

LOCATION CODES WITHIN THE AGRI-FOOD SUPPLY CHAIN: THE KEY TO TRACEABILITY

Agri-food supply chains are becoming increasingly digital. Innovations follow one after the other rapidly to produce food more efficiently, sustainably, safely and controlled. Companies are looking for better online data streams to optimise processes and meet the high requirements of their trading partners, governments, and consumers. That is why the foundation Fresh Upstream is working on one uniform, digital language in the international fresh supply chain. So that all parties can exchange information with specific and accessible information standards. The registration of location data with a GLN (Global Location Number or GS1 address code) forms the basis of this.

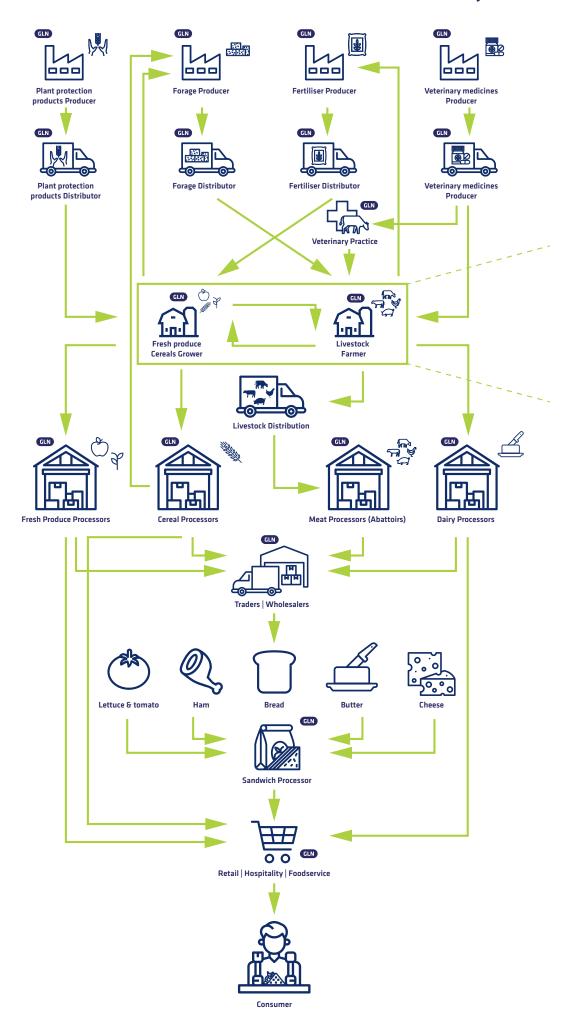
GLN: what and why?

To trace products quickly, it is essential to register the identification of producers and suppliers unequivocally worldwide. More and more trading partners, certifying bodies, quality assurance agencies and public authorities want to know who in the chain is responsible for what, or what particular process is taking place at which location (think about field, greenhouse, packaging station, distribution centre or loading platform).

A GLN is a unique identifier of 13 digits, which is used for a company or physical location within the supply chain. The name, address details and the type of chain partner are linked to this number, which corresponds to exactly one precise location in the world. Companies that use GLN as a standard communicate more efficiently with each other and add value to the entire chain in this way.



EACH LOCATION IN THE SUPPLY CHAIN HAS ITS OWN UNIQUE GLN.



One company can work with several sub-GLNs. Barn 1 - Cows Barn 2 - Pigs CLN = 10 Plant protection products torage Fruit storage Fruit storage Fruit storage Fruit storage Fruit storage

Advantages of GLN:

- ✓ **Simple**: Thanks to GLN, companies have a standard method to identify locations within and outside their company. The composition of the code is clearly defined.
- Integrity: A GLN consists of an integrity check and check digit (last number of the series), so a false GLN cannot be scanned.
- ✓ Unique: GLNs, which are used according to the GS1 directives, are unique worldwide. In the Netherlands, the GLN is based on the legal entity or commercial name, as recorded in the Dutch Chamber of Commerce.
- Accurate: If everyone speaks the same digital language in the supply chain, computers and machines can exchange data together. In this way, the information is always accurate and correct.
- ✓ Worldwide: GLN is a globally used standard for identifying locations and is recognised by many organisations. GLN forms one of the pillars within the international GS1 network in more than 100 countries.
- Multisectoral: With a GLN, it is possible to define all types of locations and roles for each company. This is why GLNs can be used in multiple sectors.
- Access to product information: GLNs are indispensable in publishing or receiving product information or item master data in the Global Data Synchronisation Network (GDSN). The connection to this global data pool network is known in the Netherlands as GS1 Data source.

The diamond of the data: GLN and other key fields

These are the five GS1 key fields that together form the data diamonds in agrifood:

- **GLN** (Global Location Number): location, for example company, field, greenhouse, sorting and packing centre, distribution centre.
- **GPC** (Global Product Classification): product group, linked with a number of building blocks. For example: 'Segment: Foods | Family: Vegetables, unprocessed | Class: Tomatoes | Brick name: Round Cherry tomatoes | Brick code: 10006165 | Attributes, such as country of origin, quality or colour'.
- **GTIN** (Global Trade Item Number): article code to uniquely identify a product, often in the form of a barcode.
- **Batch** / Lot (ID): identification number of the crop or animal. Think about a group of animals that goes to the abattoir.
- SSCC (Serial Shipping Container Code): unique shipping code with which you follow a logistics unit all through the chain.

GS1 standards in the agri-food supply chain.





Maartje Beem-Vullings

Manager Business Assurance at FruitMasters

"Within FruitMasters, we work with uniform information standards in the supply chain. As a starting point, we register the plots of our growers with GLN. You can link all kinds of data to this, for example about the harvest or the use of plant protection products. Apple farmers grow different varieties on the same plot, such as Elstar or Kanzi. Then, we register each variety with a 'sub-GLN'. The advantage of such a division at plot level is that you can withdraw specific products if there is something wrong with the quality. In this way, fewer products will be wasted. In theory, you should be able to trace back to one specific plant. By being guided by data, our company is preparing itself for the future."



Thijs Cuijpers

Policy Director LTO the Netherlands

"Fewer emissions, more biodiversity and increasingly closed production cycles? Then, we should know who, what, where and how much we are talking about. With unambiguous data standards, you get insight into this information. The call for traceability increases: where exactly does that kernel of maise in that feed concentrate come from? The Corona crisis adds another relevant dimension: the discussion about the dependence on world trade. Thanks to accessible information, Dutch producers will be able to get a head start."

What does GLN look like for your organisation?

A GLN is composed of 13 digits and usually consists of:

GS1 enterprise number (allocated by GS1) Location indicator												Check digit
N ₁	N2	N₃	N ₄	Ns	Ne	N ₇	Na	Ne	N 10	N 11	N 12	N 13

The number of necessary GLNs depends on your business needs, your role, your position within the chain and the agreements with your business partners. If you are an SME company with only one or two roles in one location, you can choose to use one GLN for your entire organisation. If you want to distinguish, for

example, between your primary production and your logistical activities, you can choose to use more GLNs. In a complex scenario, it is recommended to identify each role and activity by using its own unique GLNs.

GETTING STARTED!

Would you like to get started with GLN? Fresh Upstream will look at your needs: with the 'QuickScan Data Standards in Agrifood', we identify the information exchange within your company. What systems does your organisation use? How are information standards managed? How do you guarantee the quality of the data and the data exchange with third parties? Together we will explore how GLN and other GS1 standards can take your organisation to the next level. To learn more, feel free to send an email to office@freshupstream.com



Learn how to register your company locations, batches, and products efficiently? Fresh Upstream is happy to help you to create a digital, innovative, and sustainable agri-food supply chain.

Visit freshupstream.com for more information or mail to office@freshupstream.com