



DNA TraceBack[®] empowers leading food organisations to turn trust into a competitive advantage.

There will be more change in the food industry in the next 10 years than the last 50



Transparency Breeds Trust

Today, trust in food and beverages is fragile among consumers¹

Driven by increased reporting of food fraud and welfare concerns. Consumers now demand greater transparency across the supply chain, seeking reassurance about the integrity, quality, sustainability of products.

It is not only consumers who are looking for assurance. Keen to justify premium positioning and protect brand reputations, producers, processors, retailers and brand owners also require full accountability

While product tracking is already common practice, standard systems struggle to handle the complexities of the protein supply chain. DNA TraceBack[®] from MSD Animal Health offers a unique solution.

DNA TraceBack[®] takes food traceability to the next level. A unique solution to a complex problem – it's in our DNA.

“73% of global consumers feel more positively about companies who are transparent about where and how food products are made, raised or grown.”

Source: Consumer Sustainability Trends in Food and Beverage to Watch Report, ADM 2022



Shaping the Future of Food Trust



The Challenge of a Complex Supply Chain

Meat and seafood supply chains are long and complex.

It is extremely challenging for batch-based systems to accurately achieve fork to source tracking at scale.

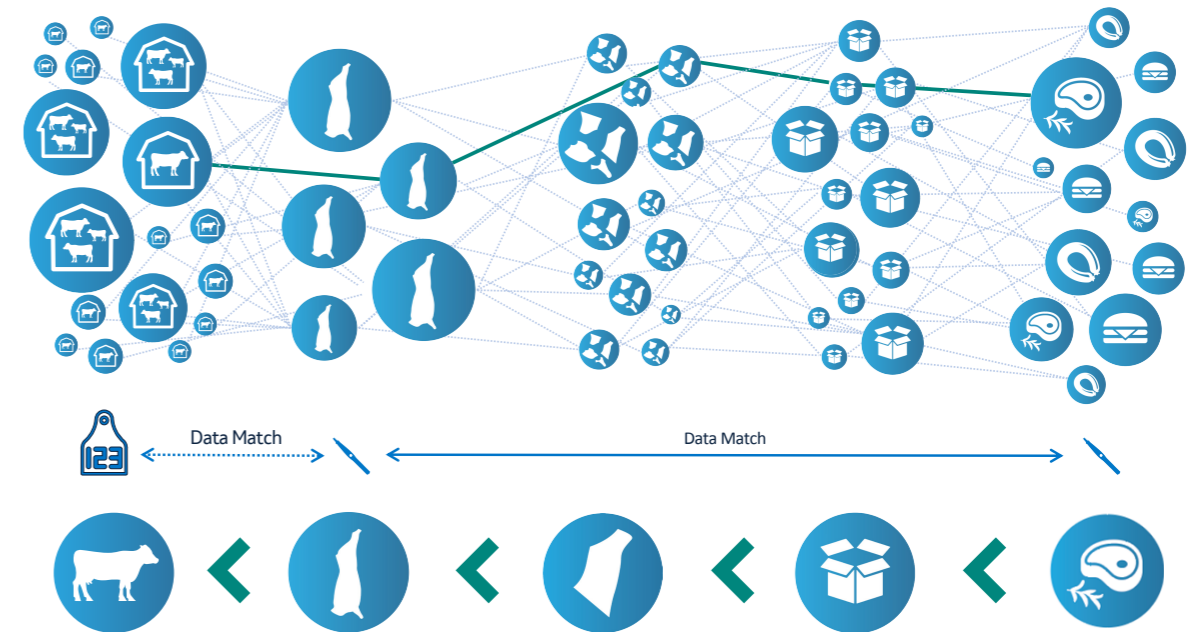
Carcasses are disassembled into smaller primal cuts and mixed as batches, before being further processed.

Global sourcing adds further complexity. To meet demand, livestock and food

products are often imported from countries with different quality standards.

DNA TraceBack® from MSD Animal Health, uses nature's barcode - DNA itself - to cut through this complexity, tracing the provenance of food from fork to source, providing food businesses with the assurances they need and inspiring confidence among consumers.

How DNA TraceBack® Solves the Complexity of Beef Supply Chain



Tailored Solutions Deliver Consumer Confidence at Scale

Consumers today expect the food industry to guarantee the provenance, quality and ethical farming of their products.

In fact, expectations increase as the demand for premium meat, seafood and poultry grows. The challenge for industry is to find a way to accurately trace product through disassembly and manufacturing, at a speed that meets demand and is cost-effective at scale.

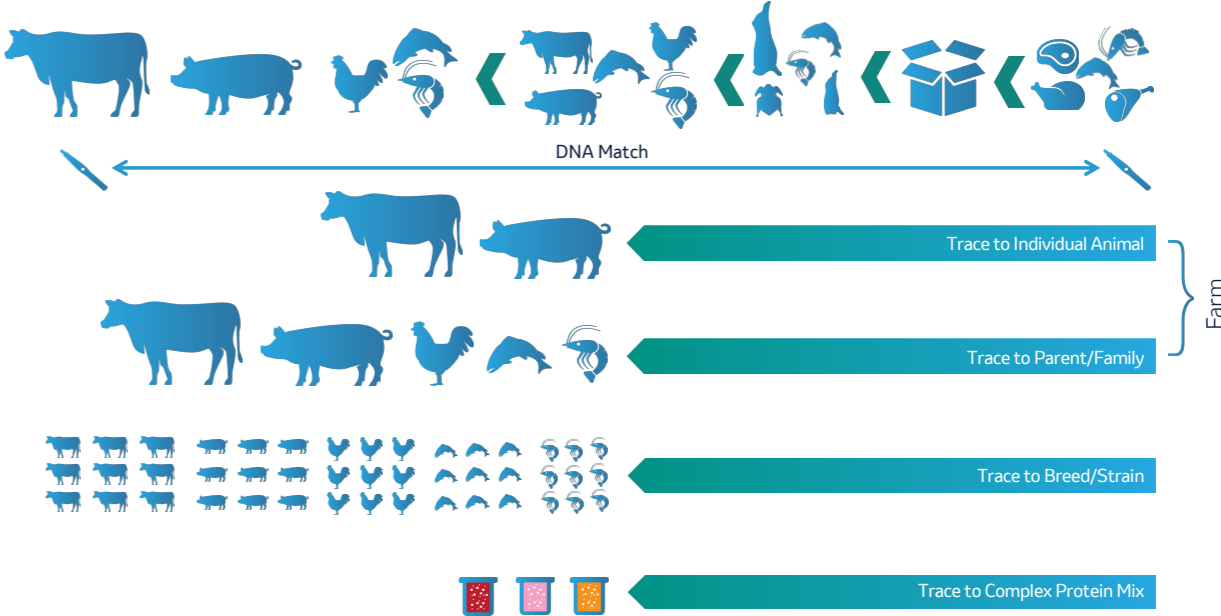
So, while providing traceability and quality assurance is a requirement for producers and processors, it is also an opportunity.

Consumers are prepared to pay for this assurance and reward brands with their loyalty.

DNA TraceBack® from MSD Animal Health offers tailored programmes which deliver accurate and precise traceability, together with food quality assurances for each category of meat and seafood. Blockchain compatible, DNA TraceBack® can operate as a valuable crypto-anchor in any blockchain ledger providing an accurate and precise product identifier in the complex protein supply chain.



Tailored Traceability Solutions for each Protein Category



A Uniquely Different Mark of Trust

Leading food businesses know that transparency builds loyalty. Verified brand claims help build essential differentiation and trust in a crowded marketplace.

DNA TraceBack® provides an unprecedented level of supply chain transparency and quality assurance from fork to farm. Scientifically verifying brand claims and helping organisations to tell their food story with confidence.

“DNA Traceability has allowed us differentiate our product, market our unique position and improve further, consumer confidence in the products we provide.”

Steve McLean, Head of Agriculture and Fisheries, Marks & Spencer plc



Where is it from? Who made it? What's in it?

TRACE IT

DNA TraceBack® uniquely combines nature's barcode, DNA and data analytics to provide an evidence based traceability solution.

The result is a precise, accurate and transparent fact-based seller and buyer environment.

TRUST IT

DNA TraceBack® cuts through complex supply chains to deliver scientific validation and support to marketing messages and product claims.

A differentiated mark of trust from fork to source.

TASTE IT

A unique and innovative application of DNA, nature's barcode, working with data to assure and inform quality improvement for trusted consumer satisfaction.

It's in our DNA.

It takes time, passion and attention to detail at every stage to produce great tasting Beef



Innovative Differentiation – Beef

It takes DNA TraceBack®, a proprietary technology, to cut through the challenges of the supply chain, identify the exact animal the beef products come from and provide an unprecedented level of transparency for even the most complex products.

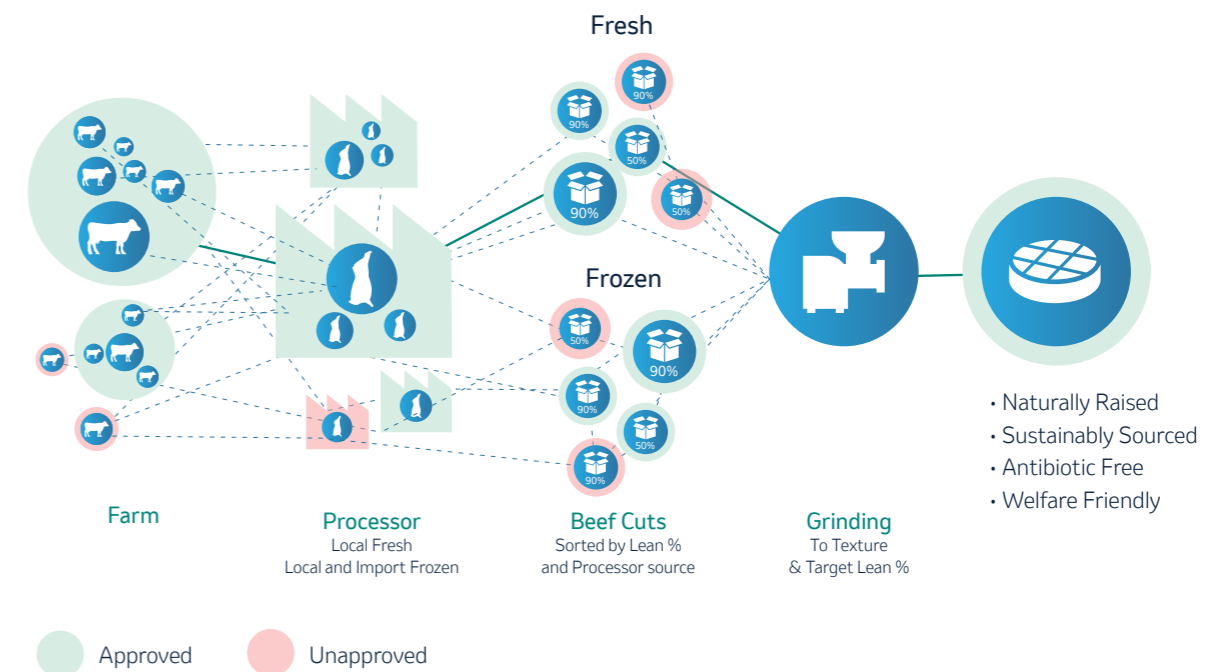
Eating Quality

Through constant innovation by integrating production data with the genetics of animals, DNA TraceBack® can also be deployed in a predictive context.

Using proprietary analytics, DNA TraceBack® can help the supply chain identify animals with the best potential for high quality meat products leading to better consumer eating experiences.

A unique combination of DNA analytics which helps to create better alignment across the supply chain and the production of high-quality products and great taste.

Complexity of Delivering Quality – Simple Beef Burger





“ Through DNA TraceBack[®], we’re providing our retail and foodservice customers with scientific evidence that they’re getting high quality, natural beef from animals raised the way we promised.”

Kent Harrison, President, Marketing and Premium Programs,
Tyson Fresh Meats

Brands can now market with greater confidence. In addition, they can openly share the story of provenance, breed, eating quality and supply chain integrity.

This is what consumers demand and it is what they pay for – premium product attributes, superior eating experience and a new standard in transparency.

Leading food companies who understand that transparency and consistency build loyalty use DNA TraceBack[®] to deliver valuable trust.



- Natural
- Age verified
- Country of origin
- Tenderness assured
- Organic source verified
- Grass fed
- Angus verified
- Maturation verified
- Farm of origin
- Antibiotic free
- Kosher

Consumers today have high expectations

Brand differentiation and consumer loyalty are driven by trust



The Fully Traceable Provenance of **Pork**

Consumers demand transparent supply chain management, ensuring safe food, sustainable production and commitment to state-of-the-art animal welfare.

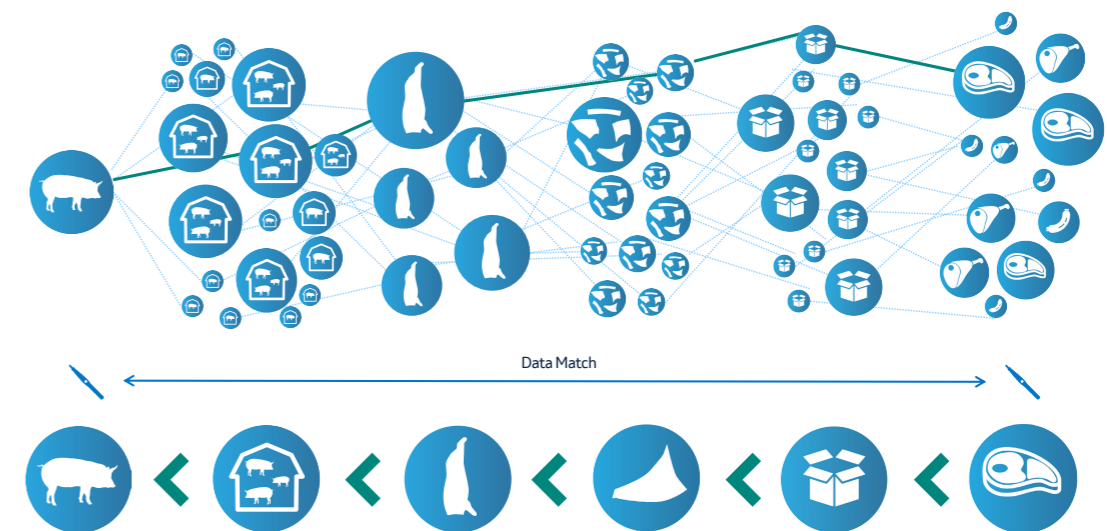
With complexity of maturation, processing and curing, it has been extremely challenging to achieve reliable traceability of pig meat. Until now.

DNA TraceBack[®], uses DNA, a natural, unique and tamper-proof barcode which remains present in every cell of the

animal to trace pork product through the supply chain from fork right back to the source, whether cooked, cured or further processed.

Proven to accurately trace pig meat products to a defined sow population DNA TraceBack[®] can scientifically support marketing claims and deliver consumer confidence in the high quality of pork products whether premium joint, mince, cured salami, premium San Daniele or prized Parma ham.

How DNA TraceBack[®] Addresses Traceability of Complex Pork



- Country of origin
- Tenderness assured
- Organic source verified
- Breed verified
- Maturation verified
- Farm of origin
- Antibiotic free
- Age verified
- Natural
- Sustainably raised

Consumers concerns about provenance, sustainability and production ethics create demand for effective traceability in the seafood industry



Sustainably Sourced **Shrimp**

You cannot have Sustainability without Traceability.

Scientific advances in DNA technology have made traceability deliverable at a large scale.

Operating from our wholly owned network of laboratories in multiple international markets, DNA TraceBack® from MSD Animal Health delivers traceability solutions at the scale and accuracy the seafood industry requires.

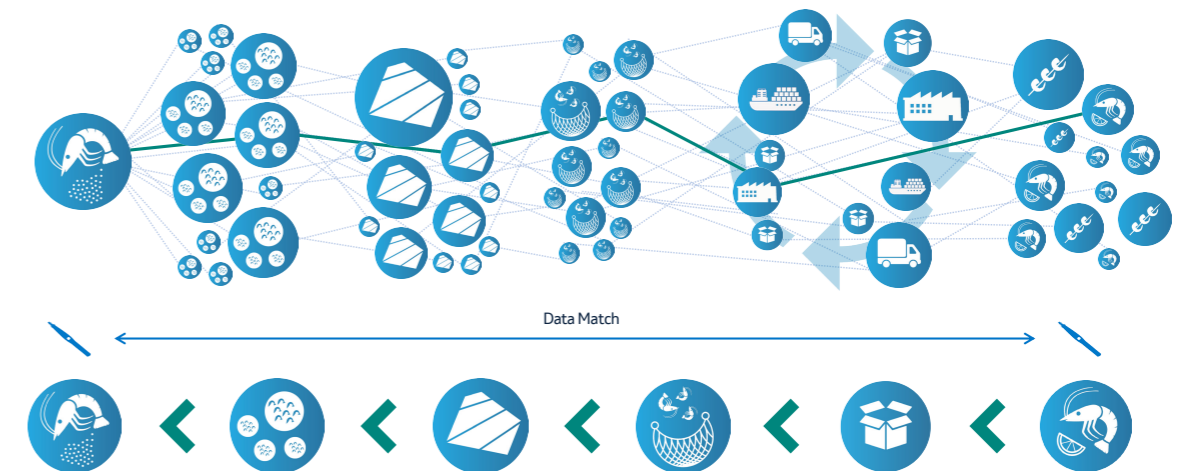
For example, with DNA TraceBack®, shrimp can be traced back to the farm

of origin with unprecedented accuracy, even when the product has been processed or cooked.

This increased level of transparency reassures customers that the product has been ethically and sustainably produced.

Today, a growing number of global retailers, processors and aquaculture clients use DNA TraceBack® to verify the exact origin of their seafood products, benefiting the shrimp and seafood industry and helping to strengthen its reputation for sustainability.

How DNA TraceBack® Provides Traceability at Scale for Shrimp



“ DNA TraceBack® brings a further degree of accountability to production and labour practices which are increasingly being demanded by both retailers and the consumer”

Ronan Loftus, Commercial Lead, Data Labs

Customers are looking for commitment to higher welfare standards

#Europe2026



Chicken Welfare Promise

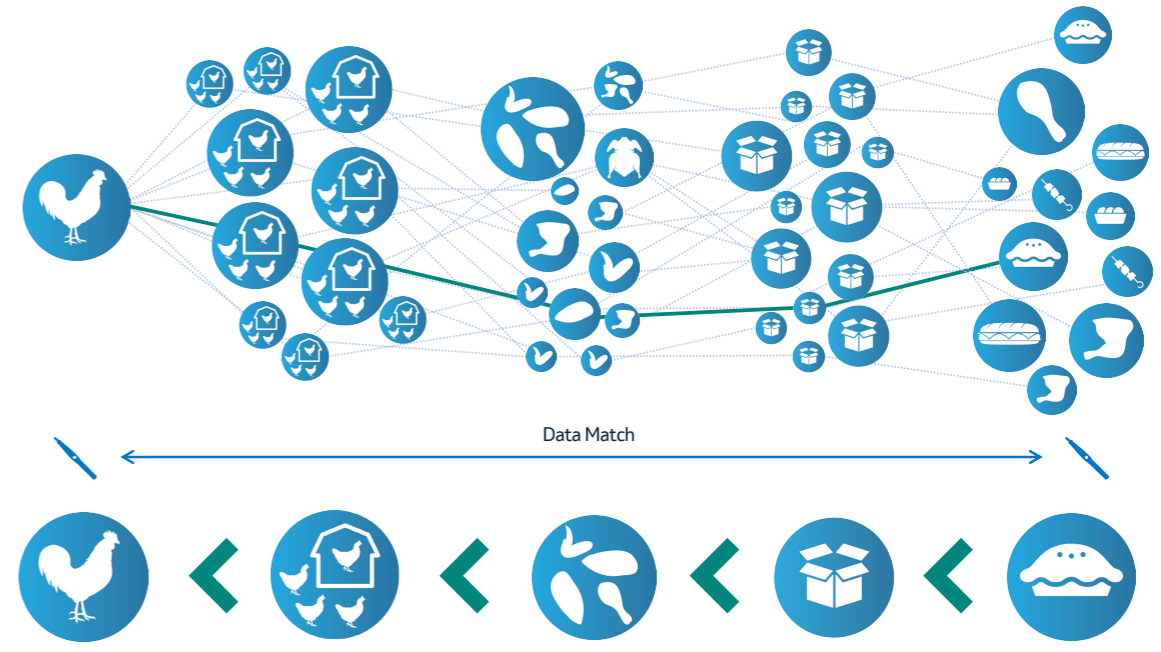
Industry recognition of consumer concerns regarding chicken welfare have prompted several retailers and food service providers in Europe to sign up to the implementation of new welfare standards in the production of chicken by 2026.

The challenge of traceability of chicken is predominantly one of scale.

DNA TraceBack® accurately traces chicken products, whether fresh, frozen, processed or cooked, from fork to farm to verify approved breed lines and other key attributes at the scale required by the industry.

Delivering scientific assurance to customers on promises made. It's in our DNA!

How DNA TraceBack® cuts through Chicken complexity





About MSD Animal Health

At MSD, known as Merck & Co., Inc., Rahway, N.J., USA in the United States and Canada, we are unified around our purpose: We use the power of leading-edge science to save and improve lives around the world. For more than a century, we've been at the forefront of research, bringing forward medicines, vaccines and innovative health solutions for the world's most challenging diseases.

MSD Animal Health, a division of Merck & Co., Inc., is the global animal health business unit of MSD. Through its commitment to The Science of Healthier Animals®, MSD Animal Health offers veterinarians, farmers, pet owners and governments one of the widest ranges of veterinary pharmaceuticals, vaccines and health management solutions and services as well as an extensive suite of connected technology that includes identification, traceability and monitoring products.

MSD Animal Health is dedicated to preserving and improving the health, well-being and performance of animals and the people who care for them. It invests extensively in dynamic and comprehensive R&D resources and a modern, global supply chain. MSD Animal Health is present in more than 50 countries, while its products are available in some 150 markets.

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