

# TRACEABILITY

ITS TRUE BUSINESS VALUE AND WHAT TO LOOK FOR IN  
A SOFTWARE SOLUTION

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## WHAT IS TRACEABILITY?

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When it comes to the food sector, every solution seems to offer ‘traceability’. But what does this really mean? According to the European Commission, traceability is defined as “the ability to trace and follow food, feed and ingredients through all stages of production, processing and distribution.” (1)

The ability to track a product from ‘farm to fork’, or ‘ocean to plate’, is often complicated by the various stages of the processing cycle. In addition, many products contain ingredients from numerous sources that may have been mixed together in different parts of the supply chain.

Retailer demands are tough when it comes to traceability, with supermarkets fining processors if they fail, or take too long, to provide the information requested.

This means that manual traceability is becoming less acceptable. Not only does it take processors too long to gather information, but retailers and authorities are less likely to accept evidence that can be altered, or completed post production. This is due to the fact that it is susceptible to error at best and fraud at worst. There looks set to be increased pressure along the supply chain for processors to have integrated, real-time factory floor data capture.

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## UNDERSTANDING ITS TRUE VALUE

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As customer and legislative requirements are the usual drivers of traceability for food processing businesses, it can be seen as a costly burden. However, not everyone views it this way. Martin Gooch, Director at the Value Chain Management Centre (VCMC) in Canada, sees traceability as the outcome of good business management. He doesn’t view it as simply a cost or inconvenience, but an important way to improve profitability.

The VCMC identifies that competitive advantage no longer comes simply from transforming one product into another. It’s derived from using the information captured during the transformation process to continually improve effectiveness. When this approach is employed by an individual business, the benefits can be significant. However, when businesses in the food value chain act together, the benefits can be enormous and very difficult for competitors to replicate.

*“Traceability need not be simply an added cost of business. Instead, it is a beneficial outcome that occurs through the strategic application of information and communication technologies (ICT), and disciplines very similar to those already being used as part of good manufacturing practices. Traceability is not a gift, but it can quite literally be free.”*

*“A key point many businesses miss about traceability is that many of the processes, systems, and practices (and actual data recorded) are already in place for food safety and good production efficiency, and can be exploited for traceability. Traceability often simply requires accessing, and using differently, what is already available.”(2)*

More and more processors are realising this and looking to invest in technology to achieve their aims. However, with a wide range of solutions out there all claiming to offer complete traceability, the decision of which one to choose can be tough for food processors. A production solution is a significant financial investment, so this article aims to outline the different types of technology that are available and identify what food processing businesses need to look for in a solution.

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## HOW ARE FOOD BUSINESSES TRYING TO ACHIEVE TRACEABILITY?

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All processors can demonstrate some form of traceability. It is the level of accuracy, the amount of manual work involved and the batch size that differs. Some processors are able to identify source ingredients immediately and pinpoint to a production batch. Others struggle to gather the information in a timely fashion, or are only able to trace an entire day or week's production. The problem with this is that it can end up in an unnecessarily large product recall.

So why do some processors cope better than others? Most food manufacturers have a computerised accounts system, which may include raw material intake and final despatch. It is the way data capture works on the factory floor, for the processes between intake and despatch, that varies widely. There are manufacturers that manually gather traceability data using a pen and paper, or spreadsheet. Some capture the data manually and re-key it, which is typical of most businesses that use Enterprise Resource Planning (ERP) software. Others have a specific factory floor data capture solution, such as a Manufacturing Execution System (MES).

The key to success appears to be where the stock system resides. MES solutions are typically designed for multiple transaction types, as they are able to mimic the process. These types of systems work with differing stages of part-processed stock. They have the ability to track hundreds of thousands of small stock movement transactions, in and out of multiple processing areas, every day.

Even processors that have invested in both ERP software and an MES solution can still have issues if the touch points of integration aren't thought through. Quite often these systems end up as 'islands of efficiency' that only share top level data.

An alternative solution for food processing businesses is cloud-based applications. These can be appealing, as they don't require a large initial financial outlay for hardware. However, cloud technology can raise concerns over security. High profile cloud data losses, such as Sony and Amazon, can make businesses wary of this type of technology. Most companies will opt for using their own server for data storage.

Cloud-based applications also struggle to record the fast-paced movements of thousands of items of stock, as internet speeds can be temperamental. There are some applications that collect data offline and re-sync with the cloud when an internet connection is available. However, this means that data isn't visible in real time.

The most successful processors run a complete, food-specific business solution that connects their factory floor and office. This type of technology gives instant forward and back traceability, in addition to total factory floor visibility and enhanced production performance. It covers all of the business functions that affect the factory floor. In addition to stock, this includes planning, raw material and dry goods intake, as well as sales order processing, labelling and despatch.

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## WHAT SHOULD YOU BE LOOKING FOR IN A SOLUTION?

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The ideal solution for businesses in the food processing sector must be able to offer factory floor management that can cope with barcoding, yield and traceability, but also offer easy to use, real-time reporting and business analysis.

To be successful, a food processor needs a complete business solution that connects their factory floor and office. However, this isn't always practical, or affordable. The best solutions will also offer the flexibility to address key areas and grow with a business, as well as integrating with existing systems. It's also important that food processors employ technology providers that understand the challenges faced by their unique industry and have significant experience in delivering solutions to the sector.

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## 'ONE CLICK' TRACEABILITY

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Retailers ask for detailed traceability data, often within short time frames. To meet their requests, you need a solution that allows you to access the data you want with the click of a mouse. Data should be live and you should be able to access and distribute it with ease. You should also be able to 'drill down' and analyse any results.

It's essential for food processors to be able to demonstrate complete forward and back traceability. Some processors prefer to allow supermarkets to access information whenever they want, saving precious time. However, this doesn't suit all businesses. It's therefore important to have a choice regarding what your customers can see, if anything.

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## 8 QUESTIONS TO ASK WHEN SOURCING A SOFTWARE SOLUTION

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- 1) Does it capture factory floor data?
- 2) Can it cope with barcoding/barcode scanning?
- 3) Does it offer business analysis?
- 4) Does it automate reporting?
- 5) Is the solution hosted on site, or remotely?
- 6) Does it show live/real-time data?
- 7) Does it feature 'one click' traceability?
- 8) Does it offer forward and back traceability?

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## ABOUT THE AUTHOR

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Rob Stephens was Group Operations Manager at a large meat processing plant. He is now Managing Director at Systems Integration (Trading) Ltd, a software house dedicated to providing solutions for the food manufacturing industry. Established in 1992, the team of food processing and business experts has formed long-term partnerships with leading food producers across the UK and North America.

Their solution, **Integreater®**, is a modular factory ERP system for food manufacturers. It connects the factory floor and office - working seamlessly, no matter how many sites a business has, or where they are located. Because it's modular, it can be used to target key and complex areas, or manage the processor's entire business. Manufacturers decide how much to invest and when. The software can be integrated with existing systems and is flexible enough to adapt to any changing needs and business growth.

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## APPENDIX

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- 1) [http://ec.europa.eu/food/food/foodlaw/traceability/factsheet\\_trace\\_2007\\_en.pdf](http://ec.europa.eu/food/food/foodlaw/traceability/factsheet_trace_2007_en.pdf)
- 2) TRACEABILITY IS FREE, Competitive Advantage of Food Traceability to Value Chain Management, August 12, 2013