Connecting Production to People

Across Global Agri-Food Systems



A report for

NUFFIELD IRELAND

Farming Scholarships

by Majella Mc Cafferty
2025 Nuffield Scholar
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Executive Summary

A Leadership Framework for a Connected Agri-Food and Rural Enterprise Ecosystem

"The next competitive advantage in global agri-food systems isn't production — it's human connection." — Majella Mc Cafferty, *Author*

This research evaluates the agri-food supply chain from **production through processing and markets to the consumer**, drawing on international field research, industry interviews, comparative case studies and peer-reviewed research in consumer behaviour, psychology, supply-chain management, systems thinking and leadership.

The central finding is clear:

Ireland has built a world-class production system. Its next opportunity is to build a world-class connected system around it.

"Leading across the inter-linkages in the supply chain — where production, people, policy and markets come together — is where future value is created." — Majella Mc Cafferty

Ireland has strong farmers, processors, co-operatives, research capability, food safety, traceability, animal health, assurance and sustainability programmes, alongside internationally respected production standards. The challenge increasingly lies **between the individual parts of the system**.

Farmers manage production, compliance, environmental requirements and financial risk; processors compete in international markets; government and state agencies manage policy and public accountability; researchers generate knowledge; retail, food service and hospitality respond to commercial and consumer pressures; and consumers make decisions around price, taste, health, convenience, trust, values, identity and lifestyle.

Each can operate effectively within its own environment while remaining insufficiently connected to the others.

"Everyone is operating correctly within their own world. The challenge is connecting those worlds."

This research therefore identifies a need for **leadership across the inter-linkages** connecting farmers, processors, industry, government, research, education, retail, food service, hospitality and consumers around shared outcomes. Future performance will

depend not only on how individual organisations are led, but on the quality of the information, relationships and leadership **between them**.

A major finding of this report is that **consumer behaviour must become a stronger input into the supply chain**. Behavioural research shows that people do not make everyday decisions through technical information alone. Chaiken (1980) highlights the role of mental shortcuts, while wider research demonstrates the influence of familiarity, trust, emotion, identity and social influence.

Consumers are not simply the final destination for food. Their lifestyles, working patterns, cooking habits and expectations should help shape what the industry develops and produces. Changing lifestyles, time pressure, demand for convenience, and labour availability on both sides of the supply chain — from on-farm labour and generational renewal to the next generation of chefs, production and retail workers needed to prepare and serve food to the consumer — are increasing interest in portable, prepared, partly prepared and ready-to-finish foods.

These are not simply marketing trends. They are market signals.

Consumer insight should therefore flow back into research, product development, processing, packaging and production strategy: **Lifestyle and Market Change → Consumer Behaviour → Market Insight → R&D → Product Innovation → Value**

The same principle applies to sustainability and assurance. Animal welfare, environmental sustainability, food safety and traceability are becoming increasingly important to consumers and future generations. Ireland already measures many of these standards through strong national programmes, but their value must be communicated more clearly **in both directions**.

Consumers need to understand what farmers and food businesses do to meet these standards and why they matter. Farmers and processors need to understand how participation supports customer requirements, market access, consumer confidence, reputation and the sale of Irish food.

If the farmer experiences a programme mainly as compliance while the market uses it as value, the connection between the two is not yet being communicated.

Different parts of the chain also define value differently: farmers through animal health, efficiency, sustainability and margin; processors through specification, product mix and market return; retail and food service through convenience and customer experience; and consumers through taste, price, nutrition, trust, lifestyle and identity.

The problem is not that one definition of value is right and another is wrong. It occurs when the system fails to translate value between them.

Supply-chain research supports this finding. The **Bullwhip Effect**, identified by Lee, Padmanabhan and Whang (1997), demonstrates how delayed or distorted information can create disruption further back through a supply chain.

High-performing systems therefore depend on trust, visibility, relationships, collaboration and information moving in both directions:

Production → Processing → Market → Consumer

Consumer → Market Signals → Research and Innovation → Industry Strategy → Production

International research demonstrated that **people are strategic infrastructure**. New Zealand highlighted pathways through contract milking, sharemilking, mentoring and awards, while other examples demonstrated the importance of agricultural education, consumer engagement, research adoption, practical policy, market positioning and strong links between production and people.

The author found that Ireland therefore needs to look beyond succession and towards **generational renewal**, creating clearer routes for young people, women, employees and new entrants to develop skills, responsibility, equity and leadership. Education should also be treated as **long-term trust infrastructure**, connecting future consumers with agriculture before the industry needs to defend or explain itself.

Agriculture creates value beyond farm output through **rural employment, local businesses, services, communities and regional resilience**. These contributions should be measured alongside production and environmental performance.

Artificial Intelligence (AI) will be the next tool, and the next wave of innovation. But like everything else in this system, it will only create value where the relationships and trust to use it well already exist. — Majella Mc Cafferty

Five Recommendations

- **Connect the system** through a National Unity in Agriculture Framework strengthening two-way information and alignment.
- **Connect production with people** through behaviour-led communication and education that translates technical excellence into consumer understanding and trust.
- **Build the next generation** through clearer pathways for skills, leadership, management, equity and ownership.

- **Measure the whole value created** through a Rural Ireland and Supply-Chain Value Scorecard covering economic, social, community and environmental outcomes.
- **Lead the system differently through** people-centred leadership, stronger governance, Lean thinking (cutting and reducing waste), continuous improvement (small, steady tweaks rather than big one-off implementations with integrated feedback loops) and working across all organisational boundaries (the walls between different companies, groups and organisations).

Conclusion: From Production to Connection

Ireland's next competitive advantage will not come from production alone. It will come from leaders who can join the dots across the system. The opportunity is to strengthen the inter-linkages between production, people, markets, science, innovation, education, policy and rural communities — enabling information, trust, knowledge and value to move more effectively between them. This will make Irish agri-food more resilient, responsive and competitive.

The future of Irish agri-food will therefore depend not only on what Ireland produces, but on how effectively it connects production to people, people to markets, markets to innovation, and innovation back to production.

"The future will be shaped by those who can lead across the inter-linkages."

"Ireland's next competitive advantage will not come from producing more food alone. It will come from connecting production to people." — Majella Mc Cafferty

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My thanks to **Micheál Briody** (Managing Director) and **Barry Cullen** (Head of Sales), Silver Hill Duck, for their coaching, mentorship and the opportunity and confidence they have given me, which I now apply as International Sales Development Manager with Silver Hill Duck.

My career has been shaped by many, many mentors along the way — more than I could ever name here, but each of whom left their mark. Among them: **Dr Karen Dunne MVB** (vet and lecturer), **Doireann Dowling RVN** (Course Director), all my large-animal veterinary lecturers, and the vets and practices that taught me, who gave me the foundation and practical experience in animal health and production. **Niall Matthews (Chairman, Lakeland Dairies)** introduced me to dairy farming and the wider agri-food sector; **Dr Paul Crosson (Beef Enterprise Leader, Teagasc)** gave me my first opportunity in industry; **Pat Meehan (LacPatrick Co-operative)** taught me agriculture is about people, not just production; **Dr Seán Brady** has guided and inspired me throughout my career and still does today; and **Stephen Blewitt (Aurivo Co-operative)** encouraged me to complete my Master of Business.

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Finally, to my late grandmother, **Vera Kelly;** my uncle, **Desmond Kelly;** my mother, **Patricia McCafferty**; my late father, **Patrick McCafferty**; and my wider family — thank you for

instilling the values and work ethic reflected here. To my son, **Gerard**, my brothers and sisters, and my **close friends** who are now my extended family — thank you for your support throughout this journey.

For everyone who taught me, challenged me, encouraged me and believed in me — thank you!

Abbreviations

ACC — Australian Country Choice
ACRES — Agri-Climate Rural Environment Scheme (part of the environmental schemes funded through the EU Common Agricultural Policy)
AHI — Animal Health Ireland
AI — Artificial Intelligence
AMF — Anhydrous Milk Fat
Bord Bia — Irish Food Board
BSE — Bovine Spongiform Encephalopathy
BVD — Bovine Viral Diarrhoea
CCO — Chief Commercial Officer
CEO — Chief Executive Officer
CIMMYT — International Maize and Wheat Improvement Center
CSC — Contemporary Scholars Conference
CSO — Central Statistics Office
DAFM — Department of Agriculture, Food and the Marine
DM — Dry Matter
EID — Electronic Identification
EPA — Environmental Protection Agency
ESCAS — Exporter Supply Chain Assurance System
ICOS — Irish Co-operative Organisation Society
IFA — Irish Farmers' Association
IUNA — Irish Universities Nutrition Alliance
LAWPRO — Local Authority Waters Programme
MLA — Meat and Livestock Australia
MSA — Meat Standards Australia
NDC — National Dairy Council
NTFS II — National Teens' Food Survey II
QA — Quality Assurance
QR Code — Quick Response Code
ROI — Republic of Ireland
SPCA — Society for the Prevention of Cruelty to Animals
TBC — Total Bacterial Count
Teagasc — Agriculture and Food Development Authority
UAE — United Arab Emirates
UHT — Ultra-High Temperature
UK — United Kingdom
US / USA — United States / United States of America
USDA — United States Department of Agriculture

Foreword



Figure 1: Prince Connell's Grave, a megalithic tomb at Corracloona, on the farm I grew up on in Leitrim

My perspective on the agri-food supply chain was shaped long before I entered corporate organisations.

I grew up in Corracloona, outside Kiltyclogher in North Leitrim, in the west of Ireland, close to the border between the Republic of Ireland and Northern Ireland. From the time I could walk, I spent every day and spare moment on the traditional mixed farm run by my late grandparents, Francis and Vera Kelly, and my uncle, Desmond Kelly.

My grandmother Vera and uncle Desmond taught me agriculture from an early age — understanding livestock, working with the land, taking responsibility and doing things properly. My mother, Patricia, is a chef, while my late father, Patrick, was also raised on a farm. Together with my wider family of aunts and uncles, they instilled a deep respect for food, hard work, family and community. Those values remain central to who I am.

While studying Veterinary Nursing, I worked on a dairy farm in County Louth to learn dairy farming from the ground up, gaining practical experience in milking, livestock management, animal health and dairy business operations. I later completed an Honours BSc in Sustainable Agriculture, combining practical farming and animal health with science, sustainability and farm business.

My career progressed through the dairy supply chain: Farm Development Manager with LacPatrick Dairies, developing the milk pool and strengthening milk supply; advisory work with Lakeland Dairies across both sides of the border; and Farm Profitability Specialist with Aurivo Co-operative across the west of Ireland.

Working across farmers, co-operatives, dairy and the wider agri-food sector taught me that technical knowledge alone does not deliver results. Progress depends on people, trust, communication and turning knowledge into practical action. Coaching producers who were recognised and awarded national titles through the NDC and Kerrygold Milk Quality Awards on three occasions reinforced this.

My work then broadened across the agricultural system. I established Women in Agriculture initiatives, contributed to national implementation through Animal Health Ireland forums, and became the first Farmer Advocacy Manager with the National Dairy Council, representing more than 17,000 Irish dairy farm businesses across farmer engagement, industry, communications, education, marketing and consumer engagement — from production to consumer. Alongside my career, I continued my education in management, organisational behaviour and psychology, advanced strategic performance and business practice, completing a Master of Business through UCC/IMI and receiving a 30% Club national leadership scholarship.

For me, Nuffield is a continuation of a journey that began on a small mixed farm in North Leitrim, in the west of Ireland, and has taken me through animal health, farm development, advisory, farmer advocacy, agri-business, commercial business, consumer engagement and much more.

The perspective I gained on that farm at home remains the foundation of how I work with people and understand the agri-food system today.

Objectives

- **Evaluate end-to-end supply-chain efficiency.**
  Assess how effectively value created at production level is transferred through processing and into domestic markets and international markets.
- **Analyse demand-side alignment and consumer behaviour.**
  Examine consumption trends and the behavioural, cultural, environmental and lifestyle factors influencing purchasing decisions.
- **Assess market positioning and value capture.**
  Evaluate how Irish agri-food products are positioned across domestic and international markets and the extent to which value is created and retained across the supply chain.
- **Identify systemic misalignments and associated risks.**
  Analyse disconnects between production, processing, market demand and consumer behaviour, and assess their implications for commercial performance and long-term sector resilience.

Research Methodology



Figure 2: Dairy Australia Headquarters

- This research uses a qualitative, systems-based approach to examine the agri-food value chain from production and processing through to markets, communication and consumer behaviour.
- It compares co-operative models, policy and government structures, export-focused systems and shorter routes to market, using cross-industry learning to examine what shapes value, demand and consumer behaviour.
- Primary research included international fieldwork across New Zealand, Australia, the United States, Germany, Singapore, Indonesia, Malaysia, Mexico, the United Arab Emirates, Qatar, Ireland, the United Kingdom, the Netherlands, Switzerland and Brussels.



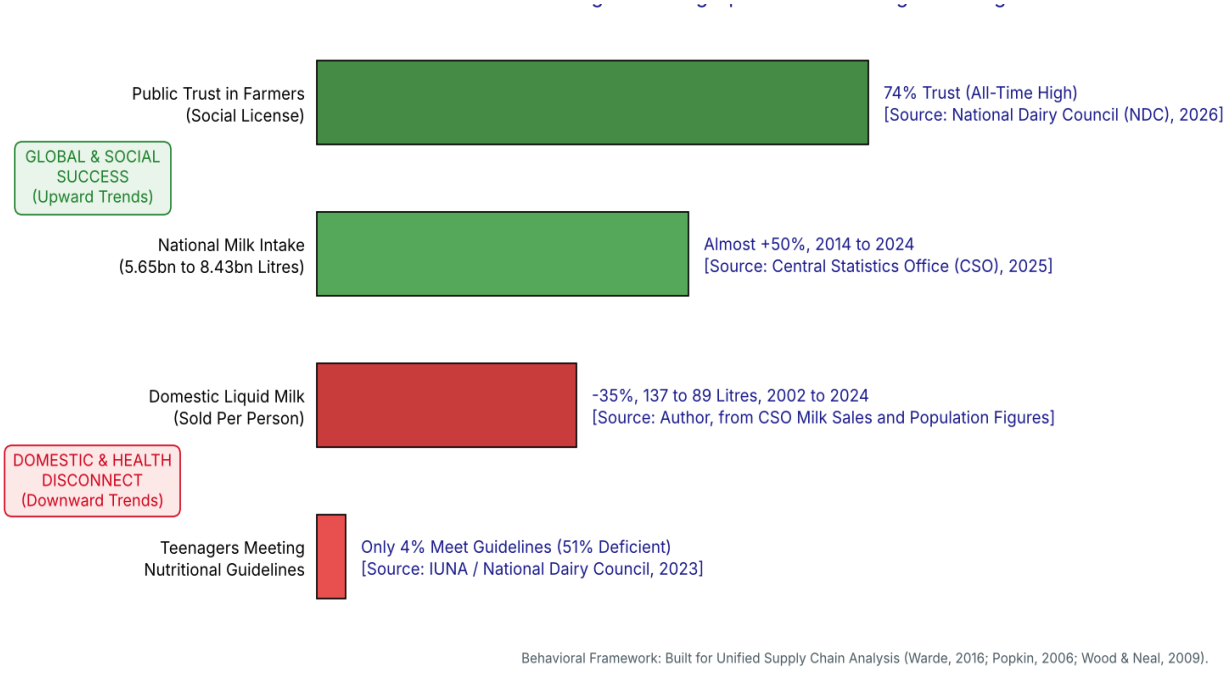
Figure 3: DairyNZ Strategy (photograph by the author; image quality enhanced)

- Research methods included farm visits, processor and retail observations, leadership meetings, government interviews, semi-structured discussions and field notes.
- The study was supported by scientific research and peer-reviewed academic literature, together with national and European statistics, industry reports and market analysis covering consumer behaviour, psychology, nutrition, food systems, supply chains, animal health, leadership and consumption trends.
- Together, these sources identified where production efficiency is converted into value and where stronger alignment is needed between production, markets and consumers.

Introduction

Ireland has developed a highly productive, internationally competitive and export-oriented agri-food sector. In 2025, Irish food, drink and horticulture exports reached a record **€19 billion**, with dairy exports valued at approximately **€7.3 billion**. This performance is underpinned by strong primary production, processing capability, food safety, traceability, research, assurance systems and international market access.

The Irish dairy sector illustrates this strength. Following the removal of European Union milk quotas in 2015, domestic milk intake increased from approximately **5.65 billion litres in 2014 to 8.43 billion litres in 2024** (CSO, 2025), an increase of almost 50% (CSO, 2016; CSO, 2025). Ireland has also developed internationally recognised brands and market channels, demonstrating the commercial potential of converting high-quality primary production into differentiated, value-added products.

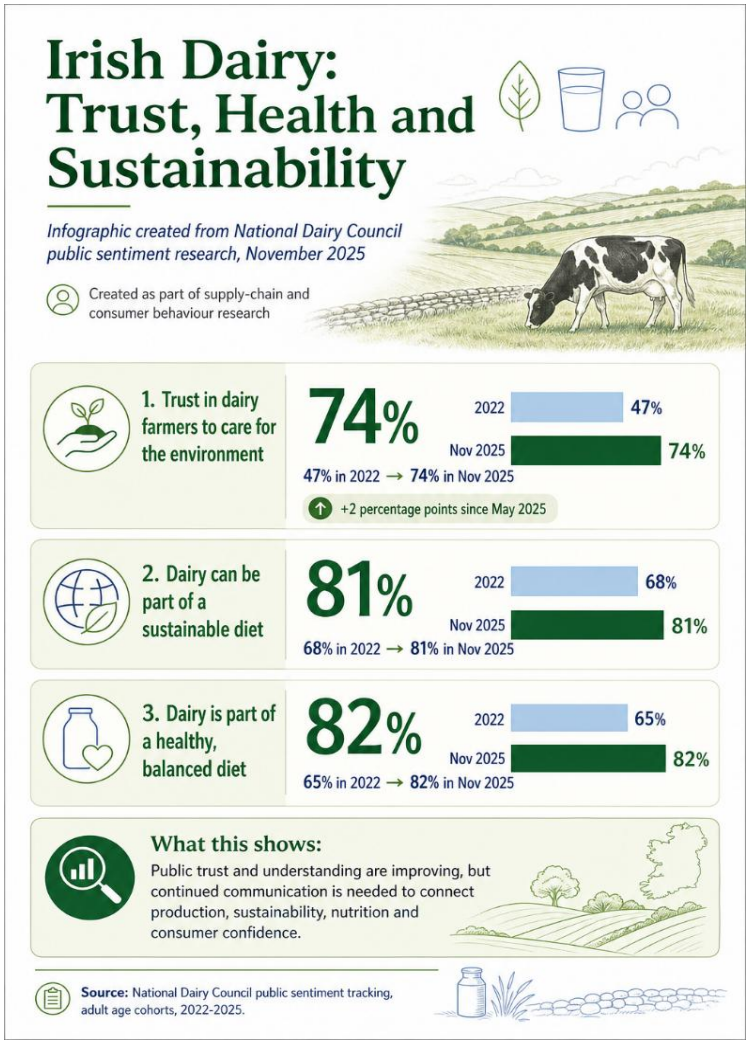


Behavioral Framework: Built for Unified Supply Chain Analysis (Warde, 2016; Popkin, 2006; Wood & Neal, 2009).

Domestic consumption patterns, however, have changed. Per-capita liquid milk consumption has declined significantly since the early 2000s, with milk sold for human consumption falling from about 137 litres per person in 2002 to about 89 litres in 2024, based on CSO milk sales and population figures (CSO, 2003; CSO, 2021; CSO, 2024; CSO, 2025), while demand has shifted towards different dairy products, formats and consumption patterns. Consumers are therefore not simply rejecting dairy; **where and how value is created is changing**.

Public attitudes reinforce this point. National Dairy Council research in 2025 found that **74% of Irish adults trusted Irish dairy farmers to take care of the environment** (National Dairy Council, 2026), compared with 47% in 2022, while strong majorities agreed that dairy can form part of a sustainable and healthy balanced diet.

At the same time, only **4% of Irish teenagers met recommended guidelines for milk, yoghurt and cheese** (National Dairy Council, 2024), while more than half did not meet recommended calcium intakes.



Positive attitudes, trust and recognised nutritional value therefore do not automatically translate into purchasing or consumption behaviour. Food decisions are influenced not only by information, but by **habit, convenience, familiarity, environment, identity, social influence and lifestyle**.

Chaiken (1980) demonstrated the role of heuristic processing, while Wood and Neal (2009) highlighted the importance of habit and context. Favourable attitudes also do not always translate directly into behaviour (Vermeir and Verbeke, 2006).

These changes extend beyond dairy. Working patterns, household structures, technology, convenience, food preparation habits and food-service requirements increasingly influence demand, creating opportunities for **research and development, product innovation, market segmentation, food-service solutions, value-added production and new commercial markets**.

The wider agri-food system must therefore be viewed as more than a linear movement of products from farm to consumer. Farmers, processors, co-operatives, researchers, policymakers, educators, retailers, food-service businesses and consumers operate within the same system, but face different pressures, receive different information and often

define value differently. Strong performance within individual organisations does not automatically create an efficient or responsive system.

This report therefore considers the agri-food sector as a **two-way value network**:

Production → Processing → Markets → Consumer

Consumer Insight → Customer Requirements → Market Signals → Research and Innovation → Industry Strategy → Production

The effectiveness of this system depends not only on the strength of each link in the network, but on the quality of the **connections between them**.

Strong connections enable information to become practical action, commercial opportunity and shared value. Where connections are weak, information can become distorted, duplication increases, trust declines and value is lost. Where they are strong, the system is better positioned to respond to changing markets, accelerate innovation and create value across the supply chain.

The benefits extend beyond individual businesses, supporting **farm incomes, commercial development, employment, exports, rural enterprise, community resilience and the wider Irish economy**. Stronger alignment can also improve how policy, research, education and industry strategy respond to practical realities at farm and market level.



Figure 4: Kerrygold brand on retail shelves in Singapore

This research examines the agri-food supply chain as an **interconnected human, commercial and economic system**. It evaluates how effectively production, processing, industry, policy, research, markets and consumers connect; how consumer behaviour and global market trends can inform innovation and commercial development; how people, education, skills, leadership and generational renewal can strengthen the sector; and how international best practice can support a more connected, competitive and resilient Irish agri-food and rural enterprise ecosystem.

The Central Question: How can Ireland lead across the inter-linkages of the agri-food and rural enterprise system to better connect production, people, knowledge, innovation, markets and consumers, creating greater value and long-term resilience?

Travel Overview

Global Insights

Contemporary Scholars Conference and Global Learning



Figure 5: CSC, Auckland, New Zealand

The findings from the **Contemporary Scholars Conference (CSC), Global Focus Programme (GFP2) and international travel** support a central finding of this report: strong agri-food systems depend not only on production performance, but also on **people, trust, leadership, market awareness and clear accountability** across the supply chain.

The Human Currency: Trust, Culture and Leadership



Figure 6: Catherine Lascurettes (Executive Secretary, Nuffield Ireland), Marina Conway, Zoë McKay, Majella Mc Cafferty, Seamus McMenamin and Mike Brady (Nuffield Ireland Board Member), CSC New Zealand (Marina Conway, Zoë McKay and Seamus McMenamin are fellow 2025 Nuffield Ireland Scholars)

The CSC reinforced that global trade, leadership and agriculture are built on **people and trust**. Kate Scott (Chair, Rural Leaders/Nuffield New Zealand), Christoph Graf Grote (Chair, Nuffield International), Hon. Damien O'Connor (former New Zealand Minister for Agriculture and Trade) and Phil Morrison (CSC conference facilitator) provided perspectives on global trade and leadership. Steve Kearney's (Chief Mental Health Officer, New Zealand Defence Force) principle, **"connect first, then problem solve,"** and Shannon Stallard's (Lead with Virtue) view of leadership as a **group resource** demonstrated that strong relationships enable effective solutions. Russell Pickering (The Pickering Group) and Sally Thomson (Nuffield International Executive, Brazil) reinforced the importance of communication that people understand and connect with.

Vangelis Vitalis (Deputy Secretary, New Zealand Ministry of Foreign Affairs and Trade), Andrew Watene (Head of KPMG Propagate) and Hamish Marr (2019 Nuffield New Zealand Scholar) highlighted that **"trust is the new currency in trade."** Jessica Smith (Deputy Chief

Executive, Te Tūāpapa – New Zealand Ministry of Housing and Urban Development) reinforced this through Māori — "people, people, people", reciprocity — "feed **the people who host you, do not strip them"** — and the All-Blacks' humility principle, **"sweep the shed."**

New Zealand: System Alignment, Pathways and Experience-Led Trust



Figure 7: Danone production factory

Research in New Zealand showed farmers closely connected to market demand, contrasting with the more production-focused approach often seen elsewhere.

At a **Danone facility supplied by Fonterra**, Site Manager **Daniel Hynes** demonstrated how QR codes connect farm production with consumer transparency: consumers can scan the code on the retail pack to see where the milk came from and learn about the farm and farmer behind it, while Lean principles improve processing efficiency. At the **SPCA Auckland Centre**, **Justine Somerville** demonstrated how transparent communication and community engagement build trust and social capital around animal welfare.

Structured Progression Pathways



Figure 8: New Zealand Dairy Industry Awards

The **New Zealand Dairy Industry Awards** operate as an annual development and mentorship programme, investing approximately **NZ$8,000 per participant** in skills, confidence and networks while addressing real industry challenges.

24-year-old Annie Gill progressed through adversity to manage **145 pedigree dairy cows** while building equity towards sharemilking.



Figure 9: Annie Gill, 2024 Regional Runner-Up, Dairy Manager of the Year (Waikato), New Zealand Dairy Industry Awards

Behaviour-Led Consumer Connection

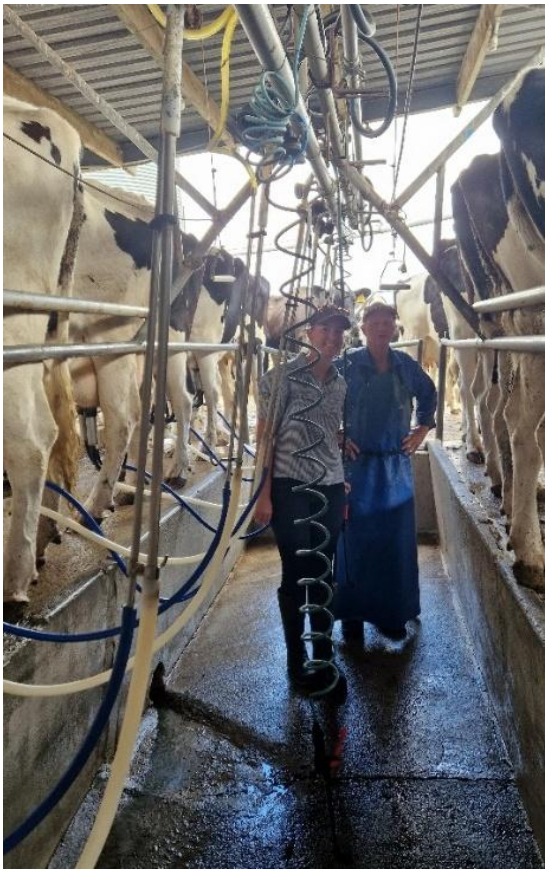


Figure 10: Annie Gill and Doug Courtman, Ōtorohanga, New Zealand

New Zealand dairy consultant and specialist Mandi McLeod (Agribusiness Governance and Risk Strategy, Dairy Cow Welfare Auditor and On-Farm Programme Development) **and her husband Wayne McLeod**, of Pirongia, Waikato, demonstrate diversification through more than **100 on-farm consumer events annually**. National initiatives including **YOLO, led by Wayne Langford, Meet the Need, DairyNZ, New Zealand Young Farmers, the Gateway Programme, Primary ITO and school calf-rearing programmes** connect consumers with agriculture through lived experience. **Nicola and Harvey Waugh** operate at a larger scale, using virtual fencing across **1,377 hectares** to strengthen commercial control.

Alignment: These examples support **Recommendation 2: Behaviour-Led Communication** and **Recommendation 3: Clear Pathways for People, Skills and Generational Renewal**. For Ireland, the lesson is to strengthen experience-led consumer connection while creating clearer financial and career pathways for young operators.

Scale, Processing and Market-Led Value



Figure 11: Andrew David Johns, Regional General Manager of Operations, Fonterra

Fonterra Edendale in Southland processes approximately **15 million litres of milk daily** for global customers including **Abbott, Nestlé and Danone**.

The facility responds to market demand through **value-added protein concentrates, UHT products and lactose capture**, while using heat regeneration and rail logistics to reduce costs (recovering heat from the water used to wash the processing line, and moving product by rail rather than road to lower transport costs and emissions). Its low-cost, grass-based model reflects Ireland's core strength, while higher feed costs during adverse weather events that impact fodder availability highlight the vulnerability without market-led value protecting returns.

Alignment: Edendale reinforces the Production versus Behaviour finding: volume alone cannot protect farm-gate margins; processing must respond to changing consumer value streams and market demand.

Australia: End-to-End Integration and Supply-Chain Accountability



Figure 12: James Carter (Nuffield Australia), Jenna Sarich (Nuffield Canada), Majella Mc Cafferty (Nuffield Ireland) and Paul Gibson, Group Manager, Australian Country Choice R&D

Research across Australian systems demonstrated the value of connecting supply-chain handover points — the specific moments when an animal or product moves from one stage to the next, such as farm to feedlot, or feedlot to processor. These handovers are where information most easily gets lost, and where it becomes unclear who is responsible if something goes wrong. At Australian Country Choice (ACC) in Brisbane, the research examined a vertically integrated beef supply chain controlling 2.2 million acres, 350,000 cattle annually and processing capacity of 6,000 head per week — an operation whose scale and integration were genuinely remarkable to witness first-hand. Despite this scale, cattle were still assessed individually by experienced stock people on horseback, watching each animal by eye alongside the data systems tracking it — a reminder that even the most advanced, data-driven operations still depend on skilled human judgement.

Welfare and Quality Feedback Loops



Figure 13: Head stockperson and livestock supervisor at Australian Country Choice beef feedlot

ACC aligns animal handling with Temple Grandin's low-stress principles, linking welfare with carcase quality. Processing at 75–80 head per hour combines skilled manual operations with Meat Standards Australia (MSA) grading, creating a data-driven feedback loop between consumer specifications and the feedlot.

Clear communication across ACC's multilingual workforce supports staff, standards and consistency. Feedlot teams demonstrate skilled livestock handling, health monitoring and horseback cattle movement to minimise stress. Internal, regional and national stockperson competitions recognise excellence and strengthen teamwork, practical skills and animal-welfare standards.

Accountability Beyond the Farm Gate

Discussions with Nick Davidson (an export specialist in Australia) in New Zealand, drawing on his experience in Australian livestock export and assurance initiatives, provided insight into Australia's Exporter Supply Chain Assurance System (ESCAS), in which he was heavily involved.

ESCAS is based on animal welfare, supply-chain control, full traceability and independent auditing. It was one of the strongest assurance frameworks identified because responsibility is clear at every stage and the system can withstand rigorous scrutiny.



Figure 14: Nick Davidson (export specialist, Australia), Wanaka, New Zealand

The leadership lesson is that accountability cannot end with an organisation's immediate role. Supply-chain partners must remain involved, share information and act when problems arise. As Davidson explained:

"Everyone is passing blame, but if you want to influence outcomes, you have to stay involved."

For consumers, this provides assurance around animal welfare, traceability and accountability, supporting informed and confident purchasing decisions.

Alignment: This supports Recommendation 4: Rural Ireland and Supply-Chain Value Scorecard, demonstrating that accountability should extend beyond the farm gate, with data, environmental performance and animal welfare tracked across the supply chain.



Figure 15: Lawrence Garvey and his family, Australia

Proactive Biosecurity and System Preparedness

Work with **Lawrence Garvey, Principal Veterinarian with Biosecurity Queensland**, building on previous collaboration through **Animal Health Ireland**, highlighted the commercial value of proactive biosecurity.

Australia's surveillance for **bluetongue, avian influenza and lumpy skin disease** uses transmission mapping and rapid-response protocols to reduce risk before it reaches the supply chain. **Strategic Alignment:** Multi-agency coordination makes **animal health and biosecurity** central to supply-chain security, market access, consumer trust and economic viability.

Consolidated Takeaway



Figure 16: Beef cattle operation in Australia

The international research demonstrates that high-performing agricultural systems connect people, organisations, production, markets and accountability. For Ireland, the opportunity is not to replace existing production capability, but to strengthen the connections that protect profitability, resilience, competitiveness and shared value.

Chapter 1: A World-Class Production System with a Structural Constraint

Ireland has built one of the world's most technically advanced and respected agri-food production systems. Its strength lies in grass-based production, rigorous traceability, food safety, animal health, farmer knowledge and a strong export reputation. Across dairy, beef, suckler systems, sheep, pigs, goats, equine enterprise, marine, horticulture, tillage, processing, agri-tourism and rural as well as global commerce, the sector demonstrates significant technical capabilities.





Figure 17: Monaghan-born dairy farmer Brian Corr hosting a discussion group on his 1,000-cow dairy farm, Victoria, Australia

Producers now manage increasingly complex biological, environmental and commercial systems, balancing grassland variability, genetics and environmental compliance with **labour shortages, market volatility, public scrutiny and family succession**. Field observations suggest that the sector's vulnerability is not a lack of skill. Dairy production is technically and operationally world-class, while in suckler and sheep systems, particularly in western Ireland, the challenge is often **viability rather than capability**, with many families relying on off-farm income while managing audits, regulation and agricultural scheme requirements.

Equine and goat enterprises, horticulture and agri-tourism also demonstrate innovation, pride and skill, although fragmented systems can limit scale, premium value creation and effective supply-chain communication.

The central finding is therefore not a production weakness, but a **connection gap around production**. Farmers produce for global markets with limited real-time visibility of changing consumer behaviour or where value is created beyond the farm gate. Processors understand markets; policymakers, regulation; farmers, production; and consumers, their own lifestyles, but these different realities are not always aligned.

Supply-chain research supports this finding. Flynn, Huo and Zhao (2010) found that integration between internal functions, suppliers and customers improves operational and business performance. Strong individual organisations can therefore underperform as a system when the links between them are weak.

The Systemic Law: A system can be highly efficient in its individual parts, yet inefficient as a whole.



Figure 18: Australian wool producer getting wool ready for global buyers and customers

Behavioural science adds a second dimension. Tversky and Kahneman (1974) demonstrated that people use heuristics, or mental shortcuts, when making complex decisions, while Prospect Theory showed that decisions are strongly influenced by perception, framing and loss aversion rather than rational calculation alone (Kahneman and Tversky, 1979).

This has direct relevance to food purchasing. Consumers do not normally stand at a retail shelf analysing grass utilisation, somatic cell counts, carbon calculations or veterinary protocols. They also respond to familiarity, trust, emotion, habit, identity and meaning. Technical standards and measurements remain essential because they provide evidence and assurance, but their value must be translated into language and experiences consumers can understand.

The Strategic Reality: Consumers do not buy production systems; they buy products they understand, trust and value.

Irish agriculture has invested heavily in production efficiency, measurement, compliance and regulation. However, when these strengths are not translated into accessible language, relevant stories and lived experiences that fit modern lifestyles, opportunities to create wider market and commercial value can be lost.



Figure 19: Indonesian farmer producing eggs and building community trust despite significant challenges

Technical standards provide the proof; communication helps people understand the value.

The same disconnect is visible in traditional industry measurement. Key Performance Indicators commonly focus on volume, output, compliance, emissions and export value. These measures are essential, but do not fully capture trust, supply-chain alignment, rural vitality, behavioural change, generational renewal or community wellbeing.

Combs et al. (2006) showed that high-performance systems are strongest when individual practices operate as a connected and mutually reinforcing network. What a system measures therefore influences what it manages and prioritises.

From a Lean (a management approach focused on maximising value for the customer while systematically eliminating waste and inefficiency) perspective, weak alignment

represents waste. In agri-food systems, this is not always physical product loss; it can appear as professional friction, resistance, duplicated effort, defensive communication, missed commercial opportunities and lost margin. Value is reduced when conflicting messages confuse markets, frontline knowledge is not heard or policy does not translate into workable farm-level action.

The Operational Rule: Good decisions look excellent on paper; great decisions work in practice. (A recurring leadership insight: MMC Nuffield International Study, 2026.)

The Irish agri-food system is not weak; it is highly capable. However, its next stage of economic and social development cannot be achieved through production efficiency alone. It requires stronger connections between production, people, policy, education, research, global markets, consumer behaviour and adaptive leadership.

The limiting factor is increasingly not technical capability, but the strength of the human connections between each part of the system.

Chapter 2: Global Systems, Policy and Market Alignment



Figure 20: Engaging with women in the Indonesian market to examine consumer trends, market behaviour and cultural food preferences

This author's own field research across New Zealand, Australia, the United States, Germany, Singapore, the UAE and Indonesia showed that high-performing agricultural systems do not succeed through production volume alone. They align production, market signals, policy, education, leadership and consumer behaviour. While no system was without weaknesses, each demonstrated how stronger alignment can improve trust, market responsiveness and value creation.

Australia: Integration and Market Positioning

Australia demonstrates how **scientific research, agricultural extension, farm sustainability, school education, marketing and government policy** can operate within one visible industry framework. Policy influences farm behaviour, research supports production, education shapes public understanding, marketing builds demand and sustainability reporting supports trust. When aligned, these functions reinforce one another.



Figure 21: Jan Evert Giliam, dairy farmer, Victoria, Australia

Field research in Australia on Jan Evert Giliam's farm, milking 750 cows through a rotary parlour, offered one of the clearest examples of market-led production I encountered throughout this research. Around 250 of his cows are managed as a completely separate herd — milked, stored and transported apart from the rest — because their milk contains only the A2 version of a milk protein rather than the more common A1/A2 mix. This is not a processing choice; it is genetic, determined by which cows are selected into the herd, and it must be kept separate the whole way through to preserve that distinction. Giliam maintains this separate system because a specific segment of consumers actively seeks out A2 milk and is willing to pay a premium for it — he has built his production around what that market is asking for, rather than producing a single uniform product and hoping it sells.



Figure 22: Big M, a Bega Group flavoured-milk brand, uses targeted marketing to connect with Australian tradespeople and influence purchasing behaviour

Australia also positions milk beyond a basic commodity through **retail placement, advertising, humour and targeted consumption occasions**, including the tradesperson market. This recognises that demand can be shaped through **visibility, accessibility and positioning**.

This aligns with Zajonc's (1968) *mere exposure effect*, demonstrating that repeated familiarity can increase preference. Clear, familiar market signals can therefore influence consumer choice more effectively than technical information alone.

The Value Law: The strength of a supply chain depends not only on what it produces, but on how clearly each part understands its role in creating value for the final consumer.

New Zealand: People, Pathways and Feedback

New Zealand provides a strong example of alignment through farmer development, linking **farmer progression, industry communication, data, policy engagement and market awareness**.

The **New Zealand Dairy Industry Awards** challenge younger farmers to address real industry issues while assessing **business management, environmental performance, leadership and problem-solving**. Farmer experience, research, market signals, policy and industry communication therefore feed into one another.

The lesson for generational renewal is that attracting people into agriculture is not enough; younger farmers need meaningful roles in **solving future industry challenges**.

Ireland faces greater barriers, including **family inheritance, land ownership, succession, family dynamics and access to capital**. People are more likely to commit where they can see a credible financial future. Rosenthal and Jacobson's (1968) *Pygmalion effect* demonstrated that strong expectations, backed by appropriate support and visible pathways, can improve performance. This has direct relevance to **young farmers, women in agriculture, new entrants and rural entrepreneurs**.

United States: Clear Consumer Signals



Figure 23: Global Focus Programme participants from different Nuffield countries in Washington, D.C., examining agricultural policy, regulation and global food system leadership

The **United States** demonstrates the value of clear market segmentation, with **animal-welfare, organic, grass-fed and protein-related claims** providing visible cues at the point of purchase. While this can create hyper-segmentation, it helps consumers navigate complex choices. Behavioural research shows that consumers often use **heuristics, or mental shortcuts**, rather than evaluating an entire production system (Tversky and Kahneman, 1974). Consumers therefore respond most readily to information that is **visible, understandable and relevant**.

Singapore and the UAE: Food Security, Innovation and Consumer Trust

In **Singapore and the UAE**, dependence on food imports makes **presentation, packaging, logistics and food safety** central to consumer trust. Singapore also demonstrates how **vertical farming and controlled-environment agriculture** can strengthen future food security through technology and innovation.

The FairPrice Group Protein Pledge, a S$1 million commitment (2025–2030) to distribute fresh protein such as eggs and milk to vulnerable communities including seniors, low-income families and migrant workers, further demonstrates how retail can form part of national social infrastructure, using retail scale and community partnerships to improve access to nutritious food. This shows that food-system success should be assessed through **production, nutrition, access and wider societal value**.

Germany and Europe: Aligning Policy with Viability



Figure 24: Visiting a cereal crop field in Germany with fellow Nuffield Scholars, examining European crop production as part of this research

Germany and the wider **European Union** demonstrate the importance of balancing environmental ambition with **productive agriculture, economic viability, rural communities and food security**. Policy creates incentives and requirements that influence farm behaviour; successful policy must therefore align these objectives rather than treat them as separate priorities.

In Ireland, programmes such as ACRES (an EU-funded environmental scheme under the Common Agricultural Policy) support environmental outcomes and farm viability, particularly in suckler and sheep systems in western Ireland. Research, together with my own insights and experience across the other countries in this study, found that the strongest agricultural systems measure value more broadly than production alone — recognising a farm's contribution to people, local employment, business activity, community wellbeing and rural resilience, alongside environmental performance.

Mental health and isolation are significant problems in rural areas. A farm can be as sustainable and environmentally friendly as possible, but if the mart closes, the local shop shuts, or the contractor no longer has enough work to stay in business, people lose the everyday connections that keep them part of a community. This is the disconnection of the inter-linkages in the chain at its most human — not just a weaker supply chain, but a person left further from the community around them.

Environmental performance alone does not capture this; it is precisely the kind of value the Rural Ireland and Supply-Chain Value Scorecard recommended later in this report is designed to measure.

A small farm may contribute little to national production figures but still support marts, contractors, veterinary practices, merchants, local businesses and the wider rural economy. Its value therefore extends beyond the farm gate.

The Global Lesson

Across the countries examined, the consistent finding was that the strongest agricultural systems treat **production, education, sustainability, leadership, communication, policy and marketing as connected parts of one system**.

When aligned, these functions strengthen **economic, environmental and social value**. When separated, even strong individual organisations can become less effective within the wider system.

Chapter 3: Behaviour, Branding and Psychology



Figure 25: Learning about production and consumer branding from New Zealand beverage leaders, including Nuffield Scholar Desiree Reid

Behavioural science and global brand experience demonstrate that purchasing decisions are also shaped by emotion, habit, identity, trust, convenience and familiarity. For agricultural leadership, this creates an important challenge: understanding the consumer, and the people throughout the production chain, is as important as understanding production itself.

This extends to everyone in direct line of the consumer — chefs, hospitality teams, retail teams, sales teams and marketing teams. Anyone representing an Irish product or communicating it to an audience must understand who that audience actually is, and tailor their communication accordingly, rather than relying on the same message for everyone. The same is true throughout the chain: farmers, processors, production lines, corporate teams, policy frameworks, schemes, organisations, communication channels, and representatives of any industry in agriculture — anywhere people are involved, each has its own audience, requiring its own approach.

Trust and familiarity are built long before a purchase decision is ever made — through consistent experience, exposure and reputation. A product can meet every technical standard and still fail to connect with the consumer who has never had a reason to trust it.



Figure 26: Cadbury's Gorilla campaign demonstrates how character, music and brand combine to create emotional connection. Source: adapted from Cadbury and Fallon London's Gorilla campaign (2007)

Coca-Cola demonstrates how a simple product can be associated with happiness, celebration, family and belonging. Global brands have built their success around this behavioural reality. Coca-Cola sells far more than a beverage; it has embedded itself in rituals of family, celebration and belonging. Cadbury's iconic Gorilla campaign did not focus on ingredients or sourcing standards, yet generated significant consumer engagement through emotion, surprise and entertainment.

Emotional storytelling can create consumer engagement without focusing on technical product attributes.



Figure 27: Red Bull Rancher strongly demonstrates how branding can connect products with agricultural identity and rural culture. Photograph, Texas, USA (2025)

Red Bull built a global brand by selling identity rather than ingredients. Through extreme sports, adventure and youth culture, it positioned itself as a lifestyle brand, demonstrating that consumers buy the meaning associated with a product as much as the product itself.

Red Bull demonstrates how lifestyle, identity and community can become part of a product's value.

Likewise, major brands demonstrate how cultural relevance, visual recognition and value perception influence consumer choice.

Global brands build recognition and relevance by connecting products with culture, lifestyle and consumer identity.

Heineken positions itself around social connection, inclusivity and shared experiences rather than beer alone. Its marketing demonstrates how products can gain emotional relevance by connecting with occasions, relationships and lifestyle.

Primark: Primark does not try to win on quality. Instead, it wins by being cheap and constantly refreshing its stock with new styles, so it stays visible and top of mind — the brand people think of first when they are ready to buy, simply because it is always there and always changing. The core idea, known as "mental availability", means being **the first**

brand that pops into someone's head when they are about to make a purchase — not because it is the best, but because it is the one they see and think about most often.



Figure 28: Guinness as an example of brand, heritage and Irish cultural identity. Source: Villa, M. (2025) 'Guinness and Ireland: Heart, History, and the Modern Irish Imagination'

Guinness provides another powerful example of how heritage, distinctive branding and emotional storytelling can turn a product into a globally recognised cultural identity.

These examples demonstrate a fundamental behavioural principle: **product quality is the minimum expectation, while emotional connection, positioning and brand salience influence consumer choice**. Keller (1993) argues that customer-based brand equity exists in the consumer's mind through positive associations and familiarity.

Romaniuk and Sharp (2004) further demonstrate that brand salience — the likelihood of a brand coming to mind in a buying situation — is built through consistent exposure, emotional memory and distinctive brand assets.

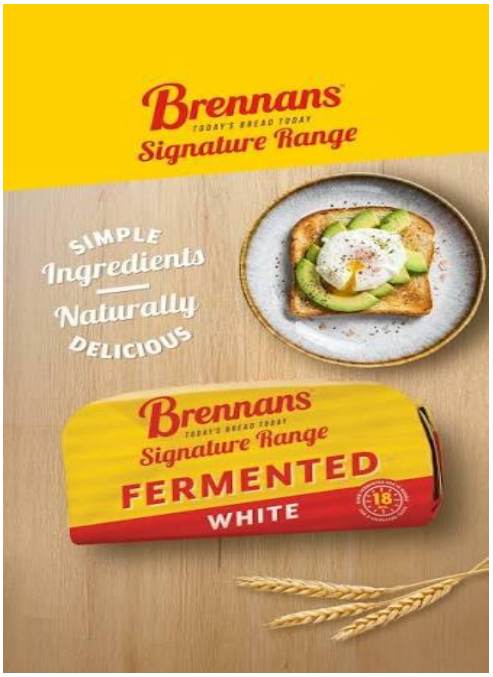


Figure 29: Brennans Bread branding. Source: Brennans Bread (n.d.)

Technical Information vs Consumer Connection

Technical production information

↓

Limited consumer engagement

↓

Purchase hesitation

Familiarity + Trust + Emotional Connection

↓

Positive mental shortcut

↓

Purchase decision

Translating Production into Consumer Value

Within the Irish market, Brennans Bread has transformed an everyday staple into a symbol of family routine, reliability and comfort. Internationally, Kerrygold has become a benchmark for Irish dairy branding.



Figure 30: Kerrygold (n.d.), adapted by the author

Kerrygold demonstrates the commercial value of connecting Irish dairy production with brand, heritage and consumer recognition. This represents an important opportunity for Irish agriculture and the next generation of consumers. Scientific standards, assurance

schemes and production credentials remain essential, but technical excellence alone does not create consumer demand.

Many consumers do not understand the technical language of the supply chain. That information must be translated into language and messages that consumers understand and value.



Figure 31: Bord Bia Origin Green logo



Figure 32: National Dairy Council logo



Figure 33: Bord Bia Quality Assurance logo

However, the connection must work in both directions. Farmers need to understand not only the standards they meet, but how their work contributes to the credentials, logos and assurances used to market Irish food nationally and internationally.

Quality assurance, sustainability, origin, traceability and production standards are not simply compliance requirements; they form part of the commercial story and value of Irish food. Farm practices — from breeding and animal care to biodiversity, water management, renewable energy, solar use, recycling and habitat creation such as wildflower areas — all contribute to this story. Origin Green, for example, helps translate these actions into measurable sustainability credentials.

The connection continues beyond the retailer. Chefs, food-service businesses and other influencers can translate these credentials into consumer choice through the products they select, the food they prepare and the experiences they create. For younger consumers, sustainability, provenance and trust increasingly sit alongside quality and experience.

The leadership responsibility is to ensure that farm-level value is understood and communicated throughout the chain:

Farmer → Processor → Brand → Retailer → Chef/Food Service → Consumer

Consumer expectations → Market signals → Retailers → Brands → Processors → Farmers

The connection must work both ways: value flows back through the chain as information flows forward.

Technical standards establish credibility; understanding their value creates connection.

Creating New Consumption Occasions

This principle was clearly demonstrated in Australian dairy and meat marketing. The industry positioned milk and meat around modern lifestyles through humour, strong branding and convenient packaging, moving them beyond traditional breakfast and dinner occasions into **every day and on-the-go consumption**.

Australian Dairy and Meat Marketing

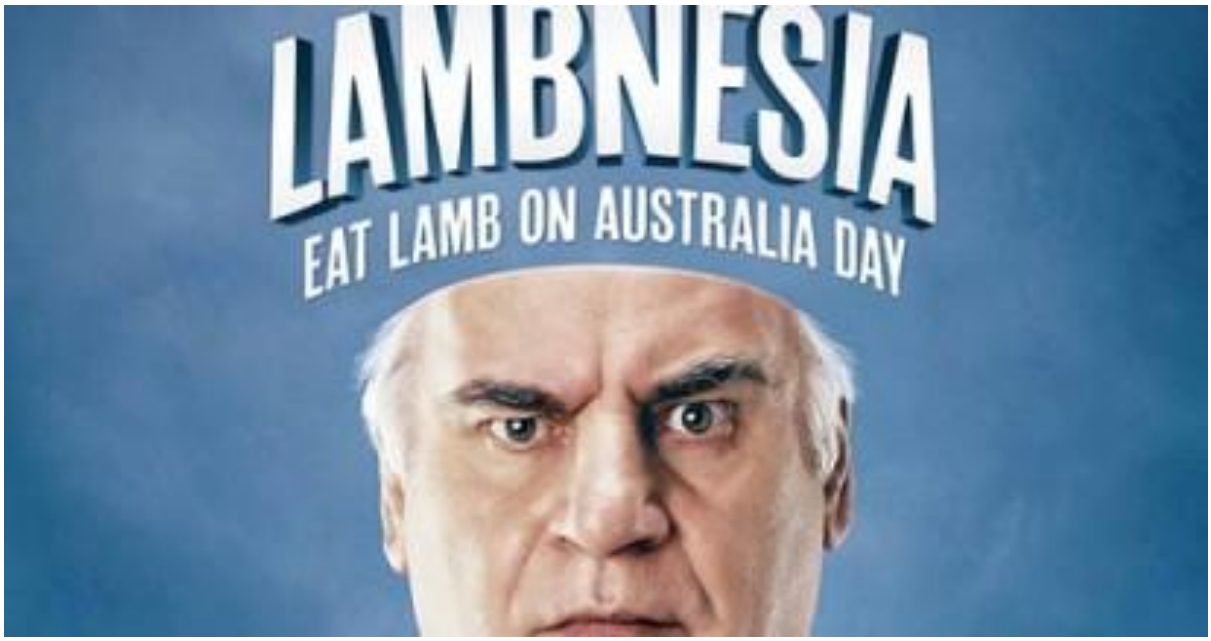


Figure 34: Meat and Livestock Australia's 'Lambnesia' campaign demonstrates how humour, national identity and cultural events can be combined to build brand engagement and cultural relevance. Source: Meat and Livestock Australia ad (2017)

Australian marketing demonstrates how traditional food products can be repositioned around modern consumption occasions.

Australia also differentiates its marketing strategy by product. Beef is promoted year-round around health, nutrition and everyday family meals, while lamb is used in major seasonal campaigns that position it as the centrepiece of national celebrations and

backyard barbecues. By creating distinct consumption occasions, the industry maintains routine purchases while reinforcing cultural relevance.

In today's hyper-connected media environment, the challenge is not a lack of information but a **shortage of consumer attention**. Organisations that succeed are those that cut through cultural noise rather than add to it.



Figure 35: KFC's Australia Day campaign. Source: KFC (2012), created by Ogilvy Sydney. Photograph by Mathew Zammit

Leadership therefore requires the industry to understand how consumers think, not simply communicate what the industry produces.

Consumer environments have also changed significantly. Traditional family breakfast routines have declined across Europe as lifestyles become increasingly mobile and fragmented. This has affected liquid milk consumption, which was historically linked to structured home breakfasts. The issue is not declining product quality but changing **consumer behaviour and purchasing contexts**.

Changing Consumer Lifestyle and Milk Consumption

Changing routines and lifestyles create new consumption occasions and alter established purchasing habits.



Figure 36: Connecting Excellence to Everyday Choices. Concept and content by the author; graphic generated, Nuffield Ireland research, 2026

Verplanken and Wood (2006) demonstrate that habits are formed through repeated contextual cues. When daily routines change, established purchasing habits change with them. Agriculture must therefore create **new consumption occasions**, rather than simply defend old ones.

The opportunity is not simply to protect existing demand, but to understand where agri-food products fit within modern lifestyles and how new products, formats, occasions and markets can be developed.

The leadership challenge in Ireland is therefore no longer simply asking why consumers are buying less liquid milk, but understanding **where premium agri-food products fit within modern lifestyles and how the industry can respond**.

This requires leadership that can connect production knowledge with consumer understanding, market insight, innovation and commercial opportunity. Production creates physical supply; behavioural alignment creates commercial demand. If the industry in Ireland does not actively shape how consumers understand, experience and use its products, changing consumer behaviour will ultimately shape the future of agriculture.

Ireland does not simply need to produce excellent food. It needs to understand how people choose, value and use food — and connect production excellence with that understanding.

Chapter 4: Education, Communication and Behavioural Infrastructure

Agricultural Education, Behaviour and Communication

Human behaviour is shaped long before purchase through **education, early exposure, social environment and lived experience**. International research shows that agricultural education and youth programmes do more than teach facts; they help develop **future consumers, citizens, policymakers, leaders and producers**.

Programmes such as Cows Create Careers in Australia (Years 5–11), Ag in the Classroom in the United States (PreK–12) and Critter Barn in Michigan, United States (from preschool age through the mid-teens) demonstrate the value of direct involvement in agriculture, each reaching students at different stages of their education. Through hands-on activities such as rearing calves, feeding and milking animals, and farmer-led mentoring, these programmes build early familiarity and trust between young people and the food system — long before they become consumers, and in some cases before they choose a career.



Figure 37: Young people participating in hands-on calf rearing at Critter Barn, demonstrating how early agricultural education builds lifelong understanding, trust and connection with food production

More than 7,000 students annually attend Critter Barn farm classes and field trips. The centre includes a dedicated dairy training unit with cows and equipment, classrooms, a structured curriculum and seasonal programmes across agricultural enterprises. Its apprenticeships, summer clubs, after-school and weekend programmes attract many children from non-farming backgrounds, whose families pay to participate.

Children care for calves, attend regularly and compete with them, developing agricultural knowledge, responsibility, confidence, friendships and social connections. The model shows how education, community and belonging can make agriculture accessible and create pathways into the sector.

"Tell me and I forget, teach me and I may remember, involve me and I learn." (often attributed to Benjamin Franklin, though the attribution is disputed; the sentiment is traceable to the Confucian philosopher Xunzi.)

Behavioural science supports this approach. Zajonc's (1968) *mere exposure effect* demonstrated that repeated positive exposure can increase familiarity and preference. Children who experience agriculture directly can carry this understanding into adulthood as **consumers, voters and citizens**; without it, perceptions may instead be shaped by media, campaigns or information encountered later in life.

The Behavioural Law: Trust is built through lived experience, not damage control.



Figure 38: Critter Barn's youth calf programme develops practical skills, responsibility and a lifelong connection to agriculture through hands-on learning

In **New Zealand and Australia**, agricultural education is linked to wider industry strategy and treated as long-term **communication and skills infrastructure**, rather than short-term public relations. Farm open days, food festivals, equine events and farmers' markets allow people to **see, experience and understand agriculture directly**, connecting urban populations with food production and rural communities.

This is particularly relevant to Ireland, where the **agri-food and equine sectors** support machinery businesses, veterinary practices, transport providers, sporting organisations,

schools and wider rural enterprise. Much of this economic and social contribution remains invisible within traditional production, export or environmental measurements.

Investment in agricultural education and experience can deliver **consumer trust, rural diversification, local income, stronger urban-rural connection, social sustainability and generational renewal**. It can also present agriculture as a modern, skilled and aspirational sector, creating a pathway from **exposure and education through skills, employment, enterprise and leadership**.



Figure 39: New Zealand Young Farmers

Communication is equally important. Hall (1976) distinguished between **high-context communication**, built around relationships and shared experience, and **low-context communication**, based on explicit information and formal language. Communication can differ between practical, relationship-based conversations at farm level and more formal communication within organisations and institutions, where technical language, data and formal processes are more common.

Social Identity Theory (Tajfel and Turner, 1979) demonstrates why the same message may be interpreted differently. Producers may view information through farming identity and heritage; policymakers through regulation and public accountability; and consumers through **family, health, values and financial pressure**.

The challenge in Irish agriculture is therefore not a shortage of communication, but insufficient **translation between audiences**. Technical information is often communicated in similar ways to people with very different needs and motivations.



Figure 40: Children in rural Indonesia: early exposure builds trust and understanding of agriculture

Simple identity-based messages such as **“No Farmers, No Food”** demonstrate the impact of clarity. In New Zealand, one co-operative provided farmers with roadside signs stating **“This is where your food comes from,”** making the connection between farms and food immediately visible to passing consumers.

The Communication Rule: Simple always wins; if a message is not clear, it will not connect. The future opportunity is to treat **agricultural education, skills development and communication as connected infrastructure**. Schools, industry, farms, research, public engagement, retail, processors and policymakers should reinforce rather than duplicate or contradict one another.



Figure 41: Ciara McGovern, next-generation suckler farmer, Drumcong, Co. Leitrim

Education → Exposure → Understanding → Skills → Careers → Enterprise → Leadership

Agricultural education should not end in the classroom. It should build **consumer understanding, future skills, stronger rural businesses, generational renewal and the next generation of agricultural leaders**.

In a connected agri-food system, education and communication are not activities outside the supply chain; they are infrastructure connecting **production, people, communities and markets**.

Chapter 5: System Misalignment, Communication and Waste



Figure 42: Traditional Indonesian sugar production within its social, economic and cultural context

Across every sector analysed, a consistent pattern emerged: **strong individual components operating within a weakly aligned system**.

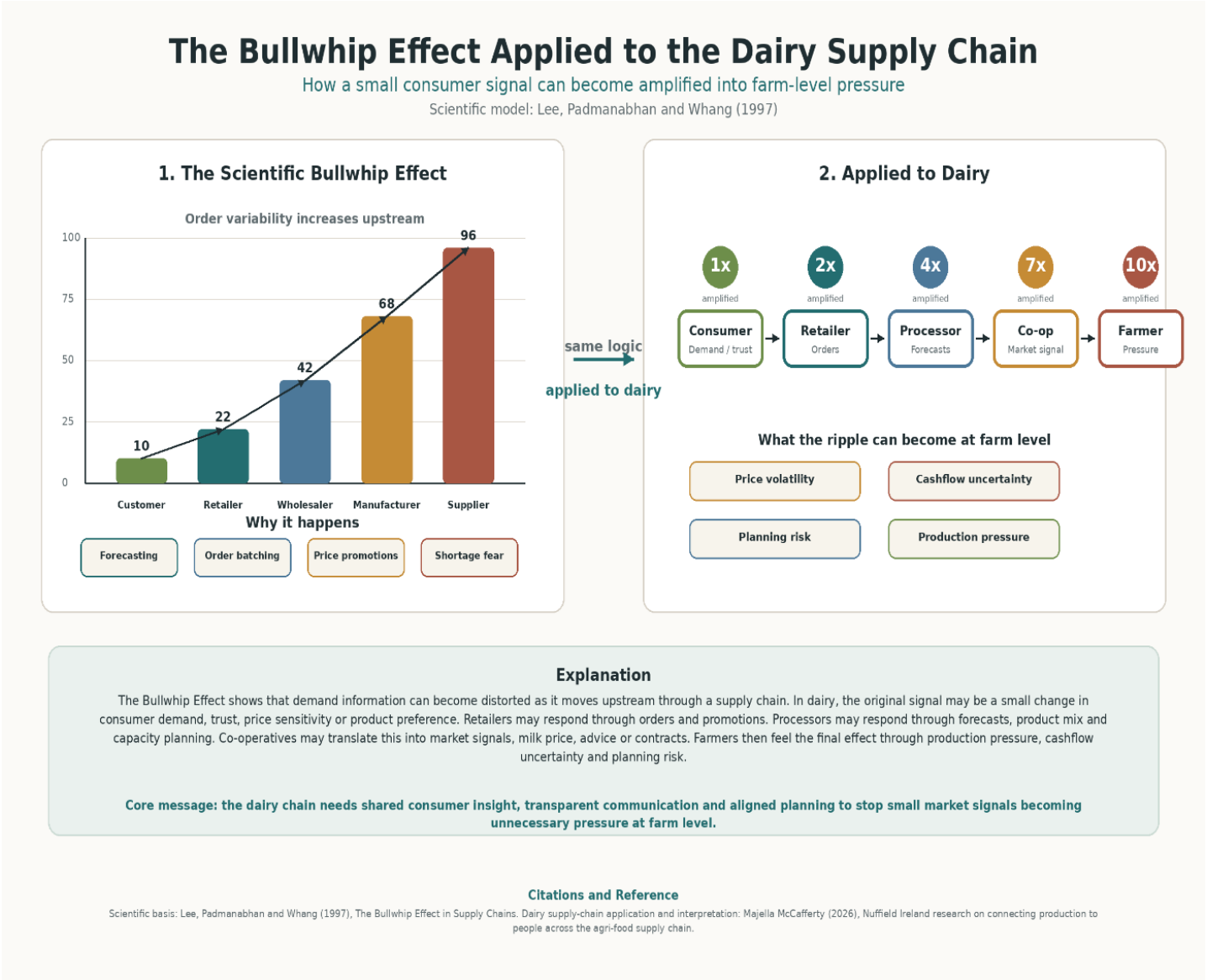
Dairy, beef, sheep, equine, pigs, horticulture, tillage, maize processing and rural tourism operate within different structures and priorities. The vulnerability is not organisational failure, but insufficient connection across one human system. Producers, processors, state agencies, representative bodies, advisory services, retailers and consumers experience the same supply chain from different realities. A suckler farmer on marginal land in Leitrim, a dairy processor supplying Asian markets, an individual implementing policy in Dublin and Europe and a parent managing a household food budget may each act logically within their environment. The problem is not that one perspective is wrong, but that perspectives can become isolated.

The Alignment Law: Every stakeholder has a valid perspective; system alignment requires understanding the reality of the next link in the chain.

Without an integrated framework, communication can circulate without creating shared understanding. Significant resources are invested in meetings, reports, environmental

schemes and representative structures, yet the system can still contain **an abundance of communication but a shortage of listening**.

This misalignment also creates economic waste. Supply-chain research shows that integrated organisational networks outperform fragmented systems (Flynn et al., 2010). The **Bullwhip Effect** demonstrates how poor communication and distorted demand signals can amplify inefficiency and cost through a supply chain (Lee, Padmanabhan and Whang, 1997). A small misunderstanding of consumer demand at retail level can become a larger production or financial problem by the time it reaches the primary producer.



In agriculture, this waste can appear as policy that is technically sound but difficult to implement; environmental schemes where compliance and long-term viability are not yet

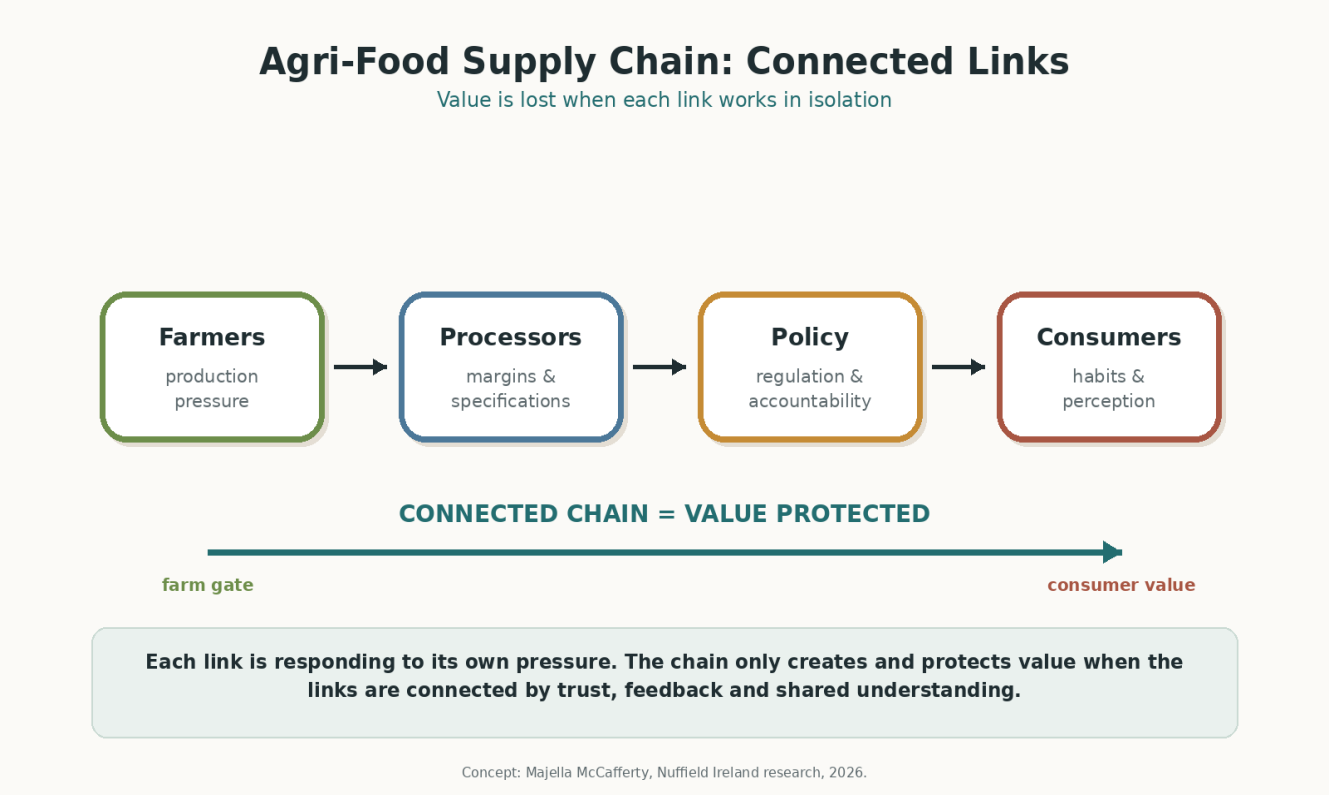
aligned; marketing that generates visibility without changing purchasing behaviour; or production focused on volume without sufficient connection to higher-value consumer demand. The Nitrates Derogation, for example, is not simply an environmental permission for many dairy farmers; it could be fundamental to farm operation and viability.

The Lean Diagnostic: Where information is blocked, value leaks from the chain.

A distinction is therefore required between **communication activity and communication impact**. A message can be widely distributed without being understood; a policy legally implemented without being accepted; and a sustainability campaign highly visible without changing behaviour.

Primary producers receive substantial information from advisers, processors, state bodies and compliance structures. Where this does not reflect **labour availability, cash-flow pressures or practical decision-making timelines**, it can be experienced as an external compliance burden rather than a route to improvement. Behaviour is more likely to change when people understand the practical **why** and see a connection to shared value.

Processors face a parallel challenge. They operate within volatile global markets, customer specifications, commercial margins and demanding product-development timelines, yet market signals are not always translated into clear, practical guidance for producers. Farmers may therefore become highly efficient at production while having limited visibility of **how value is created, protected and captured beyond the farm gate**.



Each link responds to its immediate pressures:

- **Farmers:** operational and financial realities.
- **Processors:** global customers, specifications and value creation.
- **Policymakers:** legislation and public accountability.
- **Consumers:** perception, habit, convenience and lifestyle.

None is inherently wrong, but when disconnected, the wider system becomes vulnerable under pressure.

Leadership must therefore move beyond defensive communication towards **diagnosis and problem-solving**. Resistance may indicate an unresolved practical problem rather than unwillingness to change. A producer may resist environmental policy because implementation threatens viability or does not yet reflect labour constraints; a consumer may disengage from an agricultural message because it does not connect with identity, values or convenience.

Relational Coordination Theory shows that performance improves when communication is frequent, timely, accurate and problem-solving focused, supported by shared goals, knowledge and mutual respect (Gittell, 2002). **Social capital** is similarly built through relationships, shared understanding and trust within networks (Nahapiet and Ghoshal, 1998), while trust is central to resilient relationships and relationship marketing (Morgan and Hunt, 1994).

Trust is therefore not simply a soft measure. It can reduce **defensiveness, friction and transaction costs**, improve adoption and allow stakeholders to challenge one another without damaging relationships.

The Leadership Law: Transparency builds trust. Clarity creates confidence; confusion creates hesitation.

When producers understand market signals, breeding, feeding and management can better align with customer demand. When processors understand farm-gate realities, support structures can work more effectively. When policymakers co-design frameworks with those implementing them, policy is more likely to be **practical, effective and trusted**.

The physical supply chain ultimately reflects the **human chain**. A supply chain is not only the movement of commodities; it is a continuous flow of **information, understanding, trust and value between people**.

The Rural Viability Loop

The same disconnect is visible between national strategy and what is happening on the ground in rural Ireland. Programmes at EU and national level encourage young people into farming, yet the viability of the rural communities those young farmers would be coming home to is rarely measured alongside them.

Local small and medium-sized businesses are central to this. Marts, veterinary practices, contractors, merchants, shops, pubs and post offices provide the services, employment and social connection that make rural life viable. Over the last ten years, 257 post offices have closed across the country (RTÉ, 2025), and up to 100 local shops close annually (RTÉ, 2025).

These losses form a loop. When local businesses and services are no longer viable, there is less reason for a young person to stay. When fewer young people stay, fewer farm households support those businesses, and they become less viable in turn. Over time, the community around the farm weakens, even where the farm itself is performing well.

In 2023, 38% of farm holders were aged 65 or over, 4% were under 35, and 46.5% had a succession plan in place (CSO, 2024). There is also positive news: Teagasc reported 4,220 registered farm partnerships in 2025, up from 3,836 the previous year (Teagasc, 2026).

Programmes must therefore measure the viability of rural Ireland as well as farm output, and must clearly outline the benefits to the farmer of coming into, or staying in, farming. Without this, strategies can look right on paper while the community around the farm weakens. This is why the Rural Ireland and Supply-Chain Value Scorecard is recommended later in this report.

Chapter 6: The Disconnect Across the Supply Chains

Trust and Alignment Across the Supply Chain

A consistent finding across the international research was that different parts of the supply chain often believe **“the other side does not understand.”**



Figure 43: How trust is built (Mayer, Davis and Schoorman, 1995)

Producers can feel that processors and policymakers do not understand the operational, financial and human pressures of farming. Processors can feel that producers do not fully understand market volatility, customer requirements and commercial risk. Policymakers face public accountability, climate targets and regulation, while consumers can remain disconnected from the people and systems producing their food.

This is fundamentally a trust and business alignment issue.

Trust depends on whether people believe others are capable, reliable, fair and acting with integrity (Mayer, Davis and Schoorman, 1995). Meta-analysis further supports these factors as important in building trust between people and organisations (Colquitt, Scott and LePine, 2007).

When these gaps persist, communication becomes defensive, collaboration weakens and decisions focus on protecting individual interests rather than creating shared value.

The leadership challenge is to make understanding visible and practical at each handover point. A resilient, market-responsive agri-food system requires stakeholders to understand the operational realities, commercial risks and pressures faced by the next link.

Leadership must therefore extend beyond an organisation's own responsibilities to understand what happens before and after its place in the system. Listening to the next link, understanding its constraints and using that knowledge to improve decisions creates stronger connections than simply defending one's own position.

Understanding others is not simply a social value; it is a business tool for building trust, improving alignment and strengthening supply-chain performance.

The Leadership Principle: Understand the reality of the next link before trying to change it.

Chapter 7: Strategic Recommendations

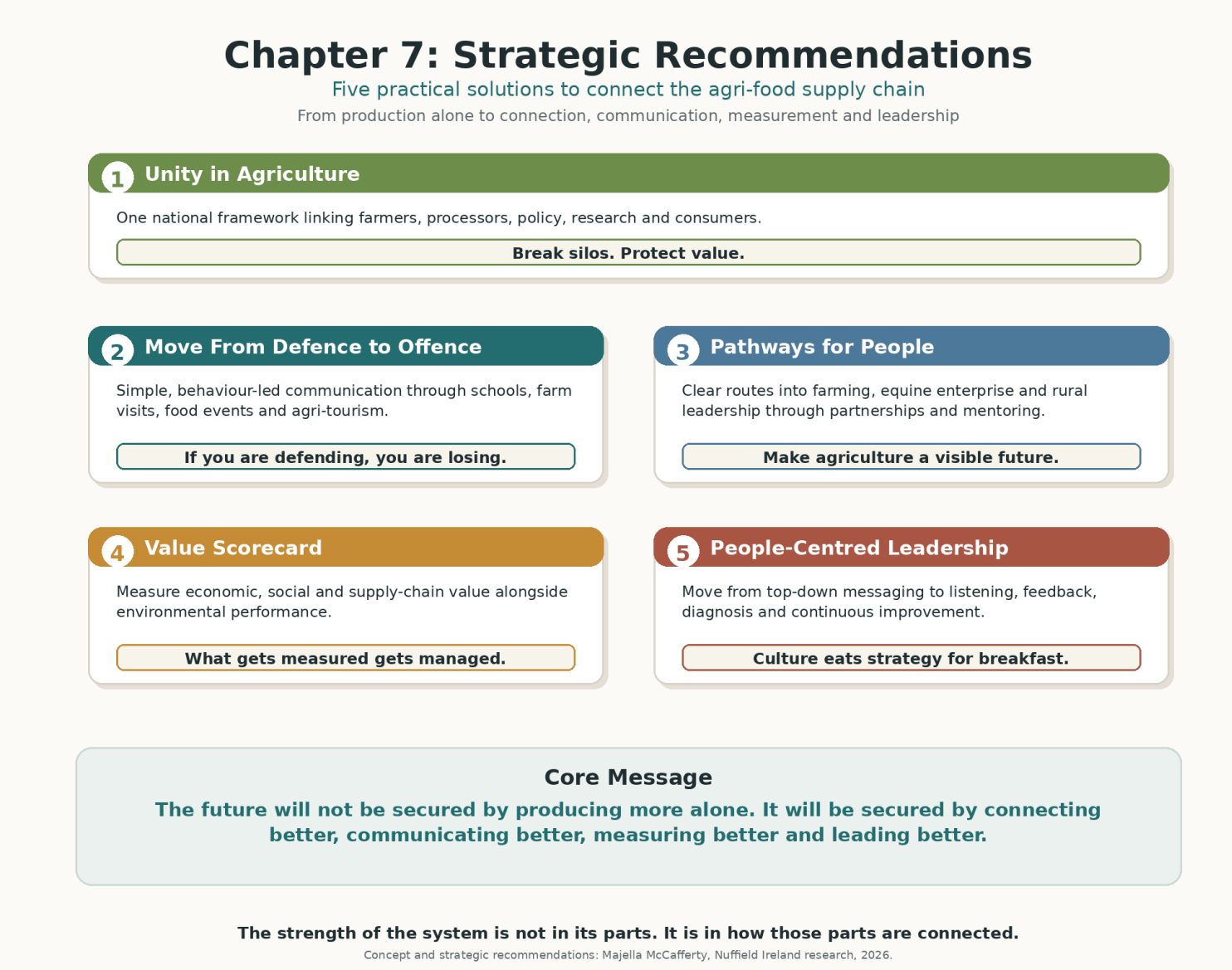


Figure 44: Connecting the Agri-Food System: Five Strategic Recommendations

The five recommendations operate together as one framework, connecting people, communication, skills, measurement and leadership across the agri-food value chain.

This research identifies five connected actions to strengthen the Irish agri-food system. They address the recurring challenges identified throughout the research: **system fragmentation, weak information flow, changing consumer behaviour, generational renewal, narrow measures of value and the need for stronger inter-linked leadership across the supply chain**.

- **Recommendation 1: Establish a National "Unity in Agriculture" Framework**

Create a national framework connecting **producers, co-operatives, processors, policymakers, researchers, educators, retailers and consumers** across agriculture, equine and rural enterprise.

Ireland already has strong organisations and technical expertise. The opportunity is to connect them through **two-way information, shared priorities, clear responsibilities, measurable outcomes and continuous feedback**, reducing duplication and ensuring decisions are understood by the next link.

This is not another organisation or meeting structure, but a **working connection between existing organisations**. Better integration would also reduce communication failures associated with the **Bullwhip Effect** (Lee, Padmanabhan and Whang, 1997), where small changes or misunderstandings at one end of the supply chain can create larger consequences elsewhere.

Leadership principle: Understand the reality of the next link in the chain.

- **Recommendation 2: Move from Defence to Behaviour-Led Communication**

Move beyond reactive, data-heavy communication towards long-term **education, experience, simplicity and understanding consumer behaviour**.

Technical assurance, traceability, animal health, sustainability measurement and food safety remain essential evidence behind Ireland's food system, but must be translated into communication consumers can understand and relate to.

This is particularly important where trust and purchasing behaviour do not align. Trust in dairy farmers to care for the environment reached **74%**, while liquid milk consumption per person has declined significantly over time. **Trust alone does not guarantee demand.**

Programmes such as **Cows Create Careers**, agricultural education, school engagement, farm open days, agri-tourism, food events and other lived experiences should therefore be treated as long-term infrastructure, not occasional public relations.

The aim is to connect agricultural standards with **modern lifestyles, identity, convenience, nutrition and consumer meaning** before purchase.

The Communication Rule: Simple always wins; if it is not clear, it is not working.

➢ Recommendation 3: Create Clear Pathways for People, Skills and Generational Renewal

Develop visible progression routes into **farming, equine enterprise, agri-food businesses and rural leadership**.

Ireland's system remains strongly influenced by **inheritance, land ownership, family succession and access to capital**. These remain important, but more emphasis should be put on other routes for talented people. **More joint ventures, contract farming, equity partnerships, management progression and structured mentorship** could create clearer pathways for young farmers, women, employees, new entrants and rural entrepreneurs.

New Zealand demonstrated the value of combining agricultural education, industry awards, mentoring and visible progression. Generational renewal is therefore not simply about attracting young people; they must see **where the journey can lead financially, professionally and personally**.

Agriculture should increasingly be presented as a sector of **enterprise, innovation, science, technology, international markets and leadership**, rather than one defined mainly by burden, hardship and compliance.

Education → Exposure → Skills → Employment → Enterprise → Leadership

➢ Recommendation 4: Introduce a Rural Ireland and Supply-Chain Value Scorecard

Measure the **economic, social and supply-chain value of agriculture alongside environmental and production measures**.

Current metrics appropriately capture **output, emissions, compliance and exports**, but do not fully reflect **rural economic activity, community resilience, trust, generational renewal, system alignment or wider agricultural value**.

A relatively small farm may contribute little to national production statistics while supporting **marts, veterinary practices, contractors, merchants, machinery businesses, transport providers, sporting organisations, schools and local employment**.

Future measurement should therefore combine environmental performance with **economic viability, local value creation, social contribution and whole-chain performance**. This would help policymakers and industry leaders identify **where value is created, where it is lost and whether investment strengthens the whole system**.

The Measurement Fix: What gets measured gets managed, and what is measured defines what is valued.

- **<u>Recommendation 5: Build People-Centred Leadership, Governance and Continuous Improvement</u>**

Embed people-centred leadership across **co-operatives, processors, boards, representative organisations and state agencies** with feedback loops that are not already engaged. Research repeatedly identified a gap between organisational strategies and the realities of those implementing them at all levels. Leadership must therefore move beyond top-down information towards **listening, diagnosis, feedback and continuous improvement**.

Resistance should not automatically indicate unwillingness to change; it may reflect **practicality, labour, cash flow, communication or understanding**. Similarly, consumer disengagement may indicate that a message has not connected with **lifestyle, identity or need**. Strategies must work in the boardroom, **within the culture and in practice**.

The Leadership Takeaway: Transparency builds trust. Clarity creates confidence.

"Culture eats strategy for breakfast." — Peter Drucker

Conclusion: From Production to Connection

Ireland has built a **world-class, technically capable agri-food and rural enterprise system**. Across dairy, beef, suckler systems, sheep, equine, pigs, goats, marine, horticulture, tillage, processing, agri-tourism and rural commerce, the research found significant knowledge, skill, innovation and commitment.

The central challenge is not the capability of the individual parts, but the **quality of the connections between them**.

Everyone is working, but not always together. Everyone is speaking, but who is listening?

Agriculture is a **human, commercial and economic system**, not simply a production system. The supply chain must move products towards markets while also moving **information, understanding, research, consumer insight and market signals in both directions**:

Production → Processing → Market → Consumer

Consumer and Customer Insight → Market Signals → Research and Innovation → Industry Strategy → Production

When these loops work, farmers understand emerging value; processors receive production aligned with customer requirements; researchers address relevant problems; policymakers understand practical consequences; and consumers receive products and messages that meet their needs.

When they break, **information becomes distorted, duplication increases, resistance develops and value leaks from the chain**.

Different countries use different systems, but the lesson is consistent: **high-performing systems connect people, information and market signals around a shared purpose**.

Leadership Across the Inter-Linkages

Future performance depends not only on leadership **within organisations, but between them**. Many risks and opportunities sit across the inter-linkages between **farmer and processor, research and practice, policy and implementation, industry and education, market and production, and agriculture and the consumer**.

Leading across these inter-linkages requires people who understand different perspectives, translate between them and take responsibility beyond their immediate organisational boundaries.

It requires asking:

What does the next person in the chain need to understand, decide or do?

This is a **business and economic opportunity**, not simply a communication issue.

Consumer Insight → Research and Innovation → Product Development → Market Opportunity → Business Value → Farm Returns → Rural and National Economic Value

Effective market intelligence can strengthen innovation, product development, market access and value creation. When value flows back through businesses and production, it supports **farm viability, employment, exports, rural enterprise and the wider national economy**.

Where policy is not understood, resistance can grow; where market signals do not reach production, opportunities are missed; and where technical assurance is not translated for consumers, strong evidence may not be recognised.

Leadership must therefore **listen before prescribing solutions**, understand the pressures facing the next link and identify the root causes of resistance or poor performance.

The Strategic Reality: Strong systems do not simply communicate more; they understand better.

Redefining Sustainability

Long-term sustainability must balance **environmental responsibility, profitability, practicality, fairness and shared value**.

Environmental progress cannot be sustained if those expected to deliver it cannot remain economically viable. Equally, commercial value is not sustainable if costs and responsibilities do not sit evenly across the chain.

Sustainability must therefore work across the whole system. If one element consistently fails, long-term implementation becomes more difficult.

This is the purpose of **Unity in Agriculture**: not to replace existing organisations, but to connect their strengths through **shared purpose, two-way information, behaviour-led communication, broader measurement, accountability and adaptive leadership**.

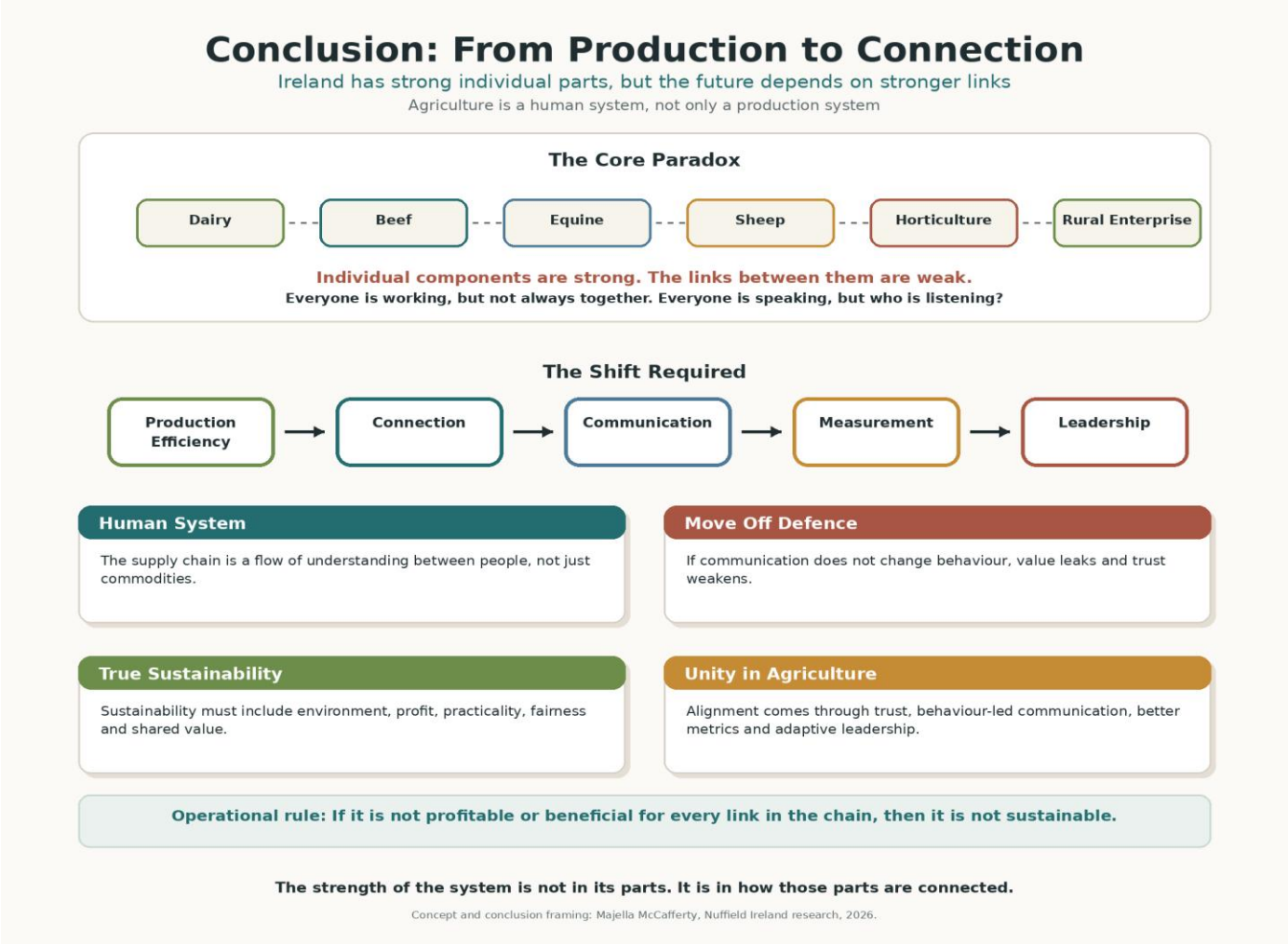


Figure 45: From Production to Connection. The future agri-food system moves beyond isolated production efficiency towards a connected, two-way value network linking production, processing, markets, consumers, research, education, policy and people

Ireland does not need to replace what already works. It needs to **connect what is already working.** The next competitive advantage in global agri-food systems will not come from production capability alone, but from connecting **production, people, knowledge, innovation and markets**. The future will be shaped by those who can **lead across the inter-linkages**.

The future of Irish agri-food will not be secured by producing more alone, but by **connecting better, communicating better and measuring better**.

The strength of the system is not only in its individual parts, but in how effectively those parts are connected.

References

Ads of the World (2017) *Lambnesia – Eat Lamb on Australia Day* [advertisement]. Available at: https://www.adsoftheworld.com/ (Accessed: 28 April 2026).

American Farm Bureau Federation (n.d.) *About the American Farm Bureau Federation*. Available at: https://www.fb.org (Accessed: 12 June 2025).

Animal Health Ireland (2025) *Annual Report 2025*. Carrick-on-Shannon: Animal Health Ireland.

Australian Government, Department of Agriculture, Fisheries and Forestry (2011) *Industry Government Working Group on Live Sheep and Goat Exports: Final Report to the Australian Government Minister for Agriculture, Fisheries and Forestry*. Canberra: Australian Government.

Bega Group (n.d.) *Big M*. Available at: https://www.begagroup.com.au (Accessed: 18 March 2025).

Bord Bia (2026) *Export Performance and Prospects 2025–2026*. Dublin: Bord Bia.

Bord Bia (2026) *Origin Green*. Dublin: Bord Bia. Available at: https://www.origingreen.ie (Accessed: 22 May 2026).

Bord Bia (2026) *Sustainability and Quality Assurance*. Dublin: Bord Bia. Available at: https://www.bordbia.ie (Accessed: 22 May 2026).

Brennans Bread (n.d.) *Brennans Signature Range*. Available at: https://brennansbread.ie/brennans-signature-range (Accessed: 5 November 2026).

Brennans Bread (n.d.) *Our Story*. Dublin: Joseph Brennan Bakeries. Available at: https://www.brennansbread.ie (Accessed: 28 May 2026).

Brett Cattle Company Pty Ltd v Minister for Agriculture [2020] FCA 732, Federal Court of Australia.

Cadbury (2007) *Gorilla* [advertising campaign]. Available at: https://www.cadbury.co.uk (Accessed: 28 April 2026).

Central Statistics Office (CSO) (2003) *Milk Statistics December 2003*. Cork: Central Statistics Office.

Central Statistics Office (CSO) (2016) *Milk Statistics December 2015*. Cork: Central Statistics Office.

Central Statistics Office (CSO) (2017) *Household Budget Survey 2015–2016*. Cork: Central Statistics Office.

Central Statistics Office (CSO) (2021) *Statistical Yearbook of Ireland 2021*. Cork: Central Statistics Office.

Central Statistics Office (CSO) (2024) *Farm Structure Survey 2023*. Cork: Central Statistics Office.

Central Statistics Office (CSO) (2024) *Population and Migration Estimates, April 2024*. Cork: Central Statistics Office.

Central Statistics Office (CSO) (2025) *Milk Statistics December 2024*. Cork: Central Statistics Office.

Central Statistics Office (CSO) (2025) *Milk Sales (Dairy) for Human Consumption – Type of Milk and Year 1992–2024* [dataset]. Cork: Central Statistics Office.

Chaiken, S. (1980) 'Heuristic versus systematic information processing and the use of source versus message cues in persuasion', *Journal of Personality and Social Psychology*, 39(5), pp. 752–766.

Christopher, M. (2022) *Logistics and Supply Chain Management*. 6th edn. Harlow: Pearson.

Cialdini, R.B. (2021) *Influence: The Psychology of Persuasion*. New and expanded edn. New York: Harper Business.

CIMMYT (2024) *Annual Report 2024*. Texcoco: International Maize and Wheat Improvement Center.

Coca-Cola Company (n.d.) *The History of the Coca-Cola Christmas Truck*. Available at: https://www.coca-cola.com (Accessed: 28 April 2026).

Colquitt, J.A., Scott, B.A. and LePine, J.A. (2007) 'Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance', *Journal of Applied Psychology*, 92(4), pp. 909–927.

Combs, J., Liu, Y., Hall, A. and Ketchen, D. (2006) 'How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance', *Personnel Psychology*, 59(3), pp. 501–528.

Critter Barn (n.d.) *Education and Field Trip Programmes*. Zeeland, MI: Critter Barn. Available at: https://www.critterbarn.org (Accessed: 14 June 2025).

D&AD (2008) *Cadbury Gorilla Case Study*. Available at: https://www.dandad.org (Accessed: 28 April 2026).

Dairy Australia (2024) *Annual Report 2023–24*. Melbourne: Dairy Australia.

Dairy Australia (n.d.) *School Education: Discover Dairy and Cows Create Careers*. Melbourne: Dairy Australia. Available at: https://www.dairyaustralia.com.au (Accessed: 21 March 2025).

DairyNZ (2024) *Annual Report 2023/24*. Hamilton: DairyNZ.

Department of Agriculture, Fisheries and Forestry (Australia) (2023) *Exporter Supply Chain Assurance System (ESCAS)*. Canberra: Australian Government.

Department of Agriculture, Food and the Marine (2024) *Annual Review and Outlook for Agriculture, Food and the Marine 2024*. Dublin: Department of Agriculture, Food and the Marine.

Edmondson, A.C. (1999) 'Psychological safety and learning behavior in work teams', *Administrative Science Quarterly*, 44(2), pp. 350–383.

Elkington, J. (1997) *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. Oxford: Capstone.

Eurostat (2023) *Key Figures on the European Food Chain – 2023 Edition*. Luxembourg: Publications Office of the European Union.

FairPrice Foundation (2026) *Protein Pledge and Community Nutrition Initiatives*. Singapore: FairPrice Foundation. Available at: https://www.fairpricegroup.com.sg (Accessed: 28 June 2026).

Flynn, B.B., Huo, B. and Zhao, X. (2010) 'The impact of supply chain integration on performance: A contingency and configuration approach', *Journal of Operations Management*, 28(1), pp. 58–71.

Food and Agriculture Organization of the United Nations (FAO) (2024) *The State of Food and Agriculture 2024*. Rome: FAO.

Fonterra Co-operative Group Limited (2024) *Annual Report 2024*. Auckland: Fonterra Co-operative Group Limited.

Gittell, J.H. (2002) 'Coordinating mechanisms in care provider groups: Relational coordination as a mediator and input uncertainty as a moderator of performance effects', *Management Science*, 48(11), pp. 1408–1426.

Goleman, D. (1998) *Working with Emotional Intelligence*. London: Bloomsbury.

Grunert, K.G. (2005) 'Food quality and safety: Consumer perception and demand', *European Review of Agricultural Economics*, 32(3), pp. 369–391.

Grunert, K.G. (2011) 'Sustainability in the food sector: A consumer behaviour perspective', *International Journal on Food System Dynamics*, 2(3), pp. 207–218.

Hall, E.T. (1976) *Beyond Culture*. New York: Anchor Books.

Harter, J.K., Schmidt, F.L. and Hayes, T.L. (2002) 'Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis', *Journal of Applied Psychology*, 87(2), pp. 268–279.

Heineken (n.d.) *Brand Stories and Campaigns*. Amsterdam: Heineken. Available at: https://www.theheinekencompany.com (Accessed: 28 April 2026).

Irish Universities Nutrition Alliance (IUNA) (2021) *National Teens' Food Survey II: Summary Report*. Dublin: Irish Universities Nutrition Alliance.

Jiang, K., Lepak, D.P., Hu, J. and Baer, J.C. (2012) 'How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms', *Academy of Management Journal*, 55(6), pp. 1264–1294.

Kahneman, D. (2011) *Thinking, Fast and Slow*. London: Allen Lane.

Kahneman, D. and Tversky, A. (1979) 'Prospect theory: An analysis of decision under risk', *Econometrica*, 47(2), pp. 263–291.

Keller, K.L. (1993) 'Conceptualizing, measuring, and managing customer-based brand equity', *Journal of Marketing*, 57(1), pp. 1–22.

Kerrygold (n.d.) *Our Story*. Dublin: Ornua. Available at: https://www.kerrygold.com (Accessed: 28 March 2026).

KFC (2012) *Australia Day* [print advertisement]. Created by Ogilvy Sydney. Photograph by Mathew Zammit. Available at: https://www.adsoftheworld.com/media/print/kfc_australia_day (Accessed: 5 November 2026).

Kotter, J.P. (2012) *Leading Change*. Boston, MA: Harvard Business Review Press.

Lee, H.L., Padmanabhan, V. and Whang, S. (1997) 'The bullwhip effect in supply chains', *Sloan Management Review*, 38(3), pp. 93–102.

Leitrim Hill Creamery (n.d.) *About Us*. Co. Leitrim: Leitrim Hill Creamery. Available at: https://www.leitrimhillcreamery.ie (Accessed: 16 May 2026).

Leuschner, R., Rogers, D.S. and Charvet, F.F. (2013) 'A meta-analysis of supply chain integration and firm performance', *Journal of Supply Chain Management*, 49(2), pp. 34–57.

Livestock Improvement Corporation (LIC) (2024) *Annual Report 2024*. Hamilton: Livestock Improvement Corporation.

Mayer, R.C., Davis, J.H. and Schoorman, F.D. (1995) 'An integrative model of organizational trust', *Academy of Management Review*, 20(3), pp. 709–734.

Meat and Livestock Australia (2024) *Annual Report 2023–24*. North Sydney: Meat and Livestock Australia.

Meat and Livestock Australia (2024) *Summer Lamb Campaign*. North Sydney: Meat and Livestock Australia. Available at: https://www.mla.com.au/marketing-beef-and-lamb/marketing-campaigns/summer-lamb/ (Accessed: 23 March 2025).

Meat and Livestock Australia (n.d.) *Meat Standards Australia: Grading and Eating Quality*. North Sydney: Meat and Livestock Australia. Available at: https://www.mla.com.au (Accessed: 24 March 2025).

Monteiro, C.A., Cannon, G., Lawrence, M., Costa Louzada, M.L. and Pereira Machado, P. (2019) *Ultra-processed Foods, Diet Quality, and Health Using the NOVA Classification System*. Rome: Food and Agriculture Organization of the United Nations.

Morgan, R.M. and Hunt, S.D. (1994) 'The commitment-trust theory of relationship marketing', *Journal of Marketing*, 58(3), pp. 20–38.

Nahapiet, J. and Ghoshal, S. (1998) 'Social capital, intellectual capital, and the organizational advantage', *Academy of Management Review*, 23(2), pp. 242–266.

National Association of State Departments of Agriculture (NASDA) (n.d.) *About NASDA*. Arlington, VA: NASDA. Available at: https://www.nasda.org (Accessed: 10 June 2025).

National Dairy Council (2024) *The Contribution of Dairy Foods to the Nutritional Quality of Irish Teenagers' Diets: Key Findings from Dairy-Specific Analysis of the National Teens' Food Survey II*. Dublin: National Dairy Council.

National Dairy Council (2024) *The Dairy 2024*. Dublin: National Dairy Council.

National Dairy Council (2026) 'New National Dairy Council research shows public trust in Irish dairy farmers' care for the environment climbs to 74%', 13 January. Dublin: National Dairy Council. Available at: https://ndc.ie (Accessed: 18 January 2026).

New Zealand Dairy Industry Awards (2024) 'Strong, balanced partnership wins 2024 New Zealand Dairy Industry Awards', 11 May. Available at: https://www.dairyindustryawards.co.nz (Accessed: 13 March 2025).

Nike (n.d.) *Purpose and Brand*. Beaverton, OR: Nike. Available at: https://about.nike.com (Accessed: 27 April 2026).

Organisation for Economic Co-operation and Development (OECD) (2024) *Agricultural Policy Monitoring and Evaluation 2024*. Paris: OECD Publishing.

Ornua Co-operative Limited (2025) *Annual Report 2024*. Dublin: Ornua Co-operative Limited.

Popkin, B.M. (2006) 'Global nutrition dynamics: The world is shifting rapidly toward a diet linked with noncommunicable diseases', *The American Journal of Clinical Nutrition*, 84(2), pp. 289–298.

Primark (n.d.) *Our Business*. Dublin: Primark. Available at: https://www.primark.com (Accessed: 28 April 2026).

Romaniuk, J. and Sharp, B. (2004) 'Conceptualizing and measuring brand salience', *Marketing Theory*, 4(4), pp. 327–342.

Rosenthal, R. and Jacobson, L. (1968) *Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development*. New York: Holt, Rinehart and Winston.

RTÉ (2025) '257 post offices closed across Ireland over last ten years', 8 July. Available at: https://www.rte.ie/news/ireland/2025/0708/1522418-post-offices (Accessed: 4 November 2026).

RTÉ (2025) 'Rising costs among retailers' concerns as up to 100 local shops close annually - CSNA', 8 June. Available at: https://www.rte.ie/news/business/2025/0608/1517364-retail-shops-closures (Accessed: 4 November 2026).

Schein, E.H. and Schein, P.A. (2021) *Organizational Culture and Leadership*. 5th edn. Hoboken, NJ: John Wiley and Sons.

Senge, P.M. (2006) *The Fifth Discipline: The Art and Practice of the Learning Organization*. Revised edn. New York: Currency/Doubleday.

Tajfel, H. and Turner, J.C. (1979) 'An integrative theory of intergroup conflict', in Austin, W.G. and Worchel, S. (eds.) *The Social Psychology of Intergroup Relations*. Monterey, CA: Brooks/Cole, pp. 33–47.

Teagasc (2025) *Annual Report and Financial Statements 2024*. Carlow: Teagasc.

Teagasc (2026) *Rise in registered farm partnerships*. Available at: https://teagasc.ie/news--events/daily/rise-in-registered-farm-partnerships/ (Accessed: 4 November 2026).

Thorning, T.K., Bertram, H.C., Bonjour, J.P., de Groot, L., Dupont, D., Feeney, E., Ipsen, R., Lecerf, J.M., Mackie, A., McKinley, M.C., Michalski, M.C., Rémond, D., Risérus, U., Soedamah-Muthu, S.S., Tholstrup, T., Weaver, C., Astrup, A. and Givens, I. (2017) 'Whole

dairy matrix or single nutrients in assessment of health effects: Current evidence and knowledge gaps', *The American Journal of Clinical Nutrition*, 105(5), pp. 1033–1045.

Tversky, A. and Kahneman, D. (1974) 'Judgment under uncertainty: Heuristics and biases', *Science*, 185(4157), pp. 1124–1131.

Vermeir, I. and Verbeke, W. (2006) 'Sustainable food consumption: Exploring the consumer attitude–behavioural intention gap', *Journal of Agricultural and Environmental Ethics*, 19(2), pp. 169–194.

Verplanken, B. and Wood, W. (2006) 'Interventions to break and create consumer habits', *Journal of Public Policy and Marketing*, 25(1), pp. 90–103.

Villa, M. (2025) 'Guinness and Ireland: Heart, History, and the Modern Irish Imagination', *Pints and Power*, 4 September. Available at: https://www.pintsandpower.com/guinness-modern-irish-imagination-history-identity/ (Accessed: 5 November 2026).

Warde, A. (2016) *The Practice of Eating*. Cambridge: Polity Press.

Wood, W. and Neal, D.T. (2009) 'The habitual consumer', *Journal of Consumer Psychology*, 19(4), pp. 579–592.

World Health Organization (2023) *Healthy Diet*. Geneva: World Health Organization.

Zajonc, R.B. (1968) 'Attitudinal effects of mere exposure', *Journal of Personality and Social Psychology Monograph Supplement*, 9(2, Part 2), pp. 1–27.

Plain English Compendium Summary

Connecting Production to People

Across Global Agri-Food Systems

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Ireland has a **world-class agri-food production system**, but its next opportunity is not production alone. It is connecting production more effectively with **people, markets, policy, research, education and consumers**.

The research found strong individual organisations and technical capability across the system, but weaker connections between them. Farmers, processors, policymakers, researchers and consumers often operate logically within their own realities without always seeing the pressures, information or opportunities facing the next link.

Value is lost where the chain disconnects. Value is created where the chain aligns.

Why It Matters

Strong production, high standards and public trust do not automatically create consumer demand or maximise value. The dairy sector illustrates this: production and exports have expanded and trust in dairy farmers has strengthened, while domestic liquid milk consumption has declined.

Consumers respond not only to technical evidence, but to **price, habit, convenience, trust, identity and lifestyle**. Technical standards provide the proof; they must also be translated into something people understand and value.

The same principle applies inside the supply chain. Market signals must reach farmers, farm realities must reach policymakers and processors, research must translate into practice, and consumer insight must flow back towards production and innovation.

Global Research

Field research across **Ireland, New Zealand, Australia, the United States, Germany, Singapore, Indonesia, Malaysia, Mexico, the UAE, Qatar, the United Kingdom, the Netherlands, Switzerland and Brussels** showed different approaches but one consistent lesson.

New Zealand demonstrated pathways for people and generational renewal; **Australia**, integration, accountability, biosecurity and market feedback; the **United States**, consumer segmentation and agricultural education; **Singapore, Malaysia, Indonesia, the UAE and Qatar**, different approaches to food security, logistics, consumer markets and innovation; **Germany and Europe**, the importance of balancing environmental ambition with economic and rural viability; and **Mexico, through CIMMYT**, the value of connecting research with practical farm adoption.

High-performing agri-food systems connect people, knowledge and market signals around a shared purpose.

Key Findings

Production: Ireland's challenge is not capability; it is connection.

Consumers: Technical excellence provides proof, but behaviour is shaped by **trust, familiarity, convenience, identity and experience**.

Communication: More communication does not automatically mean more understanding.

Education: Agricultural education is long-term infrastructure for **trust, skills, careers and future leadership**.

People: Generational renewal requires more than succession. It requires visible pathways:

Education → Exposure → Skills → Employment → Enterprise → Leadership

Measurement: What gets measured influences what gets managed and valued.

Leadership: Future performance will depend not only on leadership within organisations, but **between them**.

Consumer Insight → Research and Innovation → Product Development → Market Opportunity → Business Value → Farm Returns → Rural and National Economic Value

Five Recommendations

- **Connect the System**

Establish a **National Unity in Agriculture Framework** linking farmers, industry, government, research, education, markets and consumers through two-way information, shared priorities and accountability.

- **2. Translate, Do Not Just Communicate**

Build **behaviour-led education and communication** that turns strong technical standards into clear, relevant messages and lived experiences.

- **3. Build Pathways for People**

Create clearer routes into **farming, agri-food, equine enterprise and rural leadership** through mentoring, management progression, partnerships and enterprise opportunities.

- **4. Measure the Value That Matters**

Introduce a **Rural Ireland and Supply-Chain Value Scorecard**, measuring economic, social and rural contribution alongside production and environmental performance.

- **5. Lead Across the Inter-Linkages and Connections**

Build people-centred leadership based on **listening, diagnosis, feedback and continuous improvement**, ensuring decisions work in the boardroom **and on the tractor seat**.

Listen first. Understand the problem. Connect the people. Then act.

Some of the greatest opportunities and risks in agriculture sit at the interfaces between **farmer and processor, research and practice, policy and implementation, industry and education, production and markets, and agriculture and the consumer**.

Strong leadership must be capable of connecting these different realities.

"The future will be shaped by those who can lead across the supply-chain inter-linkages."

"Ireland's next competitive advantage will not come from producing more food alone. It will come from connecting production to people."

The strength of the system is not only in its individual parts, but in how effectively those parts are connected.