



Final Report to the Project Board from the
Working Group
January 2013

Introduction

- This document provides a summary of the findings and recommendations from the Horizon 2020 project undertaken in 2012 by a Working Group in accordance with a project brief developed with Dairy Australia and Gardiner Foundation.
- This work has been undertaken by exploring factors likely to affect the future role, position, and structure of the Australian industry in 2020. It has been carried out through conversations with dairy and food industry participants, other influencers and opinion leaders in Australian and overseas. This group has also drawn on research and analysis of these factors as well as the industry's current position.

Table of contents

Section & content		Page
	Executive summary	4
1	Findings from the research	14
2	Future industry scenarios	53
3	Today's challenges	67
4	Recommendations	73
5	Where to from here?	83
	Appendix 1 - Recommendations	88
	Appendix 2 – Approach	104
	Appendix 3 – Detailed scenarios	111

The Horizon 2020 Working Group members are:

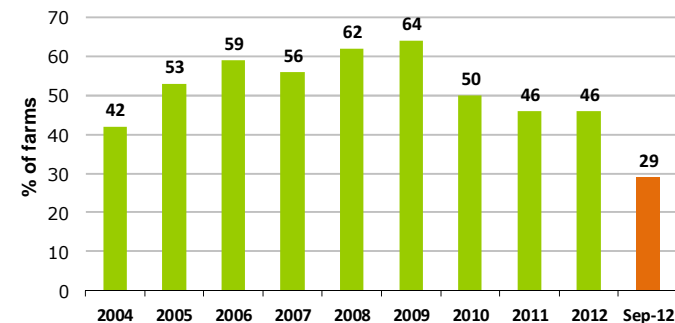
- Simon Bennett – Dairy farmer
- Joanne Bills – Manager, Strategy & Knowledge, Dairy Australia
- Richard Cross – Dairy farmer, Director, Bega Cheese Limited
- Peter Evans – Dairy farmer, Director Australian Dairy Farmers Limited
- Corrie Goodwin – (former) General Manager Operation, DFSV
- David Koch – Director, Koch Management Group
- Quentin Moxey – Dairy farmer
- Matt Reid – Dairy farmer; Director Westvic Dairy
- Steve Spencer – Industry analyst; Director, Freshagenda

The Horizon 2020 Working Group would like to thank the generous contribution and input of a great number of organisations (as listed in Appendix 1) and individuals to this work, and the boards and management of the project sponsors Dairy Australia and the Gardiner Foundation.

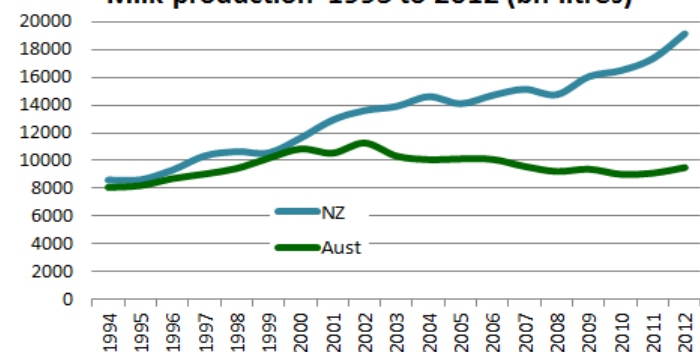
The purpose of the project

- This project was commissioned by Dairy Australia and the Geoffrey Gardiner Dairy Foundation to provide medium to long term priorities.
- One of the key aims of the work is to assist “raising the sights” above short-term preoccupations and distractions which have affected industry priorities in recent years. It has been undertaken at a time when the Australian industry has been through a long period of flat production and is now at a crossroad – with a growing world market for dairy, yet declining certainty of dairy farmers as to their future involvement.
- This would be achieved by:
 - a) Developing views as to what might our industry look like in 5-10 years, matching timelines of investments made by dairy farmers
 - b) Understanding medium and long term priorities to put the industry in the best position to operate successfully in that future
 - c) Identify what future capabilities and capacities will be required
 - d) Understand what leadership will be required – in terms of people and organisations
- The work has been undertaken with an objective of providing constructive direction and recommendations as to areas where Dairy Australia and Geoffrey Gardiner Dairy Foundation should invest.
- Investors in this process also sought that this should create an ongoing process of insights and thought leadership to guide industry decision-making in future, and to monitor progress on follow-up to this initiative.

Surveyed intentions - % of farmers who intend to have larger output in 3 years



Milk production 1995 to 2012 (bn litres)



Executive Summary

We need to think differently

Looking long, thinking differently

- This project has explored possible future scenarios for the Australian dairy industry in 2020 and described a desirable outcome.
- A set of strategic imperatives have been developed from this analysis that the Working Group believes is critical to reposition the industry; create the necessary farm business “fitness”; a positive and proactive culture; and industry leadership to succeed in achieving a desired future in 2020.
- These imperatives will require industry to do a number of fundamentally new things and to address existing agendas differently compared to today.
- Horizon 2020 is **the start of a process** to stimulate the Australian dairy industry **to focus on the future** – the opportunities that this future presents and what it will demand of our industry.
- The Australian dairy industry sits at crossroads. It hasn't grown as an industry over the past decade and has a **diminished global standing and reputation**. Poor seasons cut capacity, but the uncertainty has been worsened by our its own capabilities and attitudes.
- Due to climate and market volatility, the industry has been faced with an increasingly complex set of management and technical issues on farm. While investing to respond to issues , in general it has **lost the ability to successfully manage and grow dairy farm wealth over time** through inevitable commodity cycles. Industry has highlighted specific challenges, but underdone the creation of effective whole-business solutions. In deference to those who aren't coping, **dairy does not celebrate success, which limits dairy's attractiveness as a place to work and invest** .
- Rather than seeing opportunity in volatility to harvest the highs and manage the lows, a **short-term preoccupation with risk has hampered the ability to respond to a growing dairy market**.
- Milk supply constraints have resulted in under-investment in technology and scale in our dairy factories – as a result **Australian dairy is not cost-competitive in our supply chain**. The industry operates as a fragmented, competitive model, with small, high-cost plants by world standards, and limited integration into customers' businesses.
- The community will demand more accountability for dairy's practices and impacts in future. There is generally a negative perception that addressing these requirements will **add cost and deliver few benefits**.
- Dairy's **advocacy models are outdated and under-resourced** to positively influence these agendas on terms that address industry needs and circumstances.

What we did – an overview

1. Investigated future agendas

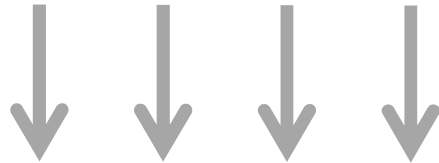
The project working group has applied a process that is outlined below, the findings of which are explained in the detailed report. The development of divergent but plausible scenarios of the future helped shape a clear picture of a desired outcome for the industry if it positively responded to the future.

2. Built scenarios of the future

Desired Future Outcome

Realities of “today”

3. Developed “imperatives”



Recommendations

The working group has identified a set of recommendations to the project investors and stakeholders to address industry’s opportunities and risks. The package of outputs does not represent a strategic plan for the industry or the investors, as each party will decide how to draw from the insights and recommendations according to their respective roles.

Findings

Agendas shaping the future

Global dairy landscape



Future world order



Feeding the World



Community, consumer & customer



Sustainability agenda



Enterprise wealth



Innovation



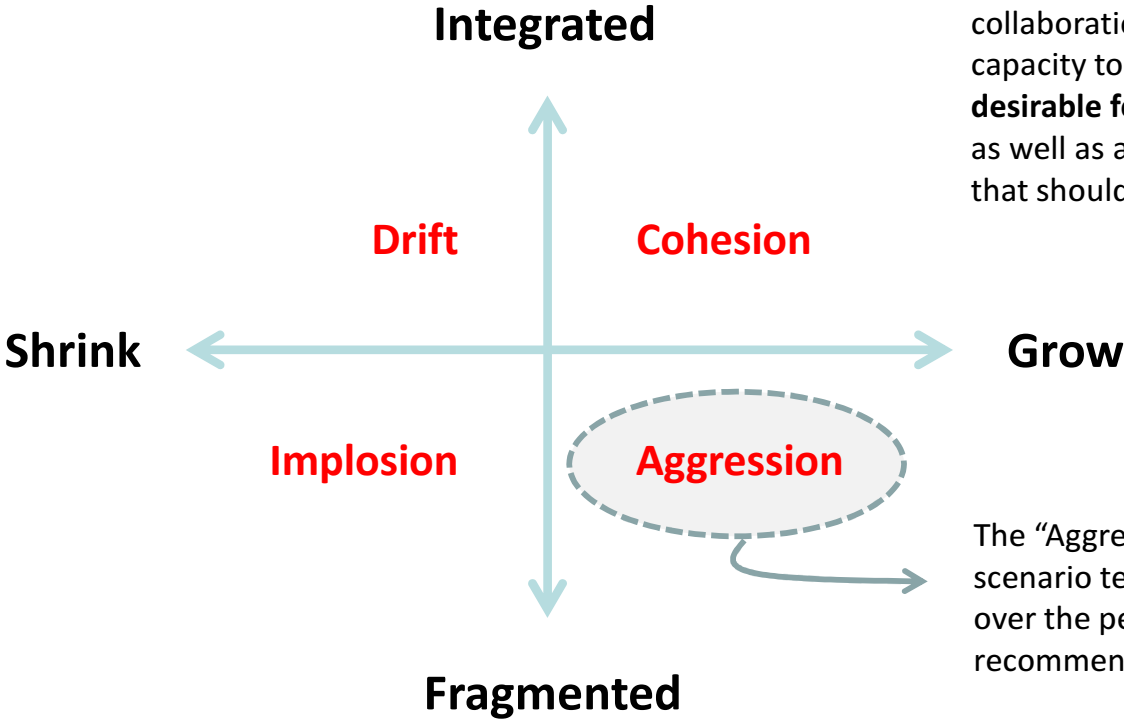
Key findings from the Working Group

1. The changing world order is driving rising demand for food commodities in the developing world.
2. While “affordability” will be critical to maintaining dairy’s role in addressing nutritional needs of a significant proportion of the population, the **expanding world market** for dairy products and ingredients provides **significant opportunity** for the Australian industry.
3. Over time, while the market for dairy products will continue to grow, more volatility of incomes and input costs is also a certainty.
4. The Australian industry has a **window of time to get its act together** – competitors are more agile, shoring up trade alliances, harnessing innovation and moving closer to consumers driving growth in world demand.
5. Meanwhile dairy’s **licenses to operate and sell** are being rapidly shaped by rising community expectations for sustainable outcomes.
6. The Australian industry needs to grow if we are to remain relevant and meet our growing customers’ requirements.
7. Sustained profitable growth can only come from farms with a **long-term vision of wealth creation** that are equipped with the capacity and capability to **ride the inevitable volatility** in milk returns, climate and input costs.
8. Accordingly, industry’s collective efforts should be focused on putting in place **the ingredients to meet that challenge** over the medium to long term. The imperatives for the Australian industry and the recommendations to the investors and stakeholders in this project specifically address these ingredients.



The future scenarios

The process developed a number of alternate future scenarios for the industry in 2020 which are based on different degrees of **industry integration** and different outcomes in terms of **industry size and value**. These scenarios are described in Section 2 of this report.

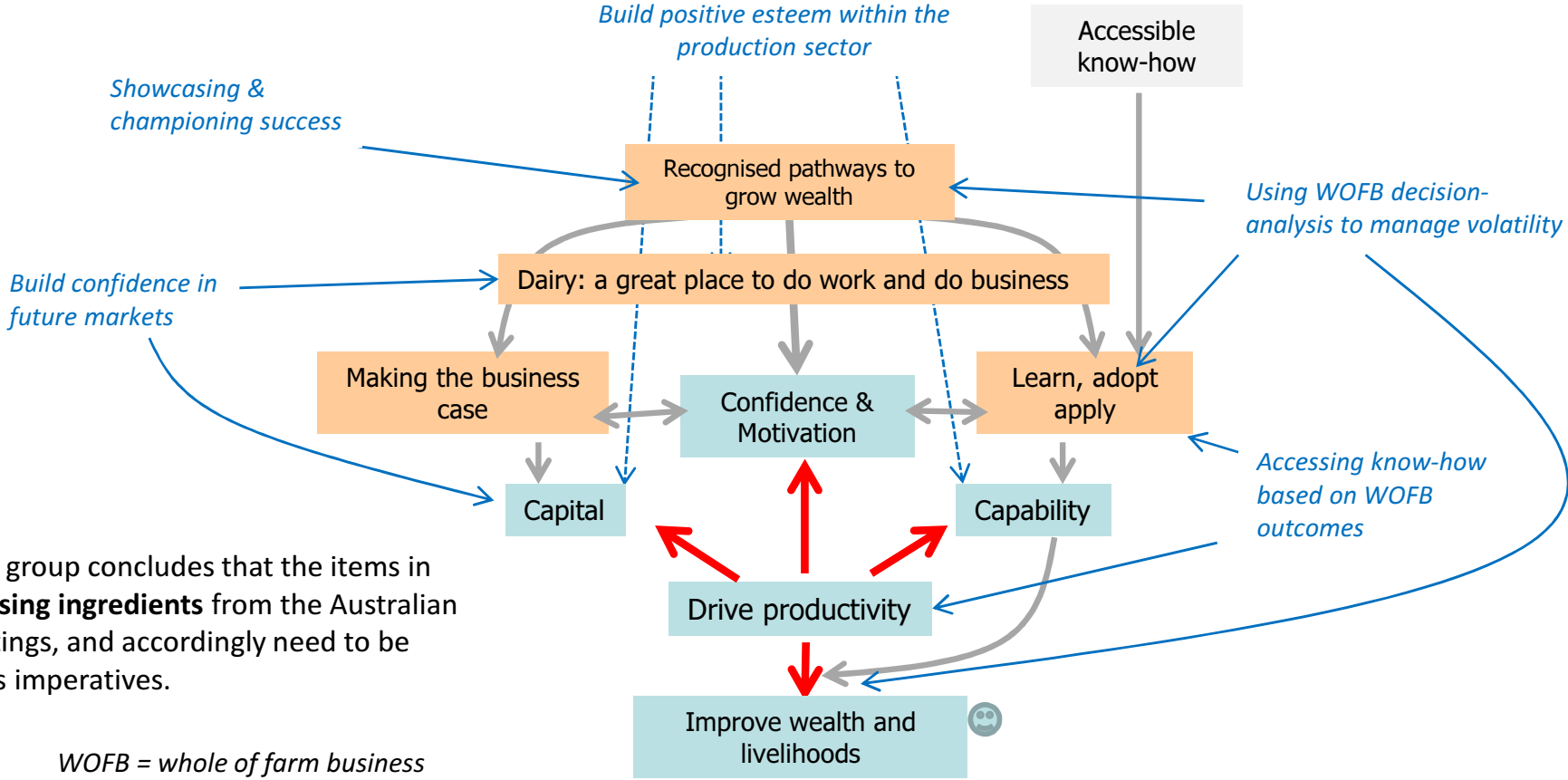


The scenario development and testing processes have identified the features of a “desired future outcome” for the industry that could be positively influenced through future collaboration including co-investment in improving the capacity to sustainably grow the industry. These include **desirable features of the right-hand side growth scenarios**, as well as aspects of the “drift” and “implosion” outcomes that should be avoided.

The “Aggression” scenario was identified in the process of scenario testing as the most likely to develop in the industry over the period of this analysis, and has shaped the recommendations in this report.

Igniting a positive growth agenda

A critical feature of a desired future outcome for the industry is a dairy farm sector that is known for its wealth creation. The working group has identified a number of **common ingredients to improving farm sector wealth** based on insights gained from successful farmers in a number of dairying countries and an objective analysis of the industry in Australia at this time. These ingredients not only include the necessary capital, confidence and capability in farm managers, but also industry settings and motivators that support business improvement. This diagram summarises the factors that were seen to generally contribute to success.



The working group concludes that the items in blue are **missing ingredients** from the Australian industry settings, and accordingly need to be addressed as imperatives.

The imperatives for industry

The imperatives for industry have focused on the ingredients to meet opportunities and challenges at industry and enterprise level over the medium to long term, given the likely scenarios that will evolve over the period to 2020. The recommendations that address these outcomes are described in detail on **the following page** and in Appendix 1 (**page 88**).

The outcome sought	What we must do differently (<i>references to recommendations</i>)
Wealthy dairy farmers	<ul style="list-style-type: none"> • Improve the focus on whole of farm performance and capacity to manage volatility over time (3,4,6) • Understand how to influence behaviour change (2)
Attract investment and skilled people	<ul style="list-style-type: none"> • Advocate and support a market-led, profitable growth agenda (1,3) • Change the language - Celebrate success - wealth creation, sustainability and innovation (5) • Understand investor appetite, equity investment models and pathways (10) • Facilitate R&D Joint ventures on farm (7)
Australian Dairy exceeds community and consumer expectations	<ul style="list-style-type: none"> • Improve the resourcing of dairy industry advocacy (resource, position, influence) (8) • Adopt a leadership development strategy to improve depth and application (13) • Build evidence to underpin the story of dairy's contribution (9) • Support a front-foot approach to sustainability (11)
Australian Dairy is competitive in markets of choice	<ul style="list-style-type: none"> • Improve the commercial relevance and capacity of innovation collaborations (12) • Improve the clarity of market signals and mutual understanding (2) • Build a business case to engage Government in achieving beneficial trade outcomes (from 9)

How will we know if we are successful?

- The industry is significantly larger in volume and achieving higher unit value
- Farmers readily celebrate success in creating sustainable wealth
- Targets in industry's sustainability framework are consistently exceeded
- There will stronger uptake of farm R&D, improved payback on industry investments
- There is queuing of high-quality candidates for leadership posts in various levels and contexts
- Dairy is valued and trusted by the community, and this is recognised by dairy farmers
- We have favourable and commercial access in new free trade agreements

The appropriate structures?

Future industry growth is unlikely to occur in the absence of major farmer-owned manufacturing businesses. It is not the place of this report to recommend appropriate business models or corporate structures, or the pathways to post-farm gate consolidation of the industry. Such issues are the commercial domain of participants. **Page 66** discusses these issues.

Recommendations

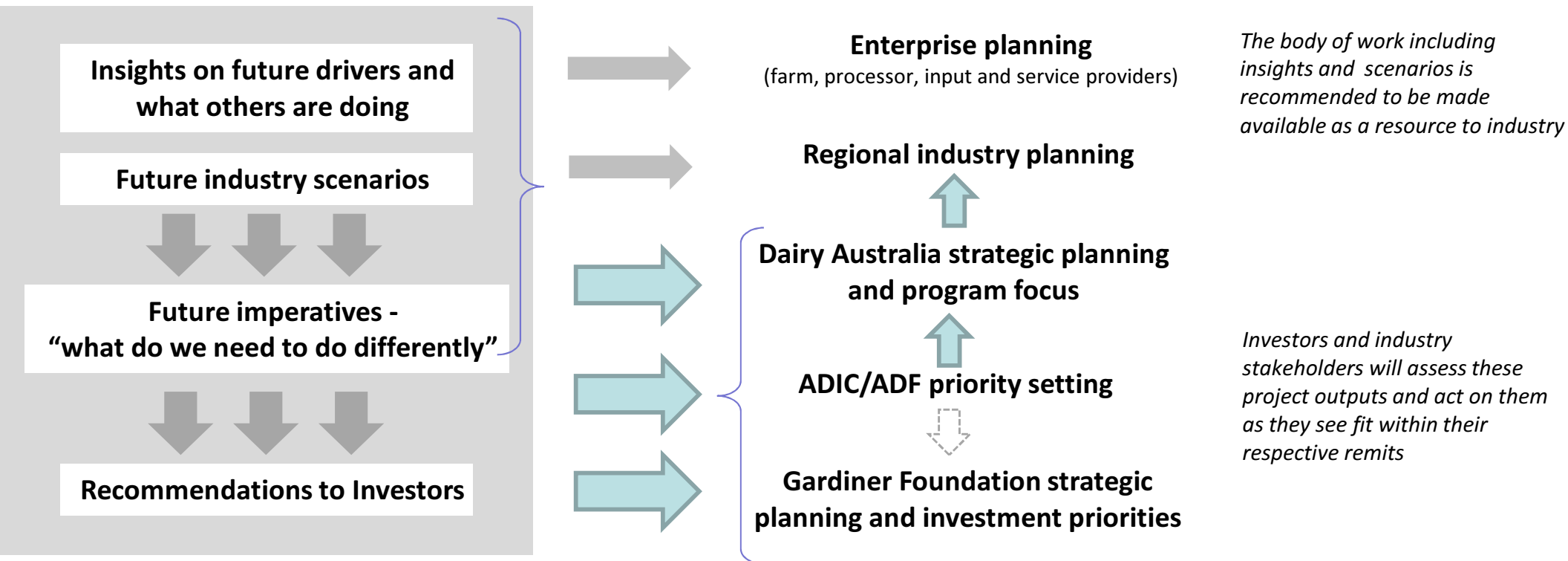
	Recommendations (see Appendix 1 for detail)	These will require new initiatives:	Industry should continue:
1	Communicate the Horizon 2020 outcomes to optimise the value to industry (pages 85 and 86)	<ul style="list-style-type: none"> Peak industry bodies advocate an agenda for profitable industry growth 	
2	Undertake new work to understand effective influences on farmer behaviour change and decision-making. This reflects the diverse needs of segments of producers, and a need for more effective “cut-through” of messages	<ul style="list-style-type: none"> Understand different needs of farmer segments Develop knowledge packages based on these learnings Improve clarity of market signals and mutual understanding along the value chain Develop delivery options that suit target audiences and trusted conduits or channels to improve delivery of messages that can be acted on (as per pages 77 and 80) 	<ul style="list-style-type: none"> Capitalising on learnings from segmentation Consolidate knowledge from industry about needs and behaviour of farmers
3	Develop and implement decision-making processes that aim to improve farm business “fitness” over time, including the ability to manage volatility. This reflects the need to address the rising complexity of farm business management which has created undue focus on short-term challenges	<ul style="list-style-type: none"> Develop tools to help understand long-term business optimisation to cater for volatility; Design and facilitate a process for one-to-one guided decision-making engagement Undertake a concerted effort between the investors, dairy companies and other partners to focus on business “fitness” 	<ul style="list-style-type: none"> Building networks of support resources
4	Develop an interactive knowledge base of farm performance data, that can support initiatives in 3, 5, 6 and 10	<ul style="list-style-type: none"> Develop a database tool that captures appropriate farm-level performance analysis Ensure accessibility to farmers and advisors Use to measure and demonstrate the impact of adoption of business improvement tools and programs 	<ul style="list-style-type: none"> Existing evaluation and development of options including DairyBase
5	Develop a strategy to proactively promote success on-farm in wealth creation, sustainability and innovation to improve the attractiveness of dairy	<ul style="list-style-type: none"> Integrate awards; proactively manage media channels Encourage successful stories to come forward Target appropriate segments open to peer influence 	<ul style="list-style-type: none"> Building on development of Brand Dairy; link to success in sustainability platform uptake
6	Align farm programs to farm business profit drivers to better integrate solutions to whole farm outcomes	<ul style="list-style-type: none"> Package programs as contributors to farm profitability Position farm business management as an overarching competency 	<ul style="list-style-type: none"> Streamlining program offering
7	Create scope for private farm R&D joint ventures to ensure a wider pool of innovation is accessible by farmers	<ul style="list-style-type: none"> Create new models, methods and incentives for sharing on-farm innovation in management and technical application 	<ul style="list-style-type: none"> Engaging innovating farmers as a basis for early uptake

Recommendations (continued)

	Recommendations (see Appendix 1 for detail)	These will require new initiatives:	Industry should continue:
8	Implement a process to improve resourcing and support for advocacy. There is increasing importance of advocacy in influence and leadership of policy agendas	<ul style="list-style-type: none"> • A round table process to prioritise policy agendas, positions, required work and adequate resourcing • Embrace and apply new means of effectively influencing target audiences and agendas in line with the outcomes of the above process 	<ul style="list-style-type: none"> • Evolving advocacy models to suit the changing requirements of the industry
9	Build an evidence base to underpin dairy's story, to enable consistent and accurate management of messages, to assist the initiatives in 8 above.	<ul style="list-style-type: none"> • Understand facts that matter to Governments and community; • Capture data in an accessible database and implement a system to inform/update that over time • Promote access to a central focal point to stakeholders and advocates 	<ul style="list-style-type: none"> • Build into Brand Dairy activities • Capitalising on existing influencer and stakeholder research
10	Understand opportunities for new farm equity capital to capitalise on the investment interest in dairy and to improve dairy's attractiveness	<ul style="list-style-type: none"> • Understand investor types, capacity, criteria • Identify gaps and appropriate investment models/structures for industry development 	<ul style="list-style-type: none"> • Improving relevance of data and analysis
11	Lead implementation of the sustainability framework	<ul style="list-style-type: none"> • Sell uptake on the basis of the rationales identified in Horizon 2020 and the "bottom line benefit" to farmers • Co-opt farmers to share and celebrate success. 	<ul style="list-style-type: none"> • Raising the profile and commercial importance of the sustainability framework • Developing and applying framework targets
12	Evaluate cost-effective delivery of post-farm gate innovation	<ul style="list-style-type: none"> • None – this initiative is in implementation (see page 82) 	<ul style="list-style-type: none"> • Existing project activity to commercially evaluate company demands & criteria, and test potential new models
13	Implement a proactive strategy for developing future industry leaders to meet a wider set of demands	<ul style="list-style-type: none"> • Proactively develop talent and emerging pathways (see page 82) • Guide identified talent into appropriate opportunity pathways • Develop new pathways for roles in critical community influence and innovation (as per 7 above) 	<ul style="list-style-type: none"> • Sustain existing investments as a platform for a wider set of prospects
14	Continue the Horizon 2020 process	<ul style="list-style-type: none"> • Build Horizon 2020 as an ongoing forum for discussion of the future as well as a leadership development program (per page 87) 	<ul style="list-style-type: none"> • Track and evaluate benefits from the Horizon initiative.

The use of the Horizon 2020 outcomes

It is intended that the outputs from this work should be packaged in a way that can be used by various participants in the dairy industry in considering their positioning, strategies and planning for the future.



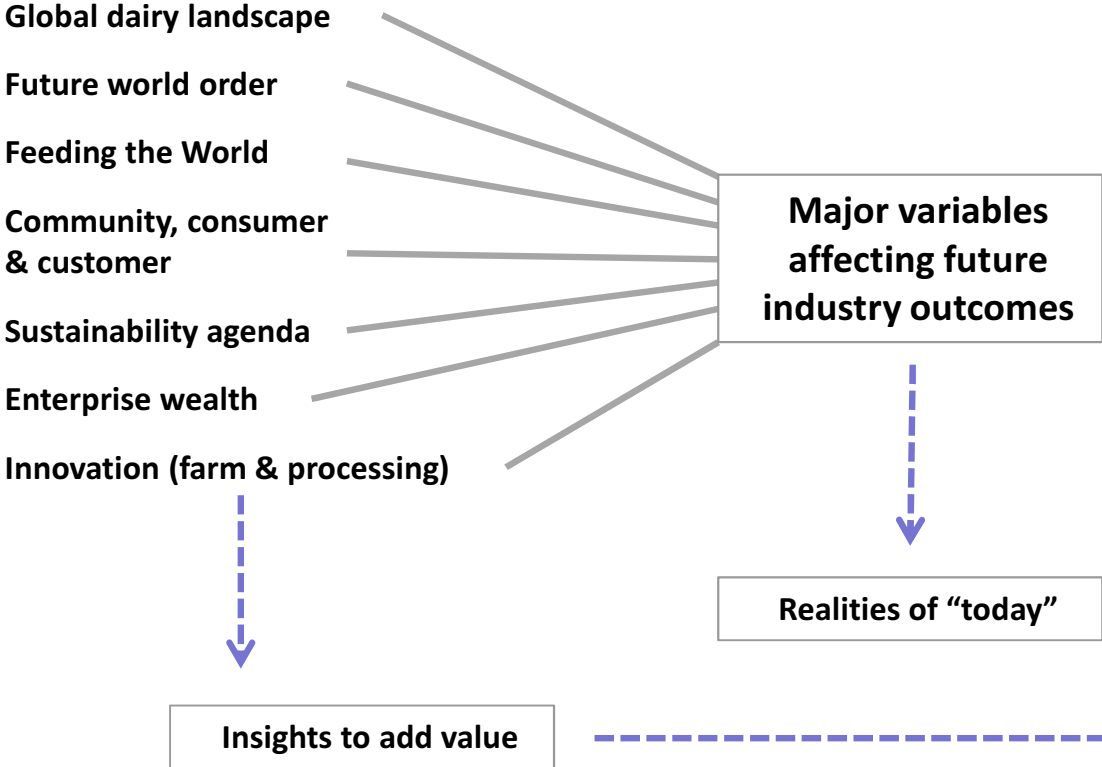
Section 1

Findings from research

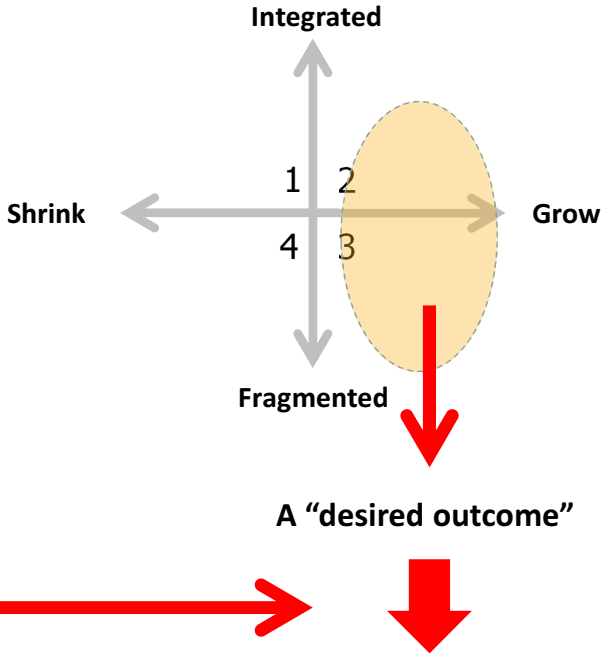
Approach to the study

The broad approach to the project is outlined below. The investigation of factors affecting future outcomes has informed the later stages of the work in a number of ways as indicated – informing elements of future scenarios and a “desired outcome”, as well as providing insights into future priorities and ways in which industry needs to operate differently in future.

1. Investigated future agendas



2. Developed scenarios



3. Established future priorities & “what do we need to do differently”

Implications for Dairy Australia and the Geoffrey Gardiner Dairy Foundation

The materials, opinions, and insights gained have been immense. This section of the document does not attempt to be a summary of every item discussed in that process, but focuses on insights and opinions relevant to the future shape of the world and Australian dairy industry. These insights have assisted informing the detail of the scenarios developed, as well as providing the basis of a “watching brief” on the factors affecting the medium to long term future, which the working group recommends industry continue to monitor.

Some recurring terms

A number of recurring themes came up many times in the course of the project.

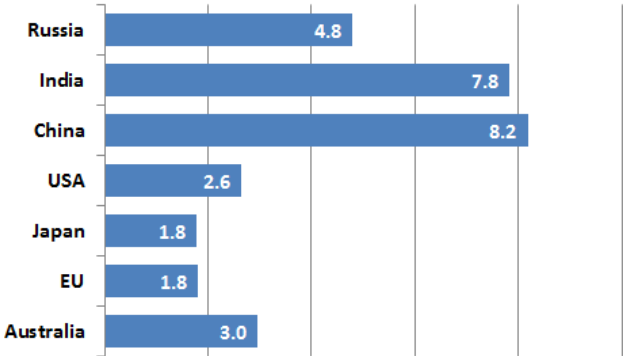
Theme/topic	Where it came up	Implication
<i>Trust</i>	A central theme that came up in many contexts with good and bad examples of industry, enterprises and brands seeking trust of a target community or consumer market	We have to understand the importance of trust to dairy's proposition in future and how to influence the levers of trust – see page 36 and 37 for more.
<i>Emotional connection</i>	Success in fostering adoption by farmers, customers, the consumer or the community won't occur without achieving an emotional connection to dairy's proposition.	Overemphasis on technical defence of industry's proposition will not provide an effective platform to influence future sustainability pressures. See page 36 and 38 for more.
<i>Cartoon view</i>	This is relevant to how an industry is viewed by certain stakeholders, and came up in a discussion with an NGO. It reflects a stylised view that a community with little connection or technical knowledge of farming have formed of the industry and how it should operate.	This view will not be shifted by facts (they are not asking to be educated and don't want to shift their views) as it is a part of a belief system.
<i>Governments intervening and supporting</i>	US, EU and other governments (eg Brazil , New Zealand and Argentina) are support their food industries and in some cases intervening in different ways to address food affordability and the sustainability of food production and consumer prices. Efforts to enhance market access arrangements are evident in developing markets where Governments are working in partnership with industry.	While the industry doesn't seek EU and US style interventions, there is an opportunity to have the Australian Government more engaged at a higher level with the industry's business case and opportunities. Other industries governments working with them based on a clear understanding of industry contribution to their economies and communities.
<i>Farmers engaged in markets</i>	In farming contexts in the EU and US, the most inspirational examples of farms determining their own destiny came where the enterprise leaders had gone out and engaged with customers and consumers, established their opportunity and made it happen themselves.	This has direct application in the Australian market for milk producers, and goes beyond selling milk but to how farms will look and engage in the future.
<i>Collaboration and cooperation</i>	There were various examples of significant cooperation delivering major benefits. The challenges the EU has tackled in combining such disparate cultures and economies and developing policies to benefit all is a strong example. In other cases, groups of farmers forming a future dairy system; major companies collaborating to work pre-competitively in the SAI Platform; and the collaboration through the Global Dairy Platform each provide scope for benefits.	The power from getting disparate and often competing parties around a common cause or agenda is compelling.

Future world order

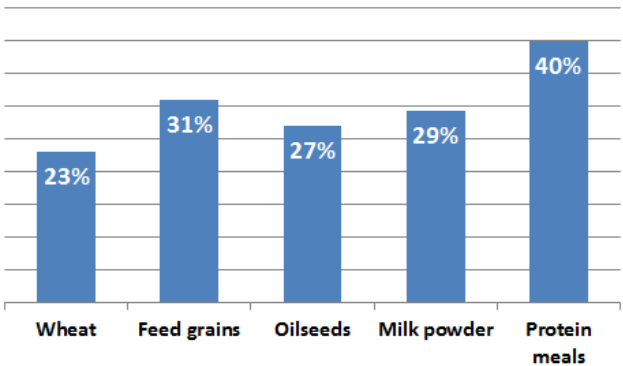
Shift in economic power

- The focus of discussions with parties in Europe, Asia and the US was not expressly aimed at a discussion of the future economic structure of the world.
- However, the gradually shifting economic power base from developed to developing world was frequently referenced as one of the key drivers of improving livelihoods supporting the long-term prospects for emerging dairy markets.
- The key points in this context that are relevant to this project are:
 - a) Shift of economic power to East Asia
 - b) The increasing importance and influence of BRIC (Brazil, India, India and China) nations in the production, trade, and consumption of food and animal feed.
 - c) China’s shift to consumer-driven GDP (from export-led)
 - d) The development of India
- A key part of the shift in economic power in the world economy will also effects of GFC II on developed world budgets.

Expected average annual economic growth in % terms 2011 to 2021 (OECD)



Expected increase in annual import volumes by the developing world between 2011 to 2021



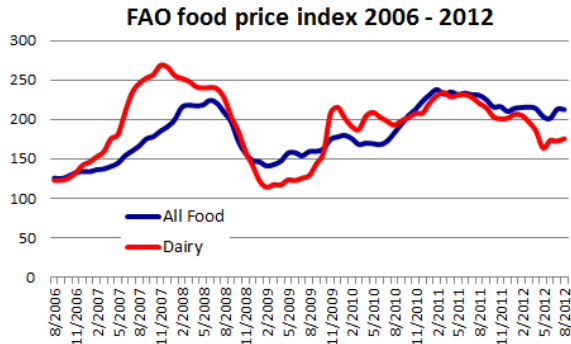
Future world order

Trade policy

- The consensus from discussions on this subject is that the prospects for a significant unilateral trade agreement through the WTO are considered to be off the agenda – with no prospects of revival.
- The greatest influence on trade policy over the coming decade will come from bilateral trade deals. These will be most aggressively led by the EU, addressing access to markets for exports and sourcing critical inputs where domestic supplies are not available. This is also a way in which EU policies on Geographical Indications, food and animal standards are spread to other countries.
- New Zealand has also demonstrated the ability to negotiate agreements that provide competitive advantage into key developing markets.
- Meanwhile we will continue to see the influence of food multinationals that influence trade volumes through their sourcing and operational positioning.

Food policy

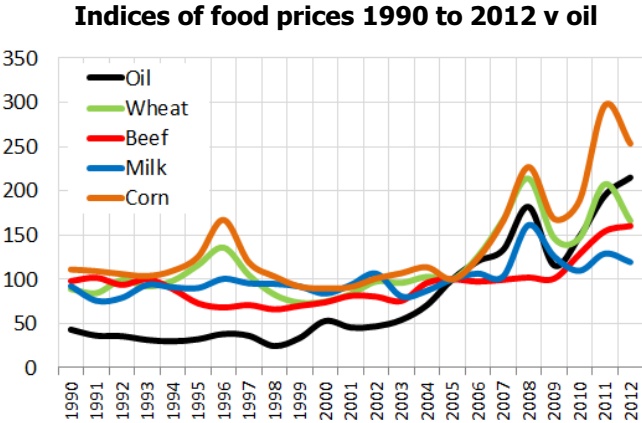
- Few countries operate with large scale food and agriculture policy platforms. The EU and US – due to the significant political importance of the farm sector – are exceptions.
- The future of the EU’s Common Agricultural Policy (CAP) will have an important bearing on the EU dairy market and its influence on the world market in the next decade.



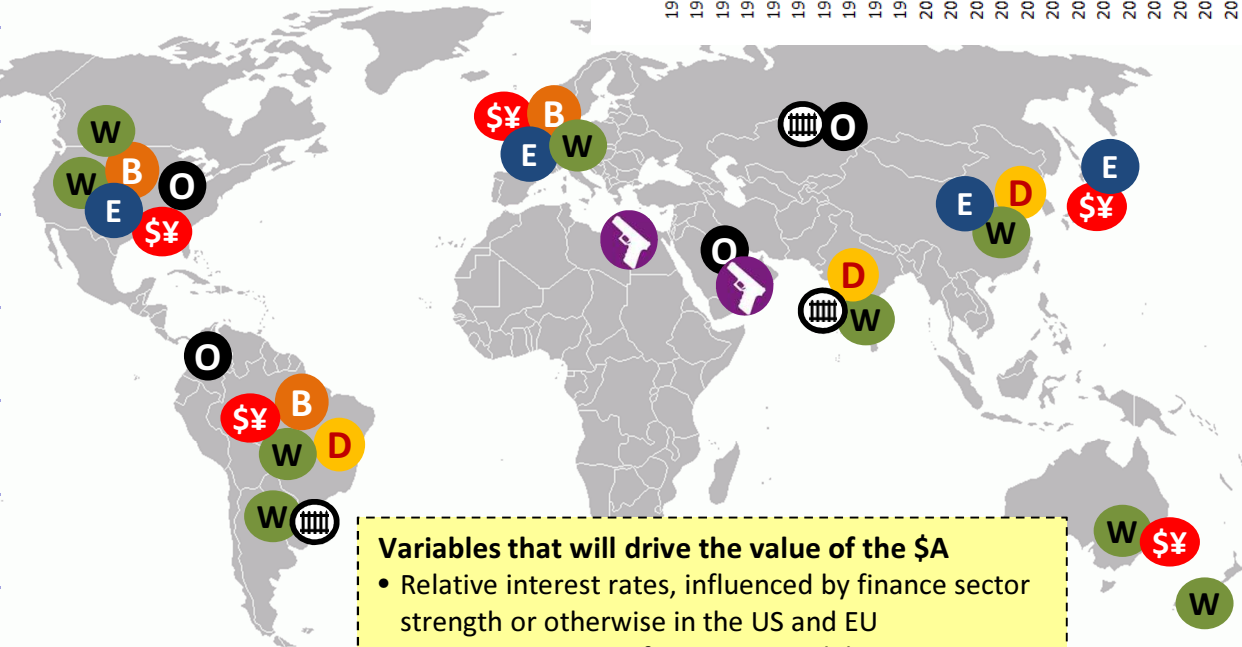
Future world order

Volatility a norm

The map on this page is a summary of the variables that we can expect will drive greater volatility in food and dairy markets in the next decade. The **coincidence and relative intensity** of these influences will continue to vary over time, affecting dairy markets, competing foods and input costs. Interrelationships will get more important, but randomness increases due to climate and political forces. It is not feasible to attempt to predict the impact of these variables over that period, but it is imperative that Australian dairy industry participants **build volatility into their expectations and business practices**.



W	Weather will affect dairy pasture growth, as well as the production of food and feed crops.
O	Oil market balance will affect incomes and livelihoods in key oil producers, which are important dairy markets.
B	Biofuel mandates and supports affect a significant competing use for feed grains and oilseeds.
E	Economic growth in key demand markets may affect dairy consumption which is sensitive to household income levels.
\$¥	Currency fluctuations affect competitiveness of exports and imports
D	Consumer demand in key developing world markets may be affected by government policy, affordability and choice
Trade Barrier	Trade barriers may be used by governments to protect consumers and farmers from high world prices
Conflict	Conflict – there is ongoing risk of political turmoil caused by risks to the affordability of food and access to water.

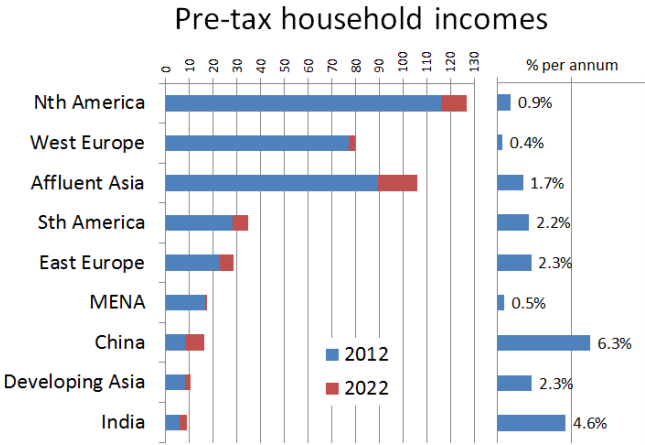


- Variables that will drive the value of the \$A**
- Relative interest rates, influenced by finance sector strength or otherwise in the US and EU
 - Investment rating of government debt
 - Expected sustainability of export earnings
 - Relative buoyancy of Australia’s economy
 - Role of small currencies in money market portfolios

Feeding the world

What it will take to feed the world

- The future role of the dairy category as a key source of nutrition and protein in the medium to long-term future is regarded as strong due to the expected pressures on world food supplies as potential demand is projected to outstrip supply.
- This view has been popularised by the profile given to the FAO’s long range 2050 outlook, which suggests world food production needs to increase 60% by 2050 to feed a 34% increase in the world population.
- Increasing developing world incomes, supported by the ongoing growth in urban migration in many developing Asian countries are the major drivers of increasing demand for nutritious foods and higher quality animal proteins.
- The feasibility of feeding the world in the long-term – and the challenges that holds for dairy – is gradually gaining more focus as a priority. The consensus from working group discussions is that it will be feasible to meet these demands, but only with significant progress in:
 1. Huge gains in resource efficiency
 2. Vastly improved production skills
 3. Reduced food waste
 4. Widespread acceptance of GM feed production; and
 5. Strong adoption of GE in livestock productivity
- Rather than a physical challenge, a larger threat in future is affordability of food to consumers in the developing world, facing rising prices for food with increasing pressures on supply. Low-cost suppliers and product innovation can partly address increasing nutritional demands, but pressures on livelihoods from increased costs of living will be a source of volatility.



The role of NGOs

- Global NGOs are key influencers of the community’s appreciation of the challenges of feeding the world, particularly in the developed world.
- NGOs range between pragmatists and single-minded activists.
- Pragmatic NGOs (e.g. WWF; Rainforest Alliance) recognise the realities of balancing the need to feed the human population in future and the impacts on environmental and other social outcomes such as animal welfare.
- Activists will seek change with emotive support for agendas, rather than evidence-backed rationale.
- In essence, the acceptable balance in the long term is likely to come down to ensuring livestock feed is largely based on forages that aren’t capable of being digested by humans; while ensuring that any intensification of production needed to improve output is undertaken with improving standards of care and reducing impacts.

Feeding the world

Future game changers

- In the outlook, the major “game changers” will be the following:
 - **What** India + China will be forced to import - food or feed grain?
 - **When** GMOs gain consumer trust and speed their development as a solution to improving productivity in global food supplies?
 - **When** biofuel mandates will be unwound by major governments?

The flow of capital

- The higher profile given to the challenges for future global feed supplies, and the rising demand in developing economies has inspired greater investment interest.
- Financial investors and corporation engaged in the food industry have in recent years directed significant capital funds towards investments in agriculture. These investments are based on motives that vary between seeking **access to expected future returns** from higher food prices, through to playing a role in **securing future food supplies** through direct investment.
- Investment models – and the extent to which they take on farm operation risk – vary with competencies and return appetite of these investors.
- Australian dairy has to date largely missed out on this interest for a variety of reasons which are outlined on **page 47**, which include a lack of understanding of the Australian industry and an underdevelopment of pathways to invest.
- In the meantime, dairy farm projects in other regions have attracted some of that investment, despite higher sovereign, resource and operating risks.

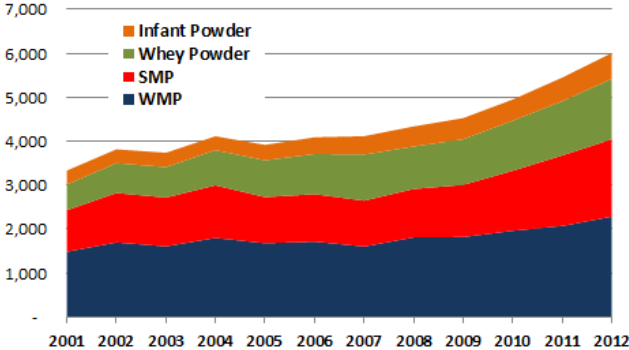


Global dairy landscape

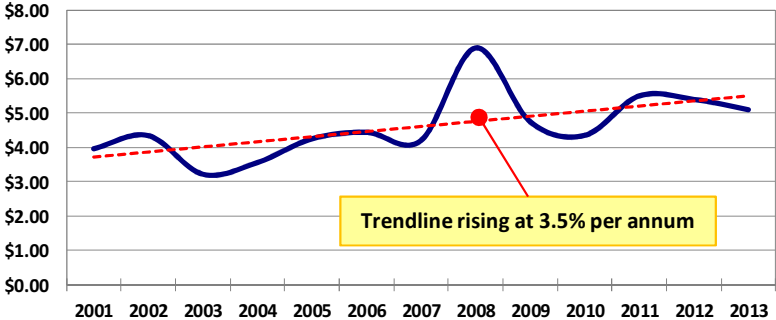
The recent past

- The global dairy industry has a massive challenge in keeping pace with the demand for dairy products and ingredients over the next decade.
- Global trade in milk powders trade has built steadily over the past decade, but the rate of growth in trade volumes has **escalated since 2006 growing at a compound rate of 8% per annum**, due to tighter conditions in the market tightened. Trade in 2011 and expected over the full 2012 year each grew at 10% per annum.
- Increased trade has been met by stronger milk production and export growth by major exporters, with a supply response to improving prices paid to producers.
- While trade has increased over the period since 2001, Australian exporters have extracted improving prices from the world market has also increased. These product returns have been captured and paid back to dairy farmers - average Murray Goulburn prices have increased over this period. The **trendline in milk prices has risen at 3.5% per annum**.
- This is despite a strengthening \$A over the latter part of this period and significant challenges within the Australian industry with adjustment to processing capacity following the decline in output due to drought.

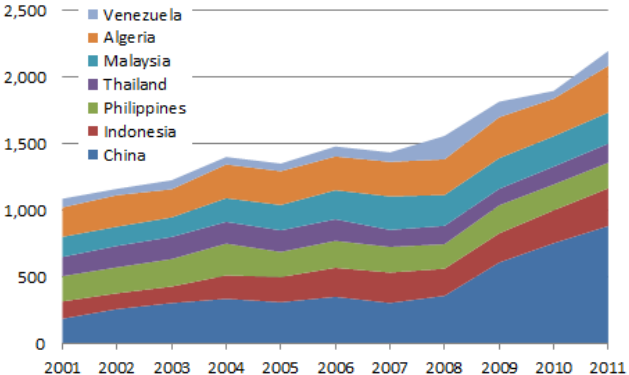
Growth in world powder export demand ('000t, 2001-2012)



Average price paid by Murray Goulburn 2001 to 2013



Growth in milk powder imports ('000t, 2001-2012)



Global dairy landscape

Global demand will outstrip supply

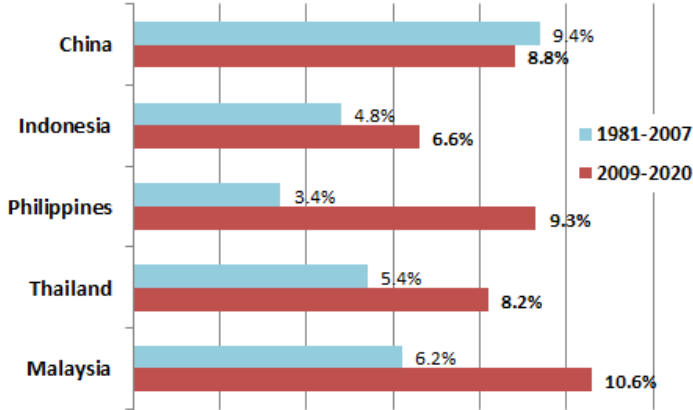
- Global milk output is expected by the OECD-FAO to rise at 2% per annum to 2020, while the **demand for trade to developing markets will continue to increase much faster than the capacity of exporters to supply.**
- The scope for growth in dairy demand from the developing world is substantial and will continue to expand with rising GDP that flows into higher household incomes. Increasing urban migration will push this demand growth faster in some regions, as people earn more in city jobs, and seek better nutrition and variety in their diets.
- The expected strong growth in Asian and MENA economies will provide greatest opportunity for expansion of dairy’s markets. Dairy is well established as a key part of an increasingly nutritional protein-rich diet in these regions.
- The growth in the dairy market is not just a story about the massive potential in China – **other developing markets will be as important and possibly more significant for Australia.**

Supply competitors

- Major competing suppliers to the world market (EU, US and NZ) have substantial capacity, yet each face significant constraints in production (attrition, sustainability, systems costs).
- The working group has tried to better understand some of the longer-term issues facing each of the major competitors as per the following pages.

Note: The Horizons 2020 working group has not attempted to undertake a detailed analysis of the future balance of world dairy trade based on the prospects for all major dairy exporters and importers. It has however explored issues affecting the future role of several key players affecting the world balance.

Past and projected economic growth rates in developing Asian dairy markets



Australia’s opportunity

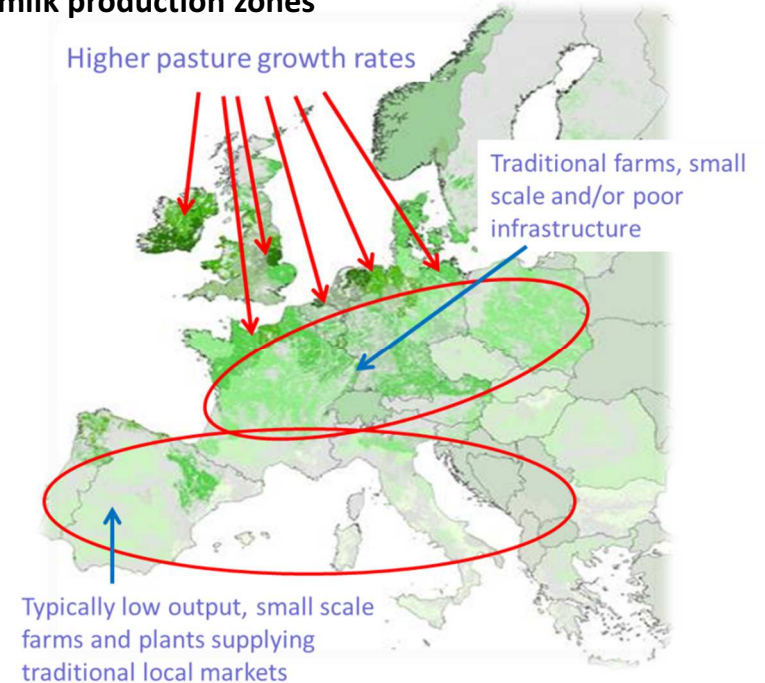
- Australia has an opportunity to play a stronger role in the future world market.
- The market wants our product. Our industry is well regarded for its product quality and integrity.
- The market respects choices and is looking for flexibility and agility that we should be able to offer them with our industry structure.
- We have a good story, but we’ve forgotten how to tell it.
- We do not have the lowest cost supply chain but we are not a high-cost supplier in global terms.
- However we’ve drifted in the past decade due to the impact of drought, a shift in focus of dairy companies focus, weaker farm sentiment and trust in the returns from dairy enterprises.

Global dairy landscape

Europe

- While the focus of this agenda deals with the landscape in 8-10 years, the transition to changed regulation of the industry (the removal of quotas and reform of CAP) will strongly influence the future shape the EU industry, and its involvement in world trade.
- There is significant reshaping of the EU dairy sector in anticipation of the removal of EU production quotas in 2015, which is expected to lead to some volatility in supply and prices around that event.
- Production expansion is expected by many. The strongest milk production growth ahead of quota removal is expected from the most cost-competitive grass production regions . The **chart on the right** shows those regions, but contrasts the prospects for other less expansionist zones which are expected to face greater challenges in a less-regulated more turbulent environment.
- Further changes in the region's weather as a result of climate change is expected to be an advantage for the Europeans – especially those in higher pasture growth regions – as higher temperatures will assist producers in those regions.
- Major co-operatives expect strong growth from their competitive suppliers. Rabobank released a forecast in 2012 expecting an additional 9 billion litres of milk in the EU between 2010 and 2016.
- Significant limits on EU production – the box on the right summarises these, including issues identified in visits to farms and meetings with farm operators in the UK and Netherlands

EU's milk production zones



EU's growth limiters:

- Many regions feature land-locked farming titles which limits aggregation
- Feed self-sufficiency risk rises with further intensification
- The community is vigilant and very close by
- There is a high cultural and financial dependence on supports, such as the EU CAP payments
- There are high cost structures on farm
- Land values prohibit new, young entrants
- Gearing is high in many countries.

Global dairy landscape

Europe – the CAP challenge

- A key issue affecting the productive potential of the EU industry is the outcome of the current negotiations on the future of the CAP.
- The changed role of the European Parliament following the Lisbon Treaty has altered the dynamic in the reshaping of the CAP, resulting in a “trialogue” of negotiations between the European Commission, Member states of the EU and the Parliament, balancing budget pressures on CAP spending, sustainability measures including regional development; and EU’s food security.
- There are further risks to potential EU milk supply growth from CAP reform measures being debated in this “trialogue”, which include:
 - The level and structure of direct farm payments - threatening a possible uniform simplification of the payments which might alter the levels paid on a per hectare basis across EU member states
 - “Greening” measures that threaten efficiency of milk production
- In the background to the CAP debate, there is significant pressure on the EU budget which may threaten the overall size of CAP payments and regional development incentives that contribute to improving infrastructure in developing EU member countries.
- The Lisbon Treaty introduced an important dynamic regarding the treatment of animals, conferring an obligation to consider animal rights in passing laws. This has galvanised activists to apply separate pressure on the farm sector, demanding changes in farming practices including animal welfare alongside reform of the industry’s regulation.

The greening measures sought in CAP negotiations by EU policy makers are aimed at improving EU biodiversity and reducing greenhouse gas emissions:

- Setting aside 7% of farming land for ecological purposes (*to contribute to EU’s environmental targets*)
- Crop rotation for (at least) 3 crops on arable land
- Maintenance of perennial pastures (*freezing existing land use*)



The Irish case study

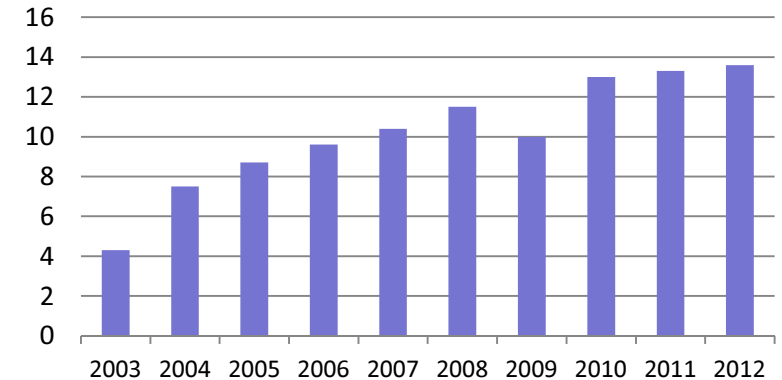
- The working group did not visit Ireland, but the prominence given to the Irish dairy industry’s growth agenda as part of Food Harvest 2020 to grow milk output by 50% from 2009 to 2020 has a high global profile.
- Ireland is a relatively small, export-dependent player in the European industry, with annual production to September 2012 of 5.4 billion litres out of almost 140 billion litres. The industry is externally focused and well-connected to global nutrition markets.
- The achievability of growth of this nature may be challenging for Irish farms given the constraints of farm size, tenure and skills; as well as the scope for export growth to be profitable given the large number of small scale plants that make up the processing sector.
- Progress will be interesting to watch – how industry recapitalises and consolidates beyond the farmgate and how change in the farm sector is managed.

Global dairy landscape

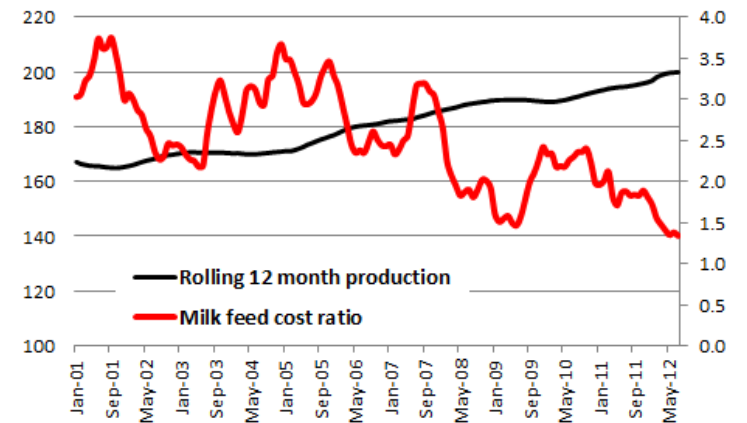
United States

- The US is a vast industry, with robust productive potential within a highly cyclical domestic market context, where rises and falls in prices for dairy products, raw milk and feed costs have become more intense and frequent.
- There is significant ongoing attrition and adjustment in the US industry. In the past 20 years, there has been a 60% decline in farm numbers, but the average herd size has lifted 140%.
- Farms in general operate using year-round production systems that feature high-cost fixed-cost systems by southern Australian standards, which have experienced fluctuating profitability due to market cycles.
- The US has significantly increased its involvement in the world market through collaborative industry efforts, which include internally-funded price support. It has significant export potential in cheese and powder in future. Exports are critical to the US which has experienced weaker domestic consumption in the past decade.
- A key challenge for the US industry are the pressures on the US continuing to grow its export presence with the rising constraints on future growth in milk production in key growth regions. These pressures will come from:
 - a) High exposure of large-scale systems to rising bought-in feed costs, as world feed markets become tighter and more volatile over time
 - b) Stronger land and water-use competition in the south-west growth states
 - c) Barriers to new farm development from local communities
 - d) Affordability of safety-net regulation for producers in volatile times
- The working group looked into the basis for development and growth in the large-scale farming systems across several states, and in particular the ingredients for the strong enterprise culture at large scale end of the industry.
- Sustainability pressures on milk production are looming for the US, but are well behind the pace of community expectations in the EU and Australia.

US dairy exports as a % of US production



US production and milking margins over 11 years

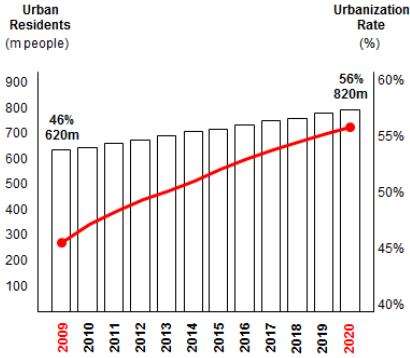


Global dairy landscape

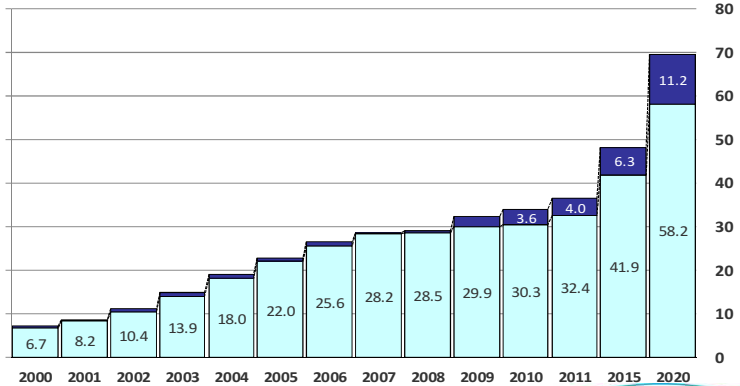
China

- The working group met with key dairy players operating in the Chinese industry, including major milk processors and infant formula marketers.
- The China market has seen rapid growth in consumer demand across different product categories and market segments, which is occurring at a **much faster pace than the expansion in capacity of local industry**. This is being driven by expansion in urban affluence.
- The Chinese industry is a young, rapidly growing dairy industry, as all major processors were formed less than 20 years ago. The fast development of the consumer market is despite significant food safety and quality scandals, **which have a lasting effect on the higher value segments of the market** for milk products – especially drinking milk and infant formula.
- In response to supply chain failures, local processors are remodelling their value chains, to increase the proportion of “controlled” milk supply accessed by their plants. Government is imposing strict food integrity regimes to build trust in local brands. While this confidence is weak, foreign brands from regions with well-regarded safety reputations will remain in demand, especially at upper ends of city markets.
- High production costs and water and feed limitations for domestic production will continue to place major constraints on the ability of the industry to meet future demand. There are varying views on the ability of the Chinese milk production industry to keep pace with consumer demand over the next 10 years.
- Fonterra’s view – shared with the group while in the country – is that by 2020 a requirement of 11 billion litres of milk will be needed. But that view is also based on the ability of the local industry to almost double local milk production between 2010 to 2020.

A region of markets in urban clusters



Fonterra’s view of the size of the market



Global dairy landscape

New Zealand

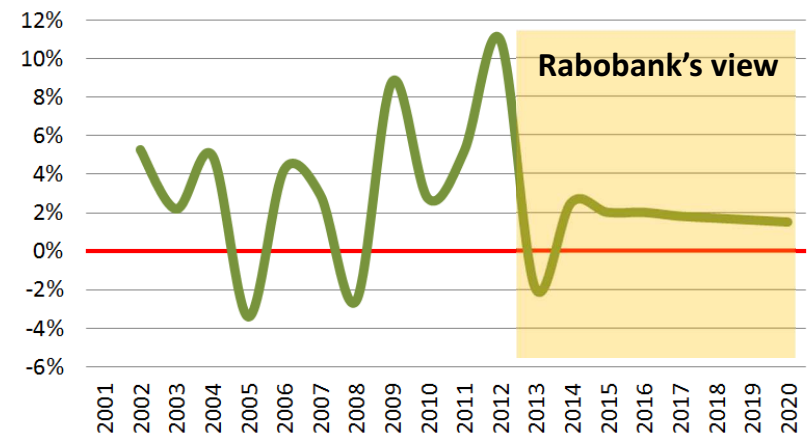
- New Zealand's strong production growth in the past decade has been largely aided by an entrenched enterprise culture which underpins a focus on wealth creation.
- This has fostered growth in existing dairy enterprises, and provided impetus for conversion of land from other uses into dairy production.
- The dominance of one player and an export vision has led the industry. Other small alternate pathways to market are developing to provide options for producers.
- Unlike the language within the production sector of the Australian industry, there is little discussion about the price of milk – rather the language is focused on sustainability of creating sufficient wealth through investment and better practices.
- This culture should continue to underpin growth in output in future, but limits on potential are apparent. The **box on the right** outlines those issues.
- There are **varying views about the effects of such limits**. Rabobank's view is that past growth won't be repeated past 2012 and that even a 2-3 annual growth rate expected by Fonterra will be challenging.
- Attempts to increase land and cow productivity are adding to production costs, especially in South Island enterprises. This may harm the ability of producers manage expected market volatility.
- There are important lessons from the NZ situation regarding the blindside to increasing community demands. These are explained on **page 81**.

Limits on NZ growth potential?

The following issues may limit the rate of growth in future:

- Regulatory measures imposed by regional councils to address the environmental impact of milk production in sensitive areas is expected to constrain future production growth potential.
- These are expected to include limits on land-use, stocking rates and water access.
- Larger scale units will seek more use of supplement feeds, introducing rising costs and complexities and greater exposure to volatility.
- There will be less available land conversion opportunities and higher technical barriers to entry for new start-ups

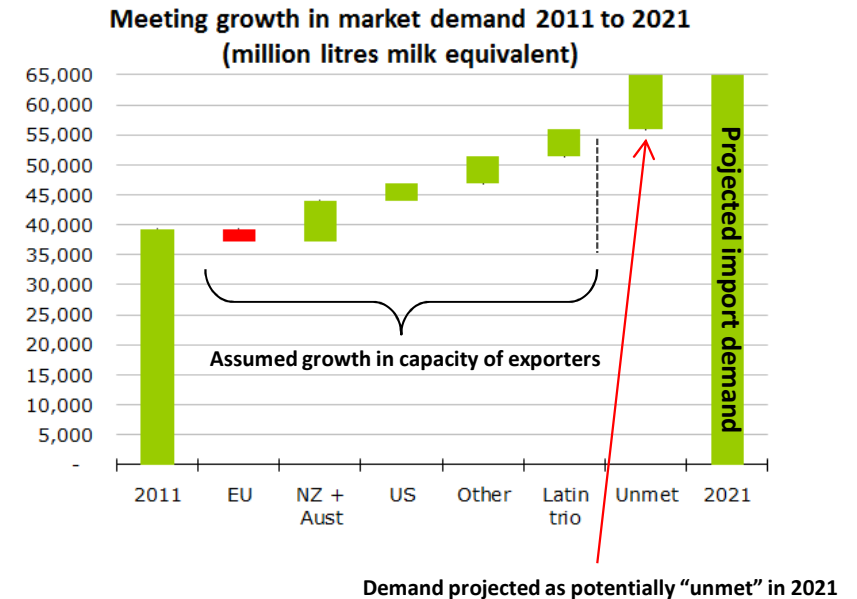
NZ milk production – change on prior year



Global dairy landscape

How does it add up?

- The working group has been provided with a long range outlook for the balance of dairy demand and supply in the world market out to 2021 based on work undertaken by Freshlogic for the project.
- This exercise is based on a global projection model developed by Freshlogic which is useful to illustrate alternate views of what might occur in the global dairy market over time.
- The chart on the right summarises the projections showing the changes in world market demand (represented by milk equivalents of the major commodities cheese, milk powder and butter), and the projected supply from the major dairy exporters over the 10 years to 2021.
- This projection provides a scenario where growth in dairy trade would **slow to just 6% per annum**, slower than the 8% per annum in recent years as economic growth rates are tipped to slow in the developed world to 2021.
- The projections are based on:
 - a) The world market balance in the calendar 2011 year;
 - b) Consumption and trade growth expected in major markets;
 - c) The effect of major events expected over that projection period, such as the removal of EU quotas;
 - d) Production growth and product mix assumptions for each major dairy producer/exporter which affect the world market balance.
- Some of the key assumptions used in this outlook are discussed in the table on the following page. **Page 31** explores the sensitivity of the long-range outlook to variation in those assumptions.



Global dairy landscape

The issues raised on this page are based on comments and opinions provided to the Working Group during its assessment of the outlook for the global industry.

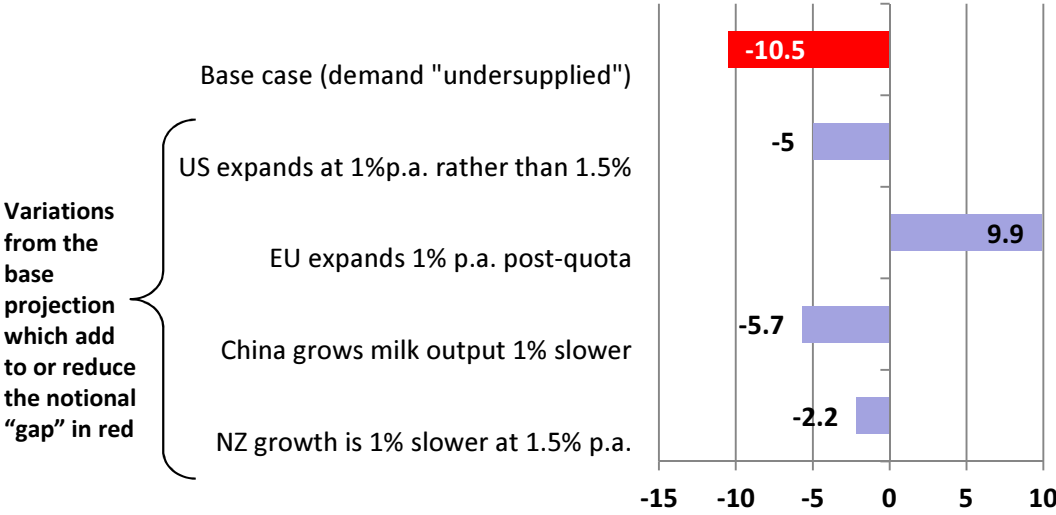
Major region	Base assumption in the projected market balance	What might contribute to supply <u>falling short of demand</u>	What might contribute to supply <u>keeping up with demand</u>
New Zealand	Milk output grows by 5% in 2013, then 2.5% per annum until 2015 and then 2% thereafter	<ul style="list-style-type: none"> Environmental constraints limit growth to less than this rate. 	<ul style="list-style-type: none"> NZ continues to attract farm investment in new facilities and expansion of existing operations
EU	Milk output grows 9 billion litres to 2015 (Rabobank view) and then expands at 0.3% per annum (this provides a supply outcome well ahead of the latest Commission view)	<ul style="list-style-type: none"> CAP reforms place constrictive requirements on milk producers Restructure of CAP payments to farmers forces a large number to exit 	<ul style="list-style-type: none"> Economic turmoil in the EU slows dairy consumption in EU domestic markets, pushing more milk into exports
China	Milk production grows at 3% until 2018 (latest USDA view) and then 4% per annum	<ul style="list-style-type: none"> Land, water, skill and feed limits slow growth of new farm developments 	<ul style="list-style-type: none"> Farm developments rapidly add to local production capacity.
	Consumption of WMP grows at 6-8% per annum	<ul style="list-style-type: none"> Demand for imported product continues fast growth to meet demands from an expanding middle class that have lingering quality and safety concerns with local milk products 	<ul style="list-style-type: none"> Market slows due to affordability barriers for expansion of lower and middle income segments
US	Milk production grows at 1.5% per annum	<ul style="list-style-type: none"> Large-scale development slows due to limits on new facilities Attrition of smaller farms continues 	<ul style="list-style-type: none"> US consumption of dairy continues to decline
Argentina	Milk production grows at 4% per annum	<ul style="list-style-type: none"> Political and economic instability limits flows of capital to support new farm investment and expansion 	<ul style="list-style-type: none"> Low-cost advantages encourage developments despite volatility

Global dairy landscape

A delicate balance?

- The real interest from this analysis is not the absolute changes in the projected size of the total world market, but the illustration of how **fragile** that world market balance will be over the period to 2021.
- The chart on the right illustrates the theoretical impacts on milk supply over the period to 2021 if the key assumptions don't hold.
- The scale of the potential impact from what appear to be small changes in growth rates over the full 10 years of the projection is significant.
- While faster growth in milk output may be possible in some countries in some years, there are significant constraints on each of the competing export suppliers to sustaining growth that keeps pace with trade demand. The chart on the right shows the effect of these constraints on the size of the market "gap" which is already apparent from reasonable demand and supply assumptions.
- With continued fast expansion in demand for exports, this will keep the market generally firm – and provide scope for Australian exporters to **meet customer needs at steadily rising product prices**.
- **Important points of difference** can underpin this outcome:
 - Meeting **increasing customer concern for sustainable practices** through the value chain – already a requirement of EU-based customers and competitors, who will spread these requirements to others
 - Providing **agility** of response to customer requirements
 - Providing an **alternative** to major multinational traders and processors
 - We are **geographically close** to major growing markets

The impact of changing assumptions on the market balance (in milk equivalent terms)

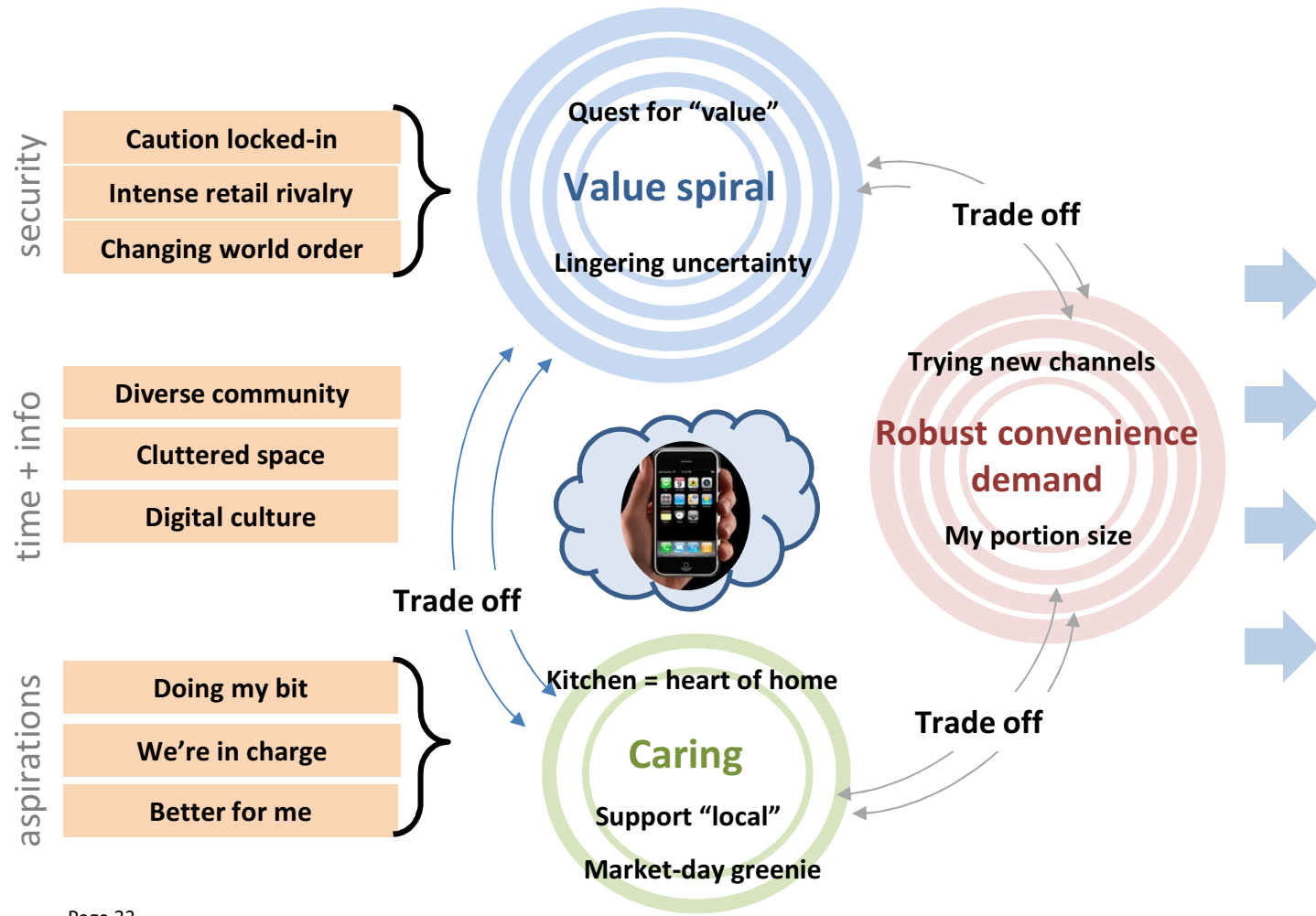


Note: The notion of there being "unmet" demand is theoretical and difficult to validate. If there are shortages in supply, these will drive up prices of dairy commodities, and possibly result in a volume of low-cost commodity not finding their way into "aid markets" or onto grocery store shelves in lowest paying markets. Conversely, when there is an oversupply, stocks build and product prices fall.

The consumer market in Australia

The domestic consumer market is responsible for consumption of the majority of Australia’s milk output, yet grows slowly across major categories. But future growth is not assured, and the forces affecting dairy’s role are changing prospects for growth are complex. Freshlogic’s FoodFrontiers analysis outlines the forces driving change over time in the retail food market.

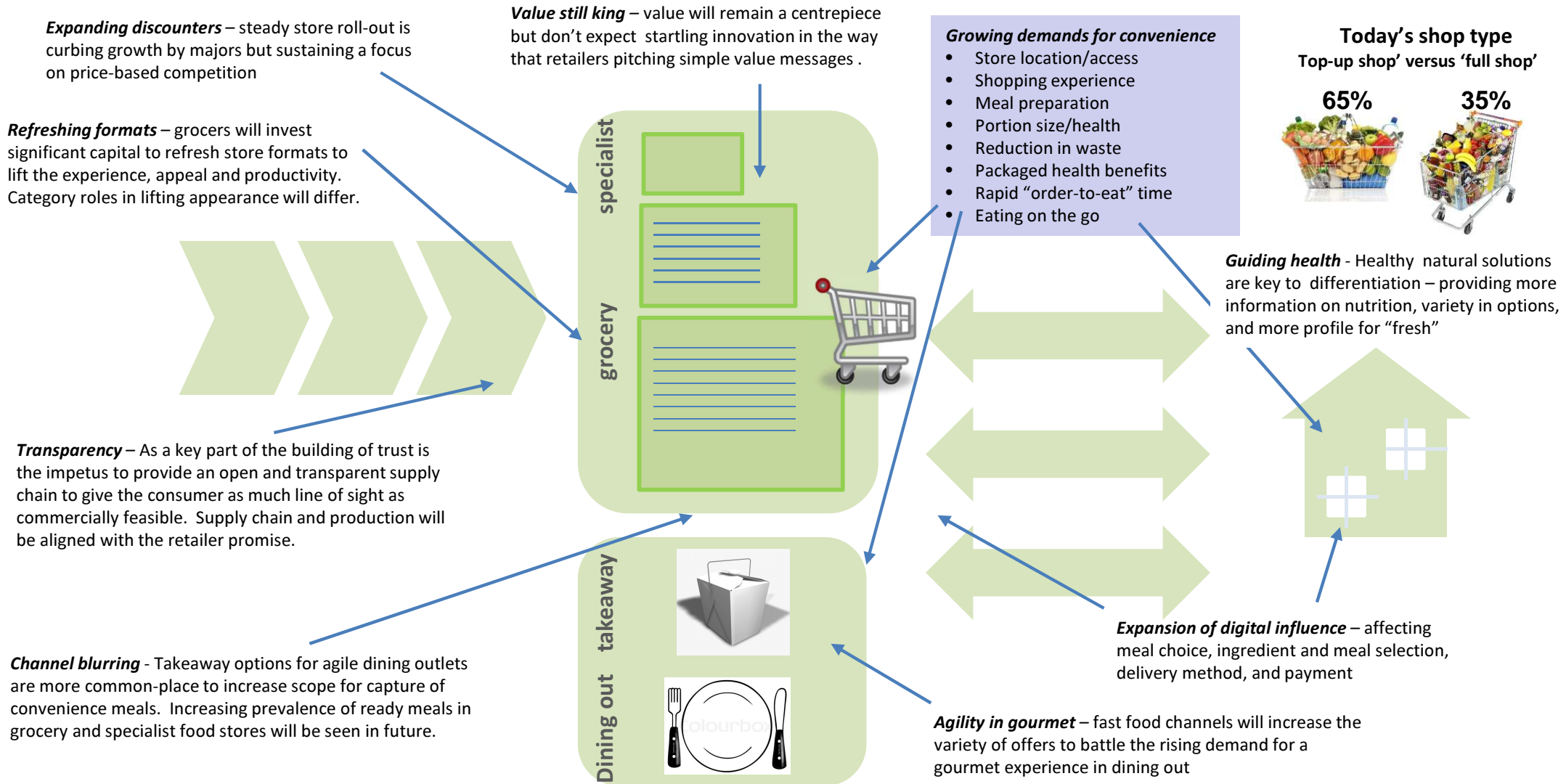
There are a set of nine major forces driving change.... → ...which have “clustered” into new market settings ... → ...having many positive implications for the dairy category



- There is ample scope for growth in volume and value as a result of **shoppers trading-off value, convenience, and indulgence** (caring) priorities
- Dairy marketers have many opportunities to **capture growth** in an increasingly diverse market with accelerating change due to the diversity of product offering and meal and snacking occasions that suit dairy
- There is widening scope to get **more product into convenience purchases**, where there is less price-sensitivity
- However must positively manage how it is seen by consumers keen to demonstrate **their care for welfare and environmental concerns**.
- **Emerging retail channels** outside of conventional grocery and foodservice outlets offer opportunities for real growth as lifestyles and technologies influence decisions.

Trends that will shape food retail

There are a number of strong trends causing change in the way consumers make their food purchase decisions and influences shopping behaviour. These in turn have relevance for the range of products and usage occasions across the dairy category.



The grocery landscape

The relatively concentrated nature of the grocery market will ensure that growth through these channels to the consumer are sustainable.

- Grocery competition within Australia has for the past five years been an intense contest for “parent brand” trust by consumers across a range of propositions. This will continue for the foreseeable future and continue as a major influence on retail food markets.
- The trust contest is dominated by a core appeal to the “value” perception (representing “price plus benefits”)
- It is not expected that this approach will change quickly due to:
 - The entrenched desire for value from a cautious shopping public
 - The expansion of the Aldi and Costco chains over at least 5 years
 - The slow improvement in the return on investment by Coles
- Gains in grocery chains gaining consumer trust of parent brands will be slow. UK retail parent brands models started in a different place to their local counterparts with a high-quality, yet have taken 20-25 years to reach their current levels of respect.
- Australian consumers are relatively skeptical of major grocers that have indistinguishable propositions. “Gen Y” and “Gen Z” segments of the community show less attachment and loyalty to “establishment”.
- This implies that “value” is likely to remain a key plank of retailer propositions to shoppers, unless there is a huge lift in consumer sentiment and discretionary spending on food, which is not foreseen by grocers for the next five years.
- The scope for growth in unit values of dairy products depends how products can tap into the drivers of premium, which are identified in the box on the right – which was direct feedback from retailers as to the scope for tangible gains from dairy into the medium term.



What will grocery retailers want from dairy?

- “Value” lines in undifferentiated commodities
 - Milk, Block cheese, Spreads
- Innovation to lift value through:
 - Provenance
 - Traceability
 - Functionality
 - Convenience (product use, portion size etc)
 - Any other durable emotional differentiation
- A sustainable sourcing proposition that resonates with and is trusted by consumers

How we are seen by customers and competitors

This page provides a summary of how the Australian dairy industry was perceived by customers and competitors from the discussions held during the project. These include the views international and domestic participants. These views affect the standing and reputation of the industry – the trust that others have in Australian dairy as a supplier and partner.

Lost the “low-cost” mantle

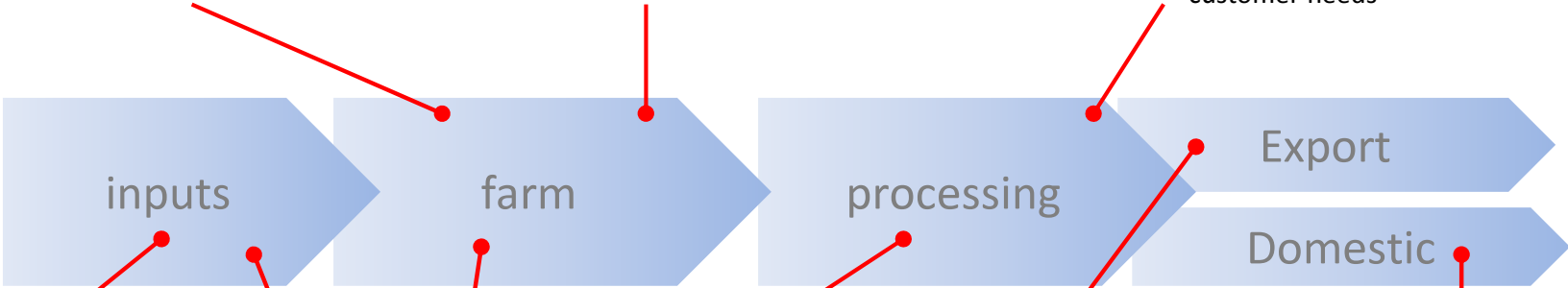
- Still one of the world’s low cost competitors
- Higher cash costs of production have developed, and coupled with a less-competitive processing sector, we are worse-off

Innovation disadvantage

- Major dairy groups are strengthening innovation value chains, and “locking-up” their R&D pipelines, providing little visibility
- We are further from the “innovation interface”, giving less scope to interpret and influence trends
- Priority must be to become “fast follower”

Reduced relevance

- Strong integrity in product quality and safety remains high
- Agility and responsiveness will be key to meeting customer needs in growing markets
- Distance from the customer has increased
- Lack of effectiveness in anticipating consumer and customer needs



Vulnerabilities

- Exposure to weather undermines supply reliability

Exposed to volatility of prices/costs

- Greater exposure to commodity inputs, operating overheads and currencies
- Profile of domestic market issues weakens appeal – “distracted by domestic issues”

Positioning in markets

- We are less integrated into customer value chains, and less relevant to their positioning
- We don’t seem to be working as closely with our government, especially in improving market access

Domestic caution

- Dairy industry “not aggressive” – waits for change to happen to it
- Cautious approach to claims constrains innovation and affects category growth versus other foods

Future community, consumer & customer

Understanding the dimensions of influence

- Dairy's relationships with the marketplace have three important dimensions, each with their own distinct requirements, requiring different forms of engagement:
 - Consumer – end point
 - Customer - channel
 - Community – enabler and stakeholder
- The working group has been exposed to a number of examples that clearly shows that sustaining a competitive food industry in future will demand a full appreciation of the different dimensions of each in able to earn and maintain “trust”.
- These efforts to build and maintain “trust” have been seen in good and bad examples, as set out on the following page.

Emotional connection

- A key strategy in winning ongoing respect and confidence from consumers, customers and community will be establishing effective “emotional connections” on key propositions. Effective influence from advocates and activists is largely based on such approaches to cut through to their target audiences. Examples are provided on page 30.
- **Overemphasis on technical defence** of industry's proposition will not provide a sufficient platform to influence the future scope for improved community and consumer acceptance of dairy including its key role as a nutritional food and the management of sustainability pressures affecting the value chain from farm to consumer.
- We need the credibility of supporting evidence behind these emotional connections.

Dairy's challenges in winning trust:

- What do we want to be trusted for?
- Who do we need trust from?
- What are the “levers” of trust in each relationship?
- How do we influence it?
- What will damage or support it?
- What advocates do we need to seek the same outcomes as us?
- How do we influence the behaviour of supporters to work in our favour?

The changed levers of influence on Government

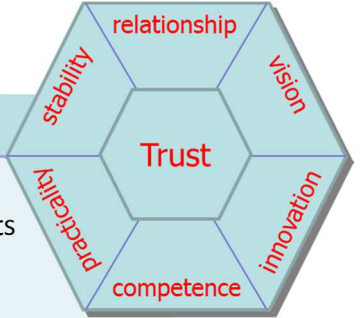
- Structure of decision-making in successive governments since the late 1990s has changed to a centralised, executive unit which is far more sensitive to perception. The ways in which decisions are made regarding policy portfolios has altered significantly.
- The importance of new channels of influence has escalated . There are highly effective advocates (NGOs, activists) that support issues that impact the views and trust that the community has for agriculture, food and dairy. These are highly influential in policy development that affects dairy's business
- Technology advances, their impact on media and societal behaviour of younger generations have altered how messages reach and influence people, how opinions are formed and even how industry image is managed.
- Yet **despite these massive changes** – the dairy industry uses the **same advocacy and influence models and approaches** that we've used in the past twenty years.

Future community, consumer & customer

Examples of efforts to win and retain (and sometimes damage) trust

The HU Trust model is an example which allows the different dimensions of trust to be measured in context.

The Hu Trust model



Context	The challenge and approach	Learning
<i>Fonterra in China</i>	Gaining credibility by investing in fresh milk production to help build a better quality platform as part of the solution to improve the safety and quality of local milk production in China.	Brand credibility with the consumer and corporate relationships with Governments will assist maintain favoured trade outcomes.
<i>Chinese milk brands</i>	Establishing and maintaining brand loyalty through promotion, and rapid development of a safe fresh milk value chain. However trust is fragile	This trust is repeatedly damaged by food safety scares affecting milk and infant formula products of all major processors.
<i>Global food brands in China (Yum, Infant Formula examples)</i>	Retaining consumer confidence of the Chinese household by maintaining strict quality standards and promoting the long-term integrity of products in home markets.	Chinese value the existence of brand credibility in other regions as a basis for themselves to trust the competence of the imported brand.
<i>WWF</i>	Maintaining community respect by carefully choosing which industry or corporate propositions to “back” which do not weaken their image with stakeholders	While NGOs are key partners in winning trust from the community, they also manage their own brand with similar considerations
<i>UK retailers</i>	Maintaining brand respect by demonstrating the ability to deliver value in staple foods while delivering on a range of propositions of interest to their target consumer and community segments	This is highly relevant to the approach being followed in the Australian market.

Future community, consumer & customer

Examples of effective emotional connections

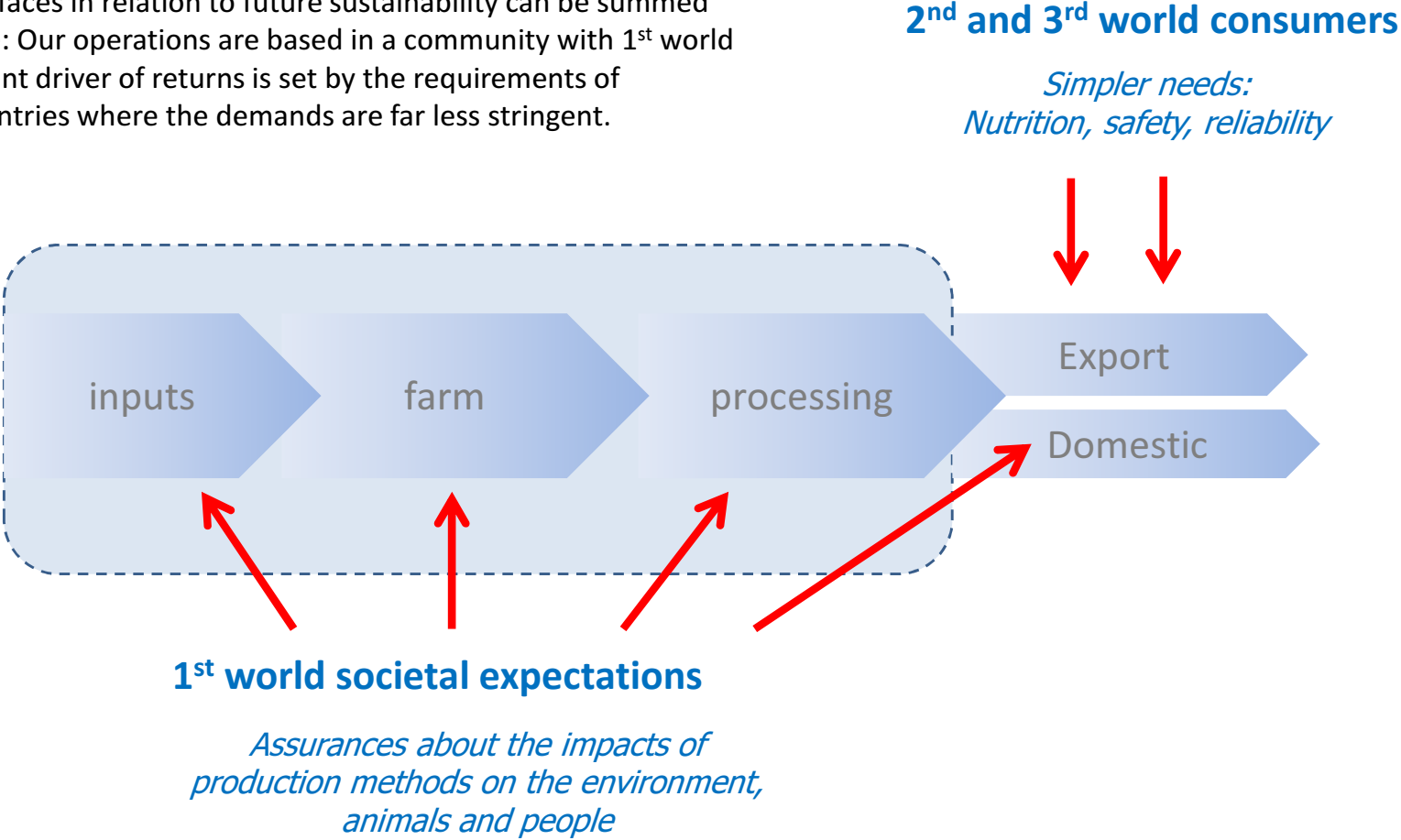
The following examples are relevant to dairy's future ability to influence agendas

Context	The challenge and approach	Learning
<i>Gaining respect</i>	The effect of the Countryfile lifestyle TV program in the UK which has helped build a better understanding of food production and an appreciation of responsible farming practices	The approach uses a form of social media to create an emotive connection with the public. The program achieved significant more than years of agricultural industry promotion in increasing interest in agriculture as a career.
<i>Educating consumers</i>	The methods used in the Fair Oaks Dairy "theme park" to "socialise" the approach used in large scale milk production and in welfare practices.	The operators use transparency to improve appreciation for production practices, allowing the public to watch and touch.
<i>EU grazing practices</i>	The campaign used by CIWF to raise community awareness of animal welfare issues within the EU which is leading to pressure to regulate grazing systems and farm sizes.	The simplistic message based on what people think animals would like has created significant cut-through to threatened changes in operating practices, despite industry's technical and operational defences.
<i>Loyalty of the Chinese consumer</i>	Chinese processors (and Government which assists in funding the expensive campaigns) playing on nationalistic themes and aspirations in the promotion of dairy drinks and products.	The adverts play on themes that resonate directly with their target middle class audiences.
<i>Story of Milk</i>	FrieslandCampina's use of a promotional video to promote the fundamental and traditional goodness from dairy.	The production techniques create a highly emotive engagement with the traditional food values without actually mentioning a specific product.
<i>NGOs and live exports</i>	Shutting down live exports through the portrayal of cruel slaughtering practices.	The highly effective engagement with a TV audience and political targets has placed threats on the sustainability of the live export trade in dairy without more stringent management of animal welfare – and poses the challenge of where export responsibility ends.

Sustainability

Dairy Australia commenced work on behalf of the Australian industry in 2012 on the development on a framework for addressing sustainability in the future. The working group has not sought to investigate what approach is appropriate, but to understand the background drivers that affect the rationale to that framework.

The challenge our industry faces in relation to future sustainability can be summed up in the chart on this page: Our operations are based in a community with 1st world expectations, yet a significant driver of returns is set by the requirements of consumers in 3rd world countries where the demands are far less stringent.



Sustainability - on everyone's agenda

What is driving it?

- The pressure for food enterprises to implement sustainable practices is due to pressure from both the wider community (which is being influenced by a number of NGOs) and major food corporations and retailers.
- Sustainability has been taken “mainstream” by major food companies (such as Nestle and Unilever) that have embraced its principles as a core part of strategy. To these, sustainability is no longer merely a marketing proposition and/or an element of corporate social responsibility, but a way of doing business. It has become a strategic approach to extract business value through risk management & resource efficiency.
- Major grocery chains are tending to follow the global food groups, more through being seen to “do our bit” rather than implement culture shift.
- Pressure from the community varies country to country depending on the sensitivity to sustainability issues. The strongest pressure in this regard is being applied by activist NGOs on issues regarding animal rights and environmental impact. The outcomes sought in these areas is to affect public opinion (and product consumption) and regulation of business practices (which may reduce flexibility and efficiency).
- The working group has assessed that the high risk approach would be to view sustainability as “imposing costs on the business”. Greater business value can be gained from taking the opportunity to operate with more efficient use of resources and improved risk management.
- For the industry, the best outcomes are available from taking a “front-foot” approach by adopting outcomes-based principles & practices and showing continuous improvement that allows the industry to stay ahead of naïve and prescriptive regulation. It will also require us to engage with NGOs who will work effectively with industries to support change while achieving shared outcomes.
- Experiences in the EU and NZ dairy industries hold important lessons in this regard.

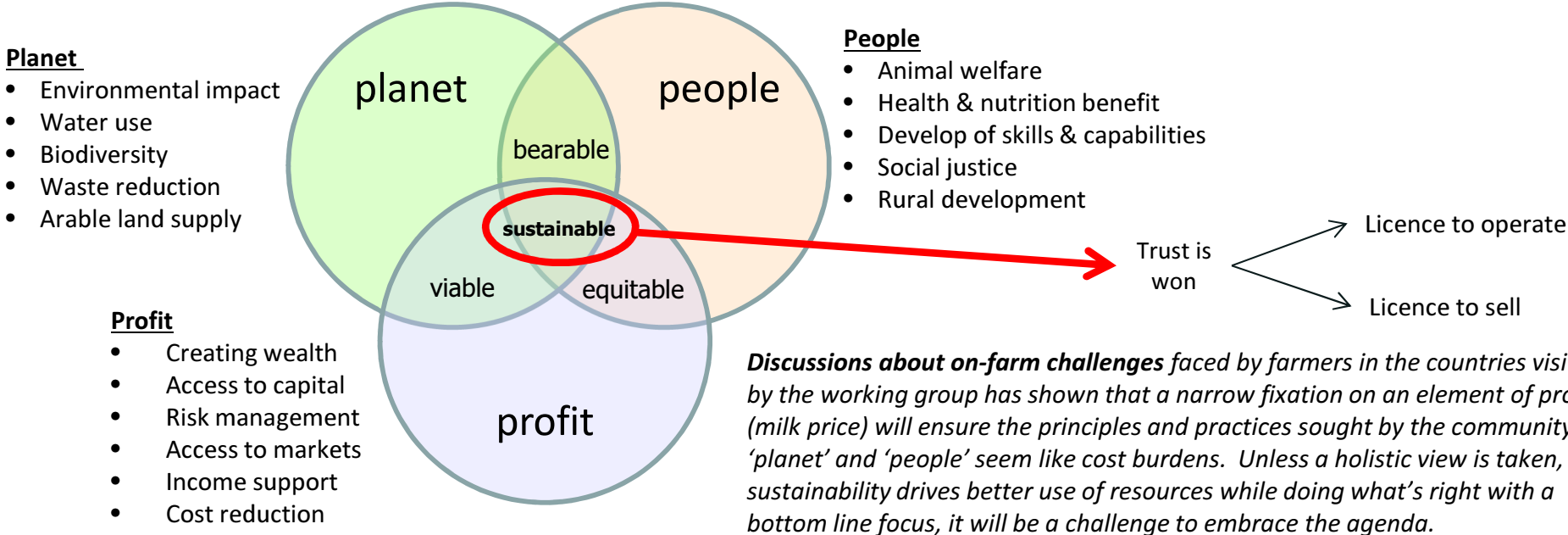


Sustainability – what does it mean?

Sustainability means different things to different people, and the term has become somewhat confused. It is important that a clear understanding of what it actually means to be sustainable – essentially achieving more value while consuming less, while “doing what’s right”. The increasing demands of the community have established wider dimensions for the future sustainability of the dairy value chain. Several approaches have sought to define what it means:

- Improving wellbeing, enhancing livelihoods and reducing impacts (*Unilever – adopted by ADIC*)
- Productive, competitive and efficient ways to operate, while protecting and improving the natural environment and conditions of local communities. (*SAI Global Platform*)
- Creating shared value (*Nestle*)
- Looking after the environment and the communities in which we operate so that things we enjoy today are preserved for the generations of tomorrow. (*Fonterra*)

The Horizon 2020 Working Group prefers the diagram below - rather than a catchphrase - to explain its full dimensions:



Our agenda

A full agenda

- The Working Group has observed that the elements of sustainability are evident in **varying levels of intensity** in different parts of the world.
- Different cultural contexts affect community and consumer expectations relevant to sustainability. The **table on the right** shows those elements which have gained profile in various regions.
- It recommends that the Australian dairy industry’s efforts need to be on the front foot to address a full agenda, reflective of that shown in the range of issues relevant to the UK and Western Europe, while at the same time maintaining cost-competitiveness.

Why a full agenda?

- The following factors support the adoption of a full sustainability agenda:
 - Our society has very similar cultural attributes to western Europe and the UK
 - Major Food companies which will continue to shape dairy food markets are EU-based
 - Food retail models in Australia take their lead from UK models including sustainability requirements
 - Governments in developing markets are likely to copy EU requirements into their food regulation, including their sustainability conditions regarding people and planet practices.

	China	US	UK	West EU	East EU	NZ	Aust
Planet							
Water use	●	●				●	●
Emissions		●	●	●	●	●	●
Arable land supply	●	●	●	●	●		
Energy savings		●	●	●	●	●	●
Waste			●	●			
People							
Animal welfare		●	●	●		●	●
Health & nutrition	●	●	●	●			●
Skills & capabilities	●		●	●	●		
Rural development	●			●	●		
Social justice			●	●	●		
Profit							
Wealth creation						●	
Income support	●	●	●	●	●		
Market access		●	●	●	●	●	●
Access to capital	●				●		
Risk management	●	●					

● = issue with reasonable profile in each country

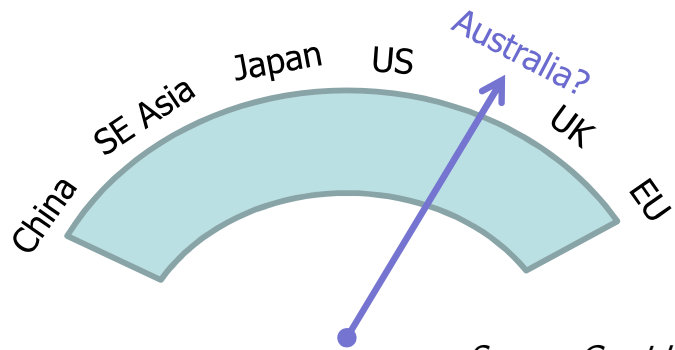
Sustainability agenda

Cultural settings determine our challenge

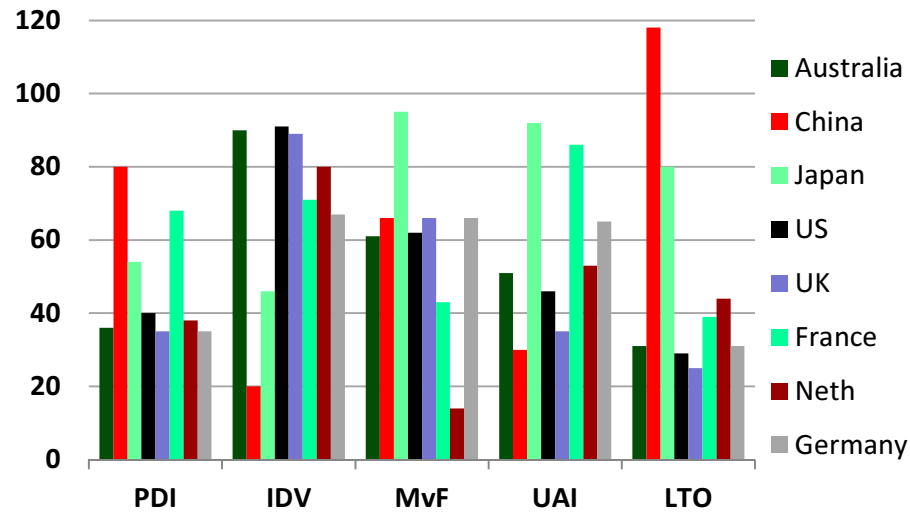
- The sustainability issues tend to differ in their intensity or amplification due to the cultural settings, but “resource use efficiency” is the strongest driver in mature settings.
- The Geert Hofstede methodology can be used to contrast these and help determine how sustainability elements may escalate in the Australian community over time. In essence, this shows that we are closer to western European and US traits, and accordingly a higher societal expectation is likely to develop.
- The major difference in the US context at this stage is the lower sensitivity of the community to issues concerning the environment and animal welfare and the role that EU corporations are playing in influencing the global food marketing and retailing landscape.

The role of NGOs

- Non-Government Organisations play a major role in influencing the sustainability agenda. Pragmatic advocates play key roles in publicly partnering with corporations (Unilever, Nestle, McDonalds as examples) in developing and monitoring practices.
- Over time, dairy will be compelled to positively manage the balance between feed conversion and environmental benefits of intensive systems versus the perceptions of welfare issues in meeting growing demand.
- As an example of the balancing the competing objectives, conversion of plant material which cannot be digested by humans is more acceptable as a future feed source despite giving higher impact per litre.
- Many agendas are driven by anthropomorphist concerns are driven by the emotional health of animals in food production systems.



Source: Geert Hofstede

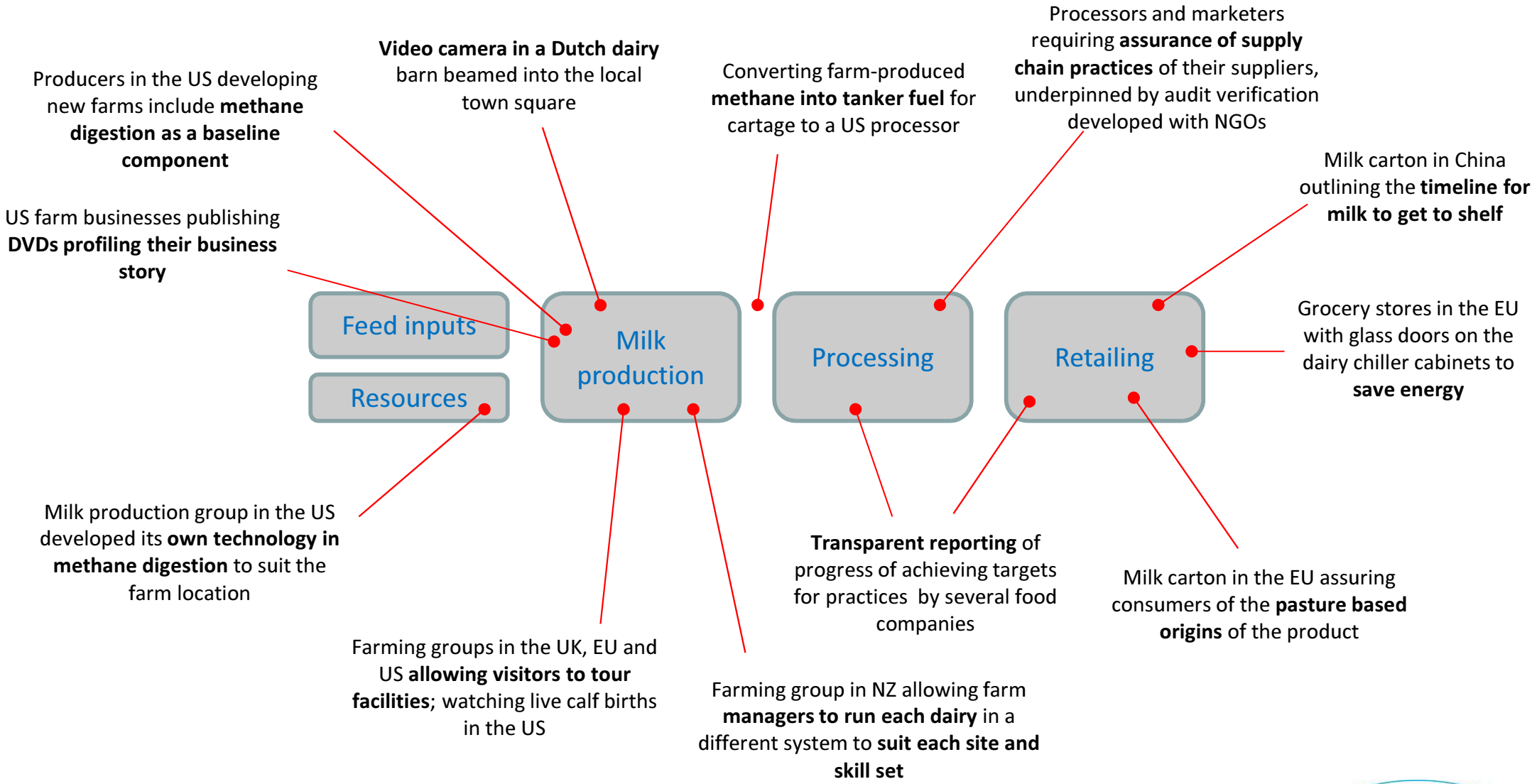


Aspects of cultural settings

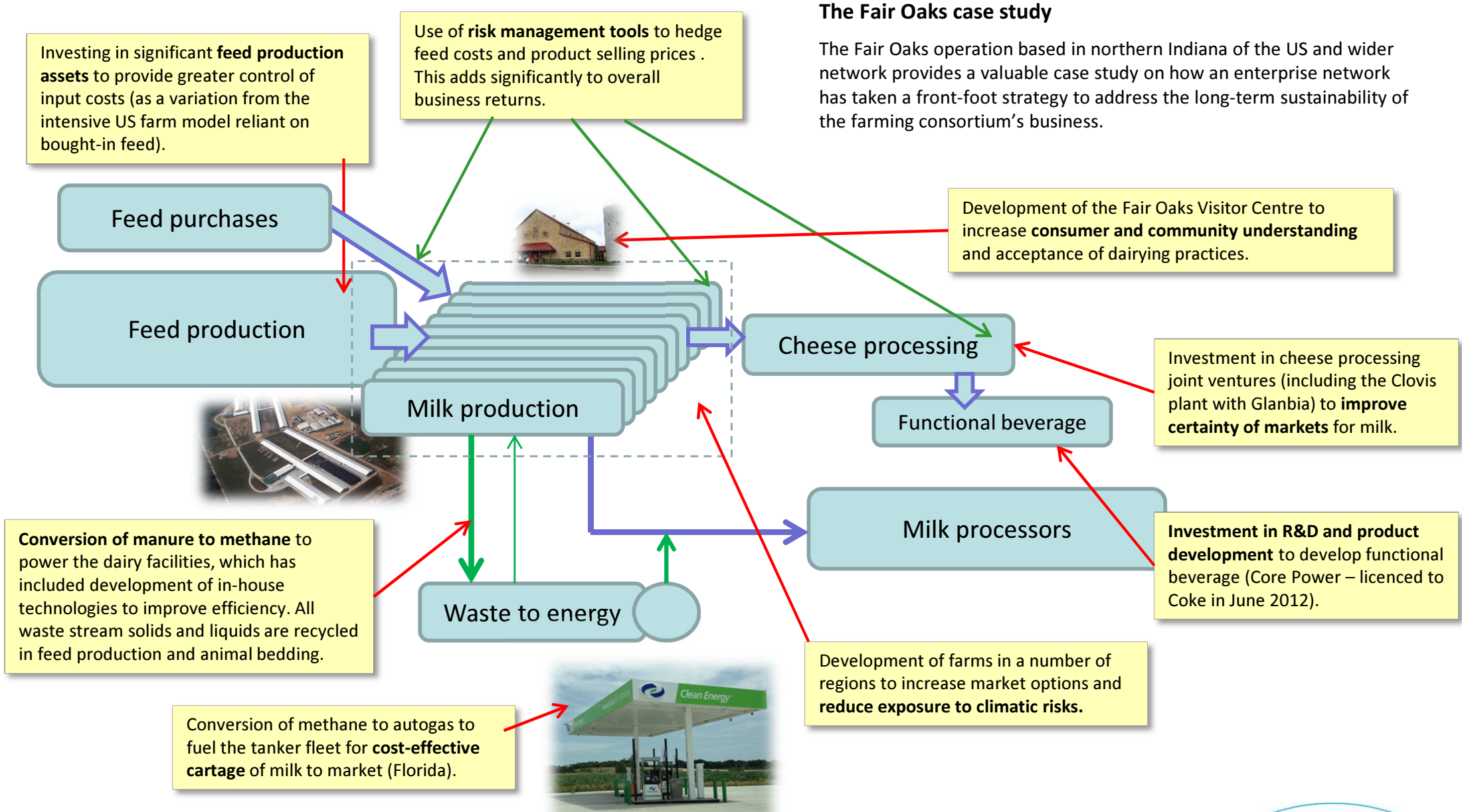
- PDI = power distance
- IDV = scope for individuality
- MvF = masculinity bias in society
- UAI = uncertainty avoidance
- LTO = long-term outlook

Examples of “front-foot” sustainability

The working group observed many examples – often way ahead of community interest or concern – where front-foot sustainability principles and approaches had been implemented along the value chain.



Sustainability agenda

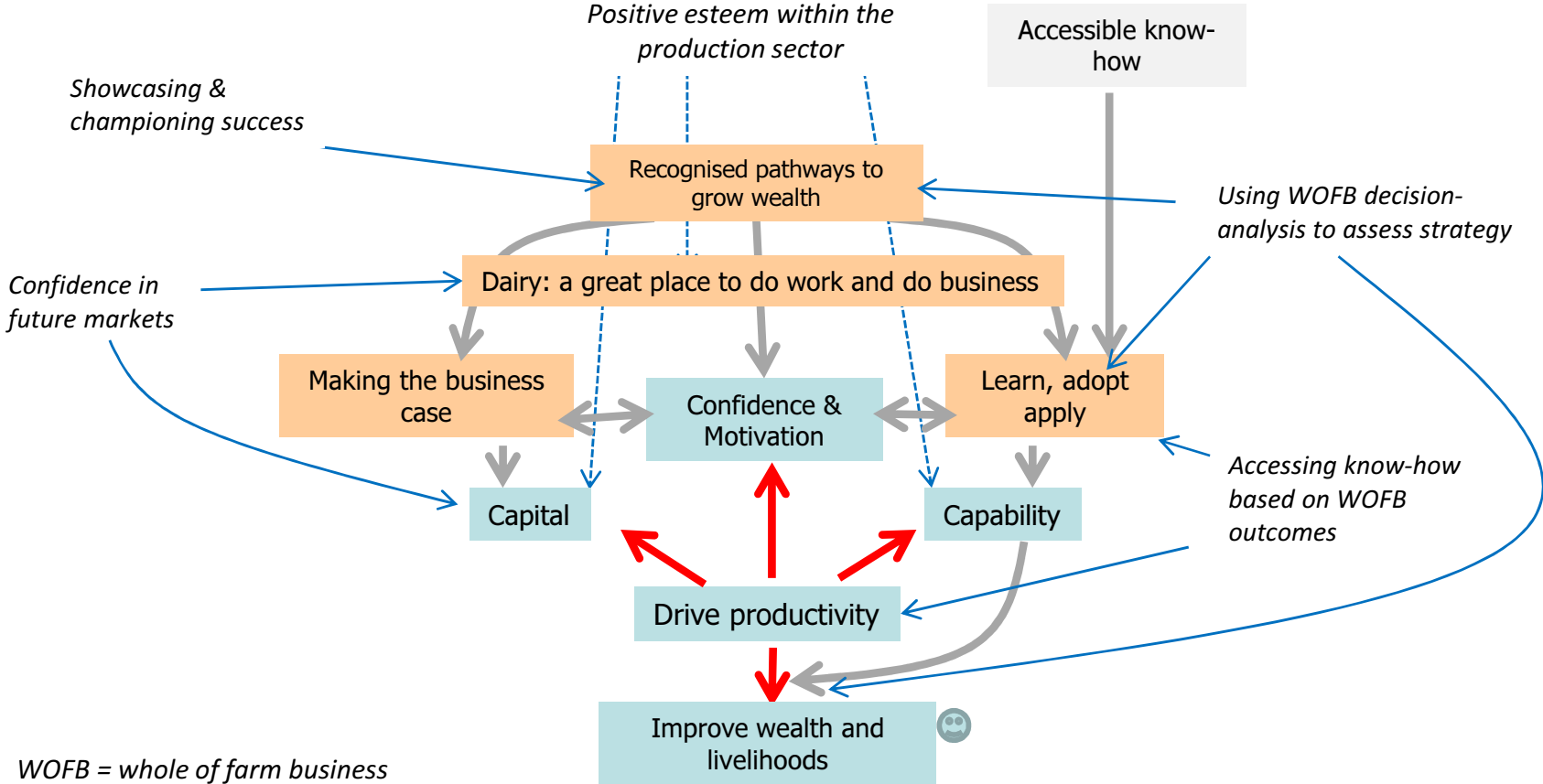


The Fair Oaks case study

The Fair Oaks operation based in northern Indiana of the US and wider network provides a valuable case study on how an enterprise network has taken a front-foot strategy to address the long-term sustainability of the farming consortium's business.

Farm enterprise wealth

The working group met with a number of successful dairy farm operators in the UK, EU, US and New Zealand as part of the study tours. There were a number of common ingredients to success that were identified during those discussions regarding the industry settings and motivators that were driving business improvement. This diagram summarises the factors that were seen to generally contribute to success.



Farm enterprise wealth

Investment models

- Significant capital looking to invest in food and dairy due to the long-term outlook. Australia will compete with established and developing dairy production regions for that capital investment.
- The working group was exposed to a number of investment models in discussions with farmers and investors – some well-established and others in development or proposed.
- The key ingredients of success
 - Management – skills of sufficient level to sustainably manage the business complexity and precision.
 - Incentive – appropriate incentives are in place to drive results to match return horizons
 - Risk capital – adequate capital is available to meet the needs of the target businesses with the matching tolerance for risk – including development capital to improve existing farms to full potential.
 - Contract – there is a contract with the marketplace that provides sufficient certainty of demand and price band that underpins return expectations. Annual pricing arrangements provides some challenges in this regard.
- Choices of investment models won't make a difference to the underlying quality of the farm, herd and operating assets, but the appropriate model can provide a suitable blending of the above ingredients for a successful operation, suited to investor risk.
- The key recurring message from comparing various models in use and proposed is the importance of management skills and systems, with a family farm unit running the day-to-day operation.

Why we are missing out?

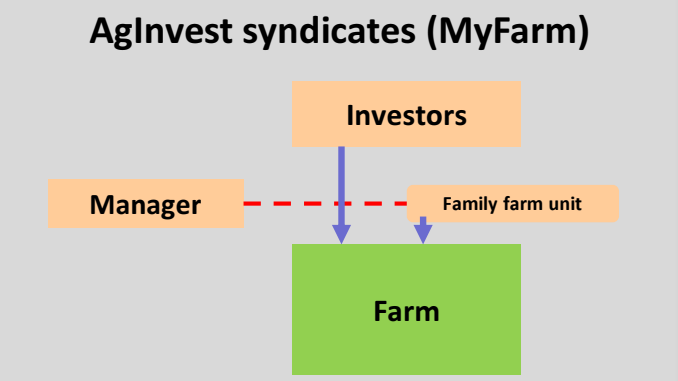
Currently the relative attractiveness of Australia as a destination for investment suffers due to

- A lack of successful investment models
- Uncertainty of how investors can identify candidate farms
- Insufficient development of pathways to link successful farm management family units – generally the key recipe for success in any investment model – with investment structures
- A perceived lack of a sufficient pool of management skills
- A lack of transparency in the performance of farms and the value chain; and
- The low incidence of showcased success in milk production.

Farm investment models

Overview of topical investment models

These models have different features yet each operates in Australia and are the basis to service a large supply of capital that is interested in dairy investments in this country. These models vary in the risks taken by the primary capital investor and the approach to management.

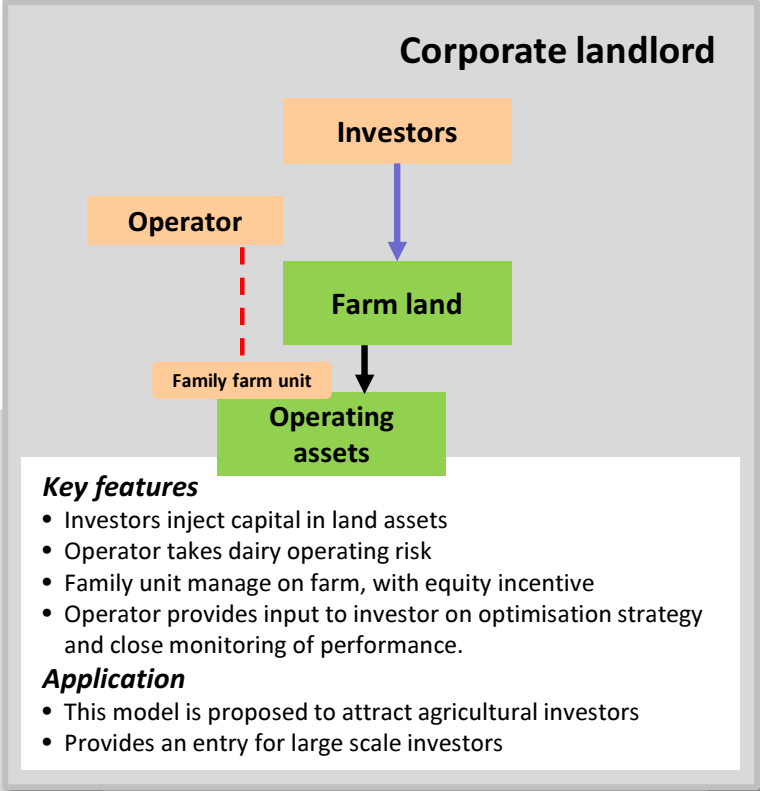


Key features

- Investors inject capital in purchase and improvement
- Family unit manage on farm, some with equity incentive
- Manager provides input to investor on optimisation strategy and close monitoring of performance.

Application

- This model is used in more than 50 farms in NZ, 4 in Australia
- Provides a suitable vehicle for city and farm investors to meet
- Copes with syndicate turnover and investor exit
- Draws on a large pool of investor interest due to earning reputation of NZ dairy and manager's track record

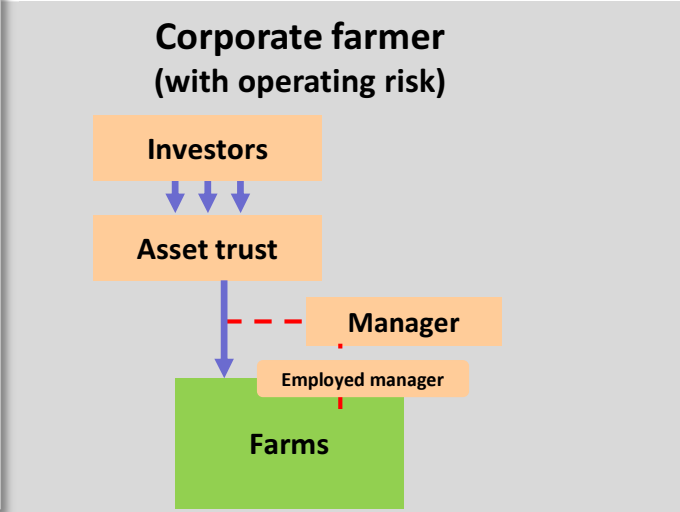


Key features

- Investors inject capital in land assets
- Operator takes dairy operating risk
- Family unit manage on farm, with equity incentive
- Operator provides input to investor on optimisation strategy and close monitoring of performance.

Application

- This model is proposed to attract agricultural investors
- Provides an entry for large scale investors

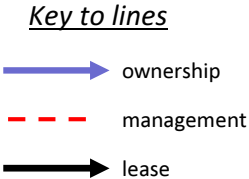


Key features

- Investors inject capital in purchase and improvement
- Manager on farm, with salary/bonus equity incentive
- Manager closely manages farm, makes operational decisions and monitors performance
- Manager incentivised on performance

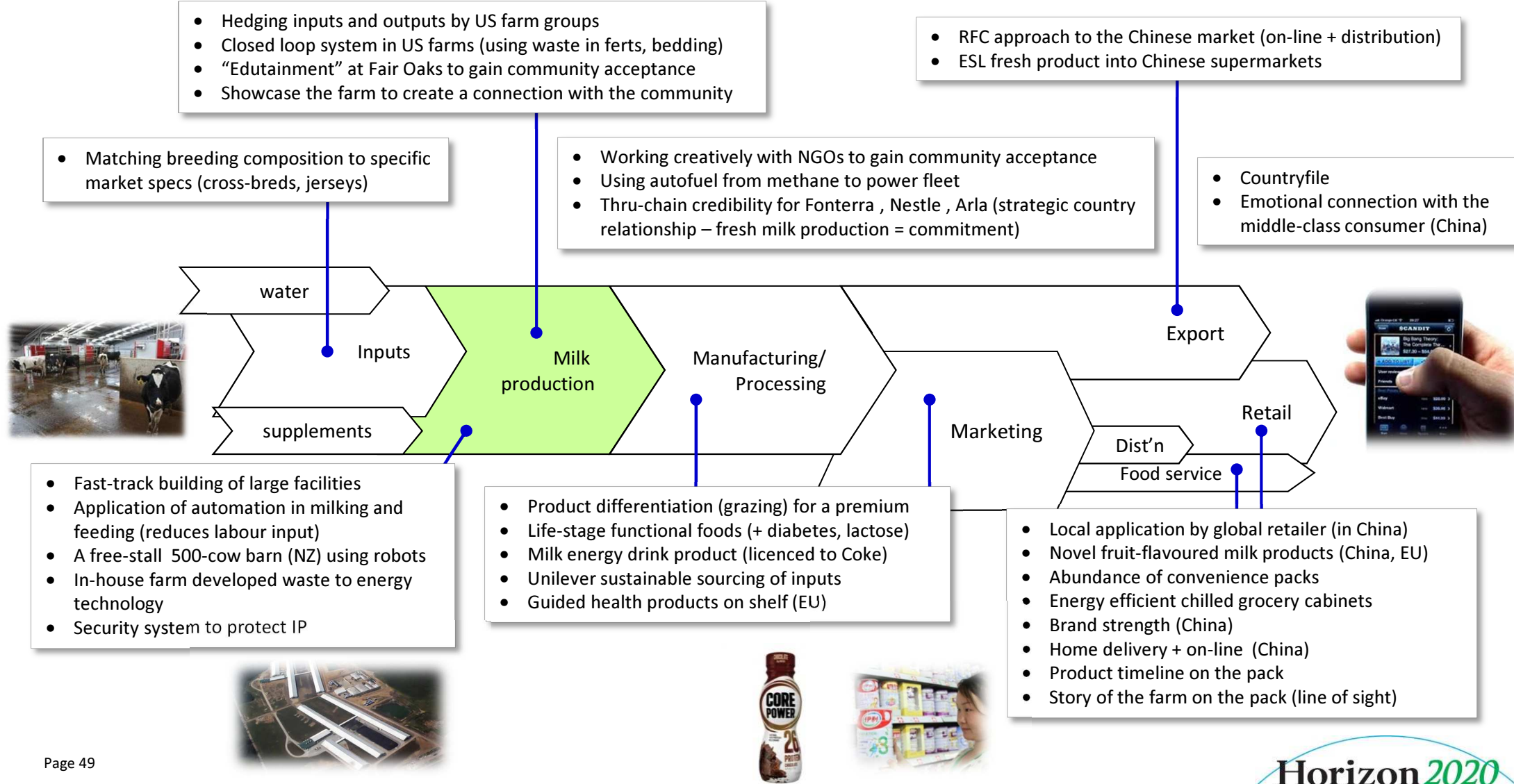
Application

- This model is currently used in a group of 10 farms



Examples of stand-out innovation

Innovation is not just about applications of farming systems or technologies, products or processing. Much of the innovation during the work was about the approach being taken on various agendas, providing a basis for how industry can approach barriers or opportunities in future.



Innovation by processors

Why innovation is critical

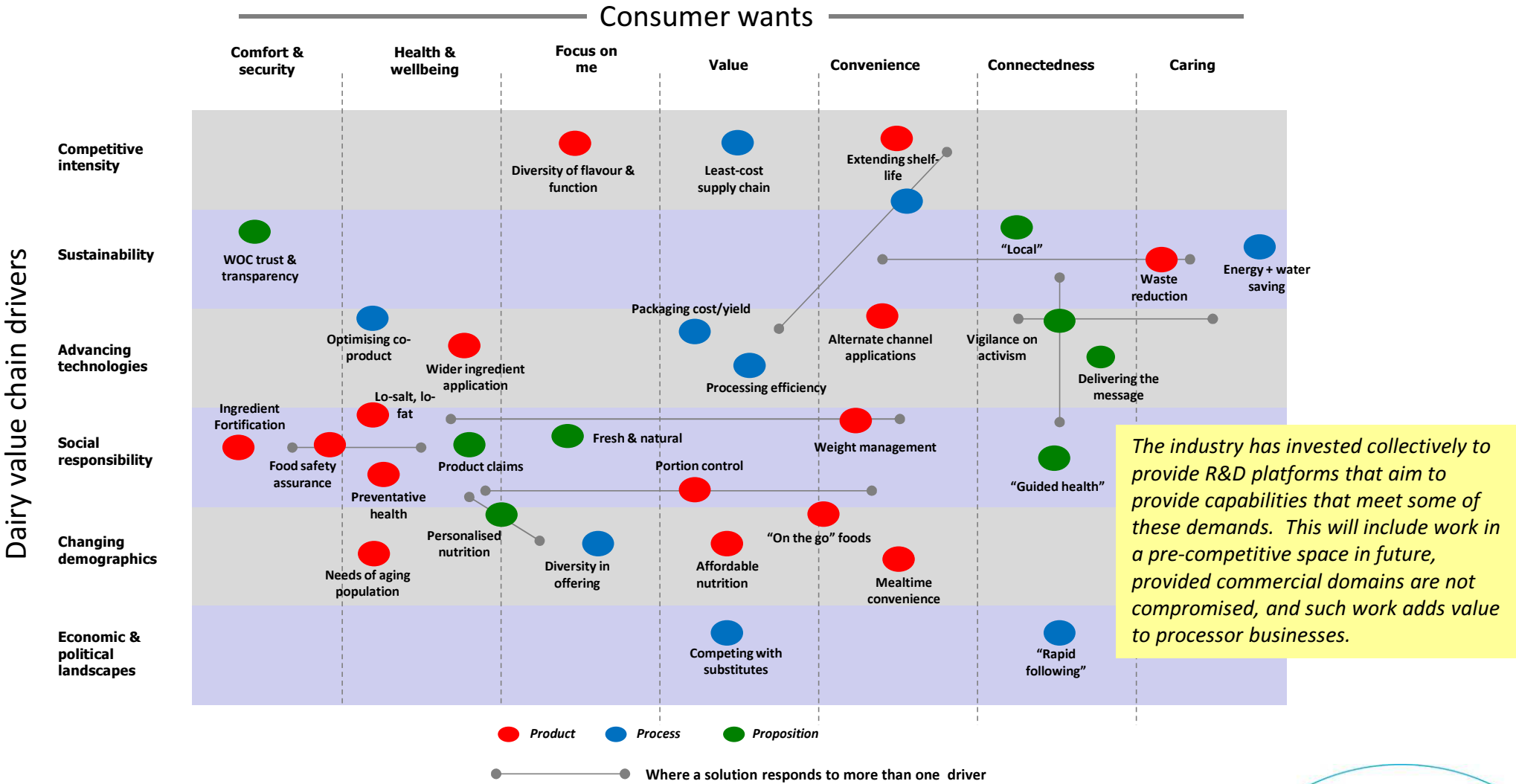
- There is significant ongoing requirement for innovation in processing to keep pace with the demands of the evolving marketplace, and improve the sustainability and competitiveness of businesses.
- Australian dairy factories lack the scale and possess aged technology that do not enable them to be cost-competitive with competitor installations in New Zealand, the US and Europe.
- While further consolidation is possible it is unlikely to significantly change this fact in the next decade. While much of the world market growth in is the supply of commodities to developed world markets, market growth will also open up opportunities to cater for customer needs in more precise specifications, and as an alternative to large dominant dairy processors that sell ingredients as well as products in brands.
- The scope for growth in value of exports comes from being agile, high quality suppliers with strong sustainability credentials.
- In domestic markets, the same capabilities are required however in different products and processes to meet evolving consumer needs.

Background

- An early phase of Horizon 2020 (sought by Dairy Australia and GGDF) involved an objective review of post-farmgate innovation priorities
- This was done to understand the priority technology and capability platforms that industry should invest in over the medium term (3-5 years)
- This work was brought forward due to the perceived urgency in the need to address the effectiveness of the current approach and investments.
- The work was completed in April and has since through a process of developing a response and plan to deal with the lack of cohesion between research providers (DIAL, CSIRO) and dairy manufacturers and processors.
- This work is relevant to the consideration of future scenarios as:
 - The scope for future dairy innovation is abundant and will be relevant under any future scenario (although the emphasis may vary depending on total industry capacity, volume and scale)
 - These areas of current industry collaboration may take on different forms – if at all – under future scenarios

Innovation – future needs

This page summarises the wide innovation agenda for the dairy category which was identified in discussion with industry and review of background trends in processed food markets – expressed in terms of **consumer wants** and **factors driving the value chain** that are impacting manufacturers. These cover pre-competitive and wholly commercial domains. It shows the wide scope of opportunity but also the pressure to make innovation investments count in an increasingly volatile world – with limits on available capital and industry R&D funds.



Innovation – current limitations

There are a number of limitations identified in the current delivery of "industry" R&D to dairy companies through collective investment vehicles.

Most focus on the short-term

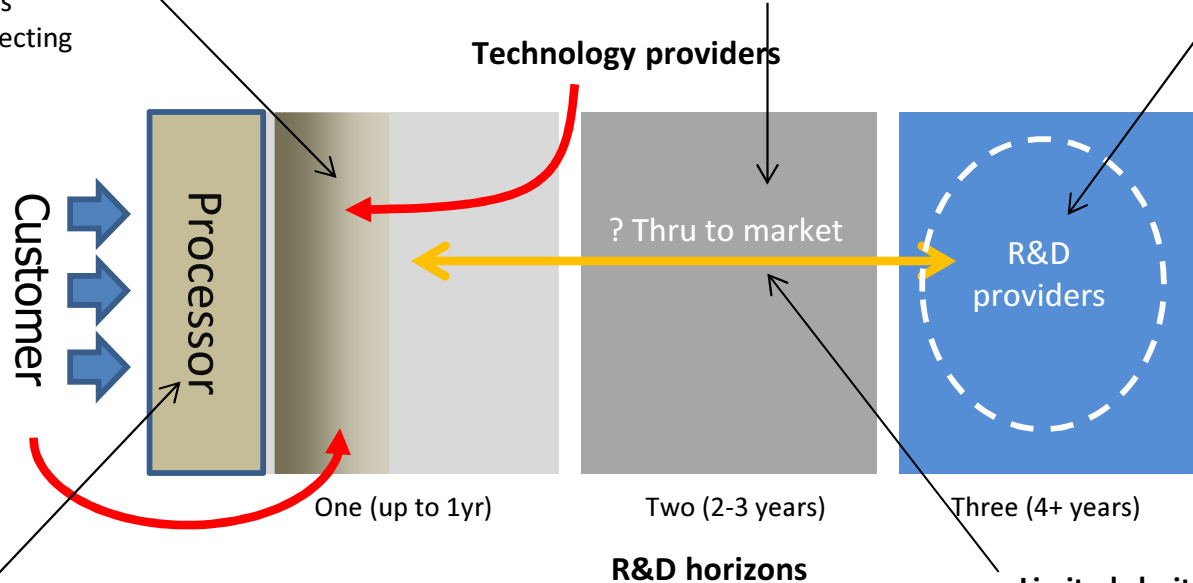
- The short-term focus of processors – which prevents an articulation on medium term needs – is due to:
 - intensity of competition in domestic and export markets
 - cost pressures on business
 - volatility of conditions affecting incomes and input costs

Medium term needs of companies are not well articulated

- This is largely due to the lack of an effective commercial engagement between R&D providers and processor management
- R&D capabilities do not include effective market engagement and access to intelligence on market trends relevant to future innovation needs

Large portion of effort perceived as a "push" of science

- A "push" of science based on capability rather than need means that industry customers do not highly rate the relevance of activities and profiled projects for future needs.



Range of providers

- Companies draw on a range of inputs for innovation solutions including customers themselves, technology or process providers and R&D agencies

Limited clarity of tangible benefits

- There is a lack of understanding of benefits gained from current and past R&D activities
- Companies can't measure gains and providers can't sell the benefits
- This threatens a business case for collaborative investments in future

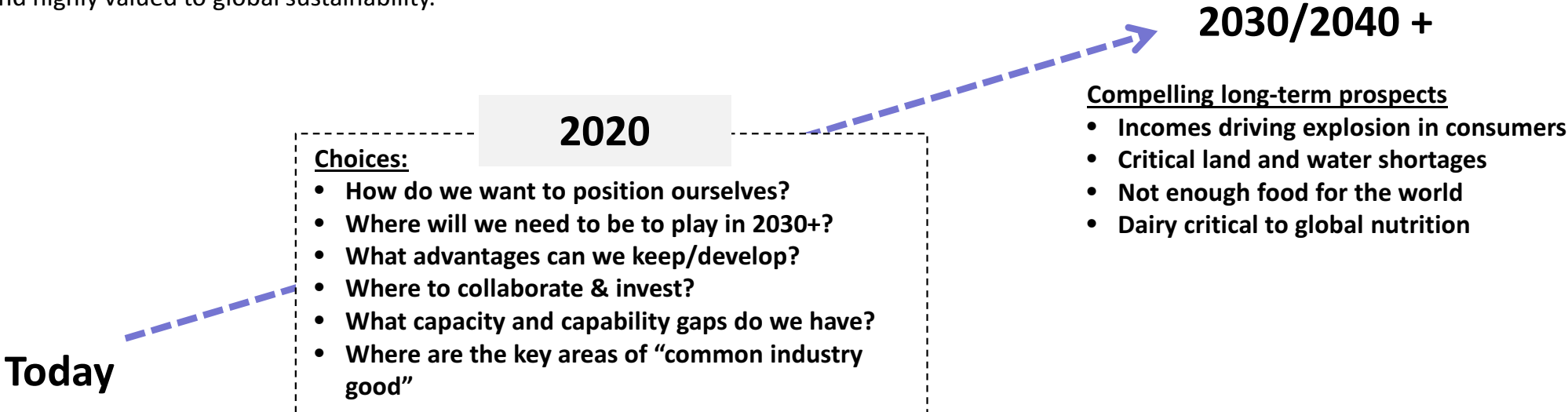
Section 2

Future industry scenarios

Future industry scenarios

The project employed scenario analysis to help develop future industry priorities. This process is used widely in corporate, industry and government planning to help focus on the most important imperatives. The process used in the project employed distinctly different views of the future to challenge thinking and help develop a desired future that industry should try to achieve.

It is useful to consider 2020 as a step on the way to a more distant future beyond 2030, when analysis suggests that the world will be greatly challenges to feed the population, and that the position of food producers will be critical and highly valued to global sustainability.



Why have a “desired outcome”?

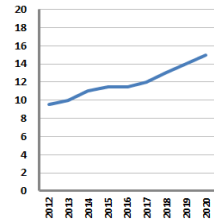
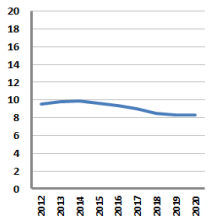
- It provides an overall objective and focus for industry services and supporting programs.
- It creates a statement of common purpose for industry advocacy.
- It articulates a set of target outcomes.
- Industry “visions” don’t inspire unless they can be articulated and made motivating, and don’t impinge on the commercial domain of competing participants.

The four scenarios

An industry group, which included the Horizon 2020 Working Group, developed **four scenarios** for 2020, based on the axes (considered most appropriate for industry-level analysis) which showed a divergent extent of **industry integration** and different outcomes in terms of **industry size and value**.

- Global industry managing volatility
- Strong connectedness to market/customers
- High levels of industry collaboration
- Clear market and supply signals through the chain
- Strong integration through the value chain
- Farmer integration beyond farm gate

- Decline in milk volumes
- Static or declining unit value

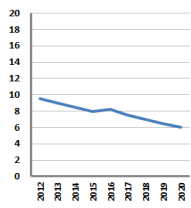


Shrink



Grow

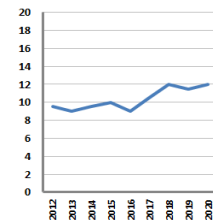
- Increased milk volumes
- Increasing unit value



Implosion

Aggression

- More remote from market/customers
- Limited collaboration
- Individual vision and decision making
- High level of competitiveness
- Limited thru-chain transparency
- Limited farmer ownership beyond farm gate



Integrated

Drift

Cohesion

1

2

4

3

Fragmented

“Drift” scenario

In this scenario, the industry works more closely together on a number of agendas and improves its integration with customers and markets, yet fails to overcome the challenges from volatility – especially in the farm sector – and shrinks in total size.

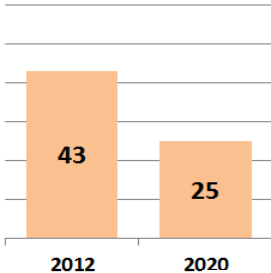
This scenario is explained in detail at **page 113** in Appendix 3

Highlights

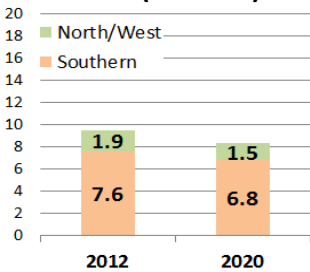
- Production stumbles to 8.3bn litres
- Productivity investments fail to inspire milk growth
- Global economic + climate volatility proved too challenging
- GM technologies had weak uptake despite collaboration
- Strong \$A weakened our export competitiveness
- Exports into selective niche areas
- Several examples of “line-of-sight” integration
- On-farm ROI 6-7%, farms aligned to stable markets
- Uptake of low-cost automation and other technologies
- Single integrated industry body representing all sectors
- Collaboration on sustainability and brand management
- High levels of traceability and transparency
- Many regional direct farm R&D initiatives

Integrated

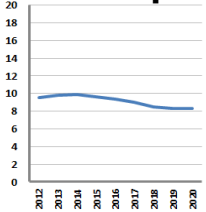
% milk sold export



Milk output (bn litres)



Milk output



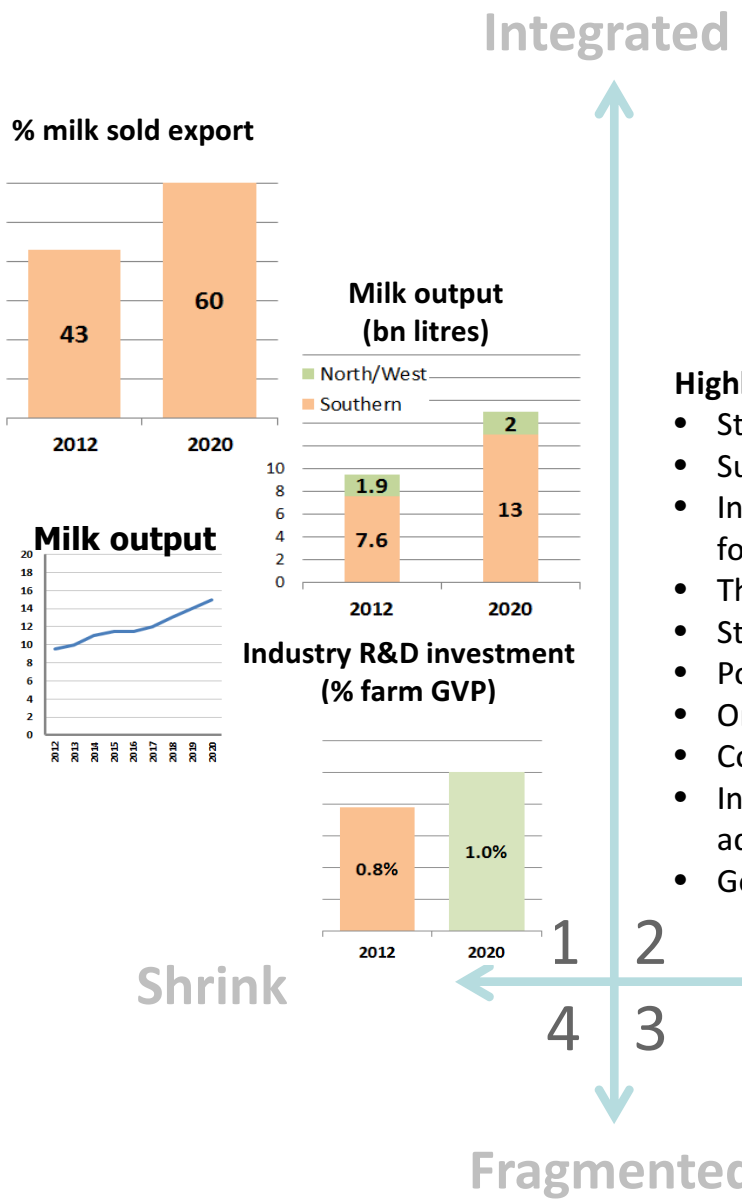
Shrink



Grow

Fragmented

“Cohesion” scenario



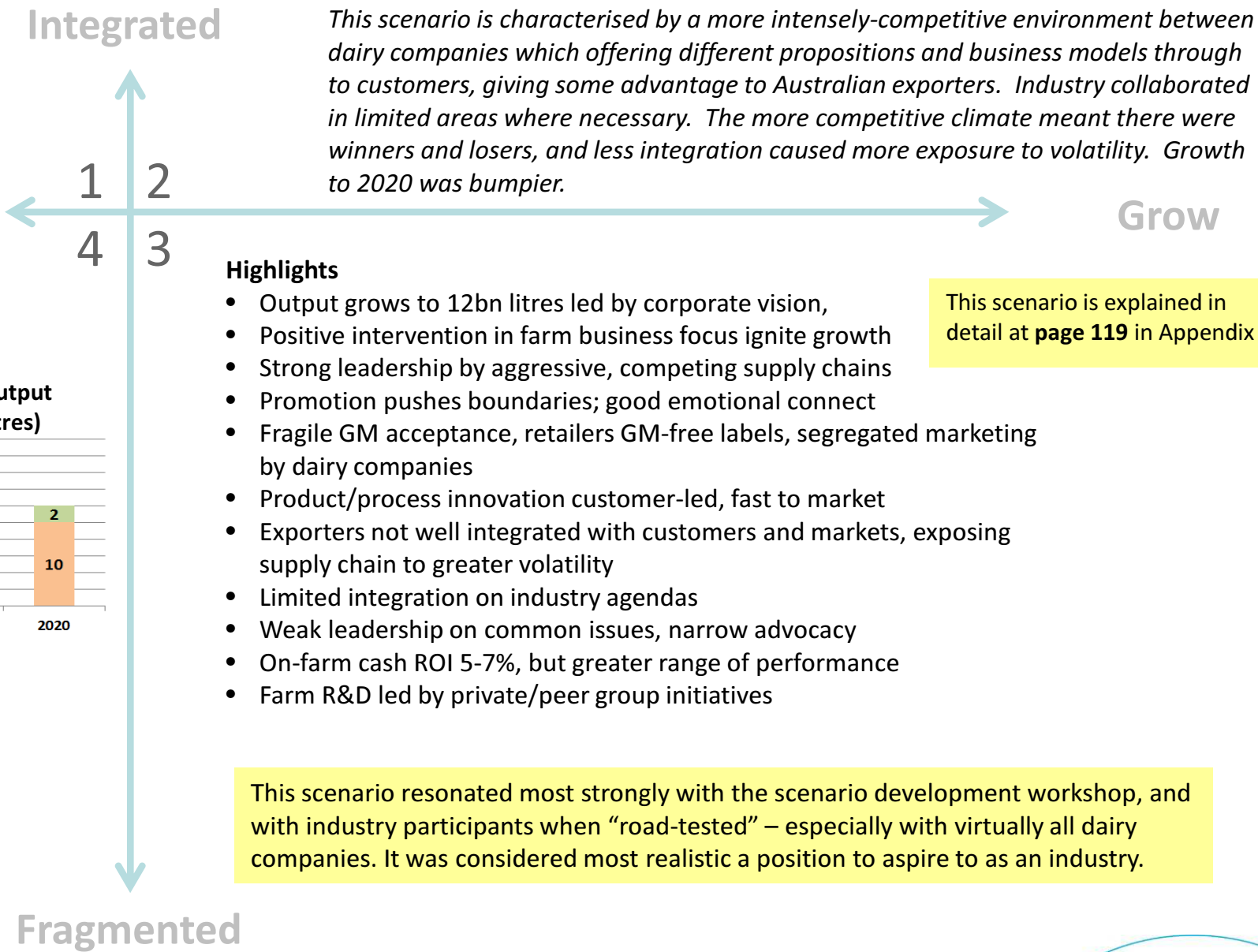
In this scenario, everything goes as well as could be expected in the future - the industry successfully works more closely on a wider set of agendas, with much closer integration with customers and markets. It also managed to invest in capacity on-farm to enable producers to achieve greater confidence and build management of volatility into their business approaches. One of the significant achievements was the gaining of acceptance of the use of GM practices as a sustainability measure, which enabled commercialisation late in the scenario period of more resilient and productive pastures..

Highlights

- Strong vision cohesion inspired growth to 15bn litres
- Supply closely integrated into customer businesses
- Industry is known for a collaborative culture, working together as a food industry across a wide set of agendas
- There are clear market signals through supply arrangements
- Strong single advocacy body servicing all sectors
- Positive farm business culture, luring capital across models
- On-farm cash ROI 6-8%, ROI between 11-15%
- Consumers accept GM as a positive sustainability measure
- Innovation focused on improved productivity and practices addressing social/environmental responsibility
- Government positively engaged in industry’s agendas

This scenario is explained in detail at **page 116** in Appendix 3

“Aggression” scenario



This scenario is characterised by a more intensely-competitive environment between dairy companies which offering different propositions and business models through to customers, giving some advantage to Australian exporters. Industry collaborated in limited areas where necessary. The more competitive climate meant there were winners and losers, and less integration caused more exposure to volatility. Growth to 2020 was bumpier.

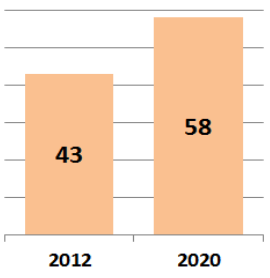
Highlights

- Output grows to 12bn litres led by corporate vision,
- Positive intervention in farm business focus ignite growth
- Strong leadership by aggressive, competing supply chains
- Promotion pushes boundaries; good emotional connect
- Fragile GM acceptance, retailers GM-free labels, segregated marketing by dairy companies
- Product/process innovation customer-led, fast to market
- Exporters not well integrated with customers and markets, exposing supply chain to greater volatility
- Limited integration on industry agendas
- Weak leadership on common issues, narrow advocacy
- On-farm cash ROI 5-7%, but greater range of performance
- Farm R&D led by private/peer group initiatives

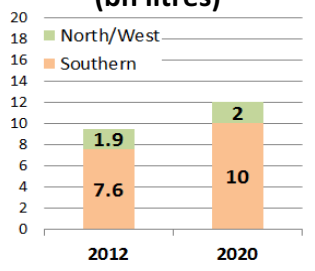
This scenario is explained in detail at **page 119** in Appendix 3

This scenario resonated most strongly with the scenario development workshop, and with industry participants when “road-tested” – especially with virtually all dairy companies. It was considered most realistic a position to aspire to as an industry.

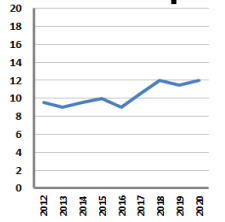
% milk sold export



Milk output (bn litres)



Milk output



“Implosion” scenario

In this scenario, the industry did not successfully deal with the increased complexity of the operating environment at the farm level, suffering heavy attrition through loss of confidence, and shrinking to largely a domestic market supply base, with stronger competition from imported products.

Shrink

This scenario is explained in detail at **page 122** in Appendix 3

Highlights

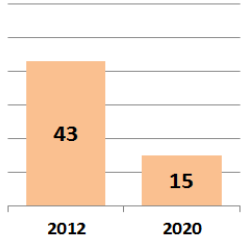
- Lack of succession, poor viability shrunk output to 6bn litres
- Hard consolidation in processing by MNCs
- NZ owns cheese and spreads markets
- Selective export niches (not cost competitiveness)
- Product innovation in niche ingredients to customer specs
- Grocery chains, NZ banned GM foods 7 years ago
- On-farm ROI averages 3% but with significant variation
- Little collaboration in farm R&D and none post-farmgate
- Corporate sustainability models, blunt compliance signals
- No support for a unified dairy brand/identity
- Weak policy leadership and minimal “industry” services
- Limited advocacy and policy work in specific areas

Integrated

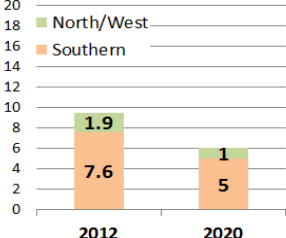
1 2
4 3

Grow

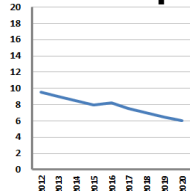
% milk sold export



Milk output (bn litres)



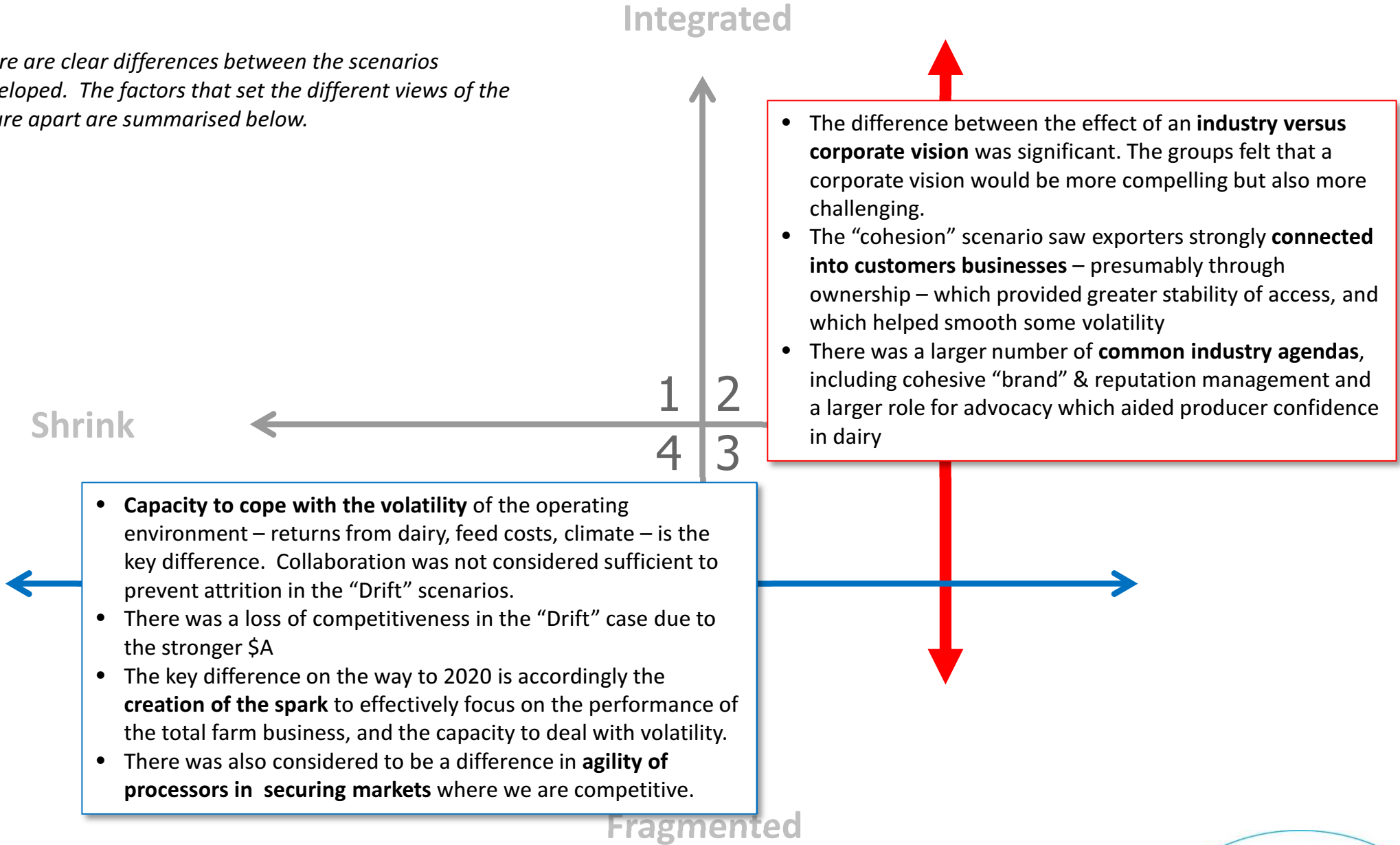
Milk output



Fragmented

What are the differences?

There are clear differences between the scenarios developed. The factors that set the different views of the future apart are summarised below.



Scenarios for fresh milk regions

Each of the four scenarios developed a view of industry that separately addressed the outcome for fresh milk production regions in large parts of NSW, and all of Queensland and Western Australia.

What is currently reshaping the future

- A number of common challenges faced fresh milk production regions. While scenario development for the national industry was approached considering the characteristics of the industry that would be desired in 2020, the size and structure of fresh milk production regions is being shaped by retail market developments and changes in processor requirements in 2012.
- The culture of the production sector is currently a major inhibitor to a business focus on farms, preventing acceptance by many of market realities as to the value of milk to processors operating in those regions. This impediment is most prevalent in Queensland and NSW.
- A preoccupation with the retail pricing of milk has undermined confidence and prevented a focus on aligning farm businesses to market realities.
- The weakened supply chain profitability for milk products; ongoing weak sentiment; and demographics of the production sector will combine to cause processors to rethink their business models affecting product/market mix and milk sourcing.

Scenarios

- Production will steadily decline in each of the “contraction” scenarios, but is expected to recover and stabilise in each of the growth cases.
- The regions will in both cases remain focused on servicing local drinking milk markets and remain net importers of milk (bulk and finished product).
- There will be slow change in enterprise mix in the farm sector. In the “cohesion” outcome.
- The scope for growth in comparison between the “cohesion” and “aggression” scenarios varies due to the extent of industry cohesion and willingness to invest in improving perception of regional prospects.
- Meanwhile market growth is tied to stable but slow growing domestic market.
- There will be scope for entrants to replace retiring production capacity in growth cases.
- There will be scope to innovate in product and various ethical propositions to return value to the fresh milk and dairy product category.
- Adoption of technologies in milk logistics and shelf life will improve supply chain costs.

Recurring themes across scenarios

Common issues

A number of common issues and themes were evident in the scenarios developed as part of the process which are detailed in **Appendix 3**.

Feature	Scenario element	Examples
Advocacy	Each of the alternate future scenarios envisaged a single advocacy body for greater effectiveness in industry's that were smaller in numbers of participants, and where the importance of strongly-focused advocacy was critical to leading on industry policy positions.	Examples of joint processor-producer advocacy bodies exist in several food and dairy industries.
Farm R&D and innovation	The scenarios identify new models to enhance uptake, featuring regionally-focused ventures and a strong role for commercial partnerships. Joint ventures in R&D with producers were also a common theme to ensure engagement of farm innovators and the benefit of peer-influenced uptake by others.	Commercial R&D partnerships with innovators and technology suppliers were commonly referred to in the visits to US and European farms.
Working with NGOs	Partnering with NGOs in setting sustainability practices and monitoring performance is common in all but the "implosion" scenario.	WWF and Rainforest Alliance working with many food companies in processing and retail in development of principles, practices, and monitoring programs.
Through-chain relationships	Scenarios feature "line-of-sight" relationships between producers and retail customers to provide mutual benefit.	These were evidenced in use by most major grocery chains in the UK, with branding differentiation and discrete supply arrangements and price-setting mechanisms.
Role of GM	Varying degrees of success in the industry at the farm level gaining benefit in commercialising GM applications affecting farm productivity.	Refer to page 72 for discussion.

Big issues to cater for

*Industry's positioning, capacity and capability in future must take account of a number of uncertainties and potential wildcards. The Horizon 2020 working group has identified **the following principal factors** as having potential to **directly or indirectly affect** the global and/or Australian industry in the next decade. The desired outcome has taken account of these risks and opportunities.*

Major uncertainties & risks

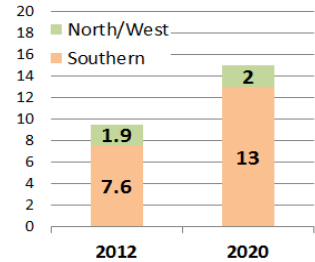
- **Strong volatility** in the world – not only in the trade in dairy and feed markets – but in the variables that affect the background economic growth in key markets and milk supply regions. **Climatic variability** affecting productive potential will be a key contributor to volatility.
- **Market acceptance of GM adoption** – the acceptance by customers and end-consumers of dairy products as well as influencers of the community will affect the commercialisation of GM applications that are critical to boosting dairy productivity. See page 64 regarding the future challenges.
- **Decisions on food regulation** which include response to public health agendas might favour or disadvantage the dairy category over time – especially in the Australian domestic market
- **The strength of community influence of sustainability** agendas may place constraints on dairy activities and potential
- Access to **markets for export of live animals** may be restricted in future – which may assist retention of herd numbers
- **Changing political landscapes** in Australia (which may affect reactions to community agendas) or overseas (which may distort trade)

Potential wildcards

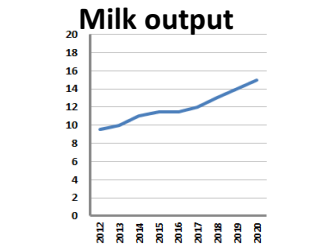
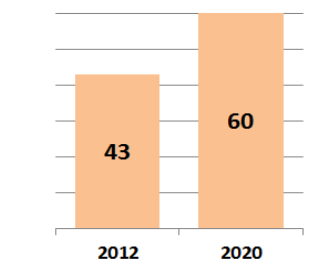
- Milk gains status as either a **super-food** or a category with greater **health risks**
- The development as “**super-substitutes**” that compete with dairy offering comparable functionality
- **Regional conflicts** over food and water, or social inequities which disrupt and cause volatility in trade to key markets
- Collapse of the Euro and EU stability
- **Disease outbreaks** in Australia or competitor countries
- The inclusion of **direct farm emissions** as part of greenhouse gas obligations under international agreement
- **Technology revolutions** which either improve cost structures or change demand patterns and product mix
- Oil/energy crises which increase operating costs but also potentially enhance affordability in certain markets

A desired outcome

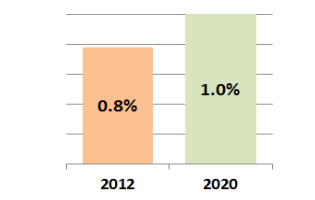
Milk output (bn litres)



% milk sold export



Industry R&D investment (% farm GDP)



A desired industry outcome description was developed from the process, to define a comprehensive description of a target outcome.

Attributes

1. Shared view of the future inspiring profitable growth
2. Consumers perceive dairy as a preferred food source
3. Strong leadership by aggressive, competing supply chains
4. Clear market signals, providing “line of sight” and investment confidence
5. Mutual understanding and respect between supply chain participants of each others’ businesses
6. Valued advocacy and industry-funded services for all sectors
7. Positively-managed industry image built on sustainability (profit, planet, people)
8. Positive farm business culture
9. Skills and capacities to manage volatility and industry needs
10. Clear, attractive & diverse leadership pathways
11. Successfully applying innovation improving profitability and sustainability
12. Industry’s agenda supported by Government

The table on the right contains some of the indicators that will be apparent in this future industry outcome.

What are the metrics that demonstrate success?

- The industry is larger in volume and unit value
- Improved farm ROI
- Better uptake of farm R&D, improved payback on investment (CBRs)
- Farms are on average larger
- Increased processing R&D investment as a % of revenue
- Sustainability framework is implemented, and measured progress has consistently exceeded targets

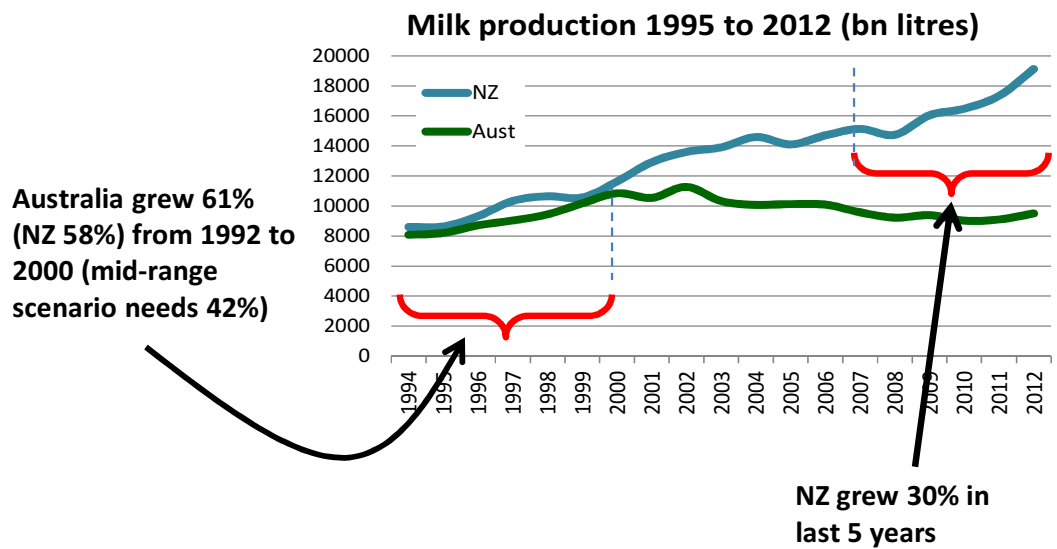
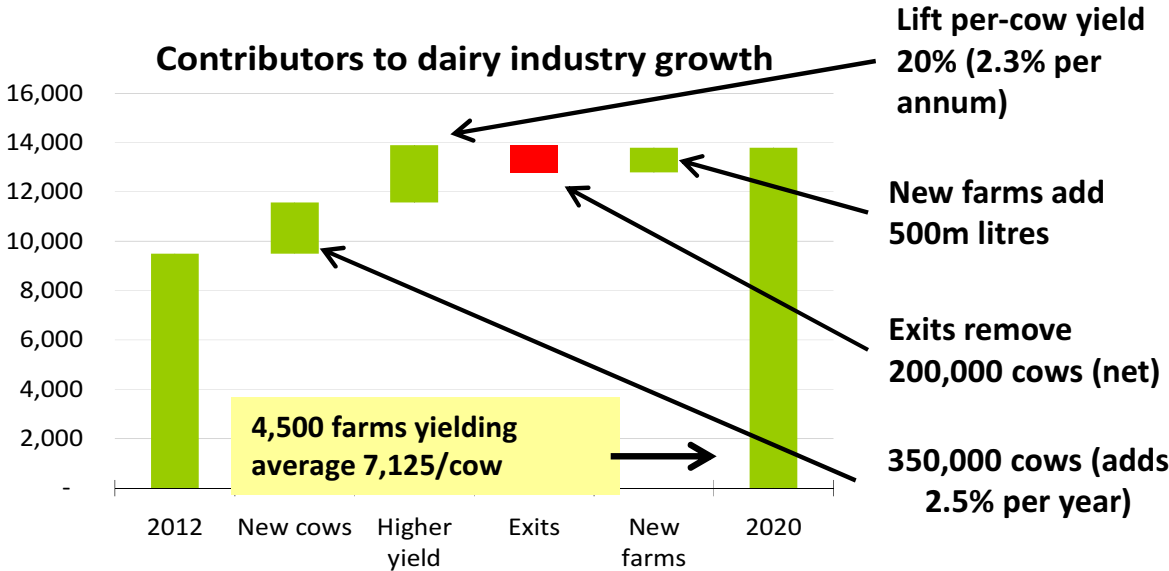
What are behavioral indicators of success?

- Farmers readily celebrate success in creating sustainable wealth
- Processors operating with agility to meet customer requirements
- High peer respect for successful business owners
- Dairy is valued and trusted by the community, and this is recognised by dairy farmers
- Industry participants speak about dairy’s contribution
- Large number of candidates for leadership posts at various levels

What is needed to achieve the scenario outcome?

Ingredients

- Expansion of the industry volume to meet a market opportunity equivalent to 14 billion litres in milk equivalents in this scenario will require considerable investments in factory capacity, people and milk production.
- **Additional processing capacity** will require investments in higher value-adding facilities, in view of lack of scale manufacturing affecting cost-competitiveness.
- This will require differentiation in relationship, agility and specification of product to move away from low-cost competitors.
- Existing surplus capacity of 20% exists in the industry, so investment of about 30% will be prudent – ahead of supply growth.
- The chart on the top right shows a plausible set of ingredients for growth in milk production. While cow numbers are yields are ahead of historical performance, the assumed lift in these drivers based on the application of the imperatives outlined in Section 4 is achievable.
- Land availability will be an important ingredient, including expansion of existing farms to add forage production as well as new arable land coming into or back into milk production.
- Examples of past growth in Australia and New Zealand are illustrated in the **chart on the right**.



What is needed to achieve the scenario outcome?

Appropriate corporate structures

- This is a report to industry of the priorities for industry-good investors in future co-investment and capacity development. As such, it is not the place to recommend either:
 - a) Appropriate business models or corporate structures that will best equip industry to achieve the desired outcome; or
 - b) Pathways to future consolidation from the structure of the industry in 2013 that will deliver that outcome
- **None of the four scenarios** developed in this project contemplated a traditional farmer-owned co-operative as a major feature of the corporate landscape of the industry in 2020.
- Sustained growth in dairy industry output of any major exporting country has – in the past – not been achieved without the significant presence of **farmer-owned co-operatives as the engine for expansion** to process and market growth in output.
- The models for farmer-owned and controlled processing enterprises in exporting dairy industries have been evolving in response to the need for capital and pressures on competition.
- Choices will be offered and made in future by supplier-shareholders of Murray Goulburn (which has an aggressive growth agenda) as to the appropriate corporate and governance structures that suits the business.
- While the priorities stated in this report towards achieving a desirable industry outcome do not focus on capital structure and consolidation, **improving mutual understanding along the value chain** (regarding its future needs) is a clear priority (reflected in Recommendation 2) to facilitate more informed decisions regarding future change.

Evolving models

- The traditional co-operative model – defined by constitution and policies affecting capital structure, pricing and governance – has been adapting under pressure for the past decade the world over.
- Those pressures include:
 - Competition with privately-owned processors in markets and for milk supply
 - Funding efficient and competitive processing facilities
 - Funding ongoing consolidation of processing capacity and marketing
 - Establishing effective connection with customers and consumers, including through the development and maintenance of product brands
 - Reducing redemption risk
- A paper prepared for the 2012 Australian Dairy Conference - *Optimising farmgate returns from the market* – outlines broad choices that milk producers have in the future regarding their involvement in the post-farmgate sector is suggested as further reference material on this issue.

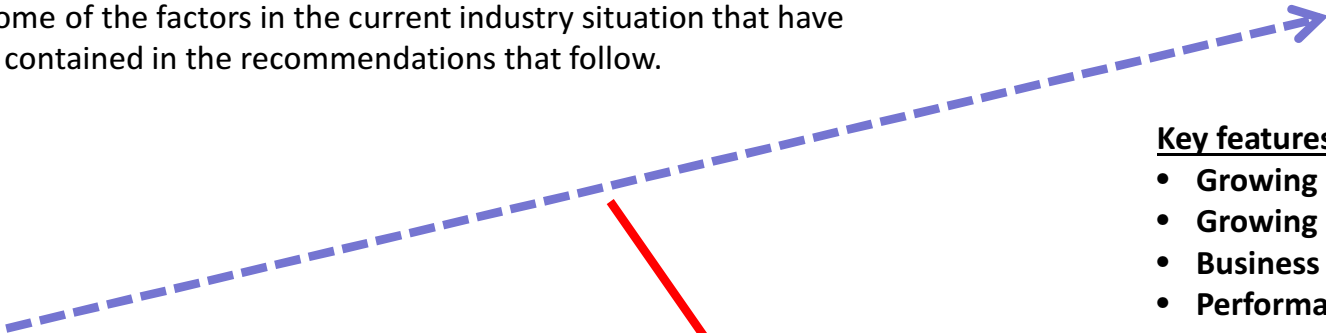
Section 3

Today's challenges

Realities of “today”

Much of the challenge in setting future priorities is in recognising the stark differences between “today” and that desired future. **Planning and implementation that is undertaken in response to this project will be less effective if a realistic assessment of today’s challenges is not accepted and taken on board as a starting point.**

This section identifies some of the factors in the current industry situation that have shaped the imperatives contained in the recommendations that follow.



2020

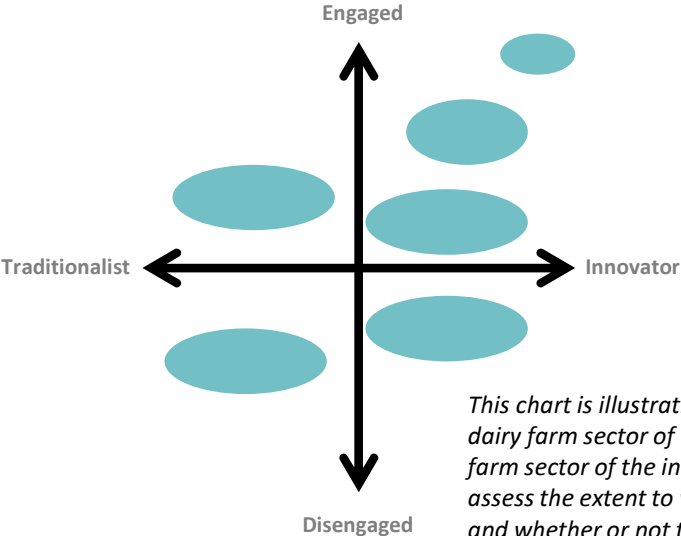
Key features:

- Growing demand for dairy
- Growing profitably
- Business focus on farms
- Performance in the language
- Trusted by 3Cs
- Front-foot sustainability

What do we know about the journey

- Volatility will intensify (market, input costs, climate)
- Increasing competition for natural, human and capital resources
- Food security = affordability
- Competitors are moving fast to galvanize their competitive positions
- Community concern for sustainability intensifying

Segmentation of milk producers



This chart is illustrative of the different segments that exist within the dairy farm sector of the Australian industry. Segmentation of the dairy farm sector of the industry has been carried out in studies for industry to assess the extent to which farmers are engaged in industry development and whether or not they are open to innovation in their businesses.

What we need to change

A realistic comparison of a desirable future and “where it is today” is critical to ensuring the future imperatives are complete.

Indicator/attribute	Tomorrow’s desired outcome	Today ^{Note 1}
Farmer language	Creating wealth; sharing how to	Milk price rather than profit, input costs*, disengaged by “productivity”
Farmer esteem	High self respect; proud food producers; ability to talk in the community about what they contribute	Self-esteem is lower than extent of positive sentiment; Difficult to attract people, not seen as a good place to work*
Handling volatility	Built into planning	Causing decision gridlock, large portion uncertain of medium term situation*
Advocacy	Multi-sector leadership body	Under-resourced farm lobby, industry seen as fragmented, uncoordinated, external parties unsure of positions*
Future direction	Compelling future demand for our product	Generally positive outlook, large variation by region, segment, but little consensus on “direction”
Brand stands for	An Australian dairy story; common underlying purpose	Uncertain; diverse views on what industry stands for and represents.
Celebrating success	Key source of peer inspiration; performance benchmarking backed by accessible, timely data	Isolated brave individuals; competition publications helping to break down the barrier to understand “winning”
Cross-agriculture collaboration	Working closely on a range of common agendas influencing community and government	Isolated issues, other industries better at influencing agendas*
Community engagement	Valued and trusted; understand and appreciate the contribution	Uncoordinated; regional implications not fully measured*
Government engagement	Respect and influence on National and all dairy states, trusted to “do the right thing”	Victorian-centric; National co-investing with industry in R&D and other agendas; Other states less engaged. Weak level of trust from public sector stakeholders*.

Note 1: Points in the above table asterisked (*) have been taken from summary background studies drawn upon in the Brand Dairy project

Farm business management

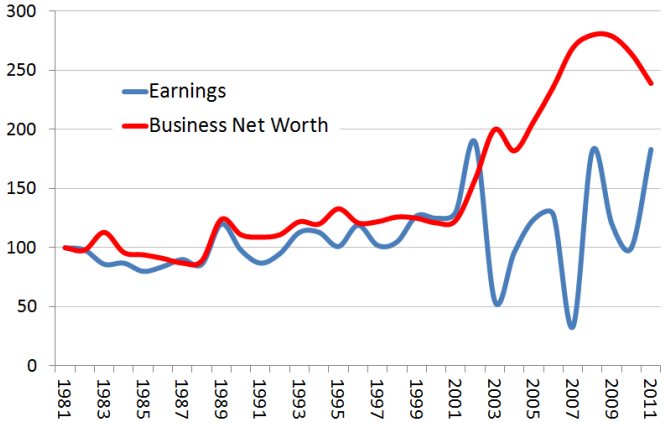
The short-term fixation

- The production sector of the Australian dairy industry generally lacks an overall language based on the drivers of wealth creation.
- A prolonged focus on the top line price or costs has been sustained in the past decade with the arrival of increased volatility.
- Whether as a result, or by co-incidence, this has led to a fall in business net worth across the farm sector, according to measurement by ABARES and as seen in the decline in farm land values in several regions.
- The chart on the following page outlines the challenges being experienced on farms by many in year-to-year and within-year difficulties, which compound the short-term gridlock.

Pricing signals

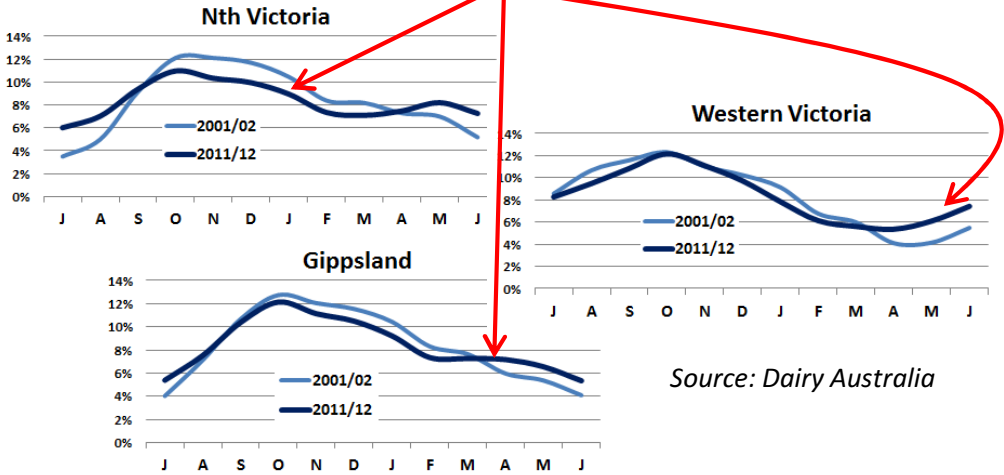
- Milk pricing signals have favored seasonal incentives to drive production towards flatter production curves in southern Australia. A higher proportion of milk from these regions is now servicing domestic markets, and the competition for milk has ensured that most milk buyers compete with signals promoting this outcome.
- This has encouraged the adoption of production systems to chase pricing premiums, while adding to fixed costs. Higher fixed costs have allowed many producers less scope to deal with volatility
- The undue focus on year-to-year price has blindsided many producers from a broader perspective on getting their businesses set for maximising profit and cashflows through market cycles.
- The added system complexity, influenced by unreliable seasons and a lack of focus on holistic enterprise returns has contributed to a stifling of production growth.

Annual change in dairy enterprise performance, Australia 1991=100



Source: ABARES

Changes in milk supply profiles (% of milk in each month) 2001/02 v 2011/12



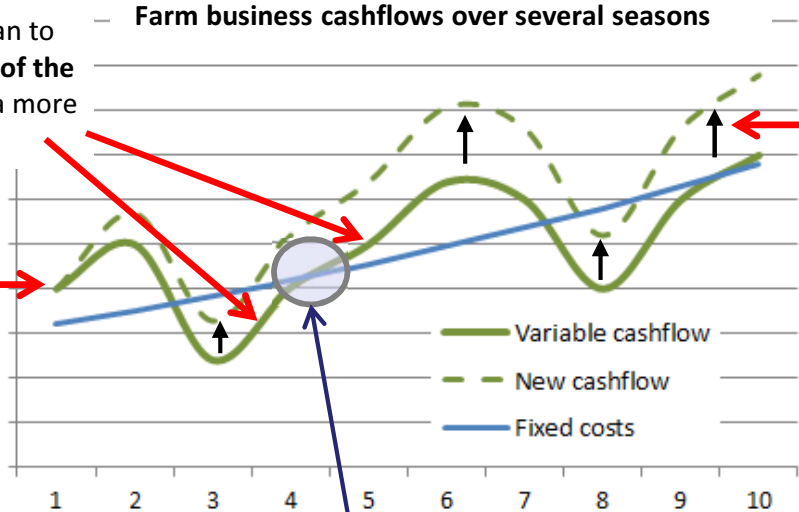
Source: Dairy Australia

Farm business management

This page illustrates the pressures facing many in managing a farm enterprise from year to year and within each year. Recent experience has shown that dairy farmers have struggled management of these volatile cycles with inadequate cash margin over fixed and finance costs. The imperative should be to take advantage from volatility – harvest the highs but don't dwell in the dips.

Without a medium-term plan to manage cycles, **recovery out of the lows takes longer**, results in a more cautious recovery

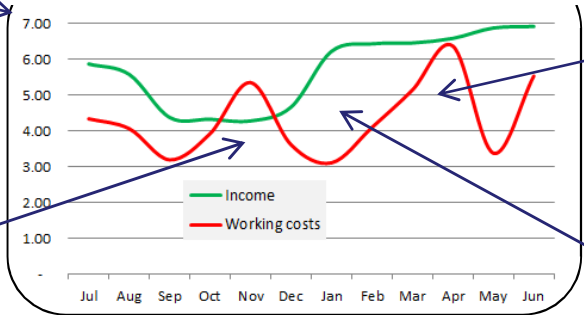
Volatility results in a pattern of cashflow surpluses and losses



The aim should be to optimise the farm business to lift cash margins – to enable the business to incur smaller losses in the downturn and enjoy larger gains in the upturn.

Cashflow challenges occur within a year, as producers manage cashflows with seasonal pricing, incentives and feed management. **Annual pricing signals** ensure a year-to-year approach is taken to make important decisions

Farm cashflows within a season (\$/kg milk solids)*



Costs build to add supplementary feed to produce as much milk volume in the latter stages at higher prices.

Producers focus on “making it through” the peak. Costs rise to conserve fodder.

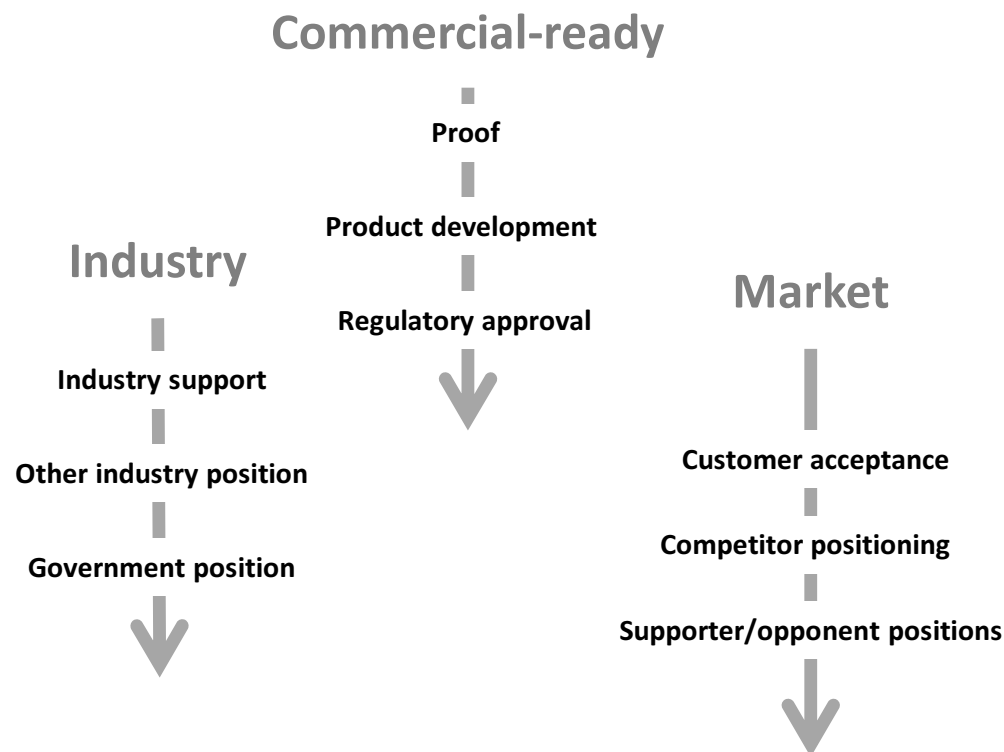
If the season is poor, this cashflow gap in this case can shrink or become a deficit, compounding pressure to address the issue in the latter part of the season

*Example farm based on actual data from a Western Victorian farm using split calving

The GM opportunity

Complex pathways

- The Australian industry has made a heavy long term investment in the Dairy Futures CRC which in developing important technologies to enhance the productivity of cows and dairy pastures, the latter of which would rely on Genetic modification technologies.
- GM feed production is seen as one of the long-term solutions to the global food supply challenge. It is in the process a key opportunity for the Australian dairy farmer to access more productive pasture varieties that can offer better resistance to climatic volatility.
- However in the medium term, most of the proponents of GM technologies are challenged by the complexities of managing perceptions of first world consumers and communities.
- The pasture technologies have a long path to commercialisation and a complex route to market that depends on several key determinants:
 - Progress in other industries (chiefly grains)
 - The approach taken by dairy and non-dairy competitors
 - The degree of industry cohesion
 - Consumer and community acceptance in Australia
- The scenarios developed in this process do not envisage the GM pastures provide a “silver bullet” by 2020.
- Other CRC outcomes hold significant opportunity for precision management of dairy farms. The prospects for adoption face similar challenges to other technology adoption and hence require a clear value proposition and better business focus on farm for strong uptake.

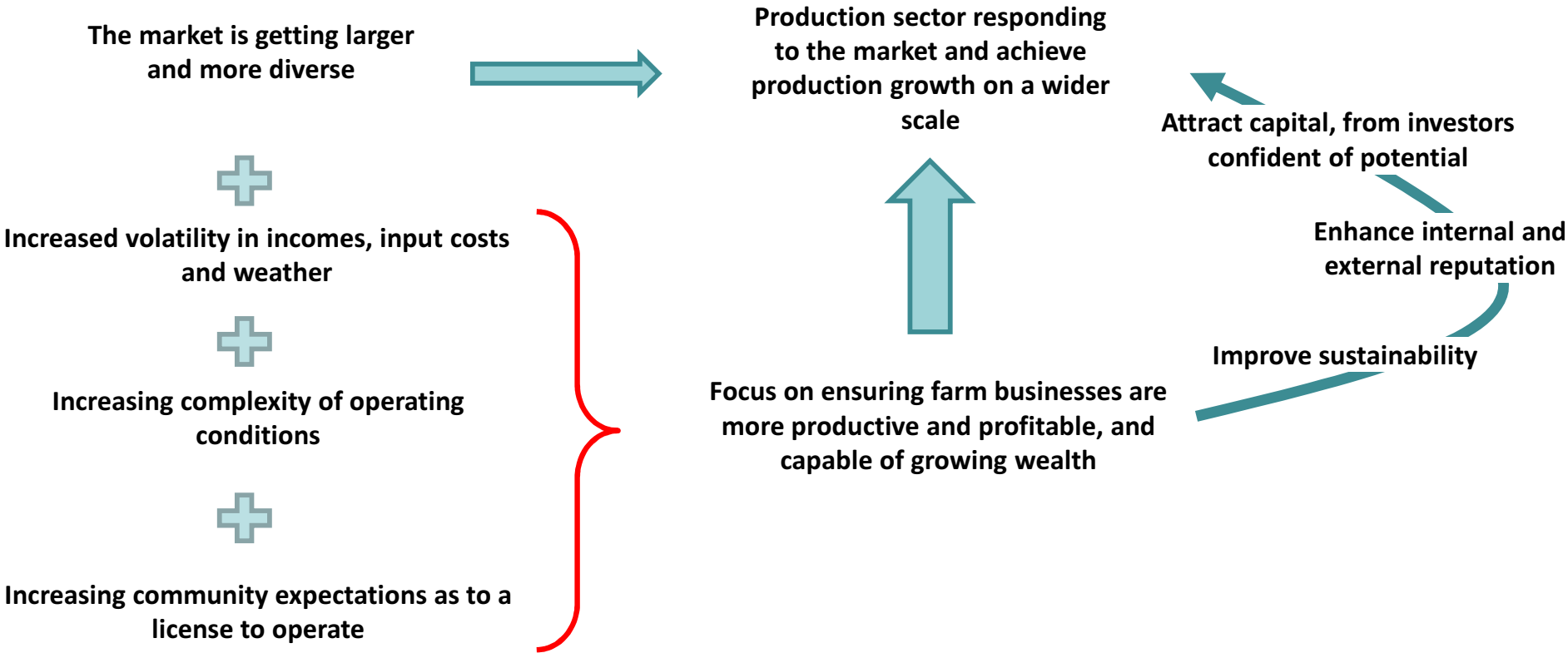


Section 4

Recommendations

Main thrust

The major thrust of the imperatives and a number of the recommendations are directed at improving the capacity of the industry to sustainably increase its milk output to meet the available opportunities that are apparent in the global dairy market. A strong and concerted effort to improve the business culture is urged by the working group to meet the increasing complexity and external demands or the industry will continue to drift and reduce in its relevance to customers and the community.



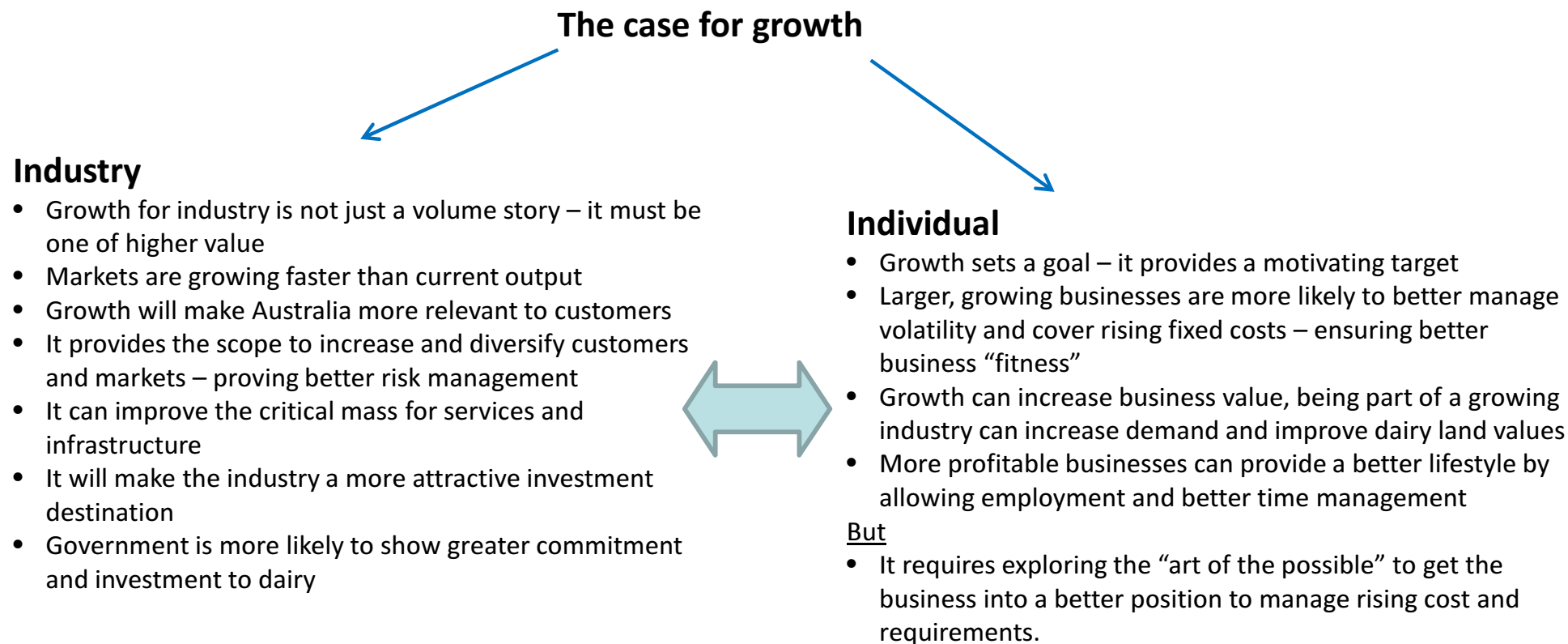
Major imperatives

Outcome for industry	What to do differently (“Rec” = Recommendation)	What will support this
Wealthy dairy farmers	<ul style="list-style-type: none"> Develop effective processes to focus on whole of farm business outcomes over time (DA) (Rec 3,6) Facilitate R&D joint ventures on farm (DA) (Rec 7) 	<ul style="list-style-type: none"> Develop new tools and supported decision-making Partnership delivery of R&D (DCs) Re-engineer knowledge systems and engagement Target delivery of programs for effective investment
We attract investment and good people	<ul style="list-style-type: none"> Support a profitable growth agenda in response to an expanding dairy market (DA) (Rec 1,3) Create roadmaps to wealth, including entry pathways (DA) (Rec 5,10) 	<ul style="list-style-type: none"> Sustain and widen dialogue on the future Support the segment of the farm sector in the industry intent on growing wealth
	<ul style="list-style-type: none"> Celebrate success on farm on wealth creation, sustainable practices and innovation (DA) (Rec 5) 	<ul style="list-style-type: none"> Showcasing successful operators, targeting effectively for uptake by others
Australian Dairy exceeds community and consumer expectations	<ul style="list-style-type: none"> Adopt a front-foot approach to sustainability based on the industry’s framework(ADIC) (Rec 11) Build industry esteem from within with positive image management (ADF) (Rec 2,3,5,7) 	<ul style="list-style-type: none"> Celebrate success, support with simple rationale Stronger emotional connect, not evidence overload
	<ul style="list-style-type: none"> Re-engineer advocacy (resource, position, influence) to improve effectiveness (ADF) (Rec 8) Improve, clarify leadership pathways (ADF) (Rec 13) 	<ul style="list-style-type: none"> Clear areas of focus, improved ability to prioritise Collaborate cross-industry to improve effectiveness of agriculture’s lobby
We are competitive in markets of choice	<ul style="list-style-type: none"> Improve the commercial relevance of industry’s collective processing innovation capabilities (Rec 12) 	<ul style="list-style-type: none"> Develop a clear value proposition for collaborative efforts post-farmgate
	<ul style="list-style-type: none"> Improve market signals and mutual understanding along the value chain (DA/DC) (Rec 2) 	<ul style="list-style-type: none"> Improve effectiveness of market information
	<ul style="list-style-type: none"> Build a cohesive business case based on dairy’s contribution to effectively engage Government in achieving beneficial trade outcomes (ADF) (Rec 9) 	<ul style="list-style-type: none"> Develop comprehensive database and regional economic contributions Ensure commercial support for trade agendas

The working group makes a number of recommendations based on these desired outcomes which are listed on pages 11 and 12 and detailed in Appendix 1.

Setting a growth agenda

There are significant advantages for industry, dairy companies and individual farm enterprises from setting an agenda for growth. Articulating the rationale for growth to industry and to individuals must recognise that the case are mutually dependent.

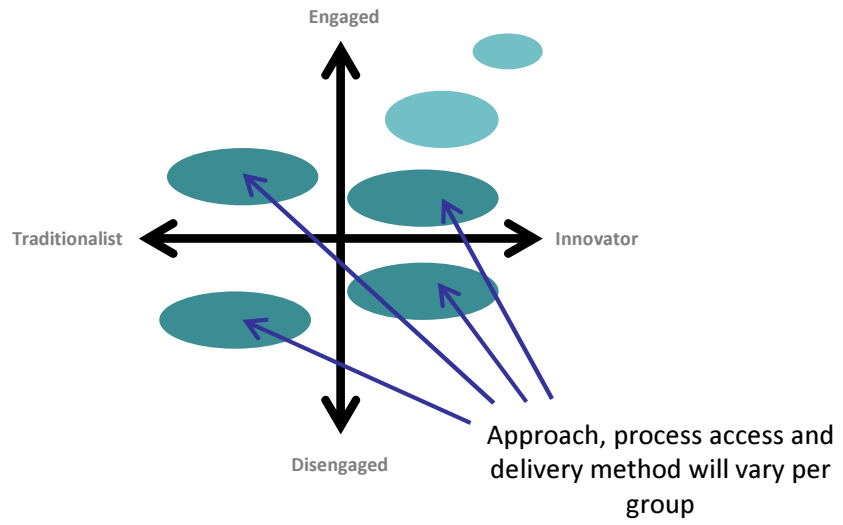


There is a cautious approach to use of the word “productivity” in fear that this will disengage farmers who consider they already “work very hard”. Yet the fundamentals facing the dairy industry with a rising fixed cost base and weakening terms of trade, mean that getting better output from assets and inputs, and achieving better returns from investments is critical to protecting and building wealth.

Better targeting

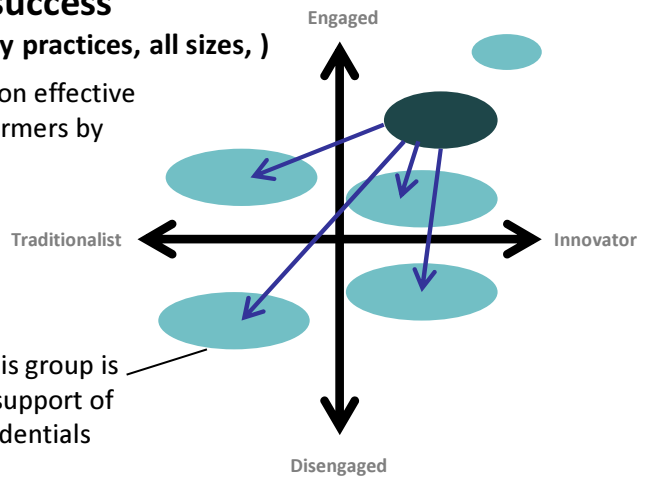
Generic approaches to the development of a business culture across the dairy farmer base will not be effective. The industry has in the past invested in gaining a better understanding of the different segments of dairy farmers. This work should be fully harnessed and enriched where necessary to give greater effect to the implementation of recommendations in several areas, including the proposed fresh look at influencing behaviour at **page 80**.

Whole of business optimisation (supported decision-making and implementation)



Showcase success (profit drivers, sustainability practices, all sizes,)

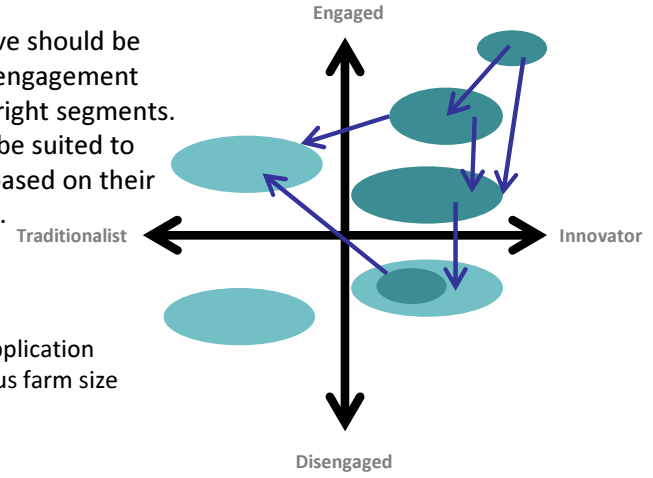
Showcasing should be based on effective means of influencing other farmers by segment.



The priority in accessing this group is risk-management for the support of overall sustainability credentials

Co-invest in RD&E (innovation in technology and practices)

The co-investment incentive should be offered to ensure greater engagement with producers in the top-right segments. The sharing/access would be suited to different target adopters based on their decision-making processes.



- Examples may include:
- Methane digestion application
 - Automation for various farm size
 - Pasture innovation

Advocacy

Strong advocacy critical to success

- The experience of the working group through this process has clearly stressed the critical importance to a successful industry to be led by strong and well-resourced advocacy bodies that can:
 - Lead on strategically significant policy positions
 - Represent industry in dealing with Governments
 - Represent dairy when working with other agriculture and food sectors on cross-sectoral agendas, including trade access, market structures and industry investments
- The working group believes it is imperative to re-engineer advocacy in the industry to position dairy for the future desired outcome – in terms of the focus, strategy and resourcing.
- This process should recognise that the channels of influence of the community are vastly different to the past, with a larger, more effective set of influencers of agendas across a spectrum relevant to the dairy value chain - and therefore government policy.
- It is recommended that a “round table” discussion process be implemented to agree priorities, positions, resource requirements and solutions (as per the diagram on the right).
- Potential future scenarios developed as part of this work envisaged a single advocacy body for greater effectiveness and efficiency (which would combine ADF, ADPF and ADIC).

Agenda	Positions	Analysis/research	Key messages	Influence strategy

A **round table process** should be convened between industry stakeholders to develop a plan for the strategic management of the policy positions and issues facing dairy into the medium term, which would develop an approach to articulate an agreed approach on:

- The positions to be taken and the underlying rationale
- The work that needs to be done in support of that position and the counter arguments and alternate views that will be mounted in contention of this
- Key messages to be delivered
- The strategy for effective influence

Leadership pathways

The working group developed the table as the set of perceived leadership opportunities within dairy and its communities. While there is ample opportunity for a variety of pathways to be accessed, the attractiveness of many of these is affected by the state of industry sentiment and the short-term fixation of the issues that achieve profile. What is less clear are the “diagonals” that allow leaders to add value across contexts.

Context	Customer / supply chain	Innovation & services	Policy advocacy	Insights	Community
National	Company boards Shareholder advisory groups	Dairy Australia Gardiner Foundation ADHIS	ADIC/ADF Policy Advisory Groups	Australian Dairy Conference <i>Horizon 2020</i>	
Regional/local	Bargaining groups	Regional Development Programs (RDPs) Royal Ag Societies Regional Extension & Education Committees	State DFOs State farmer bodies		Local government Catchment authorities Water Boards
Other		Breed societies <i>R&D joint ventures</i>			<i>NGO advisory bodies</i>



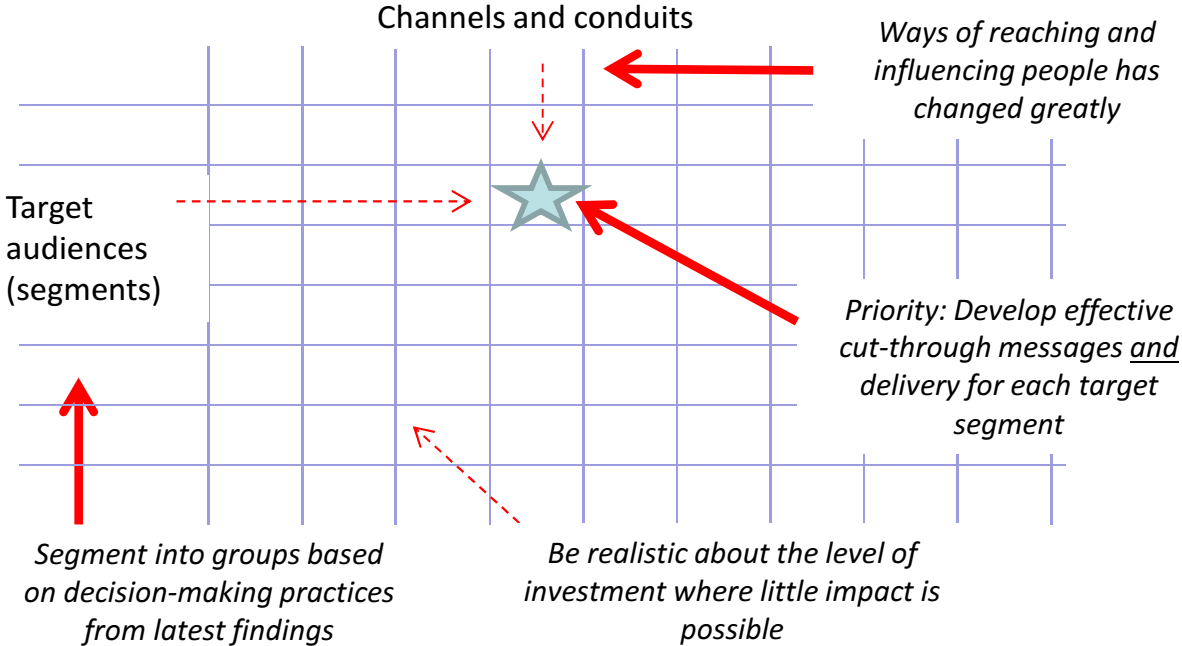
Those added in italics in this table reflect potential new opportunities that may flow from this project and the recommendations contained in this report. It will also be essential to improve the recognition and support for the **development of community leaders from dairy**, that can make significant contribution to local communities and increase that engagement with the industry which will be critical in the future as community contribution and mutual respect grows in importance.

Changing behavior and perception

Effective influence for change

- The dairy industry is well established at pushing information at people engaged in dairy farming and waiting for change. This applies across various information channels, including programs, decision aids and tools and market signals.
- Communications within the industry has tended to be managed at a micro level – product to product, message to message. As a result of efforts to demonstrate a coverage of all problems and solutions, people are swamped in material, such that **less is “cutting through” as the complexity rises**.
- Not only has farm enterprise become far more complex, the **channels and conduits to access and influence people are rapidly changing**, including the advent of technologies, and the forums in which people interact. This has not been revisited at an holistic level for a long period of time – if at all.
- The working group believes that – at a time when a strong refocus on the business is required – a fresh look at how decisions are made and influenced is a key step in the way forward. Pushing new messages and imperatives through the same channels will not work, just as much is not working today.
- Working Group recommends an holistic look targeted at changing behaviour – working back from that outcome to the most effect way to deliver messages and decision inputs. This will ensure better value for communication efforts over time.

The holistic approach to managing knowledge (all information, tools, program outputs)



The desired outcomes in behavior should drive communications

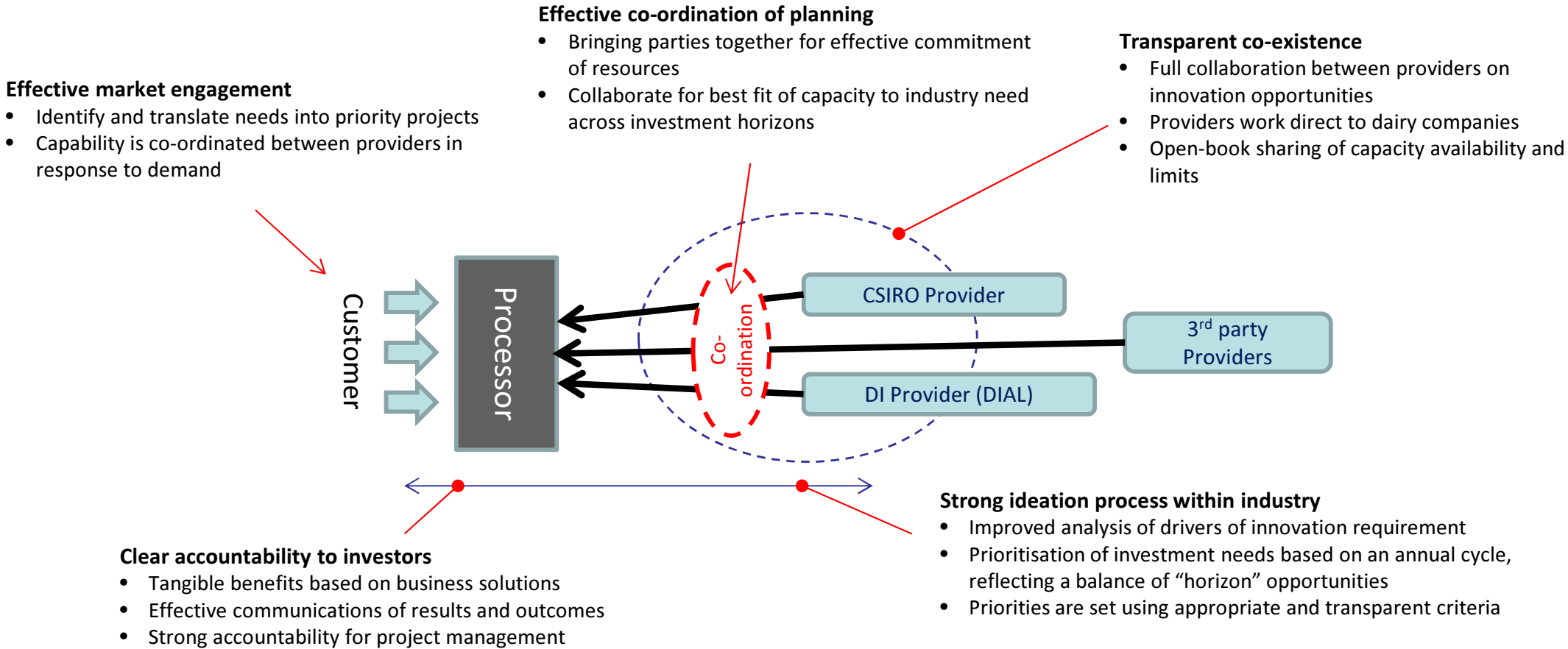
The “blindside” risk

The Working Group has observed a number of significant examples of industries or sectors being blindsided – not seeing a major threat arise due to a reliance on traditional approaches or beliefs, or underestimating the strength of fast-emerging threats. The table provides examples.

<i>Context</i>	<i>The example</i> and approach
<i>NZ sustainability</i>	While the NZ dairy industry has relied on its national achievements in providing export earnings and rural wealth, it become a large target for local community interests, seeking a balance in land use and impacts, protecting “Pure NZ”. Regional councils are now regulating sustainable farming practices – with differing requirements and timelines – rather than standards and principles being led and implemented by dairy. These regulations may limit NZ’s future growth prospects.
<i>EU CAP reform – income v the other two Ps</i>	The EU dairy sector has held a long-term focus on one key aspect of sustainability – income support for farmers - to underpin food security and rural development. The efforts have blindsided the farm sector from the swelling community interest in a “quid-pro-quo” to achieve better environmental and animal welfare practices that are now being driven by a political process rather than dairy industry leadership, which may alter the EU’s dairy potential in future. It is a sobering lesson in the merits of getting on the front-foot to embrace sustainability.
<i>UK Dairy – reputation matters to partners</i>	The domestically-focused UK industry operates with hostile relations between farmers, processors and retailers, and poor market signals to producers. Attempts to be seen to do the right thing by building a sustainability roadmap and a future “vision” have not brought willing and effective involvement from key players. As a result, there has been caution from potential NGO partners to help with implementation of sustainability, due to concerns about the industry’s reputation, and its effect on an NGO.
<i>Australian dairy - rising farm complexity</i>	Over the past decade, the nature and scale of technical and management issues that have emerged for dairy farm managers has increased. Industry programs have responded at an issue level, but this program-level activity has blindsided from the need to ensure the business management skills of managers have keep pace to ensure the business is put in best shape to operate successfully over time – not in a single year.
<i>Live exports</i>	Beef industry stakeholders and Government were aware of the live export issues emerging in Indonesia before they were aired, yet underestimated the strong emotional connection made with the public and politicians , including the effectiveness of the campaign mounted to gain political attention to the issue and halt trade.
<i>Product integrity</i>	The surge of consumer support for imported dairy nutrition products in China due to local product safety concerns has driven up product prices for many lines. This has quickly brought the arrival of product counterfeiters passing off product as being of foreign origin causing potential brand damage.

A new model for post-farmgate collaboration in innovation?

The work on post-farmgate innovation has developed a proposed enhanced model to improve the value proposition of collective R&D investments in platform technologies to service future demands. This will be tested with processor and evaluated in early 2013.



Section 5

Where to from here

Horizon 2020 – where to from here?

Communicating the outcomes

- A significant investment in understanding the future such as has been undertaken in this project will provide greatest benefits if it is shared across the industry community.
- This can commence a wider, positive discussion of the industry's potential future and what it will take to be successful in that environment.
- The Working Group believes the an early focus following completion of this final report should be to share important messages to appropriate target audiences. A **proposed communications plan** is set out in the table on the following page.

Presentation of the outcomes

- The plan suggests a number of presentation events to regional stakeholders and appropriate industry events.
- It is suggested that these events be led wherever possible by one or more of the **Horizon 2020 working group farmer members**, with others to accompany and support where necessary.

Horizon 2020 findings – a communications plan

A plan to communicate the findings and learnings from the project is as follows:

<i>Element</i>	<i>Target audiences</i>	<i>Method</i>
Full report to investors and other key industry stakeholders	DA, GGDF ADIC, ADPF, ADF	Full report backed with discussion workshop
Information and/or discussion sessions with other industry participants and stakeholders	<ul style="list-style-type: none"> • RDPs (boards) • SDFOs • Company boards, Supply forums • Co-op leaders forum • Government (federal, state) 	Storyboard for planning Presentation pack
Summary report (high level findings, key insights and imperatives)	Generally available to farmers and other participants	Published report, available on websites
Informing farmers	A “Forum of Positive people” (influential farmers), consultants	Presentation and workshop (see page 83)
Informing others	<ul style="list-style-type: none"> • Regional conferences • Banks and other investors • Major corporate farmers 	Presentation pack Summary document
Contributors	<ul style="list-style-type: none"> • Parties who contributed input and opinions 	Summary document
Media	<ul style="list-style-type: none"> • Processor publications • Agribusiness supplier communications • Selected agribusiness media WT, ABC Landline, AD Mag 	
Website	General industry	The story, findings, insights, case studies, success stories

Horizon 2020 findings – a communications plan

Influential farmers

- Early in the roll-out of the key messages from this work, it is suggested that an event be held to influence a larger number of dairy farmers, in the form of a “**forum of positive people**”, who would become a **body of advocates** to spread the discussion on the future.
- This would be **led by farmers** on the Horizon 2020 working group, supported where necessary, to provide a full walk-through of the project experiences, the strategic imperatives and their rationale and recommended next steps. This process would be open to workshop solutions and could significantly aid direction on implementation of recommendations outlined earlier.

Presentation packs

- The plan would include the development of **appropriate communication packs**, including a cut-down summary public report version (that would stop at industry imperatives), as well as presentation slide packs for meetings.
- The list of items in the box on the right has been identified by the farmer members of the Horizon 2020 working group as the elements to take to discussions with dairy farmers. Other sets would be developed from the full report materials for other audiences as identified in the plan.
- There is also a need for simple, short messages that can be carried by industry leaders and advocates – to be useful in the important occasions when the “30 second elevator conversation” is required.

Key message slides for a presentation to farmers

1. Why do this – Horizon 2020’s purpose
2. The work done in this project
3. What is out there
4. Why we should be confident about the future
5. How we are currently seen – and why it is important to fix this
6. What do we want to achieve in 2020? (desired outcome)
7. Roadmap to wealth – what we have to do?
8. Volatility is inevitable and why – take opportunity from it
9. Why be proactive and get on the “front foot” on sustainability
 - *Licence to operate and sell*
 - *We set the agenda*
 - *It is a ticket to play in future*
 - *More professional way to do business*
 - *Our society will expect it*
10. Importance of the “emotional connection”
11. What is next – what does it mean for you?
12. How you can engage

Horizon 2020 – an ongoing role

Maintaining the process

- The working group recommends that the Horizon 2020 process be continued to maintain an independent conversation about the future and continue to objectively inform, track, and interpret key influences.
- These are important capabilities that are lacking in existing industry processes that inform long-term decisions.

Why continue?

- The scope of the existing project work has started a discussion about medium to long-term prospects for the Australian industry. The working group feels where is an significant effort required to refocus industry efforts to achieve the desired outcome. This process can be positioned to **continue the discussions and “challenge” regarding the future to inform that effort.**
- One of the advantages of the approach taken in the positioning of the project to date has been the ability to have **independent conversations** with opinion leaders and industry participants, which has helped achieve an open and frank discussion on the future. An ongoing process would allow consolidation of networks for a continuing dialogue.
- There are a number of **ongoing agendas** to address which affect the future, which are identified in the table on the right. One of the key roles is to objectively monitor and/or update the future imperatives and the industry response.

Aspect	Main points
Position	<ul style="list-style-type: none"> • A discussion forum on the shapers of the future industry • Build capability in industry to “look long” and interpret what it means for dairy farmers, processors and service providers • Independently positioned, public face
Agendas	<ul style="list-style-type: none"> • Monitor, update future drivers of 2020 and beyond, review scenarios • Other geographies relevant to future (Latin America, Ireland, SE Asia) • Investment models, wealth pathways • Investigating leadership pathways and opportunities • Other insights relevant to our imperatives • Build capability to monitor the broader community pulse beyond a pure dairy focus and into the future (including identifying and monitoring exposure to blindside risk) • Pressures on the “competitive set” for the dairy category, and longer-term competitor positioning • Investigate/monitor scenario wildcards and big variables
Operation	<ul style="list-style-type: none"> • Appoints a leadership group and a chair (a dairy farmer) • Spreads the influence wider than a core group • Bring others into a “working group” • Developing future leadership candidates • Target investors and sponsors (issues based) • Continues to feed into long-term planning of industry bodies and other stakeholders
Presence	<ul style="list-style-type: none"> • Website • Social media (FB, UF, other) • Newsletters • AustDairyfarmer mag (spreading success)

Appendix 1

Recommendations

Recommendation 1

Communicate the Horizon 2020 outcomes

Why

- Industry has made the investment in this process.
- The process itself has raised awareness of the initiative and the benefits in having a conversation about the medium to long term future.

What does it mean?

- Deliver to appropriate forums, company boards and management, as outlined on pages 84 to 86 in the final report
- Farmers (from the Horizon group, with input on presentation skills for effective delivery) delivering tailored messages to farmers is a key part of this roll-out
- Seek opportunity to use Horizon 2020 to provide strategic input to boards and management

What should we do differently

- Three industry bodies get behind the initiative and reinforce its major theme of a profitable growth agenda for the industry

Who takes this forward?

- DA, GGDF and ADF develop and implement a communications plan

Recommendation 2

Undertake a fresh study of the means to effectively influence farmer decisions and behaviour change.

Why

- Industry has relied on a “push” approach in the past – developing and delivering tools based on what providers thought people needed to know.
- The farmer segmentation has become more diverse as the complexity of industry challenges has deepened.
- This is evidenced by an increasing number of producers who are undecided as to their future direction and involvement.
- A large portion of the production sector are plagued by short-termism which is blocking much knowledge being received and acted on.

What does it mean?

- Identify and understand different segments of the farmer audience, as to what will most likely stimulate change in behaviour.
- Understand the knowledge needs of other participants in the supply chain enabling more effective influence of farmers
- The aim is to achieved targeted delivery per pages 77 and 80 of the report, which takes account of “channels of influence”.
- Improve the clarity of market signals and mutual understanding that will better support informed decision making
- Apply this in conjunction with Recommendation 3.

What should we do differently

- Understand the different needs of segments, what most directly influences their farm business decisions and their receptiveness to change
- Develop knowledge products/packages based on this understanding and the most effective means of delivering decision-inputs to these targets
- Develop a targeted strategy that ensures more cost-effective delivery of knowledge and signals
- Implement this in executing Recommendation 3.

What do we need to keep doing

- Capitalise on the existing work on farmer segmentation, drawing out insights on decision-making influence and the capacity for change
- Harvest/consolidate the knowledge from industry about the needs and behavioural attributes of farmers

Who takes this forward?

- Most likely DA and/or GGDF via a fresh study of knowledge needs, decision-making influence and effective delivery systems and conduits

Recommendation 3

Develop tools and decision-support processes to improve the focus on farm business performance over time through volatile conditions.

Why

- The focus of many programs and tools has been largely issues-based, while the mounting challenge of managing the whole business (and its cashflow) over time has been overlooked as a capacity-building priority.
- Existing whole-of-farm business decision tools are single-year in their application.
- Volatility has a large number of people trapped in a short-term focus, as articulated on page 71 of the report.
- There has been a declining spend on farm business management as a competence when the scale of challenges has been rising.
- This gap was strongly confirmed in industry feedback across sectors.

What does it mean?

- Develop a new approach to aid and allow farmers to explore ways to optimise their business to deal with increased complexity and volatility over time.
- The aim is to put control and responsibility squarely back in the hands of farmers.

What should we do differently

- Develop and implement new tools that allow farmers to develop a long-term business optimisation and “fitness” plan (these tools don’t exist and/or are not accessible to farmers);
- Develop a guided decision-making process that focuses on long-term viability;
- Undertake a concerted effort to engage farmers in these processes to understand and address priorities. Treat this as not a program, but a “call to arms to get your business fit”;
- Develop delivery capability which should include the use of “positive farmer” advocates;
- Gain a large commitment from companies (seeking growth in milk flows) to this effort;
- Align with a better understanding of engaging with farmers and influencing decisions from Recommendation 2.

What do we need to keep doing

- Build on the lessons, networks and support resources applied to programs such as Taking Stock, Dairy Business Focus (1999-2001)

Who takes this forward?

- DA to lead development in conjunction with dairy companies, RDPs and providers

Recommendation 4

Develop a database of decision-critical profit drivers based on farm data

Why

- This is critical to ensuring necessary knowledge support for the processes suggested in Recommendation 3.
- This will help focus an effort on profitability drivers and benchmarks that can develop a consistent industry language about profit ability and wealth creation.
- Allow more comprehensive industry-wide analysis of profit drivers and risk factors across a range of systems and regions.
- Provide more comprehensive data for investors.

What does it mean?

- Develop a readily accessible database platform of farm performance KPIs that can support farmer decision-making.
- Integrate this with the decision-making processes outlined in Recommendation 3 – the platform should provide input as to the “art of the possible” for farmers evaluating future options.
- This facility should actively support and be supported by consultants, field officers and other service providers as contributors and users of the data.

What should we do differently

- Ensure the platform is accessible to farmers, advisers (for use as well as for the sharing of farmer client data), and to interested parties including potential investors;
- Use the platform as a basis for promoting and sharing success in farm business performance;
- Reinforce its use as a basis for a common language of farm measurement and performance;
- Use to measure and demonstrate the impact of change and uptake of business improvement tools and specific-issue programs.
- Use as a national and regional platform to underpin a consistent reference for farm business awards.

What do we need to keep doing

- Continue priority development of a significant knowledge platform as commenced by DA/GGDF through DairyPoint
- Explore synergies and franchise opportunities with DairyNZ’s Dairybase

Who takes this forward?

- DA to continue development of DairyPoint

Recommendation 5

Develop and implement a co-ordinated strategy for sharing farm business success

Why

- There is no cohesive and integrated strategy for talking up the successes of dairy farm businesses.
- There are dairy business awards nationally and in some regions that celebrate success in farm profit and sustainability elements.
- This supports the objective of improving the perception of dairy as a place to make money, invest and work.

What does it mean?

- Develop an approach to proactively manage industry reputation and image based on the sharing of success on-farm across a range of outcome areas.

What should we do differently

- Integrate business performance awards nationally and regionally across recognition of wealth creation, sustainability practices, innovation, people management;
- Proactively use influential media to tell success stories across these outcomes;
- Target appropriate segments using research into effective means of influence referred to in Recommendation 2;
- Encourage and provide incentive to individuals to come forward and share successes

What do we need to keep doing

- Build on the development within the Brand Dairy program, using *Legendairy* as a vehicle for promotion of success and the improvement of farmer esteem.
- Link success stories to the promotion of the uptake of the sustainability framework.

Who takes this forward?

- ADF, GGDF and DA as appropriate.

Recommendation 6

Align existing farm programs to farm business profit drivers.

Why

- Programs are presented as issues-specific solutions, without necessarily being clearly presented or tied to whole of business outcomes.
- Programs are not integrated or sufficiently linked to ensure “whole of farm business” impacts are assessed and balanced.
- Farm business management is treated as a distinct issue rather than a co-ordinating framework in which to implement solutions.

What does it mean?

- Repackage programs as a suite of ingredients for improved profit and sustainability.
- Farm business management should be positioned as the primary or overarching competency, with existing programs positioned as solutions that contribute to “whole of business” outcomes.
- Use tool and programs that will allow farmers to quantify the impact on profitability and long term wealth creation of R & D uptake

What should we do differently

- Package programs as solutions that contribute to farm business profitability being addressed in decision-making – for instance as in application of Recommendation 3.
- This should provide a framework for the scope of the contribution to the overall farm business – or the payoff within certain systems, and the systems challenges in implementing specific solutions.

What do we need to keep doing

- Streamline the areas of focus of programs to address profit drivers.
- Work with influential consultants and service providers who will support a profit-based approach to managing aspects of farming systems

Who takes this forward?

- DA to continue to lead this development.

Recommendation 7

Create opportunities for farm RD&E joint ventures between industry investors and innovative farmers.

Why

- There is a weakness in relevance of industry R&D activities for leading farmers
- This provides an avenue for a wider pool of innovations in research applications and practices across industry.
- Studies in the past have indicated that farmers learn best from their peers rather than from program delivery.
- It addresses diversity and overcomes a “one size fits all” approach
- This widens the scope for sharing success across industry per recommendation 6.
- Helps break down the perception of “elite farmers” by making their learnings and approaches more accessible.
- This can create incentives for leaders to share.

What does it mean?

- Create the scope for leading innovators to fully develop their ideas and applications through a co-investment program, and to make them accessible to others.
- Operate with clear criteria for a system to co-invest with farm innovators.
- Facilitate rapid commercial adoption on-farm of new innovation.
- Provide an incentive for leading innovators to engage with the industry and share their insights more widely.
- Use this as a means of locating and promoting leading innovators that can be showcased under recommendation 5

What should we do differently

- Create new business and investment models to allow R&D alliances or joint ventures between industry investors and leading farmers.
- Share findings and outcomes using a strategy for more effective influence developed from Recommendation 2 to ensure greater application and uptake.
- Champion innovation in practices at the smaller end of farm operations.

What do we need to keep doing

- Dialogue with innovative progressive farmers as a basis for application of this approach to that group as potential early adopters.

Who takes this forward?

- DA, RDPs and/or GGDF
- Look at piloting in a certain region

Recommendation 8

Implement a process to improve the resourcing and support for advocacy

Why

- The industry's advocacy bodies are under-resourced and enveloped in short-term issues.
- Industry employs old models when means of influencing community and Government have fundamentally altered.
- The Horizon analysis recognised the critical importance of strong and highly-respected peak advocacy bodies to enable key policy issues to be effectively addressed and leadership to be taken on major agendas.

What does it mean?

- Implementing a round-table process to develop a means of improving the effectiveness of advocate bodies, through co-ordination with DA and other agencies
- Working toward a more cohesive and professional approach to advocacy, with the peak bodies leading a highly strategic agenda supported by service organisations with clear understanding of respective roles and responsibilities.

What should we do differently

- Undertake a round table process as outlined on page 78 of the report to agree on
 - The priority agendas that are critical to industry's positioning
 - Positions to be taken/evaluated
 - Work that has to be done in order to be properly informed, and how it is to be resourced
 - Key messages
 - The strategies for effective influence of agendas
- Embrace and effectively apply new means of influence relevant to various targets

What do we need to keep doing

- Evolving advocacy organisations and models to suit the changing requirements of the industry and its stakeholders

Who takes this forward?

- ADIC, ADF and DA to action

Recommendation 9

Build an evidence base to underpin the story of dairy's contribution.

Why

- Dairy's data is not coherently assembled in a single place to enable management of co-ordinated messages that consistently and accurately tell the story of contribution and impact.
- The data is important in providing a factual basis for telling dairy's story and influencing community and government agendas.

What does it mean?

- Develop a readily accessible database platform of industry activity.
- The information on relative economic and social contribution needs to be assembled on a regional basis and take into account the relative standing of dairy and other industries

What should we do differently

- Understand what measures of activity, output and outcome matter to Governments and community at all levels.
- Design and develop an integrated database of facts, economic and physical data and other relevant items
- Promote access to that central evidence bank to relevant stakeholders and advocates.

What do we need to keep doing

- Develop a database of regional economic metrics.
- Capitalise on existing influencer and stakeholder research as part of the Legendairy program to understand their primary interests and needs

Who takes this forward?

- DA to continue development in conjunction with regional stakeholders

Recommendation 10

Understand the opportunities for the introduction of new equity capital to the industry.

Why

- There are significant investment funds seeking a stake in food production in a number of countries.
- Australia is competing for that capital, which provides a potential spur to the growth of dairy farm production over time.
- The wider industry generally has a relatively low awareness of those opportunities and the investment models.
- Understanding the attributes of investment attraction will improve the effectiveness of industry promotion and capacity-building efforts.

What does it mean?

- Gain an understanding (through commissioned consultation and analysis) of the scope to close the gap between the needs of potential new equity providers and the dairy farming businesses they wish to invest in.

What should we do differently

- Understand the nature of investor types, funds at disposal and the investment criteria that must be met by dairy in the post-GFC environment.
- Understand the gaps that exist in the connection between
 - Investors interest, requirements and risk appetite;
 - Farm investment models;
 - Farm management skills and capabilities
- Identify and evaluate the specific information and enterprise management requirements of potential investors

What do we need to keep doing

- Identifying scope to improve the relevance of market and trade data and analysis

Who takes this forward?

- It will be desirable for DA or GGDF to undertake this with partner investors

Recommendation 11

Lead implementation of the sustainability framework.

Why

- A front-foot approach to the adoption of sustainable practices is critical to our retention of key markets as well as preventing unwanted regulation of the industry's licence to operate.
- The rationale for this at an industry level is explained on page 38.

What does it mean?

- The industry's sustainability framework is strongly needed to underpin the credentials of the Australian industry's supply chains.

What should we do differently

- Sell the adoption of the framework and the implementation of targets based on the scope to improve the bottom line for producers.
- Co-opt farmers to share and celebrate success in implementing measures , in keeping with Recommendation 5.

What do we need to keep doing

- Moving the framework to implementation and the development of outcome-based targets

Who takes this forward?

- ADIC should lead development as a whole of chain initiative.

Recommendation 12

Evaluate an appropriate process to meet the critical needs in post-farmgate innovation and the scope for future collective investment.

Why

- The existing collective investment in post-farmgate R&D is not delivering sufficient benefits to dairy companies.
- Ongoing co-investment is threatened.
- Industry risks inadvertently throwing the “baby out with the bathwater” and creating a shortage of technical skills

What does it mean?

- Establish whether a viable model to meet industry needs in future can be developed and sustained

What should we do differently

- Not applicable – this is in implementation

What do we need to keep doing

- Complete the current process that was initiated in 2012, leading development of a solution through close engagement with companies.

Who takes this forward?

- DA to continue this process with input from GGDF

Recommendation 13

Develop an overall strategy for leadership development to encompass a wider set of leadership needs and pathways

Why

- Many aspiring dairy farmer leaders have a narrow view of the scope for development within industry, mostly confined to the agri-political avenues.
- Industry leadership posts struggle to attract necessary talent.
- A wider set of leadership needs and target influencers has emerged.
- Page 76 outlines the diverse scope of opportunities available.
- There are a range of leadership programs without overall co-ordination or direction
- Ensure capacity development is focused on leadership demands within a wider community.

What does it mean?

- A co-ordinated “masterplan” of needs assessment, talent identification and development strategy to service the vast array of opportunities to lead and influence to meet industry’s needs and agendas.
- The strategy would identify leadership posts, pathways, capacity needs and therefore addressing a gap analysis through a development program.

What should we do differently

- Develop a strategy to ensure opportunities, pathways and destinations are understood, better developed (in terms of their definition) and promoted to potential candidates
- “Shepherd” identified talent into appropriate opportunity pathways
- Include “Community” as one of the critical leadership pathways where scope for dairy involvement should be proactively sought
- Include other new initiatives (such as R&D joint venture review bodies per Recommendation 7)

What do we need to keep doing

- Sustain existing investments as a platform for a wider set of prospects

Who takes this forward?

- ADF, DA and GGDF determine who does what

Recommendation 14

Develop an appropriate scope and program for an ongoing Horizon 2020 process

Why

- As outlined on page 87 of the report

What does it mean?

- Continue Horizon 2020 to explore appropriate issues that can contribute to industry capability and knowledge, and act as a development vehicle for emerging leaders

What should we do differently

- Build Horizon 2020 into leadership development programs

What do we need to keep doing

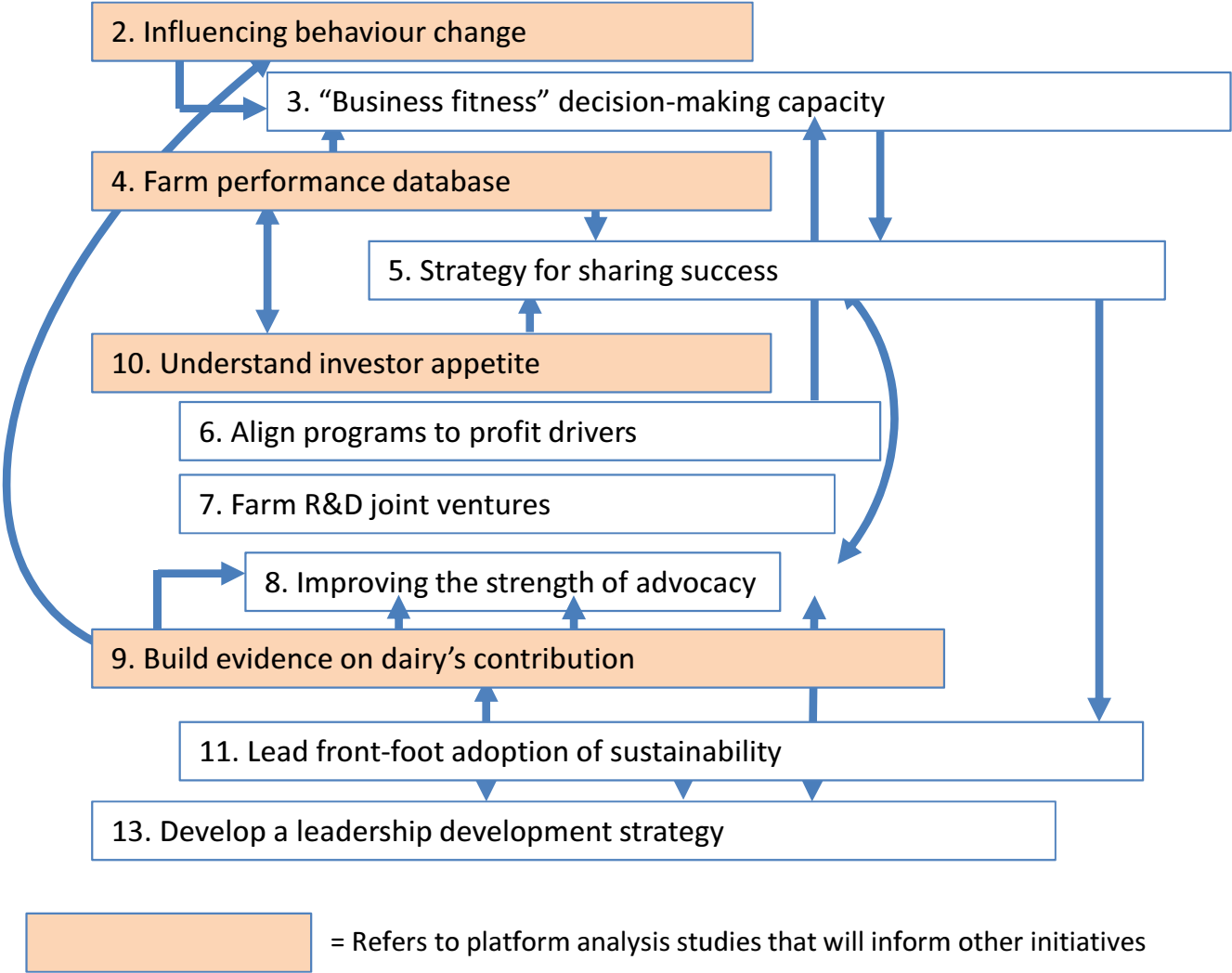
- Integrate Horizon 2020 as appropriate into strategic planning processes
- Building on the commitment from the existing Horizon 2020 group farmers and interested other participants in such a process.

Who takes this forward?

- DA and GGDF to evaluate after determining implementation priorities arising from the preceding recommendations and insights from the 2012 Horizon work.

The relationships between recommendations

There are linkages and interdependencies between a number of the recommendations as outlined below.

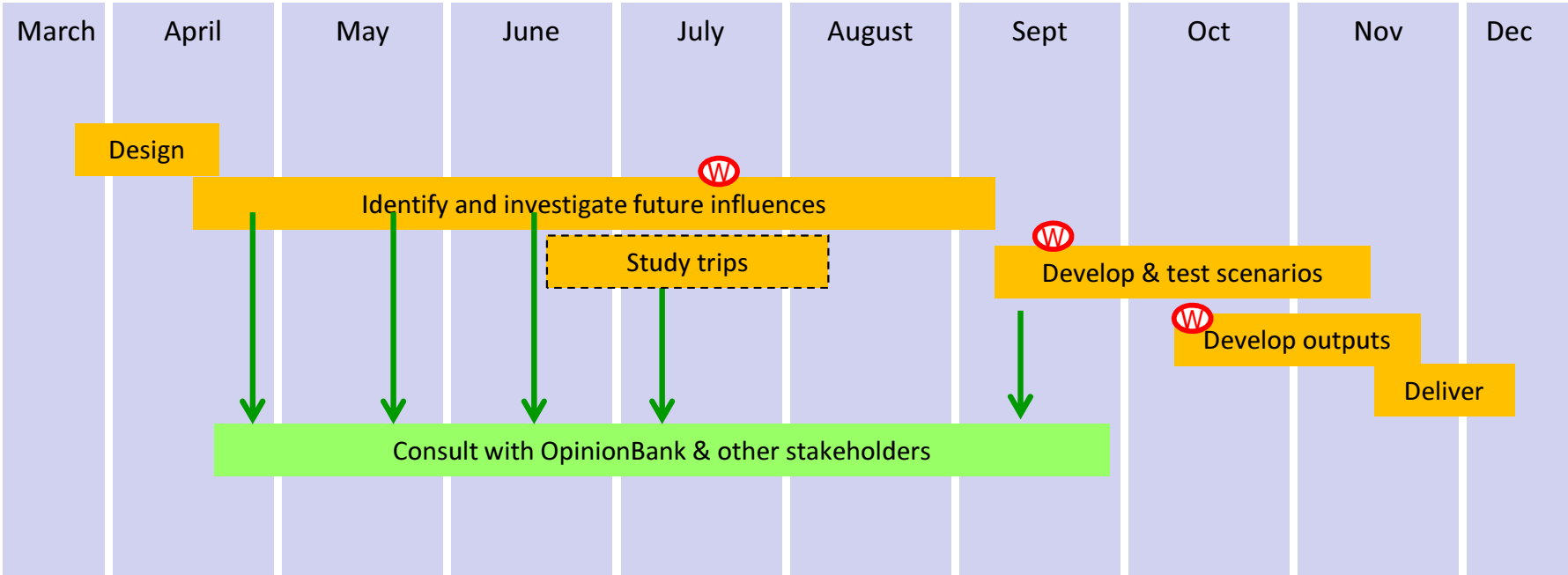


Appendix 2

Approach

Project design

The project has been conducted in 2012 according to the timeline and major phases of work as outlined below.



W = Workshop event – comprising Working Group and OpinionBank members as appropriate

Summary

- A core component of the project plan was to undertake study tours to a number of key countries.
- The purpose of the tour was to gain input on significant issues relevant to the future medium-to-long term scenarios for the Australian industry.
- The tours have provided a considerable amount of input to the working group's process, which has been captured through this exposure.
- Rather than simply report what we saw in factual terms, this document outlines the findings and examples in terms of the content of relevance to the project's purpose and workplan.
- In several cases the experience has required using some frameworks to assist making sense of different approaches in different industry and community contexts.
- Ultimately, the tours gathered information to assist in the development of scenarios, outlined in the main report body and as detailed in Appendix 2.

The discussion



Consultation inputs

The project will engage with a wide range of parties to gain input across the research areas.

		Future dairy landscape	Feeding the world	Future world order	Future consumer wants	Meeting customer needs	Future resource limits	Sustainable food	Enterprise (farm & company)	Future industry structures	Innovation needs	Future business models	Transforming industries	Scenario development
Dairy/food companies		●			●	●			●	●	●	●		●
Food retailers		●			●	●		●			●			●
Industry bodies		●					●			●	●		●	●
NGOs			●	●	●	●	●	●					●	
Governments		●	●	●	●			●						
Farmers		●					●		●	●				
R&D leaders					●		●		●		●			
Capital providers				●					●	●				
Other opinion leaders			●	●	●	●	●	●	●				●	●

The meetings held

Where	Meetings held by the working group		
China 8-12 June	<u>Dairy companies</u> Beijing Sanyuan Foods (meeting, factory) Yili (factory) Mengniu (meeting) Bright Dairy (meeting, factory) Fonterra Foodgears (Importers agents)	<u>Farms</u> Sanyuan Lvhe Dairy <u>Industry bodies</u> CDIA <u>Foodservice</u> Yum Brands (operations manager)	<u>Supermarket visits</u> Carrefour Metro Cash & Carry <u>Other</u> DAFF Ag Attaches
UK 13-18 June	<u>Dairy companies</u> First Milk Volac <u>Industry bodies</u> Milk Council Dairy UK (The industry forum hosted by DairyCo and Dairy UK)	<u>Farm visits</u> Farms (and discussion group) in Wiltshire Farms in west England region including an integrated farmhouse cheese facility <u>Other</u> Promar (cost benchmarking)	<u>Retail store visits</u> All major chains and format variations <u>Retail organisation</u> British Retail Consortium <u>NGO</u> World Wildlife Fund
Brussels 19-20 June	<u>European Commission</u> DG Agriculture (Dairy markets) DG Agriculture (climate change) DG Agriculture (sustainable production & consumption)	<u>Industry bodies</u> COPA-COGECA European Dairy Assoc (processor lobby) Eucolait (dairy trade lobby) Danish Dairy Board Australian Ag Counsellor (Russell Philips)	<u>Other Government</u> Ag attaché of Brazil European Parliament advisor <u>Other</u> SAI Platform (global team)
Netherlands 21-22 June	<u>Dairy companies</u> Fonterra (EU Trade Policy manager) FrieslandCampina Hoogwegt	<u>Farm visits</u> Farms in the Friesland region	<u>Other</u> Rabobank FAR team
Indiana, Wisconsin, California 24-29 June	<u>Dairy companies</u> Hilmar Cheese Select Milk Producers <u>Industry analysts</u> Mary Ledman	<u>Farm visits</u> Fair Oaks Dairy facilities in Wisconsin and San Joaquin Valley	<u>Industry bodies</u> Global Dairy Platform <u>Retail store visits</u> Walmart, Walgreens, other
New Zealand 4-8 August	<u>Dairy companies</u> Fonterra Westland Synlait Tatua	<u>Farm visits</u> Dairy facilities in Canterbury, North Otago and Waikato	<u>Industry bodies</u> Dairy NZ <u>Other</u> Rabobank Westpac

References

The following materials have been referenced in the preparation of this document:

- Clark D, Malcolm W, Jacobs, J, *Dairying in the Antipodes, Recent Past, Near prospects*, 2012, Proceeding of the Australian Dairy Science Symposium 2012
- Freshlogic, *Dairy manufacturing innovation: Meeting future industry needs Paper on manufacturing R&D*, 2012
- Freshlogic *NSW and Queensland Dairy Industry: A time of reckoning*, 2012
- Freshlogic, *FoodFrontiers - An analysis of consumer meal and food shopping trends in Australia*, Summer 2012
- Freshlogic, *Optimising farmgate returns from the market – A paper for Australian Dairy Conference*, February 2012
- Global Demographics, *The Changing Global Consumer and the Implications for the Food Sector*, April 2012
- Harley, Michael, *Background papers for workshop on brand dairy workshop, October 9-10 2012*
- Hofstede, Geert, *National Cultural Dimensions*, <http://geert-hofstede.com/> (accessed 17 July 2012)
- OECD-FAO; *Agricultural Outlook 2012-2021*, 2012
- Rabobank: *Rabobank Global Focus newsletter August 2012 - NZ Dairy – From a torrent to a trickle*, August 2012
- Waters, W, Thomson, D, Nettle R, *Derived Attitudinal Farmer Segments: A method for Understanding and Working with the Diversity of Australian Dairy Farmers*, 2012

Appendix 3

Scenarios

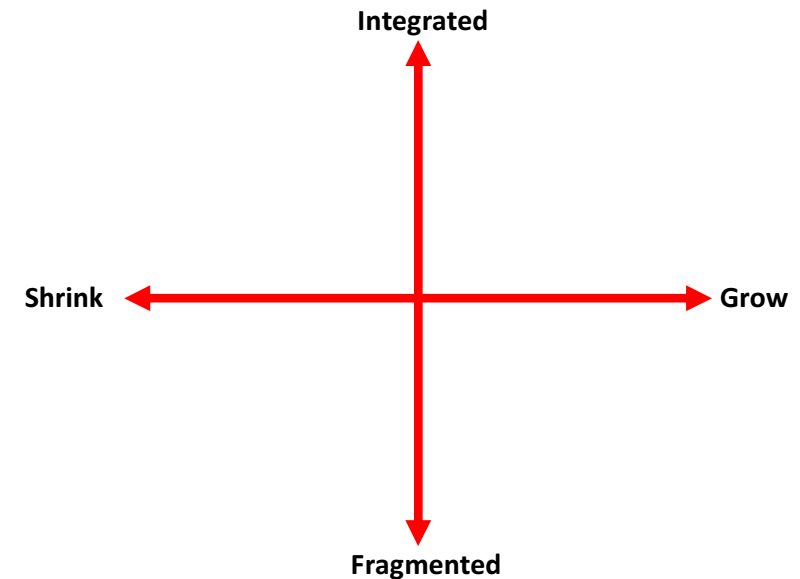
The use of the scenario planning process

Why use scenarios?

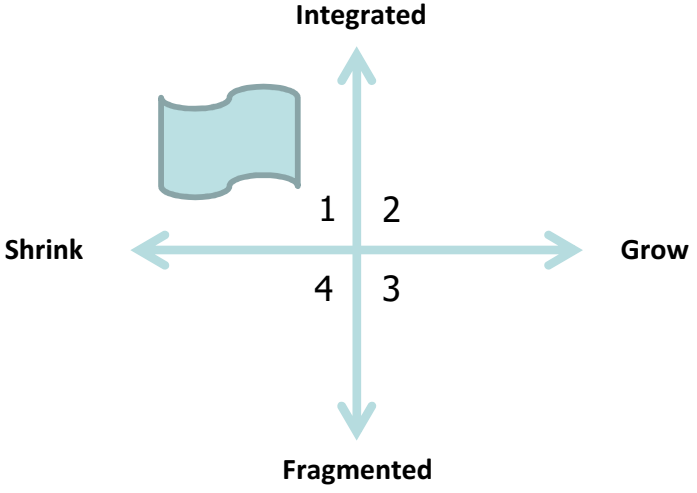
- Scenario planning is a way of understanding possible future events so as to develop long-term plans to protect against the adverse effects of major risks and uncertainties and best position an organisation or industry to take advantage of available opportunities. It is not a process to predict or forecast the future, but rather to attempt to understand the future environment and what to do about it.
- Scenarios are commonly used to create distinctly different views of the future, for use in determining what sort of future should the dairy industry work together attempt to achieve.
- The aim is to development process is to open minds to the possibility that the future will be radically different to what it is today.

Process

- The workshop considered the most important variables or uncertainties that will shape the future as a basis for designing these different outcomes.
- A critical part of the process was to select two axes (horizontal and vertical) that suited the future unknowns and the context for how this process was to be applied. In this case the workshop agreed on two axes which best reflected the core challenges being addressed by the Horizon 2020 project.
 - What future size, shape and structure can the industry achieve
 - What relationships could exist between participants
 - What integration, collaboration and co-investment will be important in the future
- Each scenario was developed and described by reference to a common set of attributes and features.



Scenario 1 - Drift



The industry in 2020

- The industry produces 8.3 bn litres on about 4,000 farms
- The industry largely supplies domestic customers across dairy categories. A quarter of milk output was manufactured into products and sold onto export markets
- The industry is a cohesive, transparent industry that operates with high standards of integrity that are respected in its brand
- It collaborates together in selected areas which add value to the industry's effectiveness
- Industry productivity investments and short term price signals are not sufficient to inspire growth

How industry collaborates

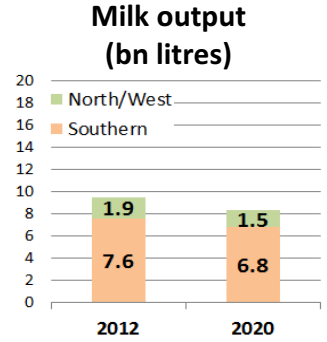
- Milk producers are more closely aligned with marketing partners, which includes direct farmer supply to retail customers
- Industry works together in measuring and reporting against sustainability goals
- There is a high standard of traceability through the milk value chain
- Regional coalitions operate to achieve productivity gains, using self-managed RDPs or private consultants
- Accessing fast-follower technologies in manufacturing processes and products
- The industry successfully worked together to commercialise GM technologies, but take up has been limited.

Ownership

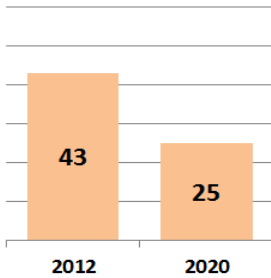
- About 20% of milk is collected from farms and sold through producer owned companies
- All major manufacturing and processing companies are either listed or owned by foreign corporations

Key customers

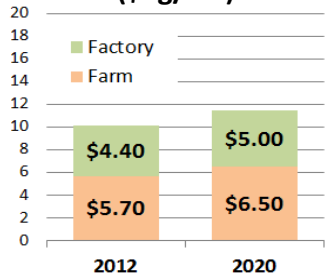
- Predominantly domestic milk and dairy product customers
- A number of niche export customers, centered chiefly in affluent South East Asia that seek and value the sustainability credentials of Brand Australia
- The industry is no longer competitive in bulk commodity markets



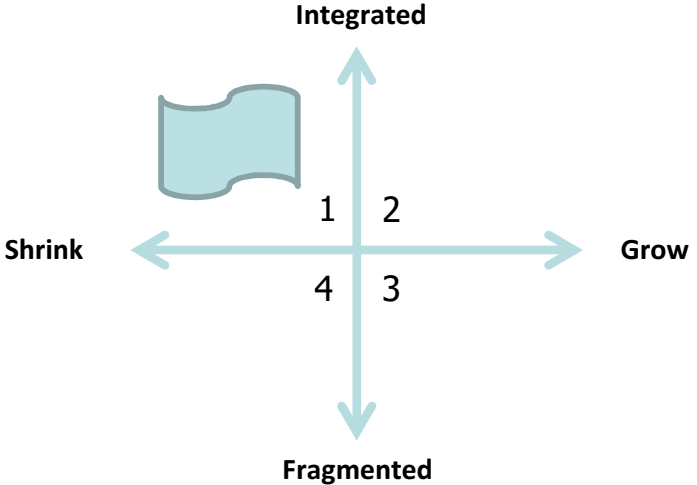
% milk sold export



Average value of milk (\$kg/ms)



Scenario 1 - Drift



What does leadership look like

- There is a single integrated industry peak body representing all sectors, combining advocacy and industry services in defined areas
- It undertakes policy lobbying, policy development and manages R&D programs
- The industry body does best at helping industry maintain the right to operate and sell into domestic markets

What innovation is being celebrated?

- Farms operating in pods, and in entrepreneurial consortiums
- Automation across several farm operation functions, including
 - high-yielding sexed semen;
 - irrigation management,
 - milk harvesting,
 - pasture production
- Product innovation in:
 - Milk drinks
 - Sports/performance products

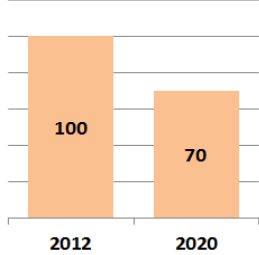
Government's role

- Government has worked with the industry to maintain access to certain key, high value markets
- Mechanism to provide ongoing funding of matching of farm R&D

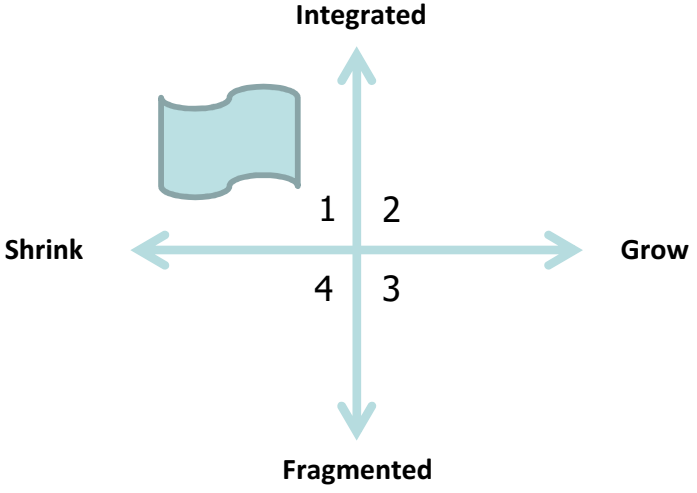
Sustainability means:

- Adoption of a whole-of-chain framework with agreed targets which are measured, reported and continuously improved over time
- A coherent story about how dairy matters and how it operates which supports brand dairy
- Full transparency of practices through the chain allows access to higher value markets

Energy use (factory and farm) (2012 = 100)



Scenario 1 - Drift



How it got here (key steps from 2012)

- **2019** – farm carbon emissions covered; Full MDB sustainable diversion limits applied to cap regional production
- **2017** – new industry structure changed; sexed semen commonly adopted
- **2016** – new industry structure proposed; EU and US ignite growth strategies
- **2015** – GM pastures commercialised; carbon price between \$A10-15/t; EU quotas axed
- **2014** – supermarkets contracting directly with farmers; tracking shows significant buy-in to brand values
- **2013** – Brand Dairy launched; sustainability framework adopted; US Farm Bills re-ignite growth; Euro significantly weakens, depressing commodity prices, but lowers costs of EU automation; \$A spikes and removes industry competitiveness for bulk exports

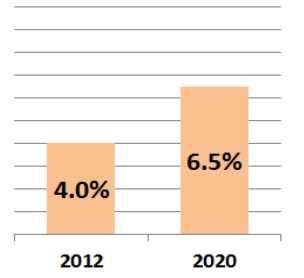
What do farms look like?

- Farms are predominantly family-owned operations
- Farms have been able to improve their profitability through a focus on better productivity from pasture systems (including GM pastures), coupled with increased automation and increased care for social and environmental outcomes
- Increased automation allows European-style lifestyle or hobby dairy farmers in selected regions.
- On-farm ROI has improved to between 6-7% with the smaller number of farms servicing a stable domestic market for milk
- Farms have consolidated in fresh milk regions
- There are flourishing niches in several product areas with greater alignment to retail and export customers
- Energy use on farms has been cut to about 70% of what it was in 2012
- Many farms are breeding export-ready heifers, generating significant income streams for producers
- There are bobby calves on a small percentage of dairy farms

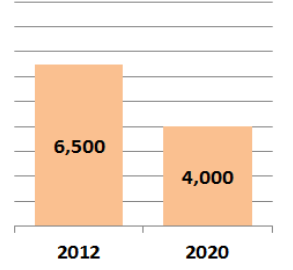
R&D investments

- Milk producers maintain a similar level of investment in R&D, with 40% being applied through regional or systems-based farm groups through self-managed programs, with the remainder through industry-level programs
- Manufacturing sector R&D is mostly undertaken through joint venture involvement to leverage suitable innovation

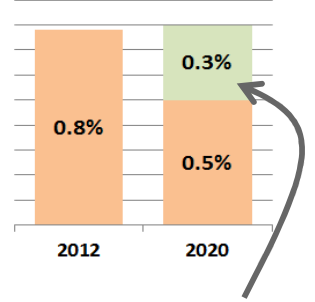
ROI average on farm



Number of farms

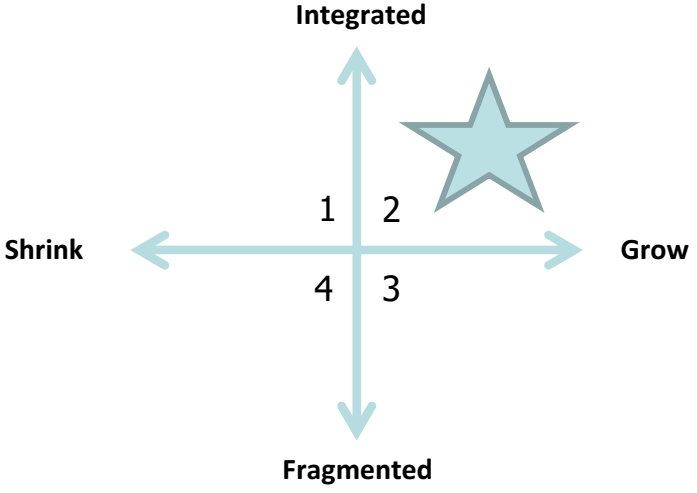


Farm R&D investment (% farm GVP)



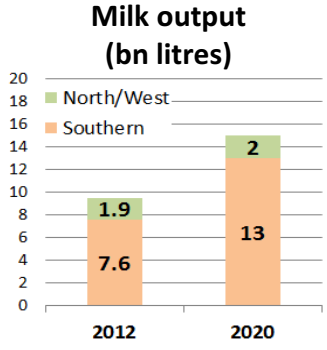
Portion managed through direct farm input

Scenario 2 - Cohesion



The industry in 2020

- The industry is known for being growing, flexible and agile. In 2020 it produced 15bn litres of milk on 5,200 farms
- About 60% of milk output was manufactured into products and sold onto export markets
- The industry is a cohesive, transparent industry that operates efficiently through farm, processing and distribution
- It is attracting external investment through the value chain as the industry is able to clearly identify and facilitate strategic injections of capital.



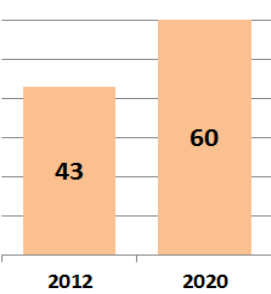
Key customers

- Customers are segmented on value, benefit (indulgence) and functionality.
- Limited exposure to commodity products
- Customers value the agility in ability to respond to necessary changes in mix and specification

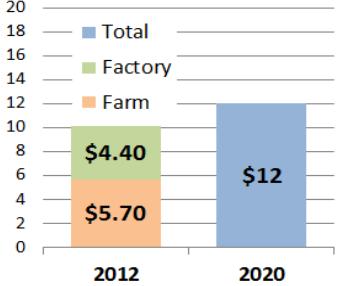
How industry collaborates

- Industry operates with and is known for a collaborative culture, working together as a “food” industry
- The industry’s exporters are more closely integrated with customers in markets through alliances, providing greater scope to add and capture value in affluent market regions
- Milk producers are more closely aligned with the marketplace in export and domestic value chains. Direct farmer supply to retail customers is a feature of these models
- There are generally better market signals available to support farm investment horizons
- Regional alliances smooth the risk of volatility caused by shifts in market access in fresh milk regions

% milk sold export



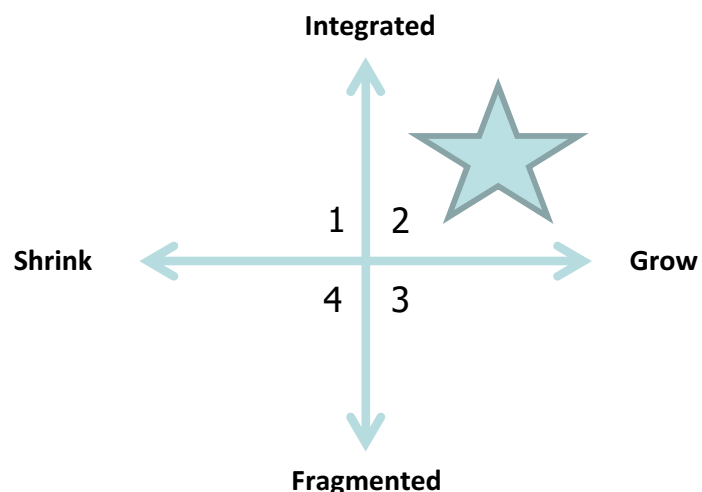
Average value of milk (\$kg/ms)



Ownership

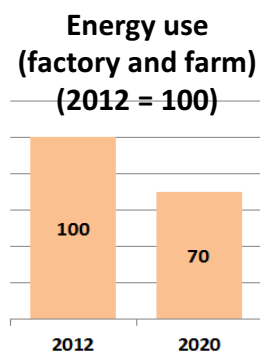
- About a third of milk is collected from farms and sold through producer owned companies, but models vary in terms of the means by which farmers participate with equity in downstream business structures

Scenario 2 - Cohesion



Sustainability means:

- An industry-adopted whole-of-chain framework with agreed targets - measured, reported and continuously improved over time
- This is supported by ongoing R&D, adoption, support and communication systems
- These are embodied in a risk management culture that uses highly-considered decision-making, which instills a business confidence
- There is full transparency of practices through the chain



What does leadership look like

- Leadership occurs at many levels. There is a common purpose to maintain a strategic, positive outlook through the chain
- There is a single integrated advocacy body representing all sectors
- The peak body works closely with other sectors to maintain a high level of importance for agriculture and food in the policy agendas of national and state governments
- There is effective coordination within dairy to work on outcomes-based agendas
- There is accountability by individuals to tell the story (everyone is an advocate)

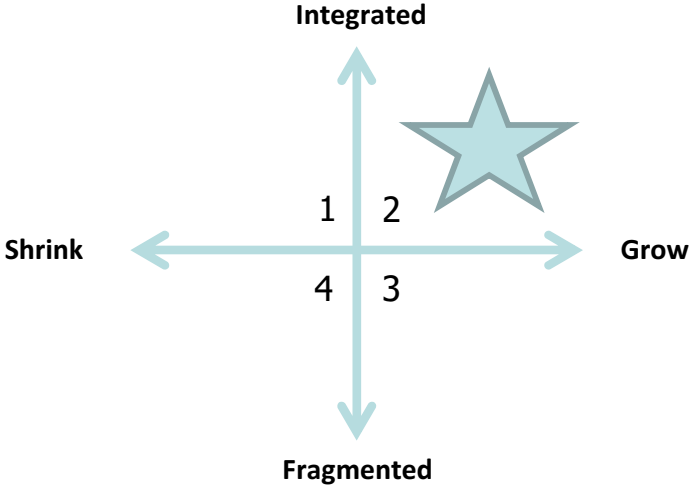
What innovation is being celebrated?

- Innovation to increase productivity and social/environmental responsibility (which includes means for traceability, transparency and accountability including such initiatives as benchmarking water use per kg of product)
- Product innovation in new product categories to improve demand and which do not compete with “traditional” products
- Faster speed to market for innovative products

Government’s role

- Similarly to New Zealand and Ireland, governments are engaged with dairy, supporting and not subsidising agriculture, based on a national vision for agriculture
- Providing incentives to re-train displaced mining workers
- Providing innovation incentives
- Supporting competitive infrastructure in ports and transport access
- Government has worked with the industry to maintain access to certain key, high value markets
- Mechanism to provide ongoing funding of matching of farm R&D

Scenario 2 - Cohesion



How it got here (key steps from 2012)

- **2018** – achieved a collaborative food industry approach in key policy areas such as infrastructure development, trade agendas and innovation, and in achieving acceptance of GM inputs as a sustainability measure
- **2017** – increased access to skilled workers; increased demand for Uni courses; attitudinal and cultural changes embedded
- **2016** – using collaborative forums to address challenges and opportunities, increasing leverage from pre-competitive investments
- **2015** – clear market signals; negotiated Gov't incentives; new leadership processes established
- **2014** – developed clear business case; success stories socialised; sustainability framework working in practice
- **2013** – Brand Dairy work undertaken; industry amnesty on negativity gives a fresh way to move forward

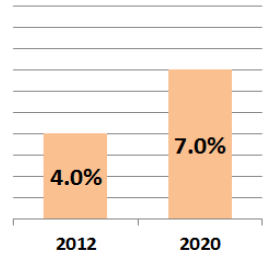
What do farms look like?

- Farms are predominantly family-owned operations
- The sector is readily attracting new entrants, due to improvement in industry sentiment based on the strong belief and confidence in enterprise returns
- A number of farms that have been developed and expanded in recent years are operating through attractive investment models
- There is strong on-farm adoption of continuous improvement in productivity.
- Producers focus on growing business value improving profitability through a focus on better productivity from strong adoption of shared technologies and best practice and increased care for social and environmental outcomes
- There has been innovation in “franchised” farms where farm units work collaboratively with shared assets and resources
- On-farm cash ROI has improved to between 6-8%, but total ROI has improved across the board to between 11-15%
- Farms are continuing to consolidate in fresh milk regions, but there is greater collaboration to smooth the effect of market access changes, farm supply is closely aligned to customer needs, with good dialogue along the supply chain
- Energy use on farms has been cut to about 70-80% of what it was in 2012

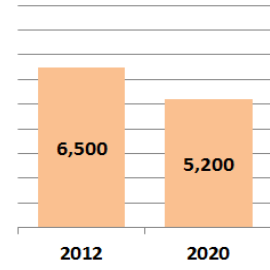
R&D investments

- Industry collectively invests in innovation along the chain using a portfolio approach based on the best ROI. Investment contributions have increased in the past decade.

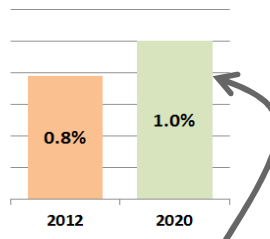
ROI average on farm



Number of farms

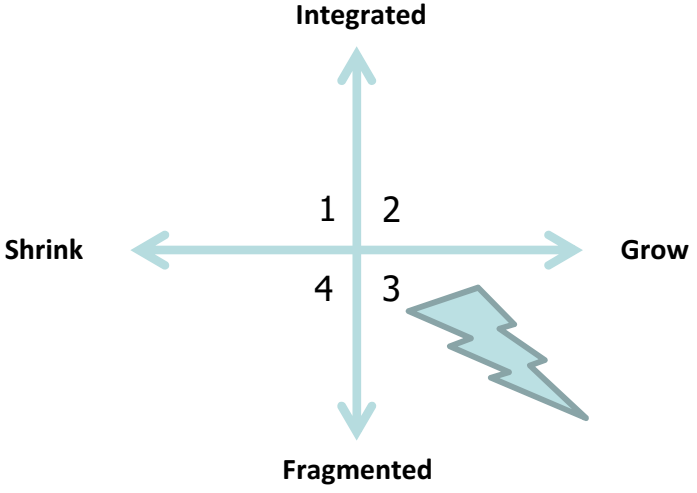


Industry R&D investment (% farm GVP)



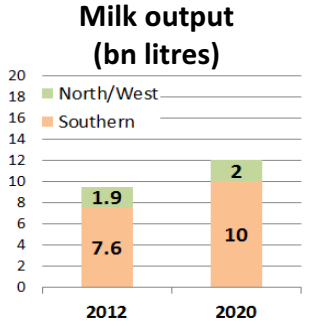
Not assigned to one sector but managed as a portfolio

Scenario 3 - Aggression



The industry in 2020

- The industry is characterized by divergent, competing supply chains which have been led by private companies engaged in domestic and export markets
- In 2020 it produced 12 billion litres of milk on 4,000 dairy farms
- About 60% of milk output was manufactured into products and sold onto export markets
- The industry is a highly competitive, combative industry that operates efficiently through farm, processing and distribution through strong commercial leadership
- The growth path and commercial alignment with key customers is variable and has exposed the industry to volatility in product prices and farmgate returns
- It is attracting external investment capital through the value chain based on the strength of its value chain relationships with customers



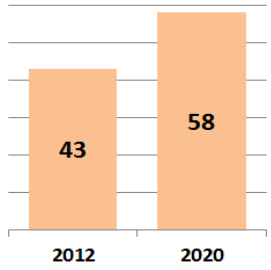
Key customers

- Processors and manufacturers have customers in a wide range of markets and regions
- Asian regions dominate export markets
- Market acceptance of GM inputs has been variable so markets are segregated between markets

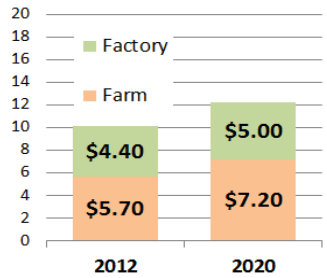
How industry collaborates

- Line of sight to market for farmers has been created on commercial lines where it has fostered a better outcome for the processor or retailer
- Line of sight to market for farmers has been created on commercial lines where it has fostered a better outcome for the processor or retailer
- There is strong use of direct supply contracts with the market
- The industry's exporters are integrated with customers in markets through alliances

% milk sold export



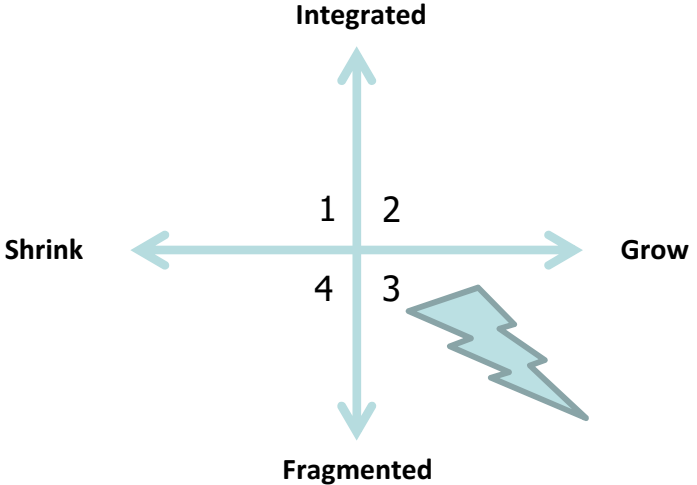
Average value of milk (\$kg/ms)



Ownership

- There are no farmer-owned processing businesses and stronger involvement from multinational dairy brand owners

Scenario 3 - Aggression



What does leadership look like

- The industry is known for strong commercial leadership which has led overall growth due to aggressive deals with export customers and investment partners to obtain market opportunities
- Peer group leadership has been fostered in the farm sector to lead the improvements in productivity and to improve best-practice
- There is weak advocacy at an industry level which has been left to deal with a small set of issues, and there are state-based agri-political bodies that address right-to-farm issues

What innovation is being celebrated?

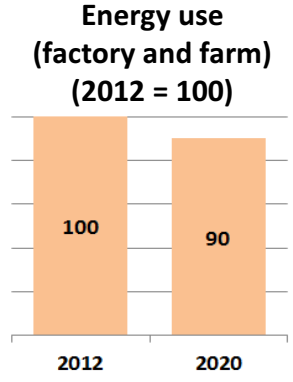
- Strong on-farm innovation to increase productivity has been led by individuals and private providers
- Improvements across several farm operation functions, including
 - pasture productivity through GM technologies;
 - water use efficiency
 - automation in milk harvesting
 - people capacity
- Product innovation led by customer relationships and joint venture alliances, which has helped gain faster speed to market for innovative products

Government's role

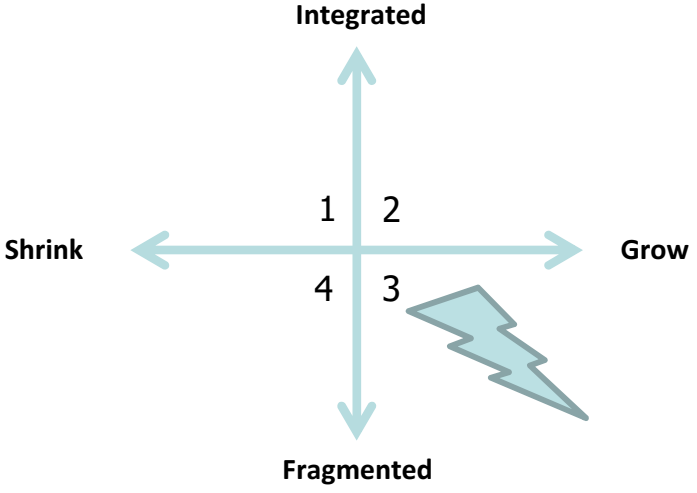
- Governments are engaged with dairy in limited areas and there is little role played to support industry issues
- A fragmented industry advocacy approach ensures that dairy has a low priority in food industry decision-making

Sustainability means:

- Adoption of corporate sustainability frameworks with commercially-driven targets which are measured and reported according to contractual requirements
- Industry is “pushing the boundaries” on a number of issues of sensitivity to the community – which threatens continued expansion as impacts are being scrutinized by authorities



Scenario 3 - Aggression



What do farms look like?

- Farms are predominantly family-owned operations, but with great diversity between farming models
- A number of farms have been developed and expanded in recent years are operating through investment models that rely on customer contracts
- There is strong on-farm adoption of continuous improvement in productivity.
- On-farm cash ROI has stabilized at between 5-7%
- Farms are continuing to consolidate in fresh milk regions
- Energy use on farms has been cut to about 70-80% of what it was in 2012

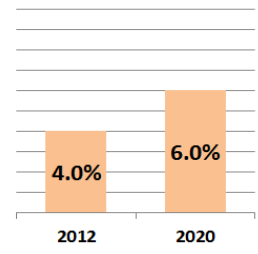
How it got here (key steps from 2012)

- **2016** – Major grocery chains opted to display the use of GM pastures on product labels
- **2015** – an FTA was agreed with China
- **2014** – Japanese and Korean FTAs were agreed with strong corporate leadership in negotiations
- **2014** – industry decreed a sunset on collective farm investment and applied pooled reserves to a focused effort to “ignite” milk production
- **2013** – the live export of cows and heifers was banned due to numerous incidents in dairy and other industries profiled by activist NGOs – this happened faster for dairy due to the aggressive pursuit of returns

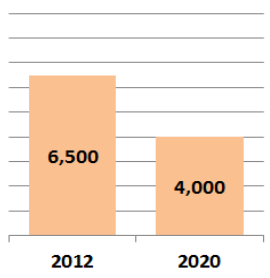
R&D investments

- Industry collectively invests in limited areas of farm R&D and innovation. Investment contributions have been cut as no government contribution is made.
- Private R&D projects are managed through pooled funds on specific areas based on priority productivity and skills development agendas with direct delivery to contributors
- There is no pre-competitive post-farmgate innovation

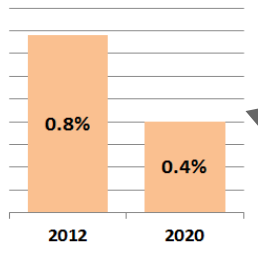
ROI average on farm



Number of farms

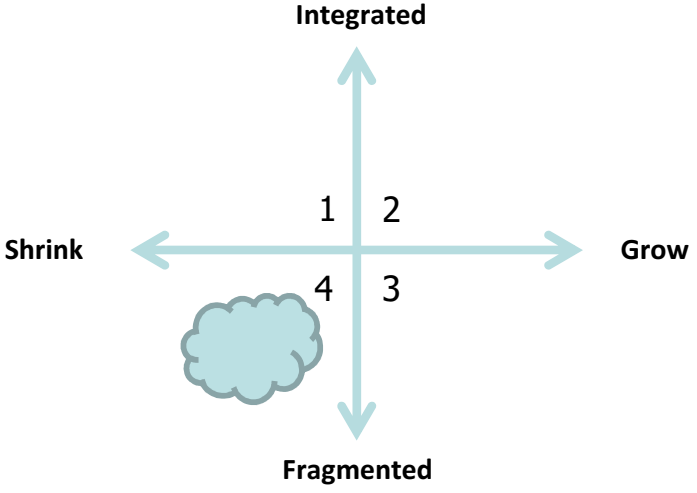


Industry R&D investment (% farm GVP)



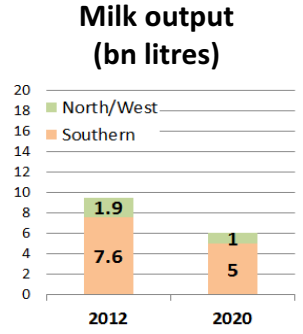
No Government contribution

Scenario 4 - Implosion



The industry in 2020

- The industry is languishing at an annual production of 6 billion litres of milk (which is still in decline in 2020) which is insufficient to satisfy domestic market needs.
- The continued negativity surrounding the industry has deterred new entrants and investment capital has been diverted to other production areas with greater export potential
- The industry has shrunk to 4,000 farms and has contracted to south-eastern regions after heavy attrition in fresh milk production regions, fresh supplies to these regions have been replaced with extended shelf-life products supplied from southern regions
- The processing sector has been consolidated by multinational food and dairy groups - cheese and spreads markets are supplied by New Zealand



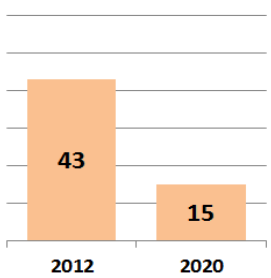
Key customers

- Predominantly domestic milk and dairy product customers
- It has sustained a very small export market involvement in niche ingredient to customers centered in affluent South East Asia, just 15% of production is exported

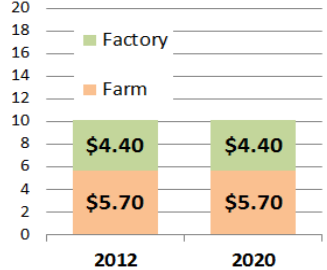
How industry collaborates

- Milk producers are more closely aligned with niche marketing partners, which includes direct farmer supply to retail customers
- Industry does not work together in measuring and reporting against sustainability goals, and there is no support for a dairy brand/identity
- Regional or customer-based supply groups operate to achieve productivity gains, using private consultants
- There is limited transparency of practices through the chain to underpin sustainability demand
- There is no joint investment in post-farmgate innovation

% milk sold export



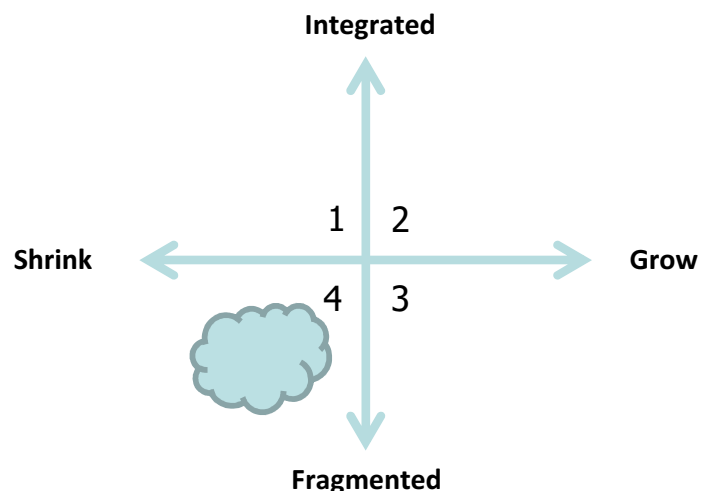
Average value of milk (\$kg/ms)



Ownership

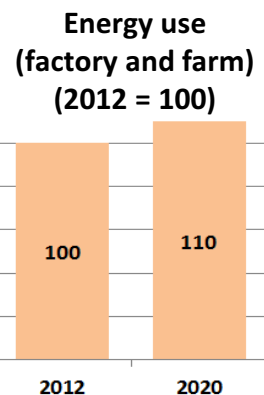
- There are no major farmer-owned processing businesses, except for small operators in niche areas, which amount to less than 10% of national milk volumes

Scenario 4 - Implosion



Sustainability means:

- The industry does not operate with a uniform approach to meeting sustainability demands, and adopting a variety of approaches driven by customers and advancing regulation
- This involves some customer-driven adoption of whole-of-chain frameworks with targets which are measured and reported



What does leadership look like

- There was a breakdown in leadership, with no consolidated vision for dairy and an ensuing lack of confidence
- There is a peak body representing each sector which has a limited role in advocacy and industry policy work in specific areas
- Specific interests drive diverse agendas
- Corporate leadership has been taken by multinationals that have invested in major industry companies and driven consolidation in the processing sector

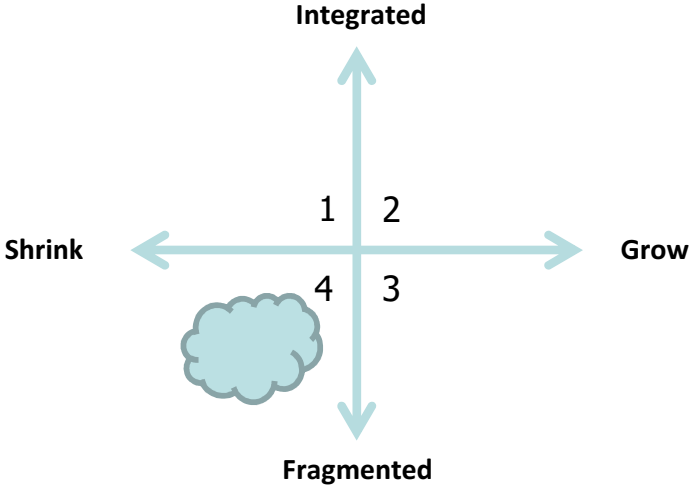
What innovation is being celebrated?

- Patchy success in on-farm innovation to increase productivity has been led by individuals and private providers, which has generated success by world standards but is not profiled or widely shared/accessed
- Innovation has been driven by private extension across several farm groups, including
 - high-yielding sexed semen
 - automation of milk harvesting
 - pasture production using local and imported GM varieties
- Product innovation in niche export ingredients based on customer specification

Government's role

- Governments are engaged with dairy in limited regional areas at a state level where there is production concentration
- A fragmented industry advocacy approach and lack of clarity in direction ensures that dairy has a low priority in national policy decision-making

Scenario 4 - Implosion



What do farms look like?

- Farms are predominantly family-owned operations
- The sector is a mix of farms supplying large dairy manufacturers, which in the main are larger operations which have relied on scale efficiencies
- A smaller proportion of farms that are tied to niche customer demands which have a stronger link to the marketplace through their alliances
- There is generally fragmentation in the approach to farming models and systems and little collaboration and best-practice sharing has been fostered in the competitive environment
- On-farm ROI has fallen to around 3% on average but with significant variation due to the diversity between systems, scale and market access
- The sector has struggled to attract external capital into farms
- Farms have consolidated in fresh milk regions to a core set of large suppliers
- Energy use on farms has increased to 110% of what it was in 2012

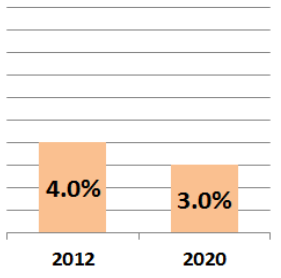
R&D investments

- There remains a reduced collective investment approach which is managed by an industry services company, but which struggles to maintain a consolidated pre-farmgate agenda
- Manufacturing sector R&D is mostly undertaken through joint venture involvement with customers into domestic markets to leverage suitable innovation

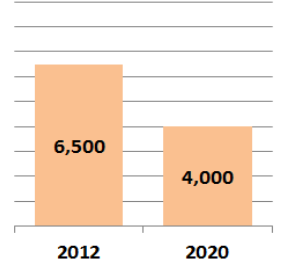
How it got here (key steps from 2012)

- **2015** – the live export of cows and heifers was eventually banned due to numerous incidents in dairy and other industries profiled by activist NGOs
- **2014** – increasing health concerns were linked to dairy which reduced consumer confidence and consumption
- **2014** – strong volatility spurred many aging and highly-g geared farmers to exit the industry. The sustained negative sentiment regarding industry prospects did not see significant succession or attraction of new entrants
- **2013** - Major grocery chains pledged to ban the use of livestock products based on GM pastures and feed

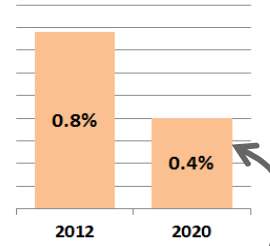
ROI average on farm



Number of farms



Farm R&D investment (% farm GVP)



No Government contribution