

Empowering
Trust in the food chain:
The future is now





## The food chain is at a pivotal moment in its evolution.

Food Chain Partners are being challenged by a strong and growing need for consumers to understand the dynamics and workings of the food chain in order to empower their trust.

Consumers are increasingly demanding their right to know more about where their food comes from and how the animals were raised.

In the animal protein food chain (meat, fish, eggs and dairy), this includes consumers' desire to know more about animal health and well-being, sustainability, traceability but also how all of this impacts consumers' health and that of the planet.

Recent qualitative and quantitative market research conducted by MSD Animal Health with consumers and a diverse group of Food Chain Partners suggests that vastly improved transparency throughout the animal protein food chain may be the best approach to address consumers' heightened concern about the animal protein food chain.

This paper explores consumer trust and searches for answers to empower trusted consumers choices and possible solutions to address their concerns.

# The Food Chain's Consumer Conundrum

The food chain currently sees itself confronted with numerous challenges. These include topics referring to global increases in temperatures, water scarcity, energy insecurity, shifts in food consumption patterns and dietary shifts, including geopolitical events and pandemics. In spite of these, our agricultural and food systems need to show their resilience to continue feeding the world.

The animal protein food chain will need to adopt new innovative approaches to food production, maximising animal production yields, as well as enhanced efficiencies throughout the food chain.

Food chain suppliers need to keep consumer trust. Recent research suggests that to meet increasing food demand and address the challenges, there should be full transparency of processes along with the support of its consumers.

58%

aged 18 to 24 expressed concerns about buying dairy





# Lack of knowledge leads to lower meat and dairy consumption

A large proportion of consumers (60 percent across five countries: France, Germany, Spain, Sweden and the U.K.) expressed concerns about buying and/or eating fresh or processed meat. In the case of processed meat, the level of concern was relatively higher than was the case for fresh meat. The proportion of consumers expressing concerns towards meat was widespread; across all countries and socio-demographic sub-groups (such as age, gender, social class, household situation, etc.), but it rose to as high as 75 percent among the younger consumer population, aged 18 to 24. The age distribution is of particular concern for the animal food chain's future markets.

Similarly, consumer research showed that 35 percent of consumers across these five European countries expressed concerns about at least one sub-category of dairy products from animal origin (like milk, yoghurt, dairy desserts, cheese or butter). This percentage again rose to 58 percent among the younger population, aged 18 to 24.

<sup>&</sup>lt;sup>1</sup> Food Chain Partners are companies and individuals creating value for the final consumers of animal-based protein products, from the raising of the animals through to the purchase by the consumer at retail shops or consumption in food service establishments.

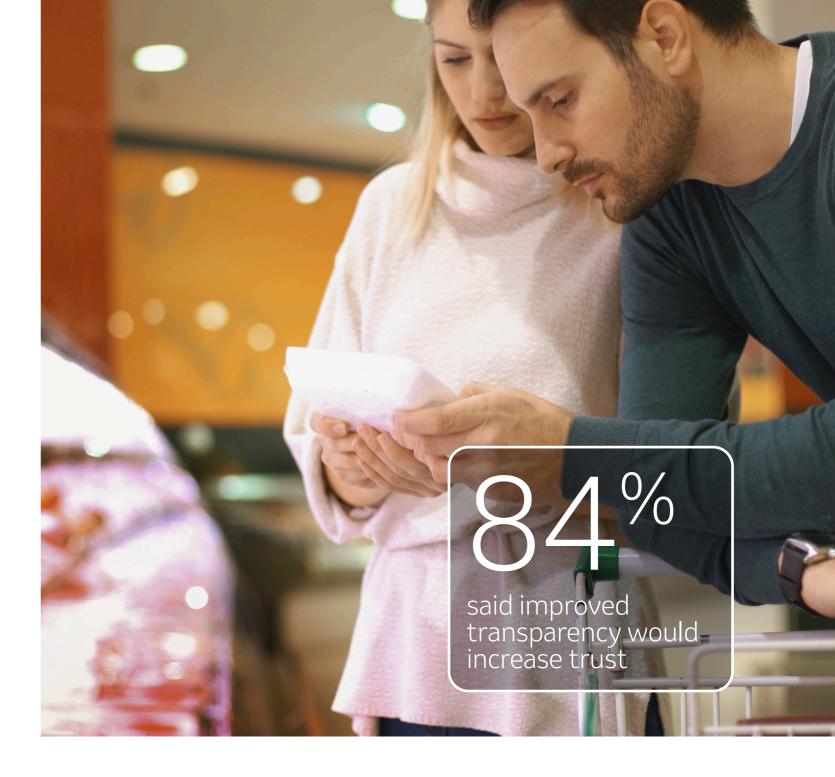
MSD Animal Health market research reflected that these apparent concerns could be linked to a lack of knowledge on several aspects related to health (both personal health and animal health), environmental issues, animal care and welfare, the traceability to source of meat and dairy products, logistics and meat and dairy consumption habits, in general.

Thirty percent of consumers expressed an intent to decrease their overall meat consumption. As there is a general tendency towards a more flexitarian eating pattern (a semi-vegetarian style of eating that encourages eating less meat and more plant-based foods), this figure was similar across all socio-demographic groups.



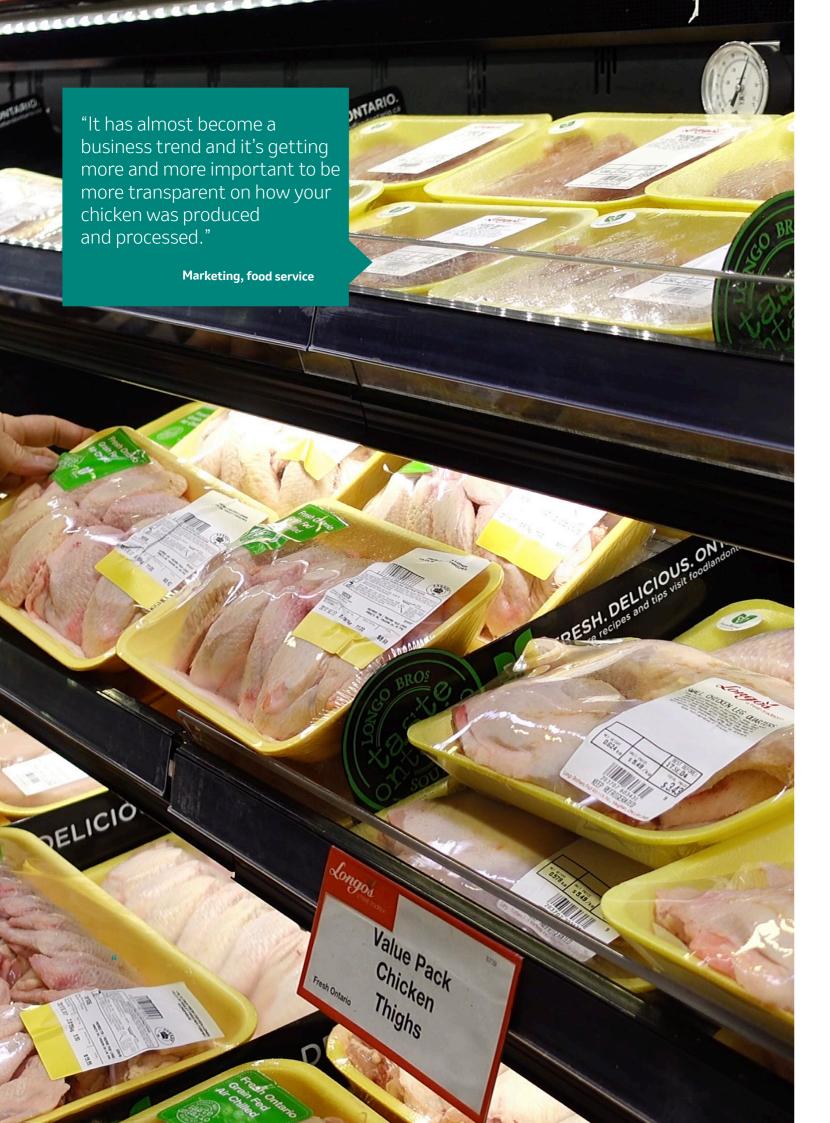
However, the intention to decrease meat consumption was even higher (40 percent) among those consumers who expressed concerns about buying or eating meat. This correlation feeds the insight that consumer concerns are a relevant issue for the meat industry. The market research also saw a similar pattern in the dairy category. A smaller group of 14 percent of milk consumers intended to decrease their milk consumption in the future.

When looking at those consumers who had concerns about dairy products from animal origin, this percentage almost doubled to 27 percent (of consumers aiming to decrease their milk consumption). A high 55 percent of consumers at alternatives to meat and 53 percent of consumers consumed plant-based milk alternatives at the time of the surveys.



These percentages were even higher among the younger age groups. More than one out of every three consumers claimed that they planned to increase the consumption of both meat and milk alternatives in the future.

Additionally, 84 percent of consumers agreed that improved transparency in the meat production process would increase their levels of trust in the meat industry. Similarly, consumers felt the same way about milk and dairy production (from animal origin): improved transparency would increase their overall level of trust in the dairy industry.



# Leveraging a connected community to empower trust

Along the food chain, consumers expressed several degrees of concerns, which differed across various Food Chain Partners, from dairy brands (32 percent), milk processors (36 percent), food retailers (39 percent), meat brands (49 percent) and meat processors (52 percent) to fast-food chains, scoring a degree of 66 percent concern.

Consumers displayed a high level of trust towards dairy farmers (71 percent), livestock farmers (65 percent) and field veterinarians (76 percent). This supports the growing trend for local produce that consumers can relate to. At the same time, this raises a communication challenge for the Food Chain Partners to reach out with credible messaging.



of consumers expressed concern over dairy brands



of consumers expressed concern over meat brands



of consumers trust dairy farmers



livestock farmers

How can the Food Chain Partners capitalise on the trust and goodwill displayed at the farm to overcome consumer uncertainty about the food transformation and retail sections?

By connecting the partners through collaborative initiatives, we can develop shared, workable solutions.

"We need to differentiate. And that's where the role of the farmers is critical, because we can't do all of this without the farmers."

Marketing, food brand



### Focus on happy animals

Eighty-six percent of consumers only wanted to eat meat from proven healthy and happy animals, while 89 percent of consumers regarded animal care and well-being an important consideration in the context of buying or eating fresh meat.

This percentage was high across all countries and socio-demographic groups, including meat lovers.

Among vegetarian or vegan consumers, 94 percent rated animal care and well-being an 'extremely important' or 'important' consideration in their decision not to eat meat.

Ninety-one percent of vegetarian or vegan consumers believed that the health status of animals on farms was an 'extremely important' or 'important' consideration in their decision not to eat meat.



of consumers want meat from proven happy animals



of consumers regard animal well-being an important buying consideration



of vegetarian / vegan consumers rate animal well-being 'extremely important'



of vegetarian or vegan consumers considered health status 'extremely important'

With respect to farm animals for meat production purposes, consumers associated animal care and well-being mostly with the housing conditions of the animals, the degree and extent of animal injuries, animal stress or fear, and with slaughtering practices.

In the context of farm animals for milk/dairy production, consumers associated 'animal care and well-being' mostly with animals having access to outdoor space.

"We want to give the consumer TRUST. The confidence that this product is good in all respects, from animal welfare to the environmental footprint."

Sustainability, food service

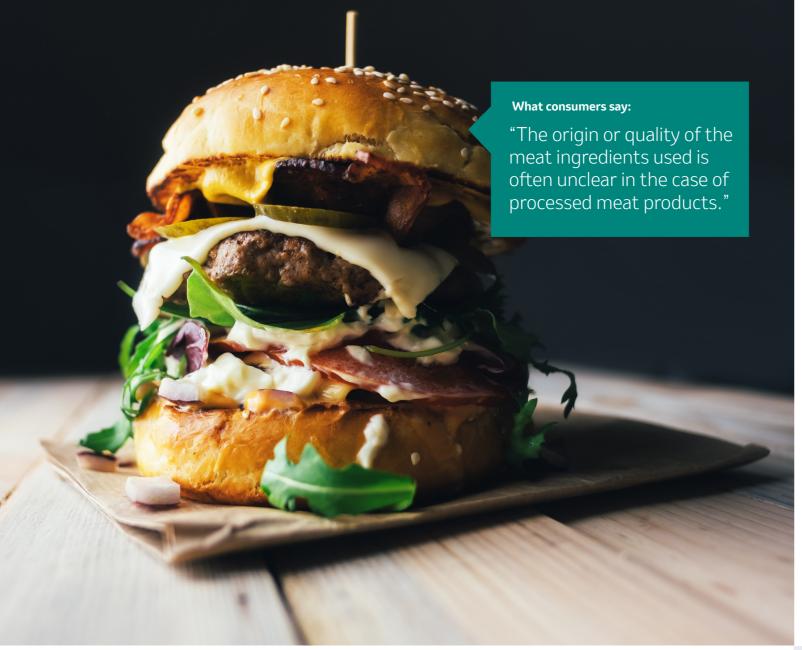




### Traceability beyond sourcing

Eighty-eight percent of consumers said that food transparency meant full traceability from birth to fork. Consumers associated 'traceability' mostly with knowing where and how the animal was born, raised, fed and housed; and knowing about the health status of each animal throughout this process.

This clearly suggests that traceability offers reliable knowledge which, in turn, increases the ability to make informed decisions.



### Quality Assurance protection

Besides product quality and price, consumers regarded the following considerations as the most important ones when eating or buying fresh meat:

- Food safety
- The health status of animals on farms
- The possible impact of meat on personal health.

The consumer wanted to be assured that the product is 'good (safe) for me'. A similar pattern occurred when looking at the dairy category from the consumer's perspective.

# Sustainable Business: doing the right things for the planet

Eighty-four percent of consumers regarded sustainable production to be an important consideration in the context of buying or eating fresh meat or dairy products.

Although sustainability in meat and dairy production clearly was an important issue for consumers, sustainability has many different dimensions and associations for consumers.

It is of key importance for the food chain to communicate with its consumers in clear and concrete ways on this broad field. Some typical examples would include more specific aspects about local production; the preservation of the natural landscape and environment; or the reduction of water and land pollution.

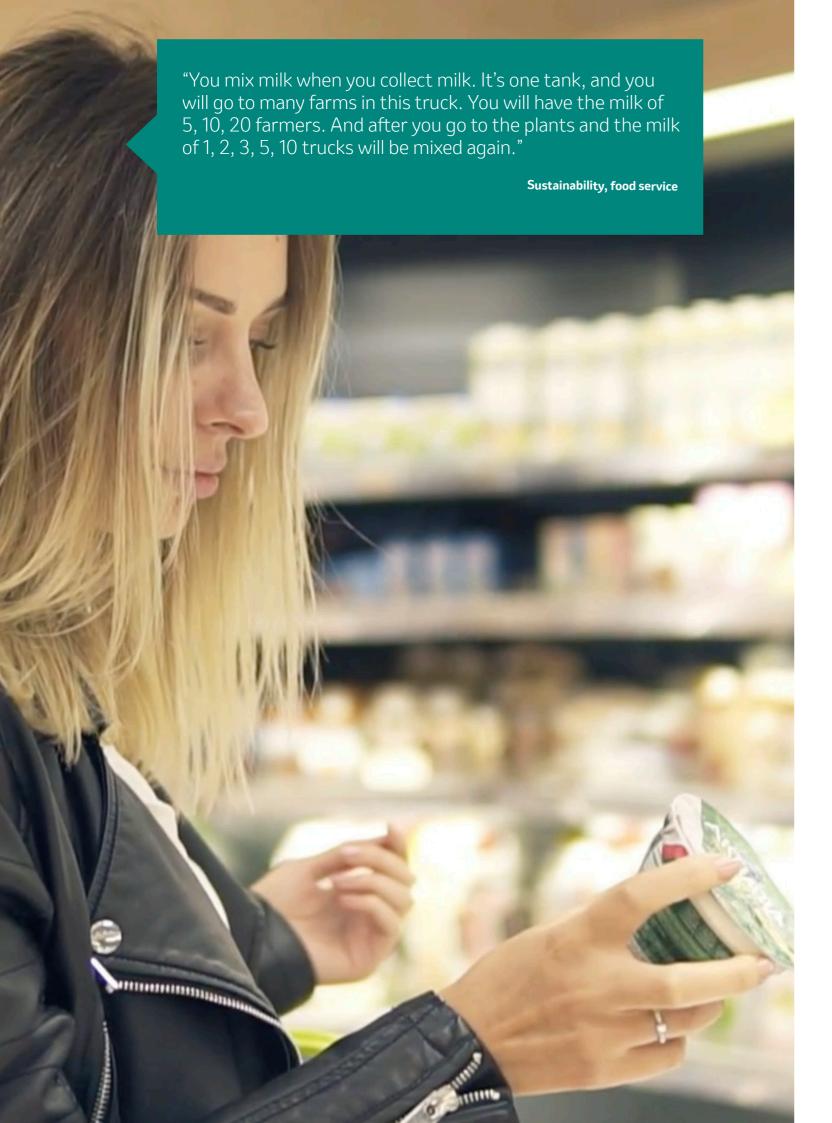
84%

of consumers regard sustainable production as an important buying consideration



"A lot of retailers want to be able to identify what the complete CO<sub>2</sub> emissions are from when the product is produced all the way until it gets to the shelf. That's going to be the foundation for marketing to put forward to consumers."

Supply, food retailer



### Top Concerns

- Need for more understanding and knowledge
- Need for greater transparency
- Need for straightforward and credible messaging
- Need for continued education of consumers

The quantitative statistical observations derived from the MSD Animal Health market research were in line with the qualitative interviews among Food Chain Partners. Research found that four major issues influence the direction of the animal protein food chain.

# Need for more understanding and knowledge

Consumers want to know, as well as fully and clearly understand, how management and production processes are determined and executed in the food chain. They want an understanding of how animal protein products are produced, processed and packaged from farm to fork in detail. This applies particularly to meat and dairy where the humane treatment and feeding of animals is of major concern.

### Need for greater transparency

Consumers often believed that the food chain is not telling them the full story around production processes and logistics from consumers.

"I've worked in plants where there is a strict requirement to know exactly where the products come from."

Marketing, food retailer



# Need for straightforward and credible messaging

Consumers increasingly demand straightforward, honest and truthful messages, which are easily understandable and credible.

The best way to reach the food chain's consumers is to use terminology that consumers understand. For example, few consumers fully understand what the food chain means when using terminology such as 'protein' or 'market-fresh'. Even references to 'regional' can be unclear.

# Need for continued education of consumers

Research shows that continuous and open collaboration among consumers needs to function across the food chain to ensure uniform adherence to, and application of key production, process, logistical and other agreed-upon processes, policies and principles.

In addition, transparency across the entire food chain and traceability to source of all products and resources are essential to create and maintain consumer trust.

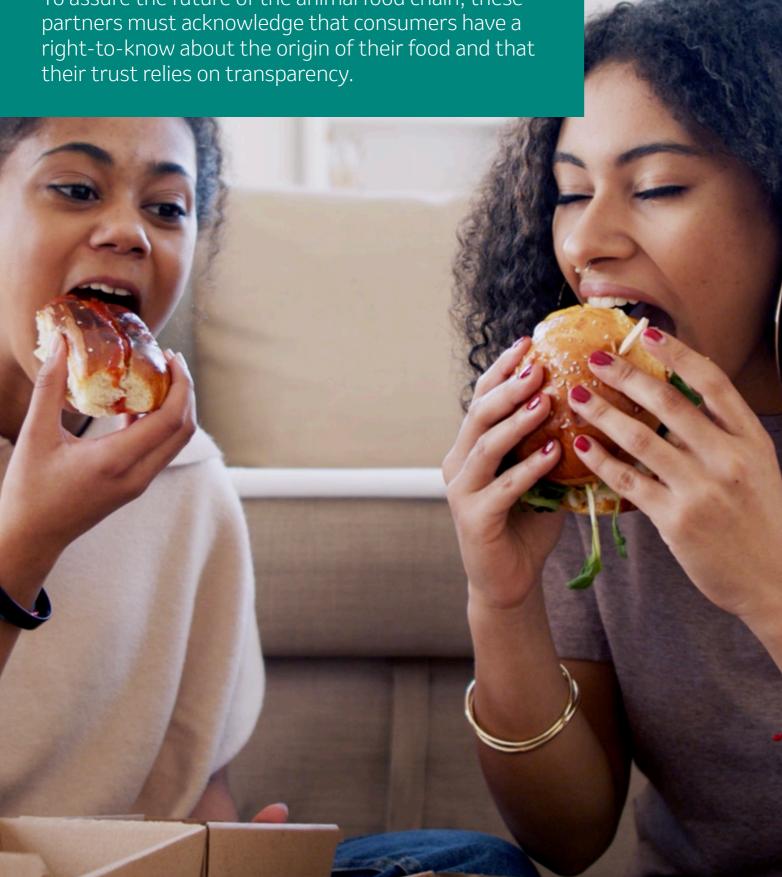
Constant differentiation and innovation is necessary to grow and expand the brands of the food chain.



### Empowering trust across the food chain

The Food Chain Partners are aware of the growing demand for information and transparency.

To assure the future of the animal food chain, these

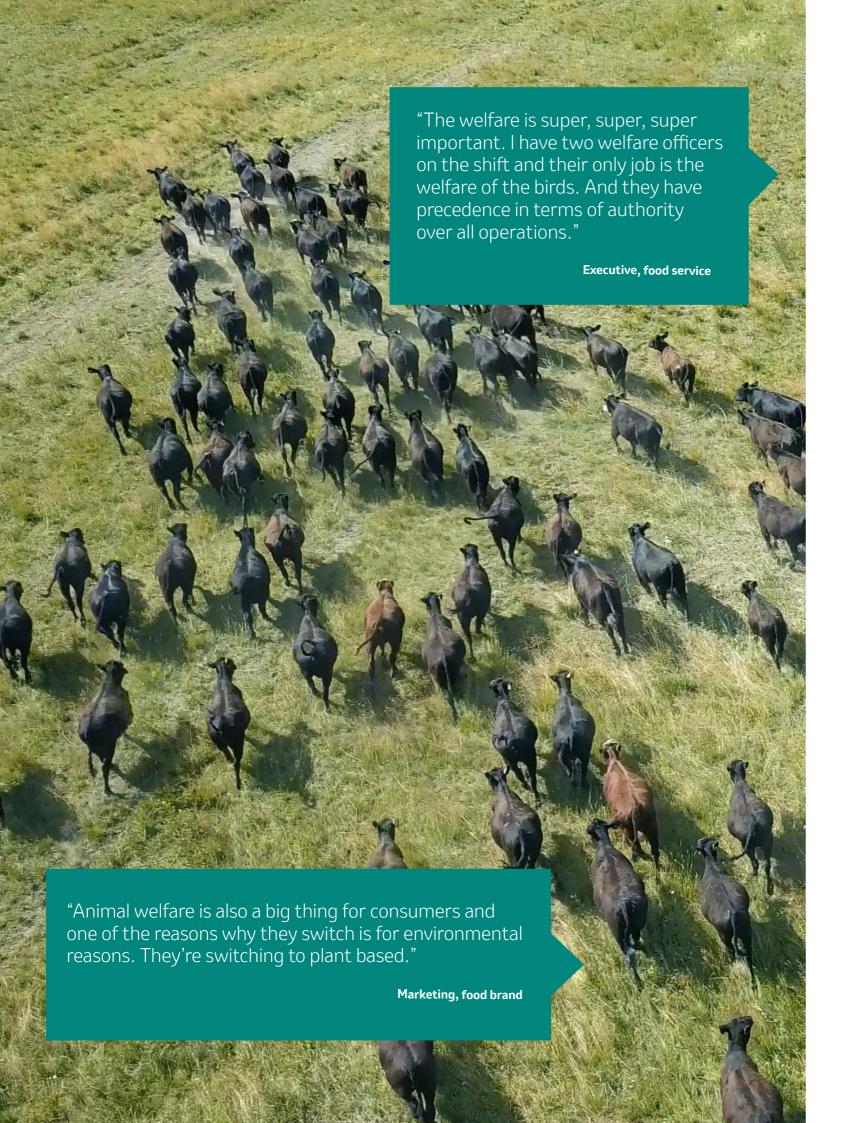


### Collaborating across the food chain

All partners and brands in the food chain can add value by connecting the entire food chain in an open, honest and transparent manner. This requires higher levels of effective communication to ensure that consumers accept and believe the outcomes of their communications and, in doing so, these consumers may become empowered to make trusted decisions and selections. That, in turn, will offer the best chance to address the impact of changing consumer behaviour towards meat, eggs, fish and dairy products and consumer needs and expectations.

Research shows that clearly defined messages with specific content should be substantiated with evidence, i.e., traceable facts and data.

Collaboration has been a pillar of the business model for many food brands as they seek to secure quality sourcing by creating alliances and support with farmers. This collaboration only can subsist by a strong partnership approach within the food chain as it is often the processor that will ensure transparency through the traceable flow of data and knowledge.



# Connecting the food chain to drive transparency

Real transparency and quality assurance from birth to fork along each step of the animal food value chain will enable better and more sustainable business outcomes, as farming evolves through improved farm management and knowledge about the food chain.

### **Evolve Farming**

Healthy animals supporting welfare and sustainability is the essential change expected of the farmer of the future. This requires transparent sourcing, i.e. improving farm management around animal health and welfare by providing auditable policies and best practices through training and best-in-class biopharmaceuticals.

Farmers need solutions which enable truly transparent traceability and verification of animal health and well-being. That alone is not enough: solutions must enable truly transparent traceability and the verification of animal health and well-being. And all of this must be auditable and comprehensible.

By contributing to transparency, farmers and advisors such as veterinarians will not only play a more rewarding role in the food chain, but also contribute to generate an authentic, emotional layer of trust.

"People are realising that the food they eat has a deeper impact on their health and specifically on immunity. People are looking to find ways to protect their immune system and are starting to make that link with the food that they eat."

Marketing, food brand

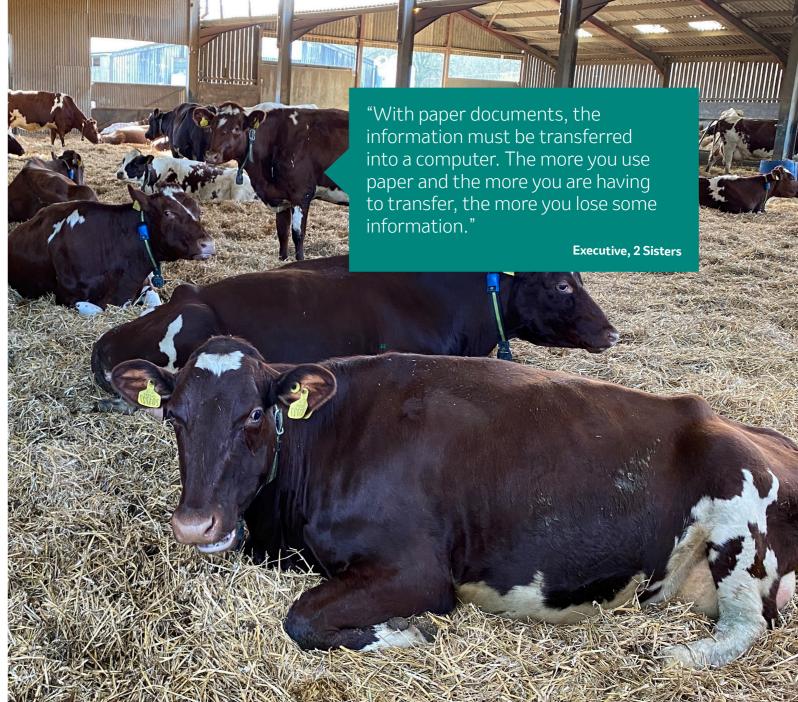
# Empower with knowledge and data

Explaining how transparency in the food chain creates and protects brand value is essential. This will require genuine, auditable transparent tracking. To achieve this, traceability efficiency and speed will need to be increased considerably; supply reliability needs to be improved; and re-assurance through data analytics and tracking devices needs to be ensured. As traceability evolves beyond sourcing, opportunities to innovate and differentiate needs to be addressed, too.

The food chain needs to create true transparency and sustainability in partnership with all Food Chain Partners requiring the sharing of platforms and data streams.







"If it (traceability) could be automated, it could be useful because what would then happen is that you are able, with one click on the computer, to send information showing your retailers what you have."

**Executive, food processor** 

### Trust through science and data

Research showed that 44 percent of consumers had little trust in meat product labels or messages, while 34 percent of consumers had little trust in dairy labels or messages. Various sources referred to the high levels of vagueness and ambiguity that consumers perceived when reading and analysing product labels or messages and claims at the point-of-purchase.



of consumers have little trust in meat product labels



of consumers have little trust in dairy product labels

Consumers expect the food, meat and dairy industry and experts to guide them in their decision making with objective information and messaging. It is the responsibility of the Food Chain Partners to empower the consumer with scientifically sound information to help them make educated choices.

Science will increase the authority and credibility of the Food Chain Partners. Transparent communication has to be designed, leveraging science, farm management and access expertise to foster open conversations across the food chain by simplifying the complexity of science.

#### What consumers say:

"When buying meat, I don't want any hidden or false claims; it needs to be clear what I am buying."

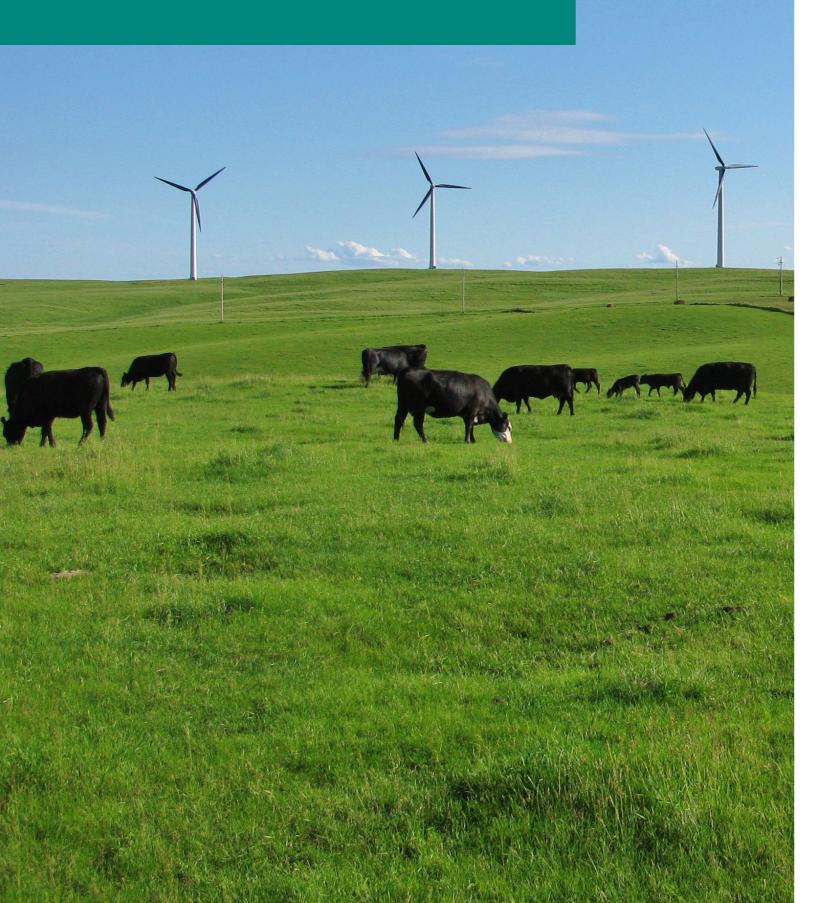


The digital tracking, traceability and monitoring technology that MSD Animal Health offers, supported by their powerful data-driven solutions can be harnessed to design and provide the data solutions required to empower and connect the food chain with continuous, reliable data, information and insights.

This can be extended to bring the necessary scientific intelligence required by consumers, through clear, simple and comprehensible language, enabling them to make informed decisions.

Each partner needs to be empowered to be an authority and source of reference in the animal food chain conversations, allowing consumers to make trusted choices and decisions. Ultimately the challenge is to differentiate brands and deliver customer confidence in the sustainability of products from farm to fork.

# Enabling better and more sustainable business outcomes



#### Along every step of the food chain, all the partners must be confident of real transparency and quality assurance from birth to fork.

In doing so, and in embracing the best possible practices in tracking technology, supply reliability and re-assurance will be improved through data analytics and the application of sophisticated tracking devices. All of this will, in addition, provide new opportunities to innovate and differentiate.

By simplifying the complexity of science, partners to the food chain make scientific knowledge and expertise accessible to foster conversations across the food chain.

Addressing these challenges across the food chain may have significant benefits.

#### Improved animal welfare

Farmers may see improved welfare and animal footprints, more efficient production, stronger presence and relationship with the rest of the food chain and the re-valuation of the role of farming.

#### Productive conversations with farmers

Veterinarians may experience the opportunity to engage with farmers on welfare and animal footprints through productive conversations.

#### Differentiate premium brands

Food processors may access efficient traceability, leading to cost savings and more reliable supply and the ability to help their customers differentiate their premium brands.

#### Transform customers into loyal supporters

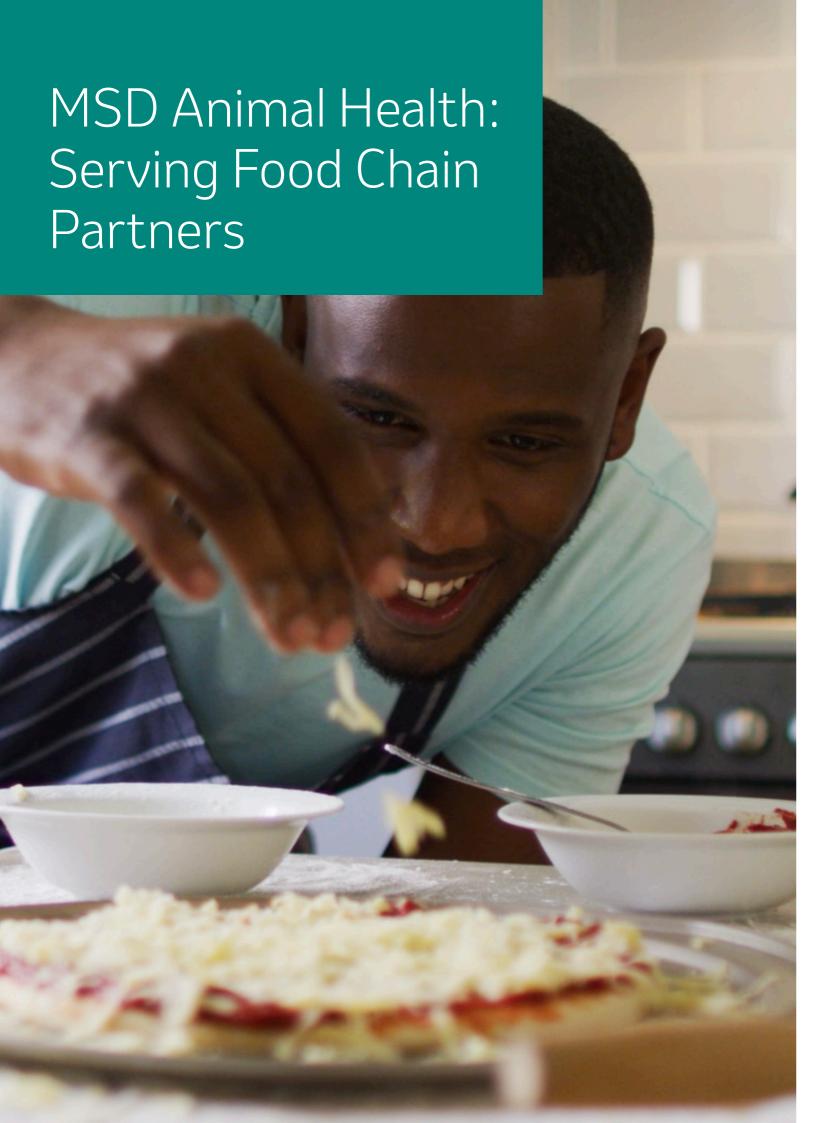
Food brands may achieve optimal support around animal health, welfare and well-being, helping them to transform customers into loyal supporters.

#### Create customers who value transparency

Food retailers may enable premium brands through traceable origin reassurance and differentiation to help them create customers, who value transparency.

#### More reliable supply and sourcing

Food services may enable more reliable supply and sourcing to assist them in creating valued consumer communications.



MSD Animal Health expects to foster empowerment and connectivity throughout the food chain community by advancing animal health and welfare, empowering trust in the food chain and enabling a more sustainable future.

Our company is committed to true transparency through the creation and dissemination of data-driven solutions for reliable traceability of product sourcing and delivery of scientific evidence to empower consumers to make scientifically informed choices and decisions.

### A heritage of animal science

MSD Animal Health has a rich heritage of scientific excellence and innovation. Offering veterinarians, farmers and governmental bodies one of the widest ranges of veterinary pharmaceuticals, vaccines and health management solutions and services. We are dedicated to preserving and improving the health, well-being and performance of animals. MSD Animal Health currently has a presence in more than 50 countries, while our products are available in some 150 markets across the globe.

In recognition of the connection between the health of people and animals and our shared environment, MSD Animal Health applies a One Health approach to our mission to save and improve lives. One Health is a collaborative, multisectoral and multi-disciplinary approach - working at the local, regional, national and global levels - with the goal of achieving optimal health outcomes for animals and humans and consequently also a healthier planet.

Issues that can benefit from a One Health approach include diseases, which can be transmitted to humans from animals, antimicrobial resistance, vector-borne diseases, health security, chronic disease and other health threats. MSD Animal Health will be applying this approach to food safety, sustainable food production and environmental stewardship by bringing together interdisciplinary teams to add informed value to issues, such as prevention, surveillance and monitoring, innovation, ensuring a safe and sustainable food supply and respecting our shared environment.



# Leading emerging digital technology

MSD Animal Health has the unique capability to join up every link in the food chain with a unique fusion of biopharmaceuticals and technology solutions. The portfolio spans products and technology that enables MSD Animal Health to identify animals, engage with them, monitor their activity, anticipate their health needs and help customers manage and care for them across all major Companion Animal and Livestock species.

MSD Animal Health is the only company that can trace from birth of an animal to food on the plate, offering trust and transparency to customers and consumers. Through vast experience in science, technology and insights-driven solutions, we are taking an active role in shaping the future of animal health for a world with enriched pet companionship and a safe, sustainable food supply.

The combination of biopharmaceuticals and technology solutions positions MSD Animal Health as a leader in animal health digital tracking, traceability and monitoring technology and complements the existing portfolio of veterinary medicines, vaccines and health management services and solutions.

This data-driven capacity of MSD Animal Health will be indispensable for the design and provision of the data solutions required to empower and connect the food chain with continuous, reliable data, information and insights.

#### Sources

An exploratory internal quantitative survey by MSD Animal Health conducted in August 2021 on meat consumption and purchase attitudes and behaviour using a sample of 2600 respondents across 38 countries in Europe, Russia & CIS, North Africa and the Middle East.

An external consumer survey conducted in December 2021 using a robust and representative sample of 5088 respondents across 5 European countries (France, Germany, Spain, Sweden and the U.K.). The survey was based on an online questionnaire of 15 minutes covering subjects on consumer behaviour and attitudes related to meat products.

Quotes from expert interviews with Food Chain Partners across the food chain conducted in November 2021.

An external consumer survey conducted in March 2022 using a robust and representative sample of 5312 respondents across 5 European countries (France, Germany, Spain, Sweden and the U.K.). The survey was based on an online questionnaire of 15 minutes covering subjects on consumer behaviour and attitudes related to dairy products.

#### 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 leadingedge 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., Rahway, N.J., USA, is the global animal health business 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, wellbeing 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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