable area this maybe the case if e.g. areas within fields (precision farming) need to be identified.

4.7. 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>

5. Annex: Actors and Roles in detail

In the following chapter 5.1 the main roles – Grower, Packer, Trader and Retailer - are explained.

In chapter 5.2 the activities and actors are explained including the corresponding roles.

5.1. Roles in the Fruit and Vegetable Supply Chain

My Role is	What is expected from me?
Grower	The grower is responsible for the production, harvesting and despatch, as well as record keeping of appropriate information about the field and products e.g. crop information, sent to the packing station, to an importer or to the Agricultural Cooperative.
	Deliver crop information (legal obligation) to his customer (cooperative, packer, trader retailer,) Certification: e.g. Ecological Production, Global Gap, IFS/BRC
	Bilaterally agreed sales process to Cooperative, Trader, Packer, Retailer etc.

My Role is	What is expected from me?
Packer	The packer receives the merchandise from the grower, an importer or another packer, packs them into boxes and may palletise them. Hence he is creating Trade Units according regulations (UNECE, USDA/FDA, EU) by sorting, classifying, packing, labelling.
	Legal obligation to identify himself on the label: name/address, optionally identification number e.g. GLN. In some countries name/address maybe replaced by GLN of packer under certain conditions.
	<u>Labeling in a private label scenario:</u> Label trade unit and/or prepackaged end consumer package with private label GTIN (Retailer, cooperative, trader). Typical label: "Packed by Jim-the Packer for Sunny-Cooperative" <u>Labeling in scenario using GTIN of Packer:</u> Assign his GTIN and label trade unit and/or prepackaged end consumer package (unbranded or own brand rights) Typical label: "Packed by Jim-the Packer"

My Role is	What is expected from me?
Trader	Buys trade units or organizes trade
	Sells trade units (not to private end consumers) or organizes trade
	Stores trade units (optionally)
	Imports or exports trade units (optionally)

My Role is	What is expected from me?
Retailer	A retailer buys goods or products in large quantities from manufacturers or importers, either directly or through a wholesaler, and then sells individual items or small quantities to the general public or end user customers, usually in a shop, also called store. Retailers are at the end of the supply chain
	Buys trade units
	Sell to private end consumers

5.2. Activities in the Fruit and Vegetable Supply Chain

5.2.1. Supply-Side

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Farmer	Grow (incl. Harvest, Store)		Sell Raw produce (bulk, unsorted)	Grower
		Sort according customer needs: Bulk sorting, pre-sorting	Sell raw produce bulk pre-sorted	Grower
		Sort according regulation (where applicable) trade units e.g. field commissioning or in sorting facility	Sell as packed trade unit	Packer
		Sort according to regulation (where applicable) trade units with Consumer Unit	Sell as packed trade unit with Consumer Unit	Packer
		Sell directly to end consumer	Sell in Farm Shop or on Farmer Market	Out of Scope

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Packhouse	Create Trade Units according to regulations (e.g. UNECE, USDA, EU) (sort, pack, label, assign GTIN)		Sell service of sorting / packing / labeling and packaging materials (optionally)	Packer
		Create prepackaged consumer items (within a trade unit)	Sell service of sorting / packing / labeling and packaging materials (optionally)	Packer
		Buy, repack, resell	Sell as packed & labeled trade unit with/without prepackaged consumer units	Trader

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Agricultural Cooperative	Sell on behalf of member (organize trade)		Sell packed & labeled trade units with/without prepackaged consumer units unlabeled or with packer label	Trader
		Sell by own Private Label Brand name (assign GTIN)	Sell packed & labeled trade units with/without prepackaged consumer units with private label	Trader
		Run auctions	Sell as packed & labeled trade unit with/without prepackaged consumer units	Trader
		Run own Packhouse	Sell service of sorting / packing / labeling and packaging materials (optionally)	Packer

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Broker	Buy and Sell or organize trade (not to private end consumers)		Sell packed & labeled trade units with/without prepackaged consumer units	Trader
		Sell by a own Private Label Brand name (assign GTIN)	Sell packed & labeled trade units with/without prepackaged consumer units with private label	Trader

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Distributor	Buy and Sell or organize trade (not to private end consumers)		Sell packed & labeled trade units with/without prepackaged consumer units	Trader
		Sell by a own Private Label Brand name (assign GTIN)	Sell packed & labeled trade units with/without prepackaged consumer units with private label	Trader

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Importer/ Exporter	Buy and Sell or organize trade from or to foreign countries (not to private end consumers)		Sell packed & labeled trade units with/without prepackaged consumer units	Trader
		Sell by a own Private Label Brand name (assign GTIN)	Sell packed & labeled trade units with/without prepackaged consumer units with private label	Trader

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Logistic Service Provider	Buy and Sell or organize trade (not to private end consumers)		Sell packed & labeled trade units with/without prepackaged consumer units	Trader
		Sell by a own Private Label Brand name (assign GTIN)	Sell packed & labeled trade units with/without prepackaged consumer units with private label	Trader

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Trader	Buy and Sell trade units or organizes trade		Sell loose produce or prepackaged trade units or consumer units	Trader
		Sell by a own Private Label Brand name (assign GTIN)	Sell packed & labeled trade units with/without prepackaged consumer units with private label	Trader
		Sell to professional companies (B2B)	Sell loose produce or prepackaged consumer units	Trader
		Run own Packhouse	Sell service of sorting / packing / labeling and packaging materials (optionally)	Packer
		Buy and Sell or organize trade from or to foreign countries (Import/Export not to private end consumers)	Sell packed & labeled trade units with/without prepackaged consumer units	Trader

5.2.2. Wholesale

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Cash & Carry Store	Buy and Sell not to private end consumers		Sell loose produce or prepackaged consumer units	Trader
		Sell by a own Private Label Brand name (assign GTIN)	Sell packed & labeled trade units with/without prepackaged consumer units with private label	Trader

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Food Service Distributor	Buy and Sell not to restaurants, cafeterias, industrial caterers, hospitals and nursing homes		Sell loose produce or prepackaged consumer units	Trader
		Sell by a Private Label Brand name (assign GTIN)	Sell packed & labeled trade units with/without prepackaged consumer units with private label	Trader

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Food Processor	Runs a processing plant , buys produce and manufactures shelf stable or frozen food		Sells shelf stable or frozen processed food	Out of Scope

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Terminal Market	Buy and Sell (not to private end consumers)		Sell packed & labelled trade units with/without prepackaged consumer units	Trader

5.2.3. Retail

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Retailer	Buy and Sell to mainly private end consumers		Sell loose produce or prepackaged consumer units	Retailer
		Sell by a own Private Label Brand name (assign GTIN)	Sell packed & labeled trade units with/without prepackaged consumer units with private label	Retailer
		Sell to professional companies (B2B)	Sell loose produce or prepackaged consumer units	Trader

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
eTailer	Buy and Sell online mainly to private end consumers		Sell loose produce or prepackaged consumer units	Retailer
		Sell by a own Private Label Brand name (assign GTIN)	Sell packed & labeled trade units with/without prepackaged consumer units with private label	Retailer
		Sell to professional companies (B2B)	Sell loose produce or prepackaged consumer units	Trader