

Ireland

Airfield Estate

Using GS1 standards to improve traceability, reduce waste and increase consumer trust

Challenge

Airfield Estate is a farm located in suburban Dublin, Ireland and through its work aims to inspire people to make better food choices through education and awareness. Food waste, sustainable production and traceability are all identified concerns of customers locally and nationally. Airfield recognised an opportunity to respond to those consumer demands for greater transparency through the provision of easily accessible information about the origin and production of their unique Jersey cow milk.

Solution

To illustrate the journey of a food product, Airfield Estate introduced a QR code and a GS1 DataMatrix barcode on its milk bottle labels. Through the use of GS1 data standards, combined with the fTRACE traceability platform, Airfield can provide batch-specific traceability information to their customers in real-time.

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“Having the 2D [GS1 DataMatrix] barcode include the expiration date on the milk saves me an entire step in labelling. I used to have to put two labels on each milk carton; now it’s just one. It saves me time and money!”

Brian Farrell,
Airfield Estate Farmer

Benefits

The solution has delivered benefits for both Airfield Estate and its consumers:

- More efficient labelling of milk in their production facility
- Better informed consumers with easy access to all traceability information by scanning the QR code on the label
- Allowing for future enhancements at Airfield Estate:
 - Faster, more accurate stock visibility and management in the farm shop by scanning the barcode containing the expiry date
 - Prevention of food waste in the shop through more efficient stock management
 - Increased consumer safety with faster product recalls possible through the use of the data in the GS1 DataMatrix barcode



The digital journey of milk

Airfield Estate wanted to educate customers about the journey of milk from cow-to-consumer, and recognised that the provision of digital product and traceability information could help achieve this goal.

Airfield milk is produced, pasteurised, bottled and sold onsite, creating a closed loop production and sales environment. With each day's production, a vast array of product data is recorded such as the location, product ID, batch number, milking and bottling dates and expiry date.

Key data including the GS1 Global Trade Item Number® (GTIN®) for product identification plus the batch number and expiry date are encoded in the GS1 DataMatrix barcode that is printed on the milk bottle label.

This barcode can be scanned throughout the Airfield Estate to record product movements and to manage inventory and stock rotation.

Additionally, this data is uploaded to the fTRACE traceability platform to make the information publicly accessible to consumers via an easy-to-use web page. Consumers can access the information for their bottle of milk by scanning the QR code on the milk bottle label with their smartphone. On the fTRACE website, consumers can explore a wide array of information about the Airfield Estate, its history, as well as details of the full milk production process, the Jersey cow herd and even Brian, the Airfield farmer.

Improved consumer trust and safety

The pilot project at Airfield Estate has successfully demonstrated the ability of a small-scale production facility to incorporate intelligent barcodes into its product labelling process.

- Consumers can now access dynamic traceability information about the milk they buy in the Airfield farm shop by scanning the QR code on the label with their smartphone.
- Consumer safety is improved through efficient product recall processes, should they be needed, utilising the batch-level information stored in the GS1 DataMatrix barcode.

Airfield Estate intelligent label

QR code linking fTrace batch level traceability data 



GS1 DataMatrix with the following data embedded:

- GTIN
- Expiry date / Use by date
- Batch number

The following data is encoded in the GS1 DataMatrix barcode:

- GS1 GTIN, that identifies each milk product type
- Expiry date to enable the improved management of product along the supply chain and reduce waste
- Batch number to enable traceability and recall functionalities



Did you know?

You can scan the QR code on Airfield Estate's Jersey milk to find full details about it's origin





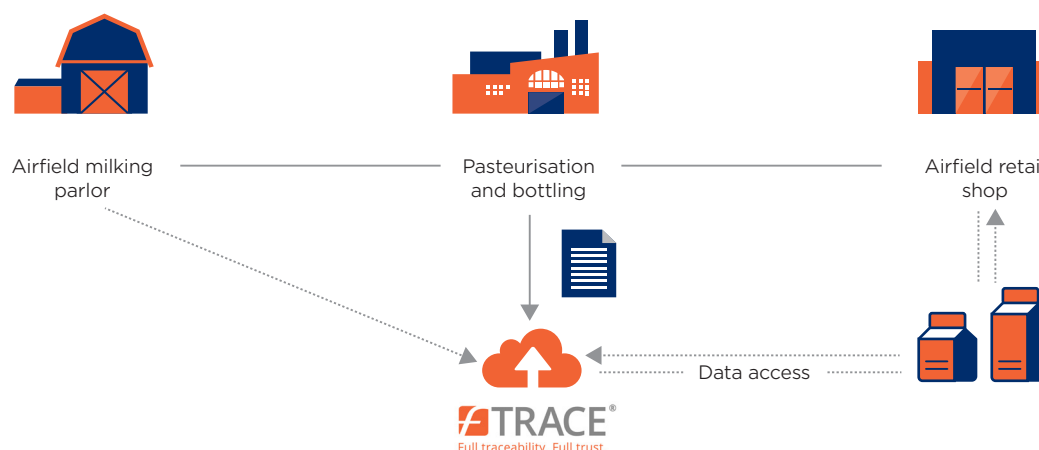

Next steps

The next step in the project will involve engaging with the provider of the point-of-sale (PoS) and inventory management systems in Airfield Estate's shop and restaurant, to utilise the embedded product data to reduce food waste, to facilitate product recalls and to further improve stock management and visibility.

As consumer level food waste is a major issue across the retail industry, GS1 Ireland and Airfield will engage with consumer-facing app providers to utilise the data in the milk label's GS1 DataMatrix barcode, thus developing a best practice example for engagement with consumers on topics such as food waste and food safety through product recall functions.

A working group will also be established to discuss the pilot project at Airfield with local stakeholders, and to communicate the lessons learned from its implementation. These lessons may be used as the basis for future projects utilising intelligent barcodes and dynamic product data in the food industry for the benefit of all stakeholders, including retailers, manufacturers, regulators and consumers.

Integrating milk product data throughout the cow-to-consumer process



About the organisations



Airfield Estate

Airfield Estate is a charitable trust, established by the Overend family in 1974. Today, it operates as an educational charity and social enterprise. It aims to inspire and enable people to make better food choices, better for people, better for their pocket and better for the planet. The estate has been designed to facilitate active learning focused on food, farming and the land. A complete farm-to-consumer experience has been created that educates the public at all stages of the food journey, linking healthy soils to animals and plants and food production. The journey starts on the 38-acre farm and organic food production gardens and reaches the consumer through the onsite restaurant, farm shop and farmers' market. <https://www.airfield.ie/>



fTRACE

fTRACE helps drive greater efficiency and consumer confidence along the entire supply chain. Based on GS1 standards, this full-service solution enables companies to use shared traceability data to the benefit of all parties involved in the supply chain. fTRACE relies on the global standard EPCIS and the unique global identifiers from GS1 to enable efficient cross-company traceability on an international scale. <https://web.ftrace.com/>

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