



Feile Foods: A GS1 DataBar Implementation Case Study



Overview



The Pork Dioxin Contamination Crisis at the end of 2008 led to the total recall of Irish pork products, cost the sector €1 billion and highlighted how farm-to-fork traceability was a broken chain that needed to be fixed. A year later at a joint GS1 Ireland and FSAI Meat Traceability conference in Dublin, the various parties involved in regulating the food and pork industry admitted there was nothing to stop a repeat of the disaster. Professor Alan Reilly, CEO of the Food Safety Authority of Ireland, went as far as to say another food contamination crisis was inevitable.

The GS1 DataBar will significantly enhance traceability in a complex supply chain like the meat industry. Harnessing next-generation barcode standards, it ensures a more rigorous supply chain for the tracking and tracing of goods. Recent recall events in Ireland have made it a timely project with particular significance for the meat industry.

Implementation at every step along the supply chain, from farmers to meat processors and then to retailers, the DataBar could facilitate a more targeted and less expensive product recall in the event of a contamination crisis.

With standardised scanning solutions and the GS1 DataBar available at all stages of the supply chain, downstream operators would have critical traceability information available in their own IT systems and be quickly able to identify contaminated batches. If a product slips through and makes it to the shelves, additional product information encoded in the DataBar would alert the retailer at the point of sale.

The DataBar also eliminates Price Look-Up (PLU) schemes, introduces price and weight capture simultaneously, ensures stricter adherence to best before dates, and facilitates greater compliance with stringent food regulations.

GS1 Ireland and Globeweigh Group have recently been working closely with Feile Foods, a meat processing company and retailer, to integrate the GS1 DataBar at their Point of Sale (POS).

Working with the Globeweigh Group and Feile Foods, GS1 Ireland have demonstrated how the GS1 DataBar can improve product authentication and the traceability of fresh food products. By carrying more information than the existing GS1/UPC barcodes, and ensuring that all parties involved are using the same global standards, there is a real opportunity to revolutionise supply chain visibility.

"This is a worlds first in terms of a comprehensive application of the GS1 DataBar, and it shows off the barcode's ability to carry variable data on a range of consumer packs,"

"The challenge is to achieve industry-wide acceptance of the standards and see them successfully implemented."



Jim Bracken, Chief Executive Officer of GS1 Ireland



Contents

| | |
|---------------------------|---|
| Overview | 2 |
| Feile Foods and GS1 | 3 |
| The GS1 DataBar | 4 |
| The Benefits | 5 |
| The Future | 5 |

Feile Foods and GS1



Feile Foods operate a fully licenced Meat Processing operation in Portlaoise, Ireland. They process Beef, Lamb and Pork products which are sold to a broad customer base in the wholesale, catering, and hospitality sectors. The company also sells to retail and has a number of its own outlets, taking its products direct to market.

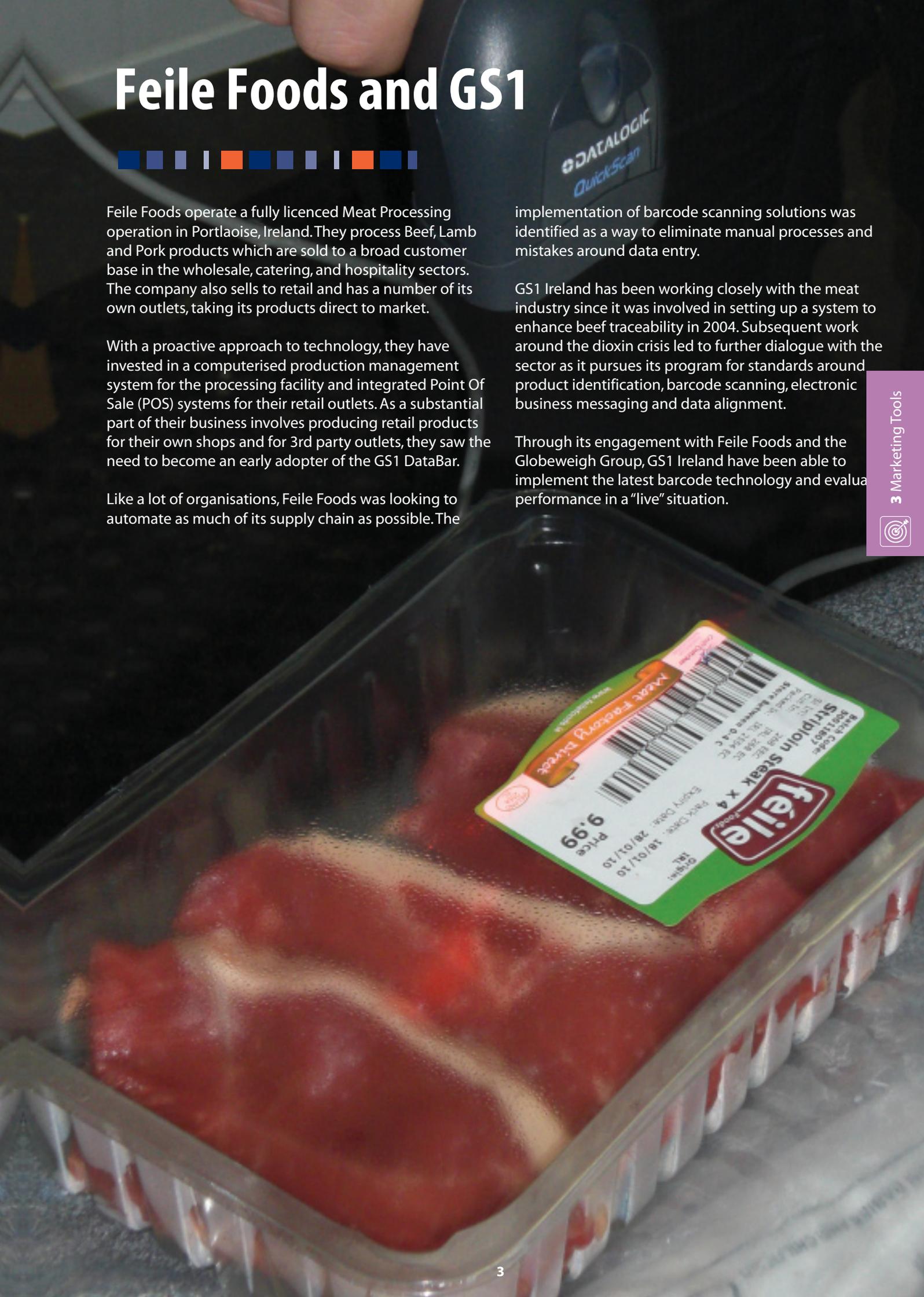
With a proactive approach to technology, they have invested in a computerised production management system for the processing facility and integrated Point Of Sale (POS) systems for their retail outlets. As a substantial part of their business involves producing retail products for their own shops and for 3rd party outlets, they saw the need to become an early adopter of the GS1 DataBar.

Like a lot of organisations, Feile Foods was looking to automate as much of its supply chain as possible. The

implementation of barcode scanning solutions was identified as a way to eliminate manual processes and mistakes around data entry.

GS1 Ireland has been working closely with the meat industry since it was involved in setting up a system to enhance beef traceability in 2004. Subsequent work around the dioxin crisis led to further dialogue with the sector as it pursues its program for standards around product identification, barcode scanning, electronic business messaging and data alignment.

Through its engagement with Feile Foods and the Globeweigh Group, GS1 Ireland have been able to implement the latest barcode technology and evaluate performance in a "live" situation.



GS1 DataBar



From this year, GS1 DataBar standards will be made available for bilateral agreement between trading partners for all trade items. By 2014, GS1 aims to have the standards in use in an open environment across all trade sectors. At a minimum, retailers should be able to scan and process Global Trade Item Numbers (GTINs) encoded in a GS1 DataBar symbol. The new barcode carries the same data as a traditional GS1/UPC barcode in less space, or more data in the same space, providing numerous benefits and potential business applications for both retailers and manufacturers.

The DataBar can carry a range of GS1 Application Identifiers, including serial numbers, lot numbers, and expiration dates. The data can be used to drive better product authentication and traceability, and integrated with in-store loyalty schemes, it can extend the reach of a product recall to the consumer. It also brings product identification to fresh produce and hard-to-mark products like loose produce, jewelry and cosmetics.

Based on GS1 Global Standards, the DataBar is the latest development in space-constrained identification that has evolved out of Reduced Space Symbology (RSS). It is designed to bring the benefits of full product identification as well as other supply chain applications to products where existing linear symbols cannot be used.

The configuration used by Feile Foods is the Expanded Stacked format that has eight or ten segments, optimised for omni-directional scanning at the point-of-sale (see illustration). It was adopted after a number of trials concluded it was the best balance between the amount of data carried and the speed that it could be reliably scanned.

Feile Foods uses a Globeweigh production management system with a fully integrated label design function capable of printing over 300 barcode types and formats. Dennis O'Brien, IT consultant and supply chain specialist, project managed the integration of the Globeweigh System for Feile Foods and worked closely with GS1 Ireland on the processing issues that arose around scanning the new barcode configuration.

"Trials with a variety of DataBar configurations only proved how versatile and powerful this new barcode is," said O'Brien. "Even a simple modification to the barcode printing function can achieve excellent results."

For Feile Foods, the benefits of farm-to-fork traceability more than justified the adjustments to its systems.

"We take product traceability very seriously and our customers demand that their products have been produced to the highest standards and that we can verify that through the technology we use. This can only be done by investing in the latest technology and being first at that is a great honour for Feile Foods"

Liam Hyland owner of Feile Foods

The DataBar contains the following GS1 Application Identifiers:

- (01) GTIN
- (10) Batch Code
- (3922) Price
- (3103) Weight (only for variable weight products)
- (17) Expiry date

In the future, should the industry require it, GS1 could add additional data fields to the barcode, such as the farmer's name, and address, and/or quality assurance data.



The Benefits



The experience of Feile Foods demonstrates that the implementation of GS1 DataBar standards will lead to a more visible supply chain, a decline in manual processes, increased efficiency and empower suppliers and retailers to manage short shelf-life products more effectively.

In the trials, the unprecedented level of additional functionality in the DataBar enhanced the company's supply chain management in a number of areas:

- The combination of a full GTIN and batch code enables the system to automatically check if an item has been recalled and prevent accidental sale
- A more detailed view of real-time inventory is enabled with additional information such as batch codes and expiry date as well as the GTIN
- Even small retail items are now unambiguously identified
- The DataBar contains both the price and weight of each item which can be recorded at point-of-sale, traditional barcodes only carry one or the other
- The expiry date can also be checked and recorded at the point-of-sale and printed on the customer receipt
- Best before dates are more stringently monitored
- Because the batch number is recorded at the point-of-sale and printed on the receipt, customers have a copy if they lose the packaging
- Batch codes recorded at the point-of-sale can be matched with customers through loyalty card schemes, enabling a recall even after the sale is completed.
- Regulatory responsibilities are easily achieved with a data rich track-and-trace system



3 Marketing Tools



The Future



January 1st, 2010, was designated the Global Sunrise date for the GS1 DataBar symbology. GS1 is now working closely with leading scanner manufacturers and suppliers to help retailers ensure that their POS scanners are compatible with the new barcodes.

To encourage widespread adoption across diverse industries and supply chains, the GS1 DataBar linear symbols are available in several formats. GS1 DataBar Limited is designed for use on very small items that

cannot be scanned omni-directionally; at the other extreme, the Expanded Stacked, used by Feile Foods, is suitable for an omni-directional scanning environment.

The advent of new barcode technology will bring significant improvements to track-and-trace supply chain management that will exceed current legal requirements. The ability to match batch/Lot numbers with loyalty cards, for example, means traceability can extend to the consumer after the sale is completed.

Acknowledgements

GS1 Ireland would like to thank the following organisations for their input into this document and involvement in the project:



About GS1

For the last 30 years, as a not for profit global body, GS1 has dedicated itself to the design and implementation of global standards for use in the supply chain.

GS1 standards provide a framework that allows products, services, and information about them to move efficiently and securely for the benefit of businesses and the improvement of people's lives, everyday, everywhere. Our standards ensure effective exchanges between supply chain partners and act as basic guidelines that facilitate interoperability and provide structure to many industries.



The Nutley Building
Merrion Road
Dublin 4
Ireland

T +353 (0)1 208 0660
F +353 (0)1 208 0670

E info@gs1ie.org
W www.gs1ie.org

GS1 - The Global Language of Business

Disclaimer

Whilst every effort has been made to ensure that the information contained in this document is correct, GS1 Ireland and all other parties involved in the creation of this 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 from time to time subject to developments in technology, changes to the standards or new legal requirements.

Please note that the bar code symbols used in the document are only examples and are not intended to be scanned or used as references.

Copyright

GS1 Ireland February 2010