

# Fonterra Investor Day

INGREDIENTS BUSINESS  
FEBRUARY 2017

FONTERRA  
**DAIRY FOR LIFE**





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<b>NZMP Sales</b> Kelvin Wickham	<ul style="list-style-type: none"> <li>• Product portfolio – key categories</li> <li>• Depth of market</li> <li>• Ability to capture value</li> </ul>
<b>Strategy</b> Theo Spierings	<ul style="list-style-type: none"> <li>• Fonterra strategy &amp; ambition</li> <li>• Role of Ingredients</li> </ul>
<b>Q&amp;A / Close</b>	<ul style="list-style-type: none"> <li>• Open Q&amp;A</li> </ul>



# Welcome – Simon Till

## Director Capital Markets



# Investor Day purpose

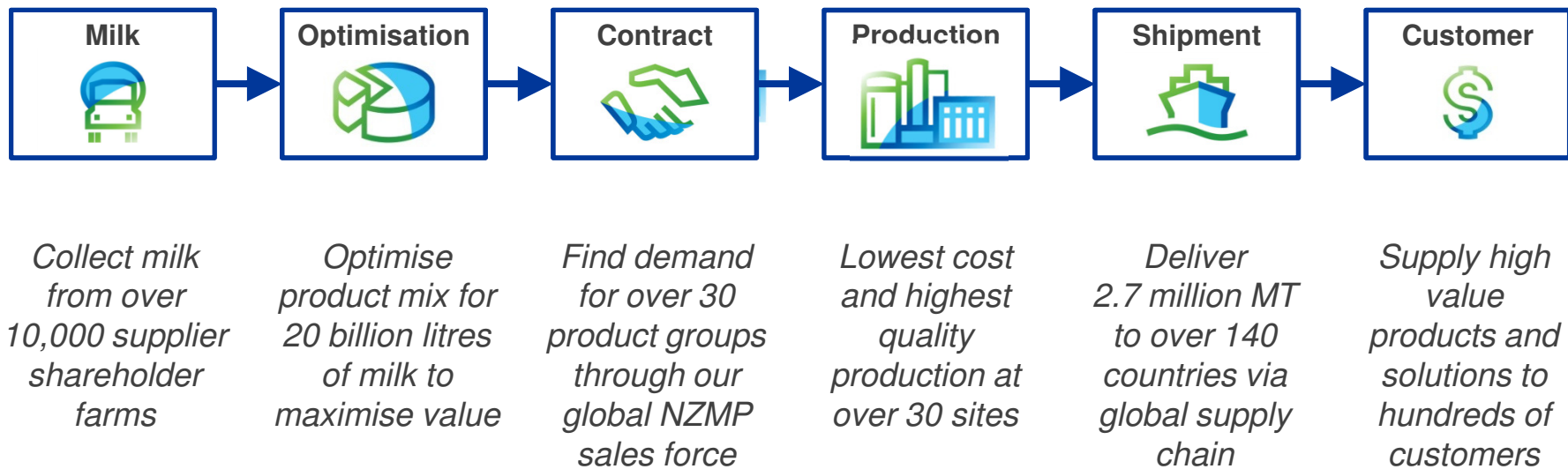
## Ingredients – the engine of Fonterra

*“Improve understanding of the Ingredients business and key earnings drivers”*

- 1 Value creation framework
  - The business
    - Full value chain, optimisation and product mix
  - Quality of earnings
    - Regulated return and value-add, key drivers
  
- 2 Strategy
  - Current: developing optionality, higher sustainable earnings
  - Future: decision-framework, global market trends



# Ingredients value chain





# Ingredients Value Creation

## Lukas Paravicini

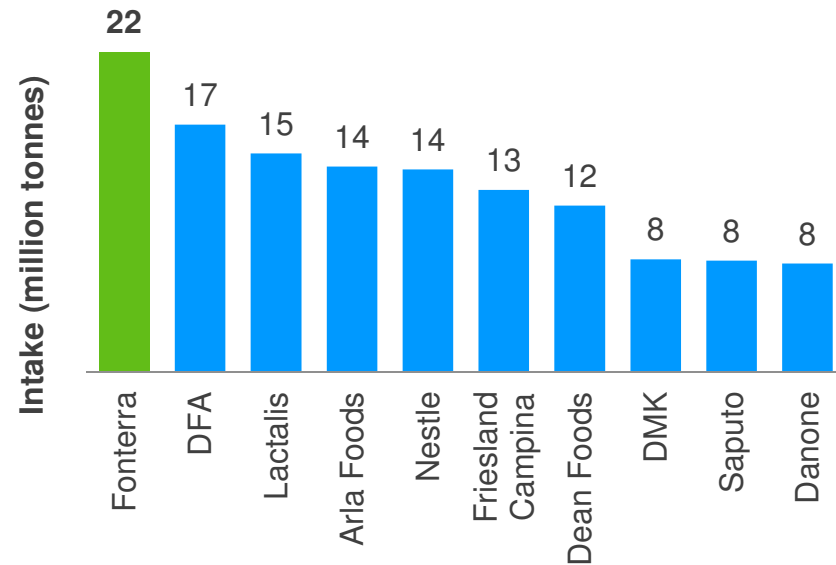
### CFO



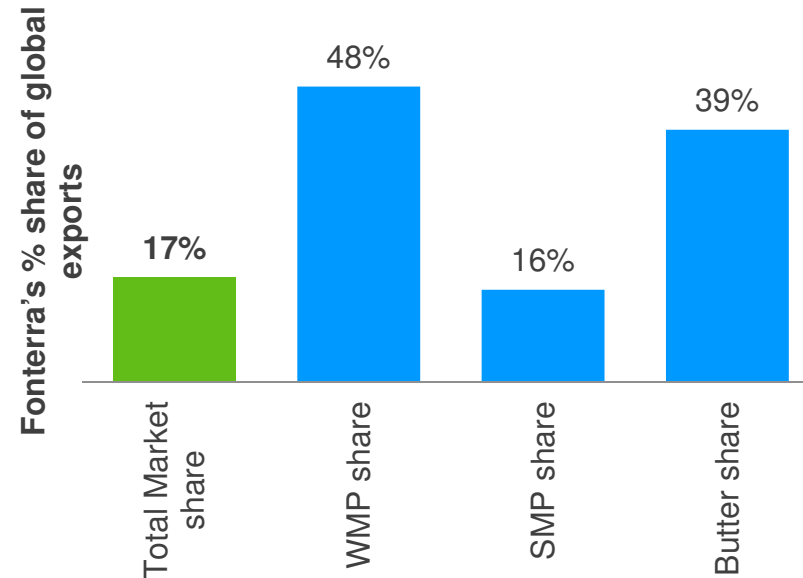
# Global scale and leadership

## Global sales force accessing 140+ countries

World's largest milk processor<sup>1</sup>



World's largest dairy exporter<sup>2</sup>



1. Source: IFCN 2015. DFA collects 28.1 million tonnes but processes an estimated 17.1 million tonnes. 11 million tonnes sold to other processors.

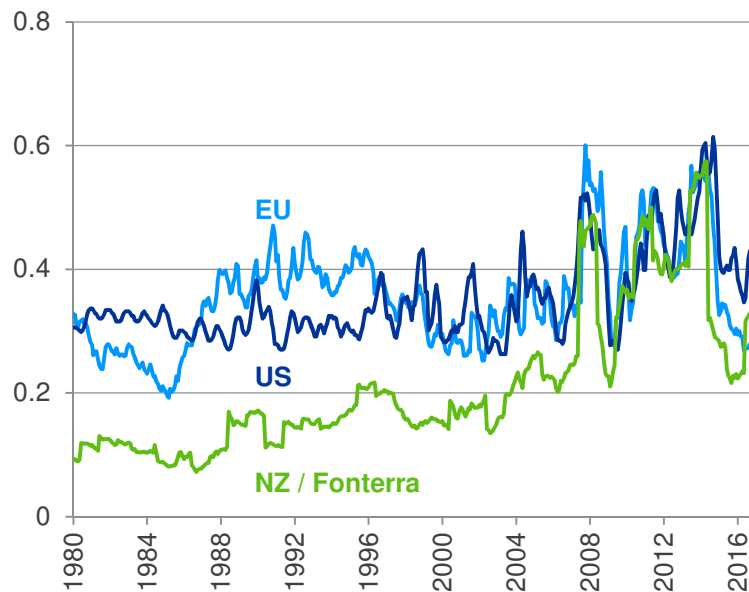
2. Source: Fonterra, Global Trade Information Services. Note: Excludes intra-European trade, information for calendar year 2015.



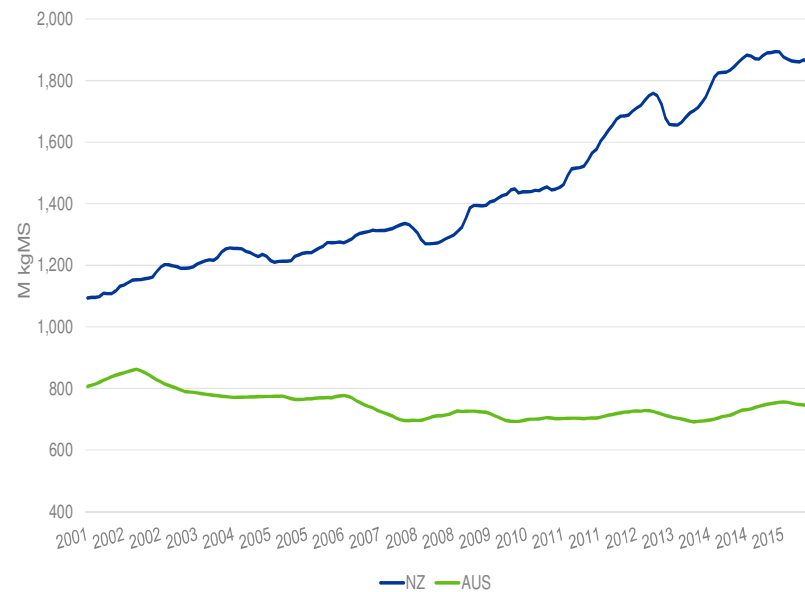
# Fonterra has increased the value of New Zealand milk and encouraged volumes to grow



Global milk prices (USD / litre)



New Zealand versus Australian milk pool (m kgMS)

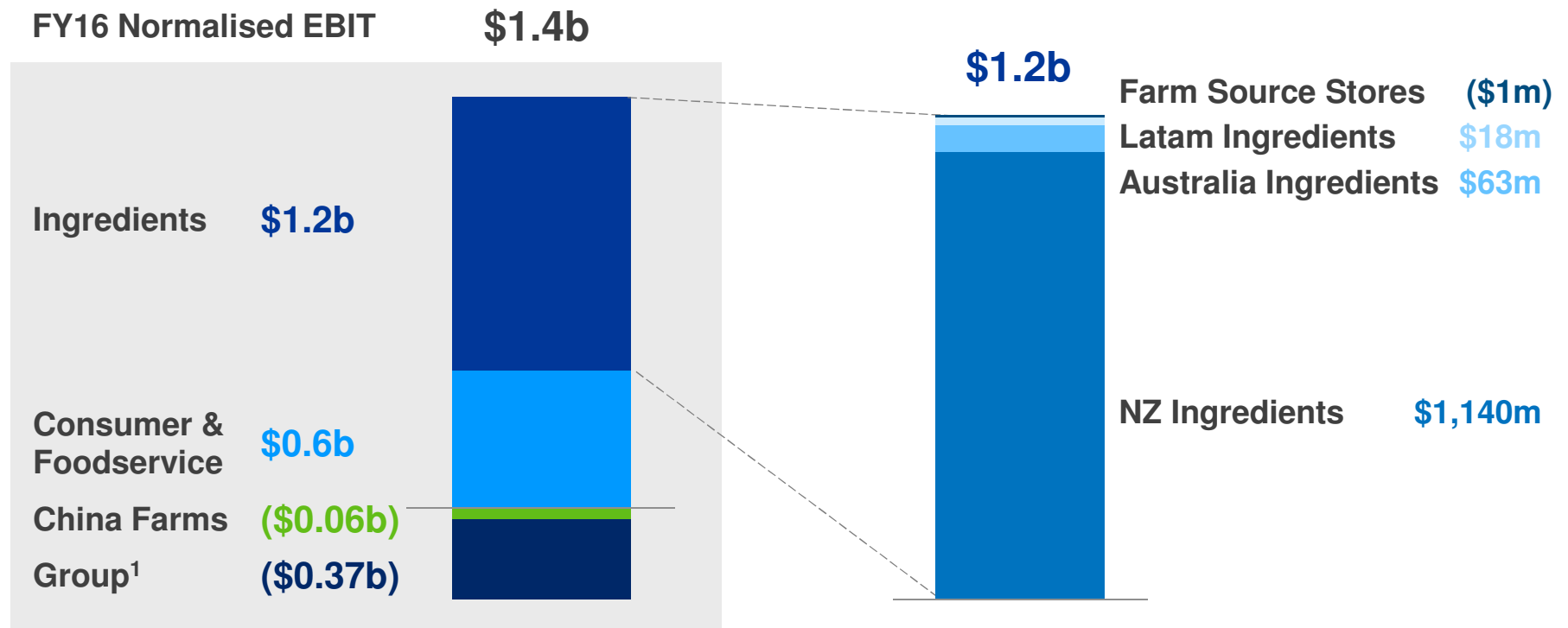


Note: All prices are adjusted to a milk composition of 3.5% protein and 4.2% fat and for spot exchange rates

Source: DairyNZ (NZ to May 2014); Fonterra announced payout (milk price and dividend) (NZ from June 2014); USDA; European Milk Market Observatory (Netherlands milk price)

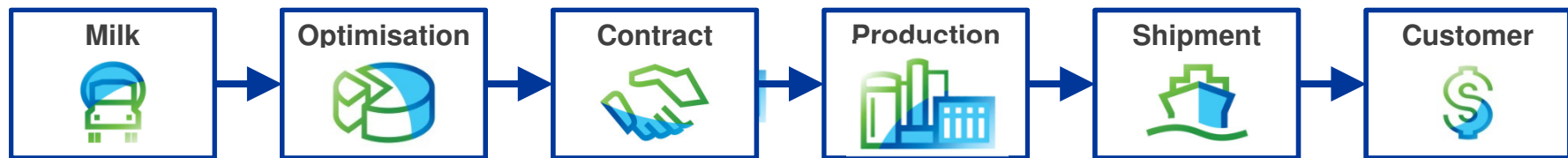


# Ingredients business is two-thirds of Fonterra's earnings



1. Unallocated costs and eliminations  
 Note: Total Ingredients EBIT includes (\$16m) in eliminations and other EBIT

# Value created at each stage



- Collect all milk
- Capture right to earn regulated return

- Set optimal 18-month plan
- Create maximum value from all product streams

- Sell to plan
- Generate demand and premiums for spec, supply, terms, etc.

- Produce to plan and contracted sales
- Minimise cost and maximise quality

- Store and ship
- In-market storage for greater flexibility

- Payment on competitive terms
- Create value-in-use for customers



- Creating value through flexibility between products, assets and customers including financial derivatives

# NZ Ingredients earnings significantly exceed Milk Price Model (MPM) benchmark



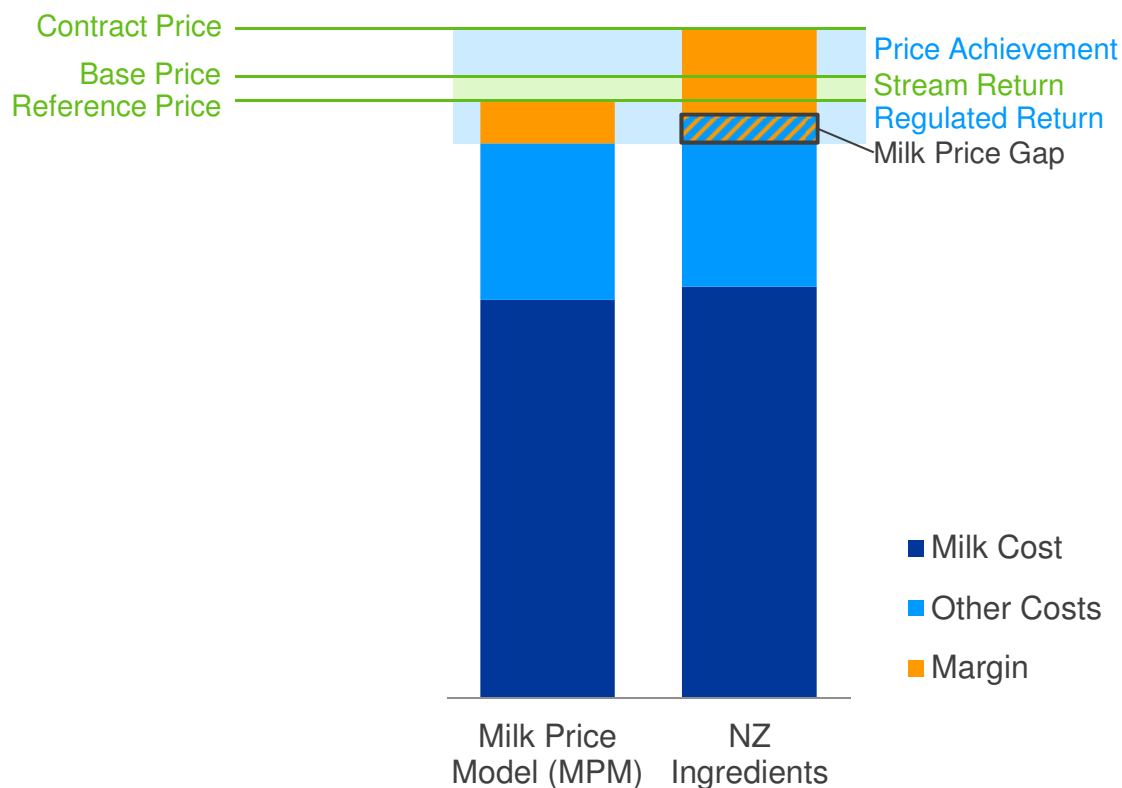
	FY16	Revenue	Milk Cost	Other COGS	Gross Margin	SG&A	Normalised EBIT
<b>Fonterra</b>	<b>NZ Ingredients</b>		<b>1,583m kgMS</b>				
	Total:	\$11.8b	\$6.2b	\$3.9b	\$1.7b	\$0.6b	\$1.14b
	per kgMS:	\$7.49	\$3.90	\$2.49	\$1.10	\$0.38	\$0.72

		Revenue	Milk Cost	Other COGS	Gross Margin	SG&A	Normalised EBIT
	<b>Milk Price Model</b>		<b>1,566m kgMS</b>				
	Total:	\$9.1b	\$6.1b	\$2.0b	\$1.0b	\$0.4b	\$0.65b
	per kgMS:	\$5.83	\$3.90	\$1.29	\$0.64	\$0.23	\$0.41

# Important definitions for New Zealand Ingredients



Prices	
<b>Reference Price</b>	Weighted average price of standard specification RCPs on GDT and Spot
<b>Contract Price</b>	Actual realised selling price of Fonterra product
<b>Base Price</b>	Market-referenced benchmark used internally by Fonterra (GDT referenced)
Earnings	
<b>Regulated Return</b>	Allowed return on capital per the MPM
<b>Price Achievement</b>	Price achieved over and above benchmark Base Prices
<b>Stream Return</b>	Differential between MPM GM and GM on benchmark Base Prices
<b>Milk Price Gap</b>	Cost differential between Fonterra actuals and MPM



Note: RCP = Reference Commodity Product (WMP, SMP, Butter, AMF, BMP)  
 Non-RCP = All other Ingredients products (eg. Cheese, Proteins, Specialty, Nutritionals)

# New Zealand Ingredients earnings and drivers

Component	Definitions	Drivers
<b>Regulated Return</b>	+ Earnings component of Milk Price from WACC (weighted average cost of capital) return on modelled assets	<ul style="list-style-type: none"> <li>WACC rate</li> <li>Fixed asset base (model)</li> <li>Actual working capital – RCP sales rate, advance rate</li> <li>Timing of sales</li> </ul>
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<b>Price Achievement</b>	+ Revenue achieved over Base Price - Incremental supply chain costs over Milk Price model +/- Risk management on contract pricing	<ul style="list-style-type: none"> <li>Base prices</li> <li>Volumes</li> <li>Customer willingness-to-pay for solutions/services/supply</li> <li>Contract risk, e.g. long-dated, fixed-price</li> </ul>
<b>Milk Price Gap</b>	+/- Delta between actuals and Milk Price costs for RCPs +/- Delta between actual operating costs for producing Non-RCPs and Milk Price Model cost for processing same volume of milk into RCPs	<ul style="list-style-type: none"> <li>Actual manufacturing footprint</li> <li>Product mix and volumes</li> <li>Operating performance</li> <li>Timing of manufacture</li> </ul>
<b>Other</b>	+ Liquid milk sales (under DIRA) + Kotahi (incremental to Milk Price) & DFE JV earnings + Global sourcing - Incremental SG&A over Milk Price model	<ul style="list-style-type: none"> <li>Timing of sales</li> <li>Performance of individual businesses</li> <li>Global dairy prices and ability to arbitrage</li> <li>Opex spend levels</li> </ul>

# Regulated Return and Price Achievement and most important earnings buckets

FY16 New Zealand Ingredients earnings (\$m)



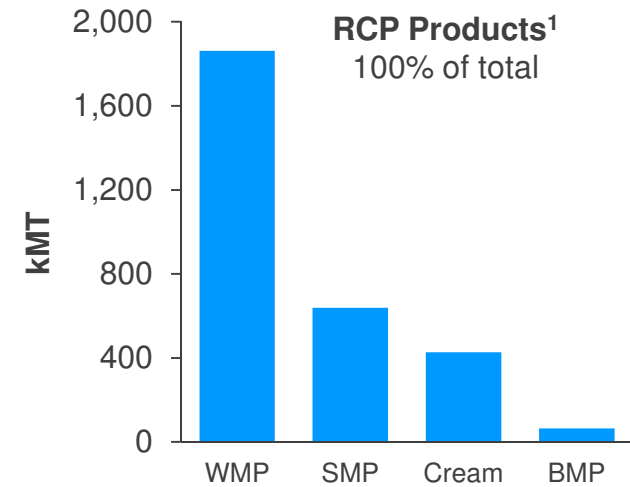
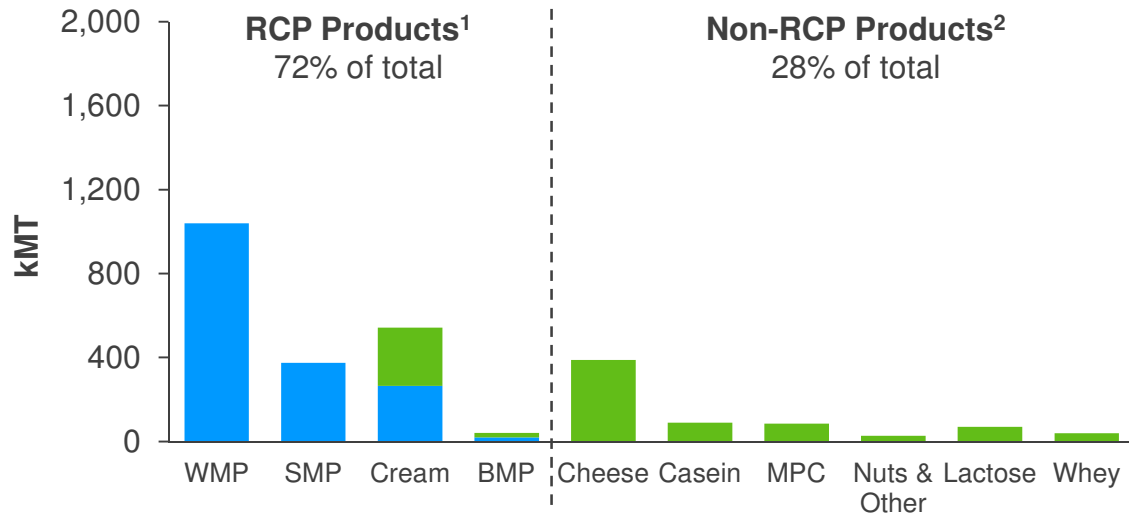
*Note: Regulated Return is that earned in the FY (based on actual sales) rather than total outlined in the Milk Price model for the season (a different time period)*



# RCP products make up the bulk of our volume Non-RCP products the bulk of our value

In FY16, **NZ Ingredients** manufactured 2.7m MT  
72% were RCP products

In FY16, **Milk Price Model**  
production was 3m MT



■ Non RCP Streams (37% of Production) ■ RCP Streams (63% of Production)

1. RCP = Reference Commodity Product (WMP, SMP, Cream (Butter & AMF), BMP) – only products manufactured in the Milk Price Model

2. Non-RCP = All other Ingredients products (eg. Cheese, Proteins, Specialty, Nutritionals)

Note: Manufacture of Non-RCP product streams (eg. Casein) produces RCP by-products (eg. Cream) – these volumes are not included in the Milk Price Model



# Value of Non-RCP comes from higher selling prices relative to RCP



	FY16	Revenue		Milk Cost		Other COGS		Gross Margin
<b>Fonterra</b>	<b>NZ Ingredients</b>	<b>1,583m kgMS</b>						
	per kgMS:	\$7.49	—	\$3.90	—	\$2.49	=	\$1.10
	<b>Non-RCP</b>	<b>423m kgMS</b>						
	per kgMS:	\$8.46	—	\$4.04	—	\$2.13	=	\$2.30
	<b>RCP</b>	<b>1,083m kgMS</b>						
	per kgMS:	\$5.81	—	\$3.85	—	\$1.38	=	\$0.59
	<b>Milk Price Model</b>	<b>1,566m kgMS</b>						
	per kgMS:	\$5.83	—	\$3.90	—	\$1.29	=	\$0.64



# Strong value creation strategy in place

## Our Vision and Objectives

### Cash Generators

**'Must do'**  
*Source of cash to finance growth*

#### **CREATE OPTIONALITY**

- Improve asset flexibility to achieve a 50% reduction in Non-RCP force-make and improve returns from Non-RCP streams
- Increase options in our contract book through more flexible contracting and channels to market
- Grow and leverage financial contracts

### Growth Generators

**'Can do'**  
*Source of future cash*

#### **REBALANCE PORTFOLIO**

- Rebalance current portfolio to improve earnings stability and enable growth
- Invest in mozzarella, UHT (NZ sourced and recombined), speciality and nutritionals
- Reduce allocations to natural cheese and casein

### New Business Generators

**'Want to do'**  
*Mould-breaking investment opportunities*

#### **MULTI-HUBS**

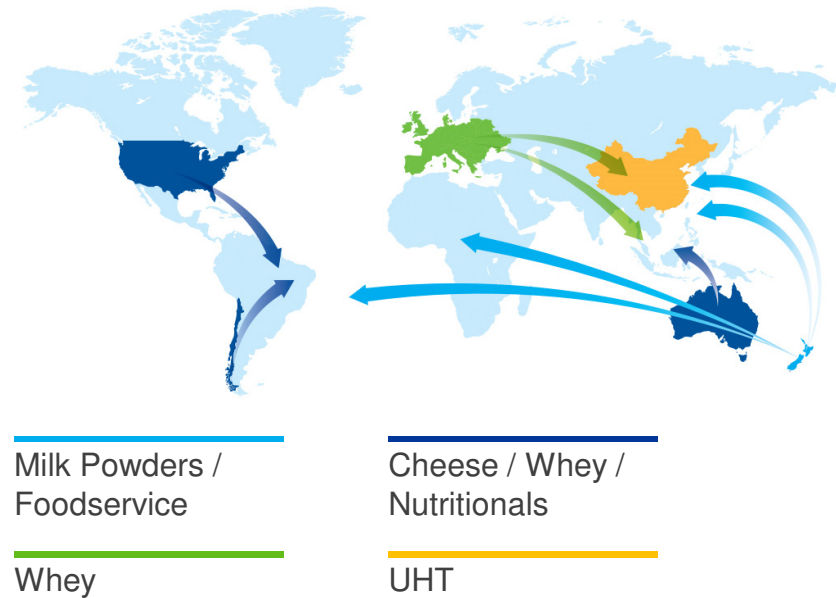
- Align demand with most attractive milk pools
- Accelerate investment in whey from Europe
- Build nutritionals/cheese/whey COE in Australia
- Invest in Chilean milk hub to service expansion in Brazil
- Align China Farms to in-market processing facilities

**Organisational Capabilities:**  
Org design will need to support new approach

**Capital Structure:**  
Global Co-op Model

# Our multi-hub strategy is already in place

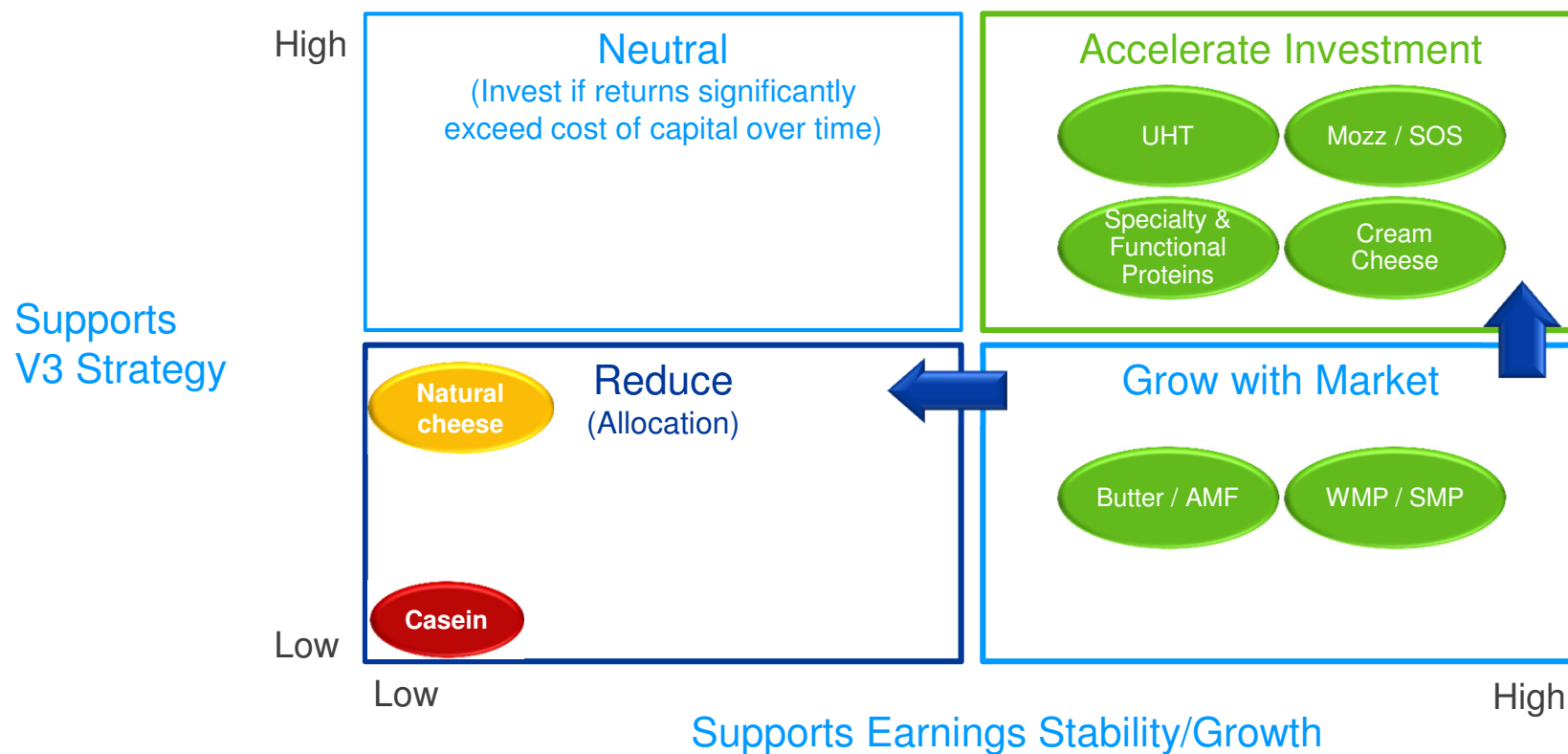
## Primary investment



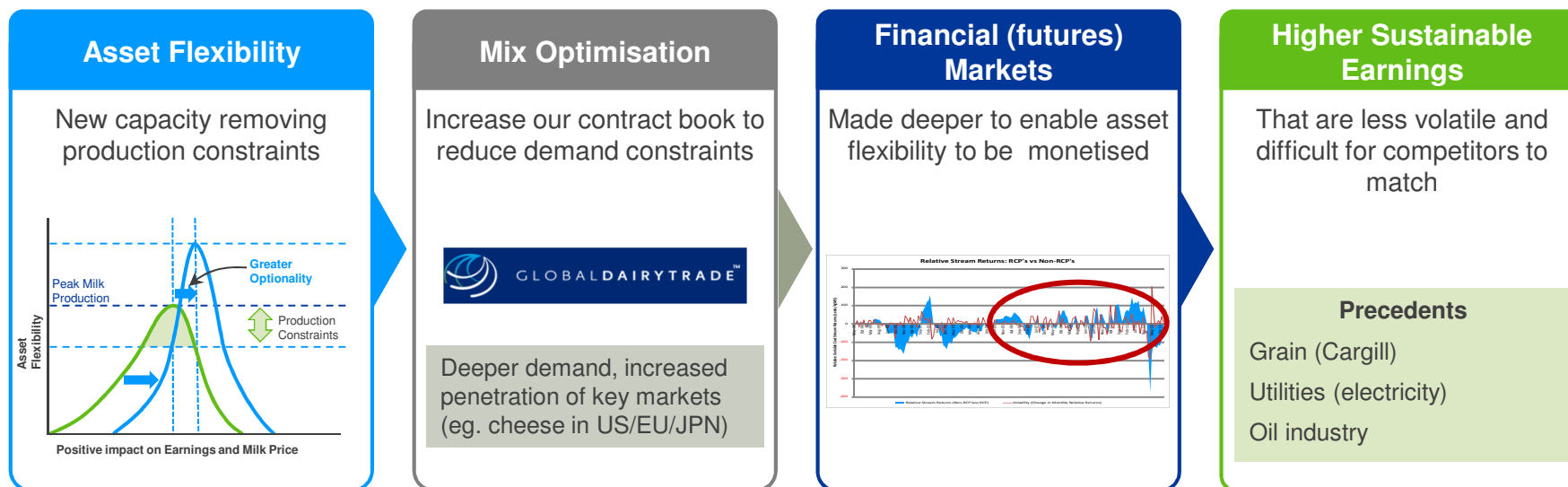
## Complementing our New Zealand Milk Pool

- Enable growth of Ingredients business to support customer demand (All)
- Secure access for our NZ milk exports (China and Sri Lanka)
- De-risk supply for ingredients customers (Australia and Europe)
- Optimise our ingredients manufacturing footprint (Europe and US)
- Enable our development of higher margin consumer brands and foodservice opportunities (Chile, China and Australia)

# We are rebalancing our New Zealand asset portfolio through recent and future investments



# Developing optionality across Ingredients to deliver higher sustainable earnings



**If the scale of our capacity is matched by greater depth and flexibility in sales channels, and financial markets, substantially higher and less volatile earnings are possible**

## Key messages on Ingredients value



- Ingredients business is two-thirds of Fonterra's earnings
- Milk Price Model allows us to earn a Regulated Return
- Optionality in NZ Ingredients business creates higher earnings than Milk Price Model
- Our strategy has increased optionality and quality of earnings



# Regulated Return

## Paul Washer

### Director Financial Performance & Planning

# Milk Price Model & Regulated Return

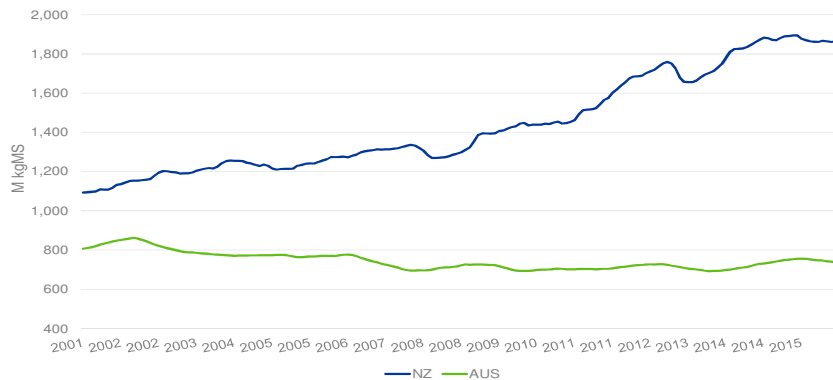
Component	Definitions	Drivers
<b>Regulated Return</b>	+ Earnings component of Milk Price from WACC (weighted average cost of capital) return on modelled assets	<ul style="list-style-type: none"> <li>WACC rate</li> <li>Fixed asset base (model)</li> <li>Actual working capital – RCP sales rate, advance rate</li> <li>Timing of sales</li> </ul>
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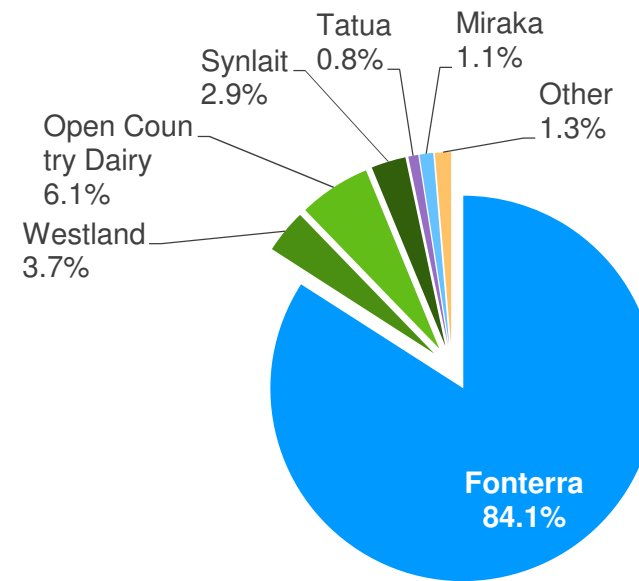


# Rationale for a Milk Price Model

- Currently there is no true market for all raw milk produced in New Zealand
- **No 'market price'** for milk collected within New Zealand
- Farmgate Milk Price provides farmers with a market signal



Share of New Zealand milk collection 2015/16 season<sup>1</sup>



1. Information from Dairy NZ Annual Reports



## Milk Price Model follows three basic principles

- Farmgate Milk Price methodology is codified in the Farmgate Milk Price Manual
- This detailed framework is guided by the Farmgate Milk Price Principles:
  - 1 Should reflect the benefits of scale and other economies enjoyed by Fonterra
  - 2 Should be the **maximum** amount an **efficiently-run** commodity player can **sustainably** pay
  - 3 Should allocate the impact of risks between suppliers (via the Farmgate Milk Price) and Fonterra based on an ability to manage it

**Transparent governance, audit and reporting processes**



# Milk Price Model allows Fonterra to retain specified dollar amount as Regulated Return Currently over \$600m

	Reference Commodity Products 100%	2016 Milk Price Model NZD	Per kgMS <sup>1</sup>	
Based on GDT and spot prices of reference commodity products (RCPs)	Milk Price Revenue	\$9.1b	\$5.83	
	-	-	-	
Combination of actual and assumed operating costs – includes depreciation	Milk Price Cash Costs	\$2.4b	\$1.52	
	-	-	-	
WACC return on both fixed assets and working capital	Regulated Return (Milk Price Capital Costs)	\$0.6b	\$0.41	<div style="border: 1px solid blue; padding: 5px; display: inline-block;">           WACC rate 5.9%            \$6.9b fixed assets            \$1.3b working capital         </div>
	=	=	=	
	Farmgate Milk Price	\$6.1b	\$3.90	

1. 1,566m kgMS

Note: MPM year-end is 31 May versus Fonterra at 31 July; gross revenue shown

# Milk Price Model passes number of risks through to Milk Price but some are carried by EBIT



## Drivers of the Milk Price

Changes that 'pass through' to the Milk Price
RCP product mix
RCP sales phasing
Commodity prices
Currency
Resource unit costs
Milk collection and logistics costs

## Drivers of the Regulated Return

**WACC rate**

- Adjusted annually in line with market interest rates and funding spreads to government bonds (NZ 5-year)
- Beta adjusted through 5-yearly review

**Fixed asset base**

- Reviewed annually to assess sufficient modelled capacity to process forecast milk volumes
- Assets depreciated over asset life then 'replaced'

**Working capital**

- Moves with changes in RCP sales rates and the advance rate of payments to Fonterra suppliers

**Timing of sales**

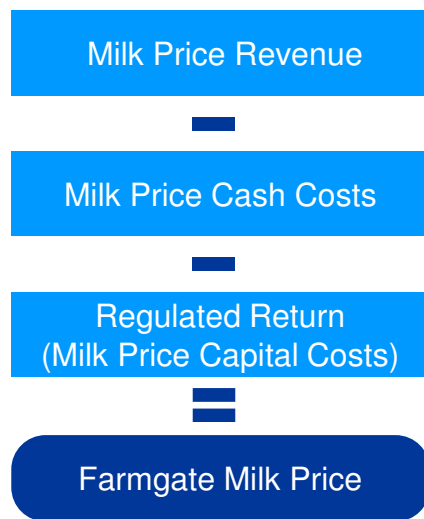
- Model uses Fonterra's actual sales phasing of RCPs
- Regulated return may be earned through product sale in next financial year

# Milk Price then forms key component of New Zealand Ingredients COGS



## Milk Price paid to NZ farmers

Reference Commodity Products  
100%

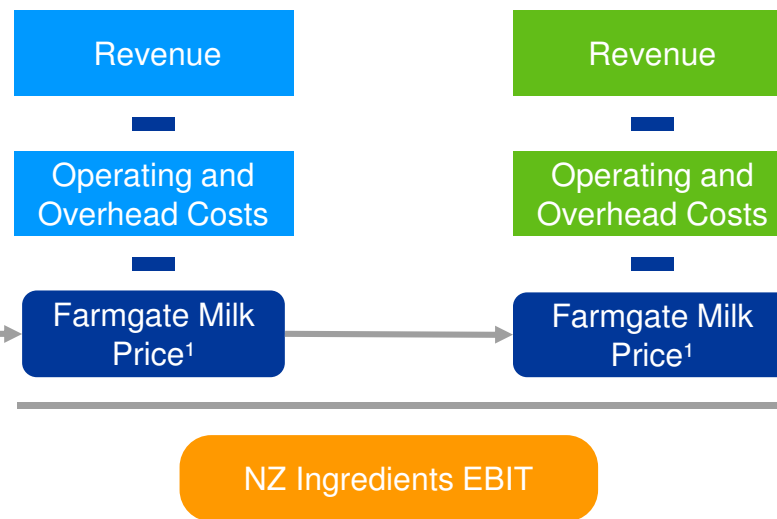


## NZ Ingredients

RCPs  
~70%

← Optimisation →

Non-RCPs  
~30%



1. Includes "approved adjustments" in respect of, for example, premiums for organic milk and winter milk



## Key messages on Regulated Return

- Fixed dollar amount calculated on annual basis
- Variable component linked to actual working capital
- Independent of milk volume in given year
- Can be offset by pricing risk in product mix decisions



# Optimisation

## Josh Sigmund

### Director NZMP Sales and Transformation

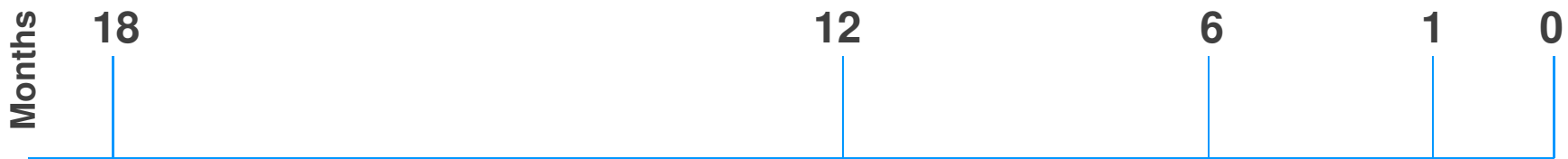
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# Fonterra's optimisation process



## Strategic Portfolio Management

- Group function driven by analysis and scenario-testing
- Manages Global S&OP
- Defines global asset portfolio

## Global Ingredients S&OP<sup>1</sup>

- Single global S&OP for Ingredients
- Consumer regions input via demand signals sent to S&OP
- Overseen by Global S&OP

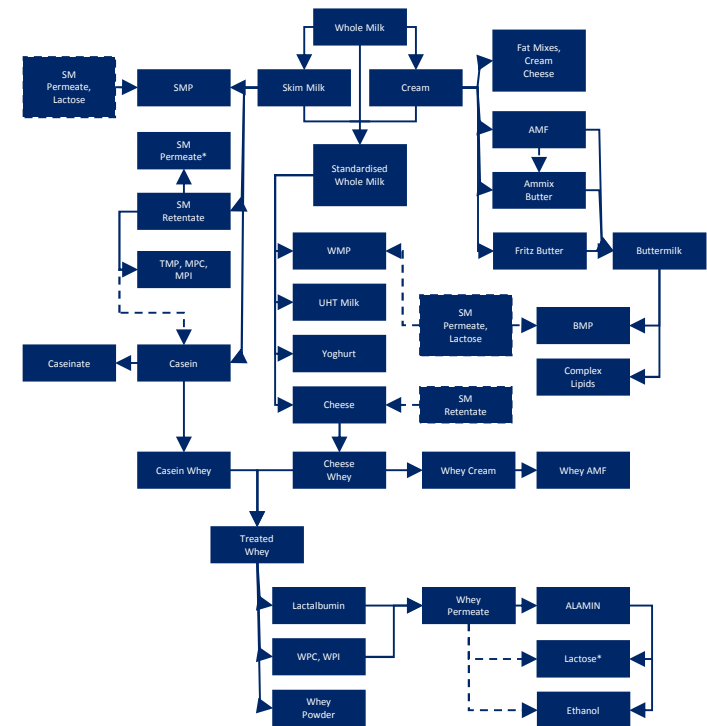
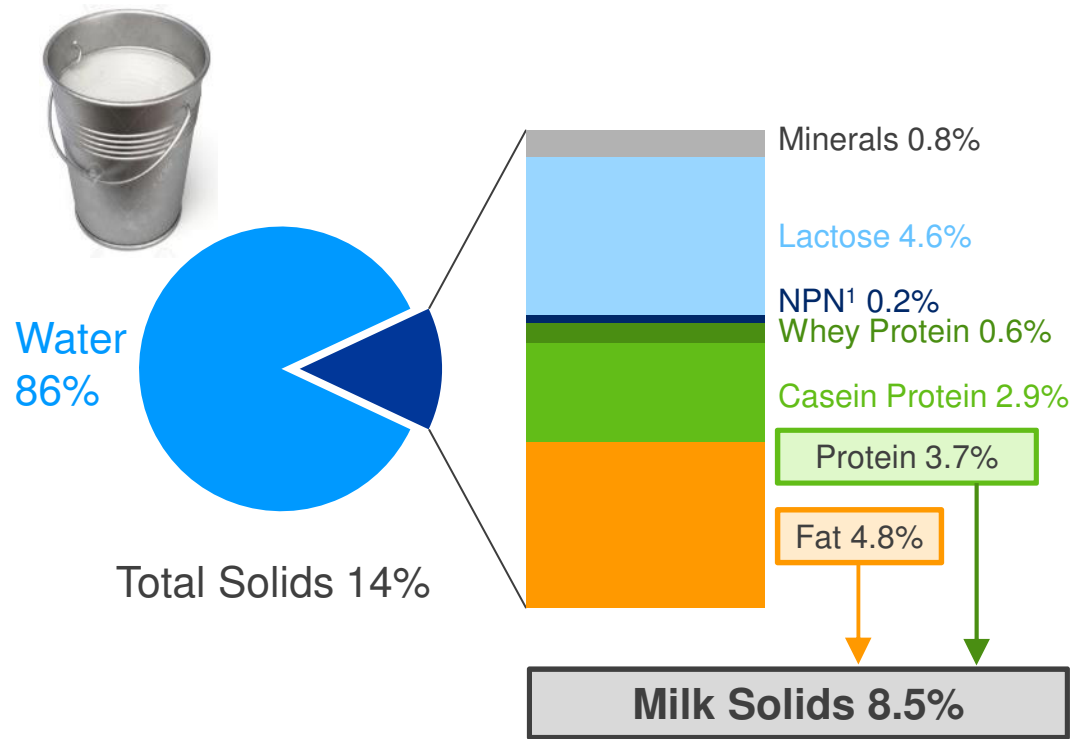
## Manufacturing and Logistics

- Rolling 2-week schedule
- Controlled by central planning with local scheduling
- Consumer regions plan in-line with demand forecasts

<sup>1</sup>. S&OP = Sales & Operations Planning  
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# Optimisation allocates the components of milk to the highest value product streams



1. NPN = Non-Protein Nitrogen

# Fonterra produces and sells three distinct groups of dairy ingredients



# Downstream / by-products are created when we produce any one product



## Powder Stream — Whole Milk Power



## Protein Stream — Rennet Casein



We evaluate stream returns fortnightly and optimise our available production



### Powder Stream Whole Milk Powder

Base Price	\$2,800
Variable Cost	- 200
Product Margin	<u>\$2,600</u>
Yield	x 1.75
Base Product Return	<u>\$4,550</u>
Downstream Products	+ 700
Stream Return	<u>\$5,250</u>
Stream Return (c/kgMS)	<b>525</b>

### Protein Stream Rennet Casein



	\$7,000	NZD / MT product
	- 1,000	NZD / MT product
	<u>\$6,000</u>	NZD / MT product
	x 0.36	MT product / MT MS
	<u>\$2,160</u>	NZD / MT MS
	+ 4,200	NZD / MT MS
	<u>\$6,360</u>	NZD / MT MS
	<b>636</b>	NZc / kg MS

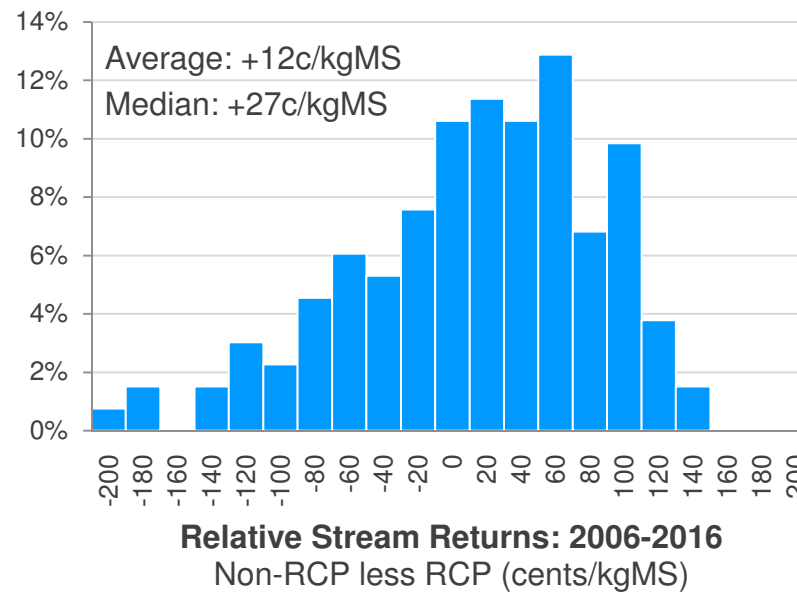
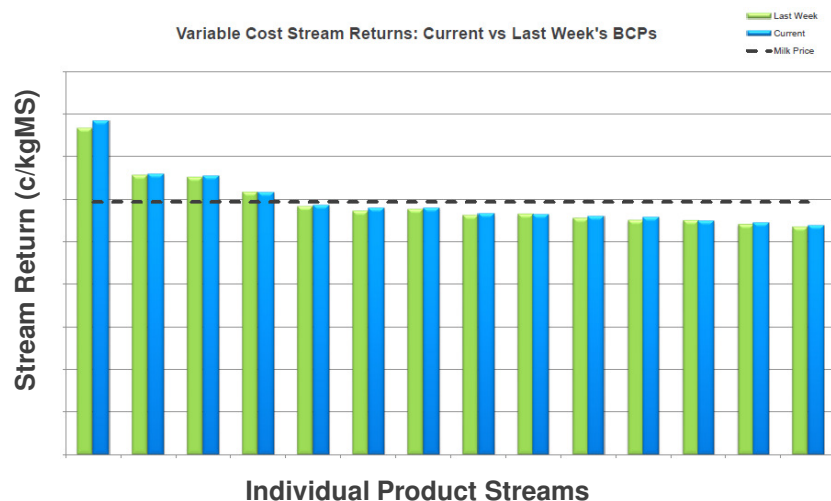
*Note: Numbers are for illustration purposes only*  
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# Relative product stream returns provide short and long-term value creation opportunities

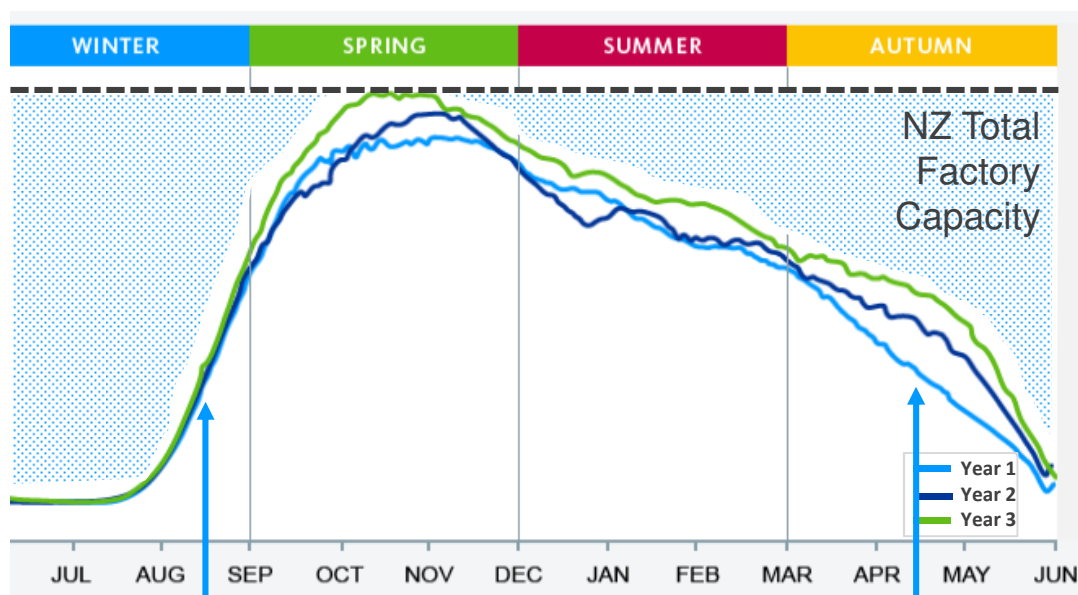


Optimisation allows us to profit from short-term optionality

Long-term strategy is to move asset portfolio towards higher returning Non-RCP streams



# New Zealand's milk supply profile and our asset footprint provide considerable constraints



Optionality in the shoulders of the season



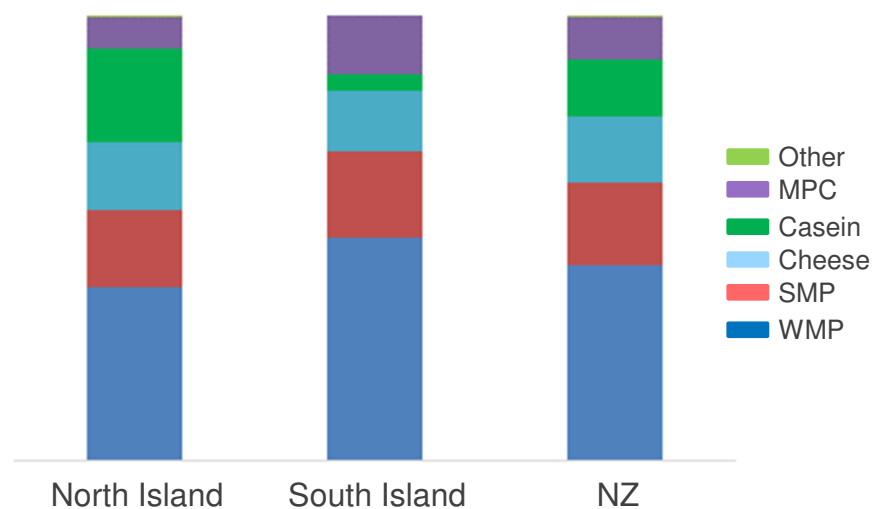
New Zealand asset base



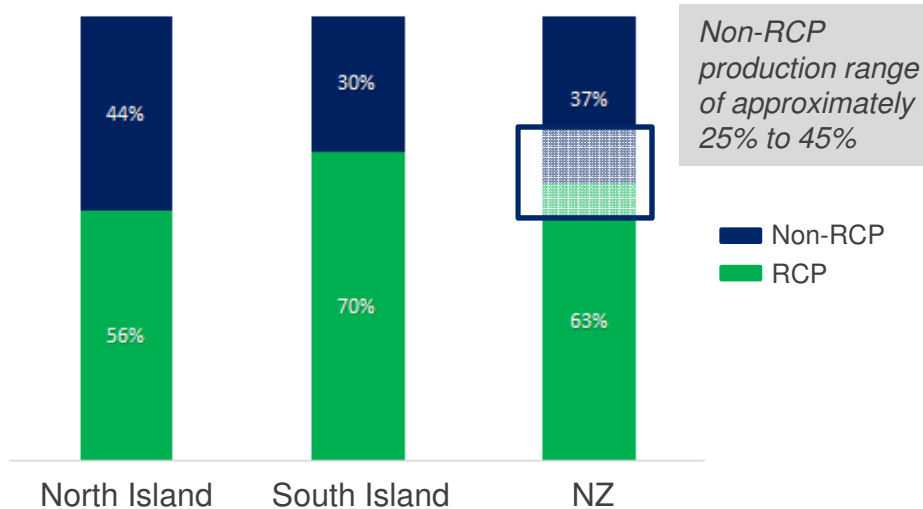
# Current footprint allows flexibility between RCP and Non-RCP product streams



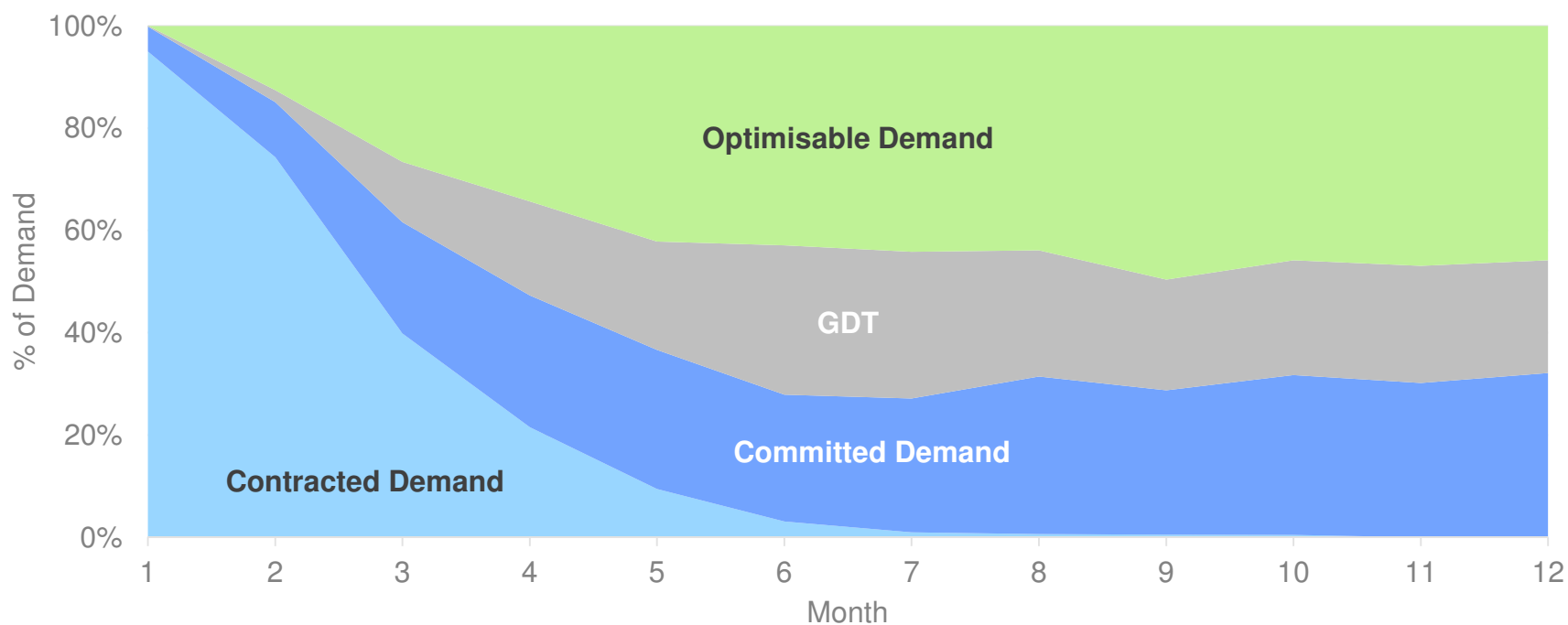
Production capacity by commodity group



Production capacity by RCP and Non-RCP



# Committed volumes impact flexibility but offer incremental value



*Note: Numbers are for illustration purposes and do not reflect actuals*  
Page 42 © Fonterra Co-operative Group Ltd.



## Key messages on Optimisation

- Drives product mix
- Maximises for total shareholder value – Milk Price and EBIT combined
- Based on projected demand at forecast prices
- Constrained by milk supply and asset footprint
- Creates potential (positive or negative) stream return risk
- Long-run prices favour allocation to Non-RCP capacity



# Global Operations

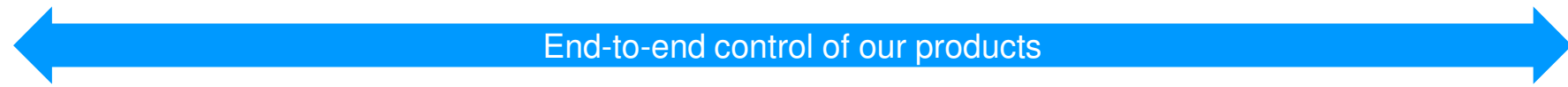
## Robert Spurway

### COO Global Operations

# Operations and Milk Price Gap

Component	Definitions	Drivers
Regulated Return	+ Earnings component of Milk Price from WACC (weighted average cost of capital) return on modelled assets	<ul style="list-style-type: none"> <li>WACC rate</li> <li>Fixed asset base (model)</li> <li>Actual working capital – RCP sales rate, advance rate</li> <li>Timing of sales`</li> </ul>
Stream Return	+/- Gross margin differential between Non-RCP product streams and WMP stream (based on base prices)	<ul style="list-style-type: none"> <li>Product mix</li> <li>Asset flexibility</li> <li>Volumes</li> <li>Customer demand and contract profile</li> </ul>
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<b>Milk Price Gap</b>	+/- Delta between actuals and Milk Price costs for RCPs +/- Delta between actual operating costs for producing Non-RCPs and Milk Price Model cost for processing same volume of milk into RCPs	<ul style="list-style-type: none"> <li>Actual manufacturing footprint</li> <li>Product mix and volumes</li> <li>Operating performance</li> <li>Timing of manufacture</li> </ul>
Other	+ Liquid milk sales (under DIRA) + Kotahi (incremental to Milk Price) & DFE JV earnings + Global sourcing - Incremental SG&A over Milk Price model	<ul style="list-style-type: none"> <li>Timing of sales</li> <li>Performance of individual businesses</li> <li>Global dairy prices and ability to arbitrage</li> <li>Opex spend levels</li> </ul>

# Global Operations expertise from grass-to-glass



Over 10,000 suppliers  
4.5 million cows  
20 billion litres



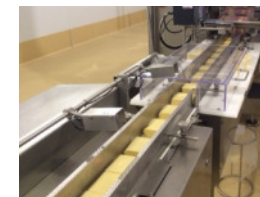
Fonterra vats:  
2.4 million farm  
collections



14 depots  
506 tankers  
95 million kilometres



96 primary plants across  
33 site locations  
2.7m MT of product



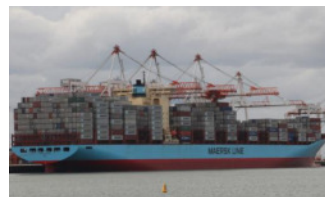
Secondary processing:  
Eltham cheese,  
Canpac infant formula



55 Fonterra owned stores  
30 third party providers

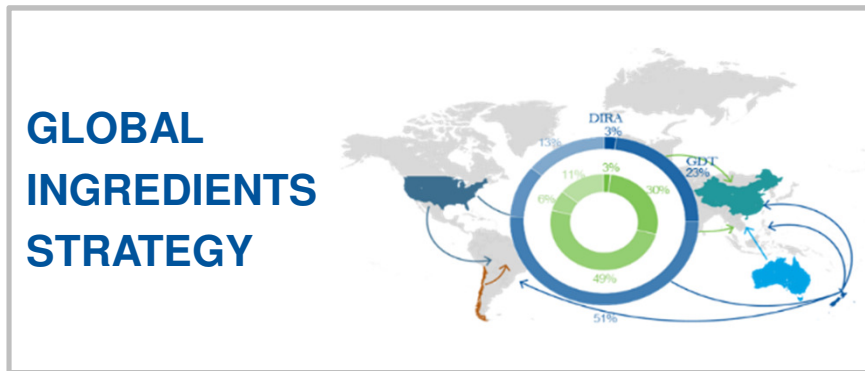
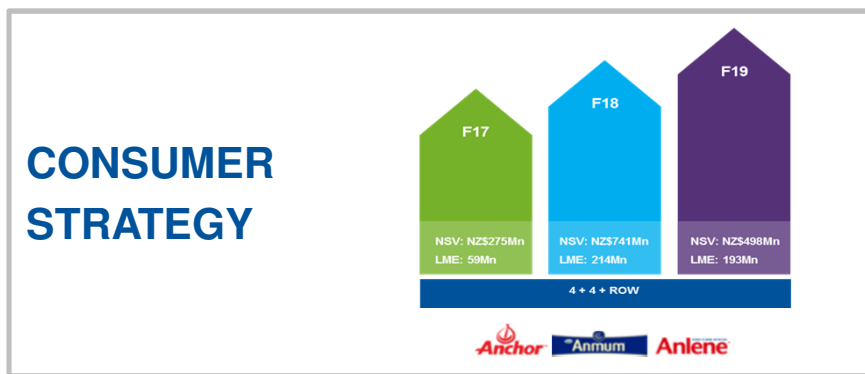


Coda logistics reduces  
waste



Kotahi Maersk strategic p/ship  
5 deep sea ports, >1,800 voyages  
300+ destination ports

# Supporting all parts of Fonterra business

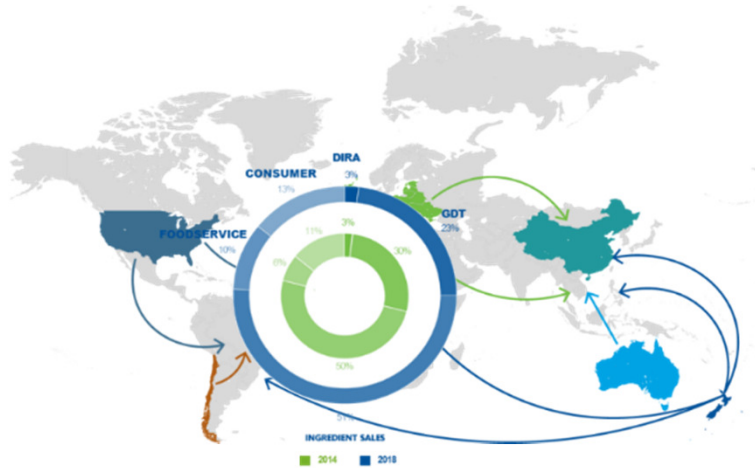




# Partner in the delivery of our Ingredients strategy

To be the #1 preferred supplier of dairy ingredient solutions

Globally Optimised, Multi-hub, Multiple sources



Turning the wheel with integrated category teams

## Global Operations strategy connection

- 
**Consolidating our #1 dairy ingredients reputation** through foundations of trust in source, delivery performance and customer satisfaction
- 
**Conversion cost leadership**
- 
**Creation of differentiated products and segmented supply chains** and to create customer value across the dairy ingredients portfolio
- 
**Global supply points for security and speed of supply**

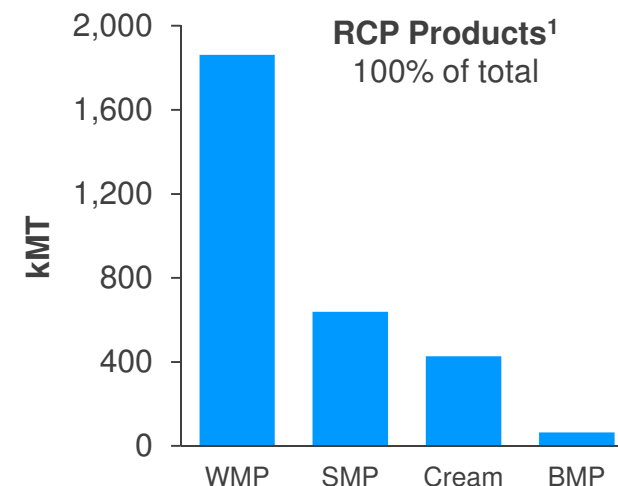
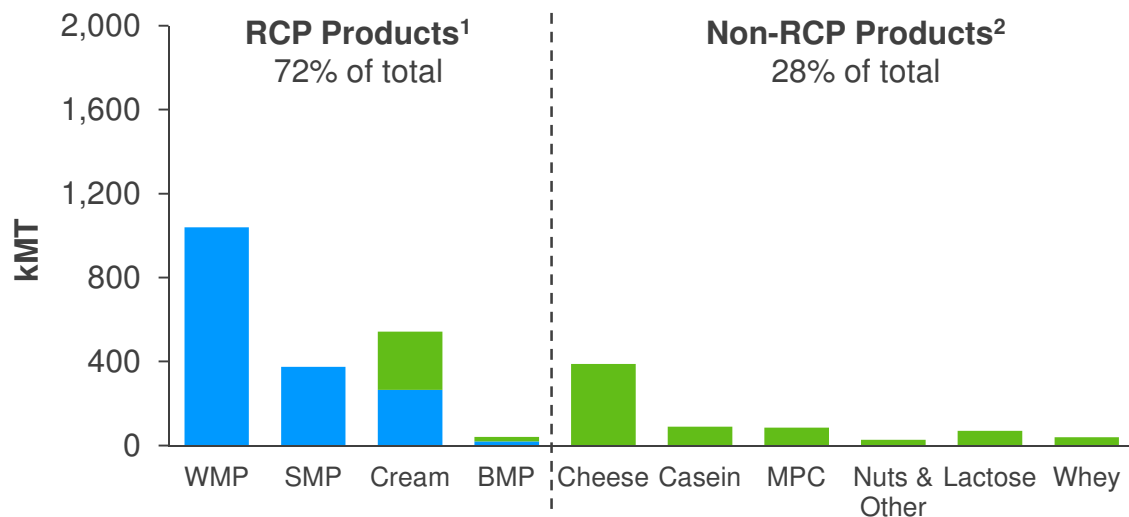


# Production spread across 10 different product groups



In FY16, NZ Ingredients manufactured 2.7m MT  
72% were RCP products

In FY16, Milk Price Model  
production was 3m MT



■ Non RCP Streams (37% of Production) ■ RCP Streams (63% of Production)

1. RCP = Reference Commodity Product (WMP, SMP, Butter, AMF, BMP) – only products manufactured in the Milk Price Model

2. Non-RCP = All other Ingredients products (eg. Cheese, Proteins, Specialty, Nutritionals)

Note: Manufacture of Non-RCP product streams (eg. Cheese) produces RCP by-products (eg. Cream) – these volumes are not included in the Milk Price Model

# Majority of costs in primary processing and storage

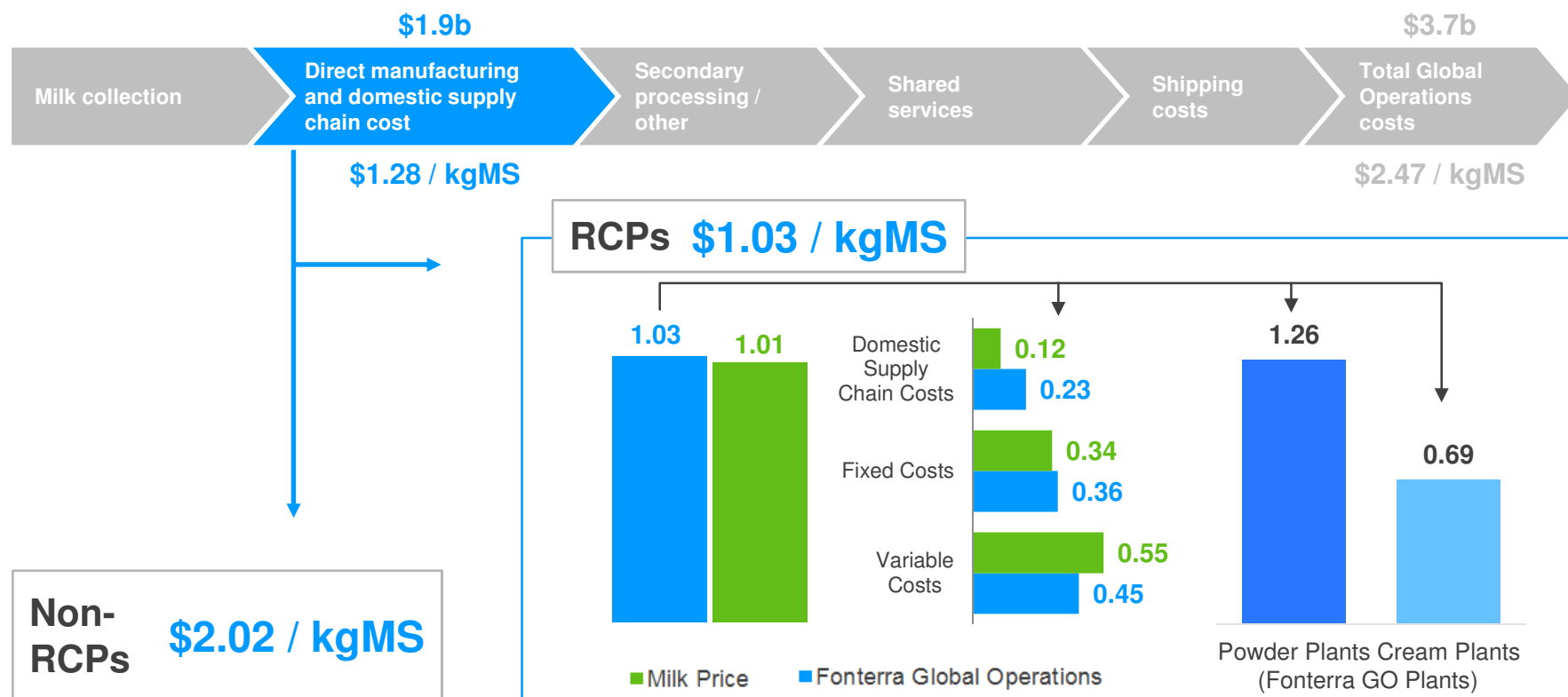


**\$1.28 / kgMS**

**\$2.47 / kgMS**

- Collecting raw milk from farm vats
- Fixed costs of \$730m
- Variable costs of \$865m
- Domestic supply chain costs of \$315m
- Eltham cheese
- Waitoa UHT
- Canpac
- Waharoa Agbiz
- Heerenveen whey and lactose
- Product management and development
- Asset footprint and optimisation
- Plant automation and process control
- Product testing laboratories
- Overheads
- Sea freight costs

# Gap to Milk Price Model is driven by production of Non-RCPs and higher storage costs

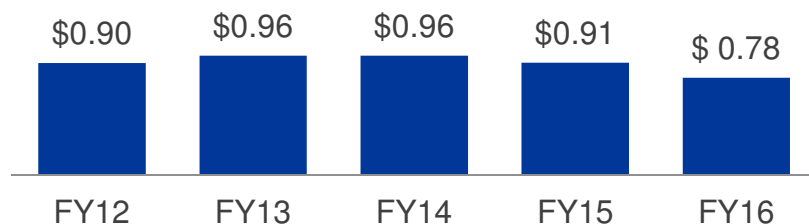


# Performance focus is on balancing customer service and lower unit costs while mitigating risks

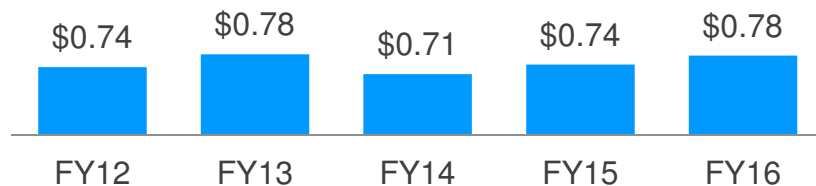


## Manufacturing costs

Ingredient variable costs / kgMS manufactured

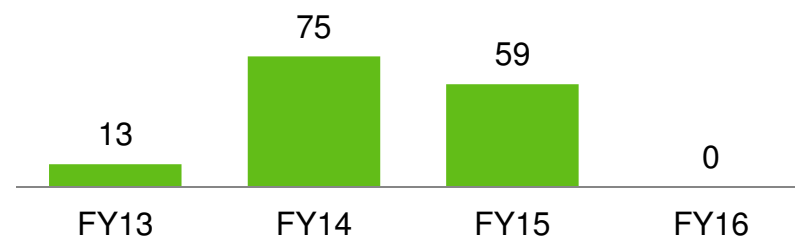


Ingredient fixed costs / kgMS manufactured

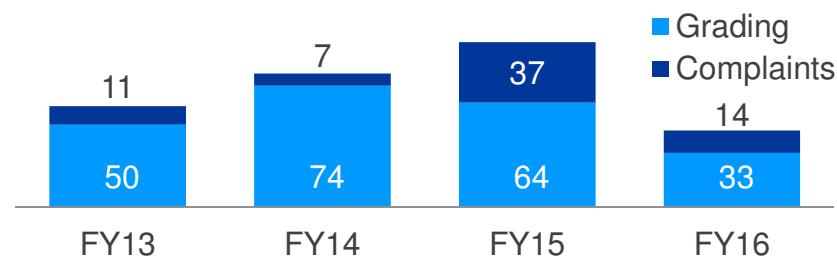


## Key risks

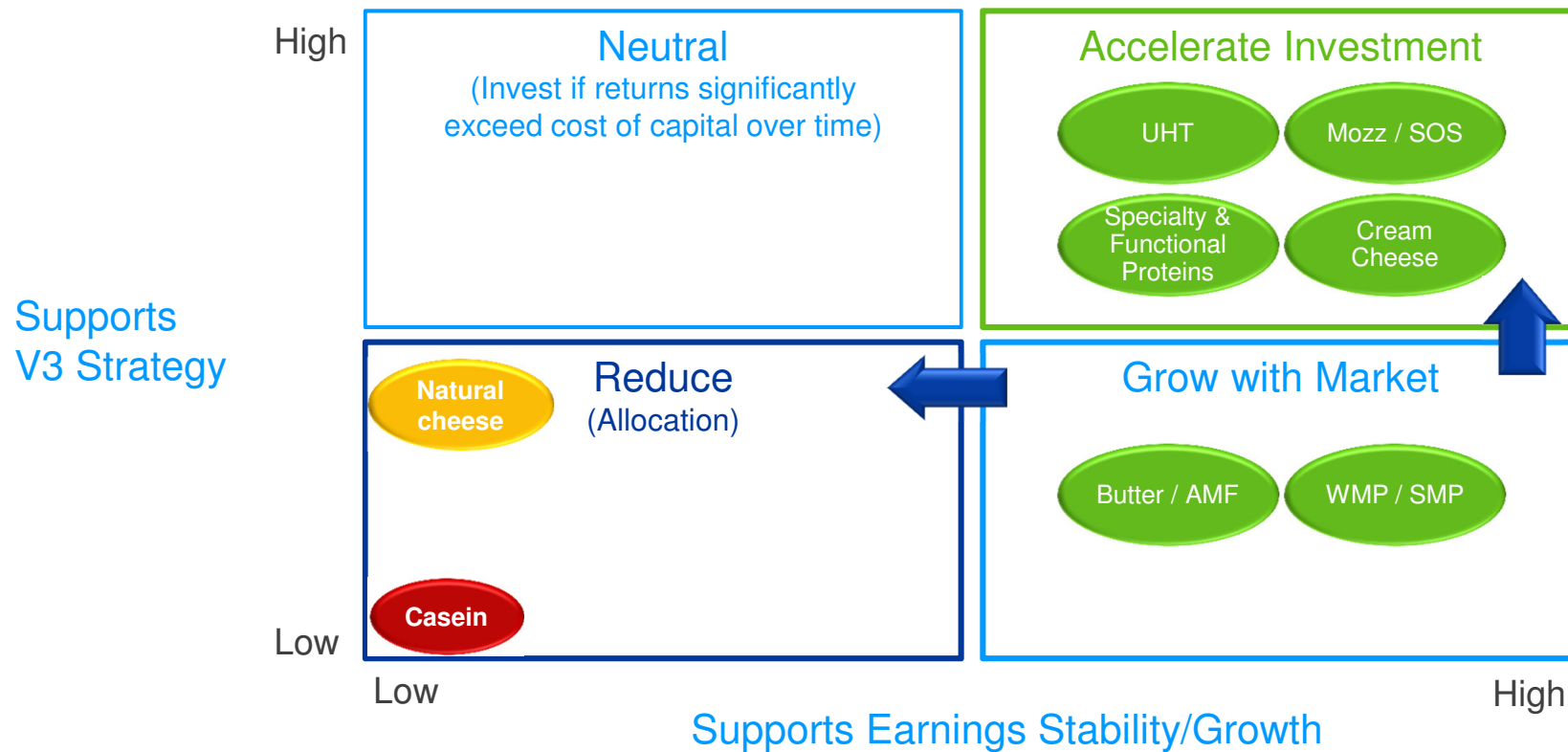
Peak milk costs (\$m)



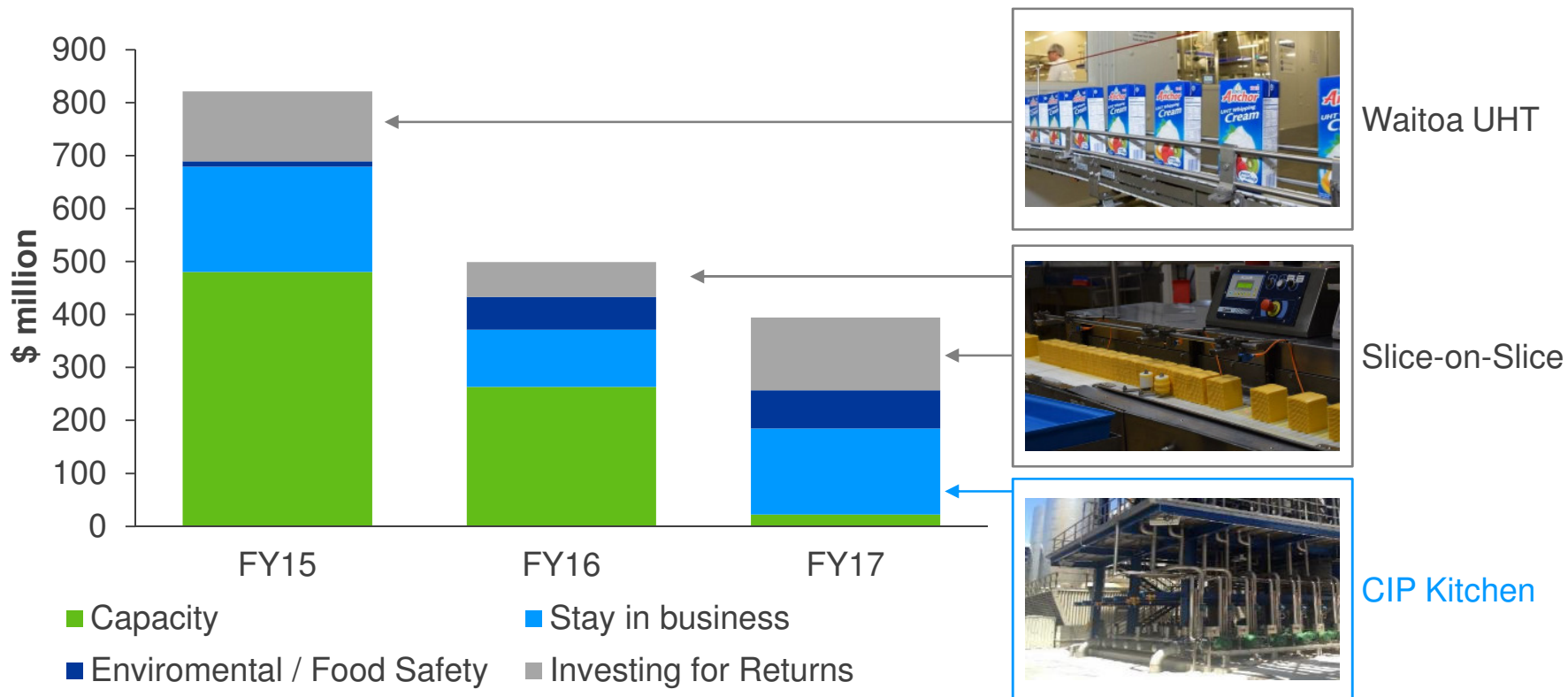
Manufacturing quality costs (\$m)



# Capital plan is driven by asset portfolio strategy



# Passed period of significant capacity spend and now focusing on higher return on capital investments





## Key messages on Global Operations

- Manufacture according to optimal plan
- Focus on gap to Milk Price Model but strategic decisions to take on more cost in order to produce Non-RCPs or add value to RCPs
- Key value drivers are efficiency, service, quality, and asset footprint
- Future investments aligned to value add strategy and capacity requirements



NZMP  
Kelvin Wickham  
COO NZMP



# NZMP Sales and Price Achievement

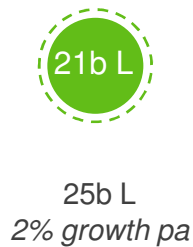
Component	Definitions	Drivers
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# NZMP is the leading player in the globally traded dairy market



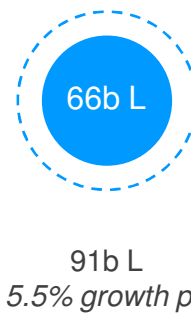
## New Zealand

- Significant participant in tradable market



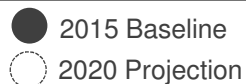
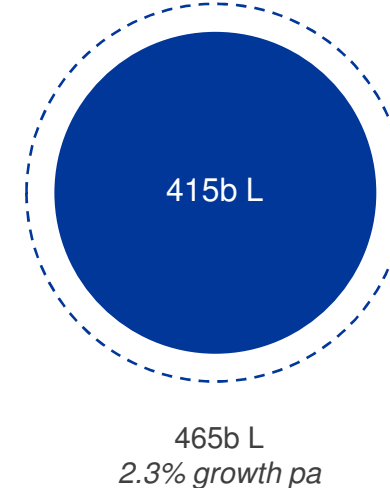
## Globally Traded Dairy Market<sup>1,3</sup>

- Global export/import market
- Informs Farmgate Milk Price



## Formal Dairy Market<sup>2,3</sup>

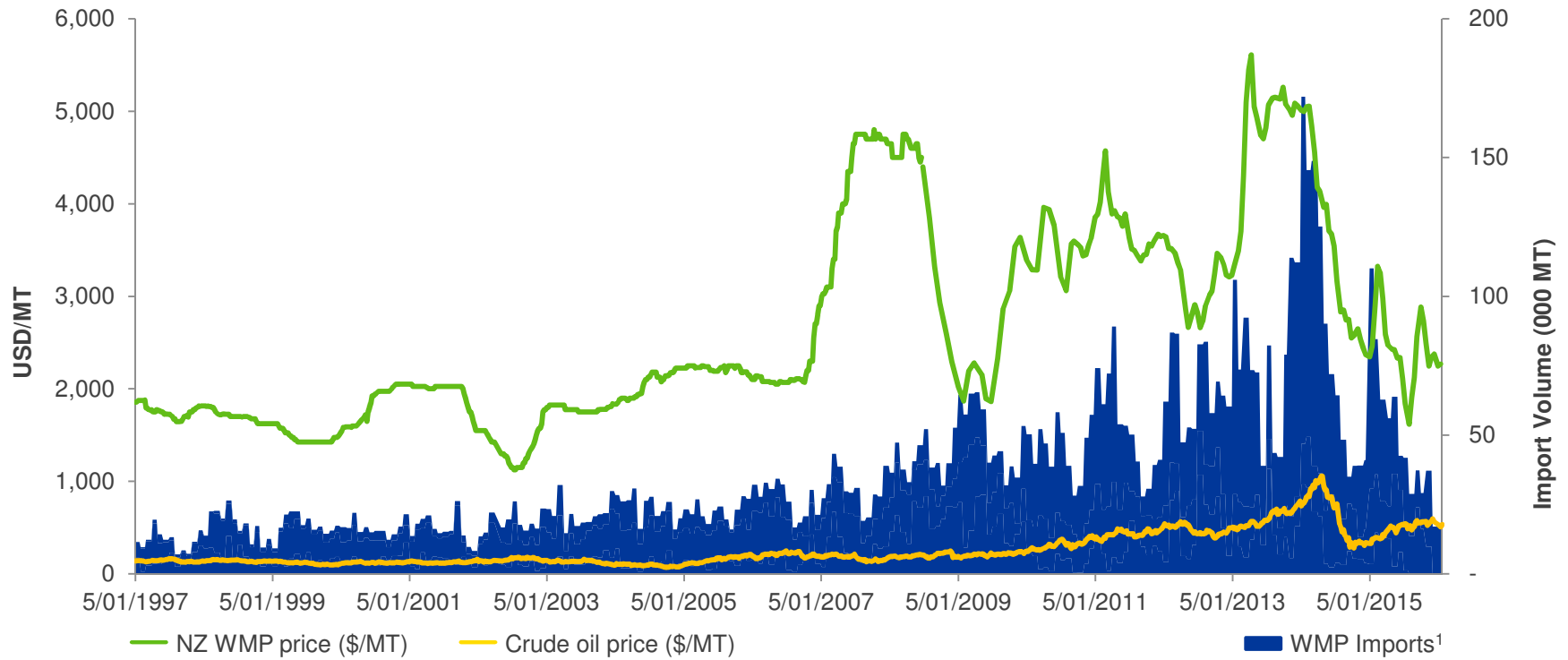
- Reflects total dairy demand



Sources: International Farm Comparison Network (IFCN), Economist Intelligence Unit (EIU), Euromonitor, Fonterra analysis  
 Note: Volume is on an LME basis with standardised composition of milk (4.2% fat / 3.5% protein)



# Volatility is here to stay

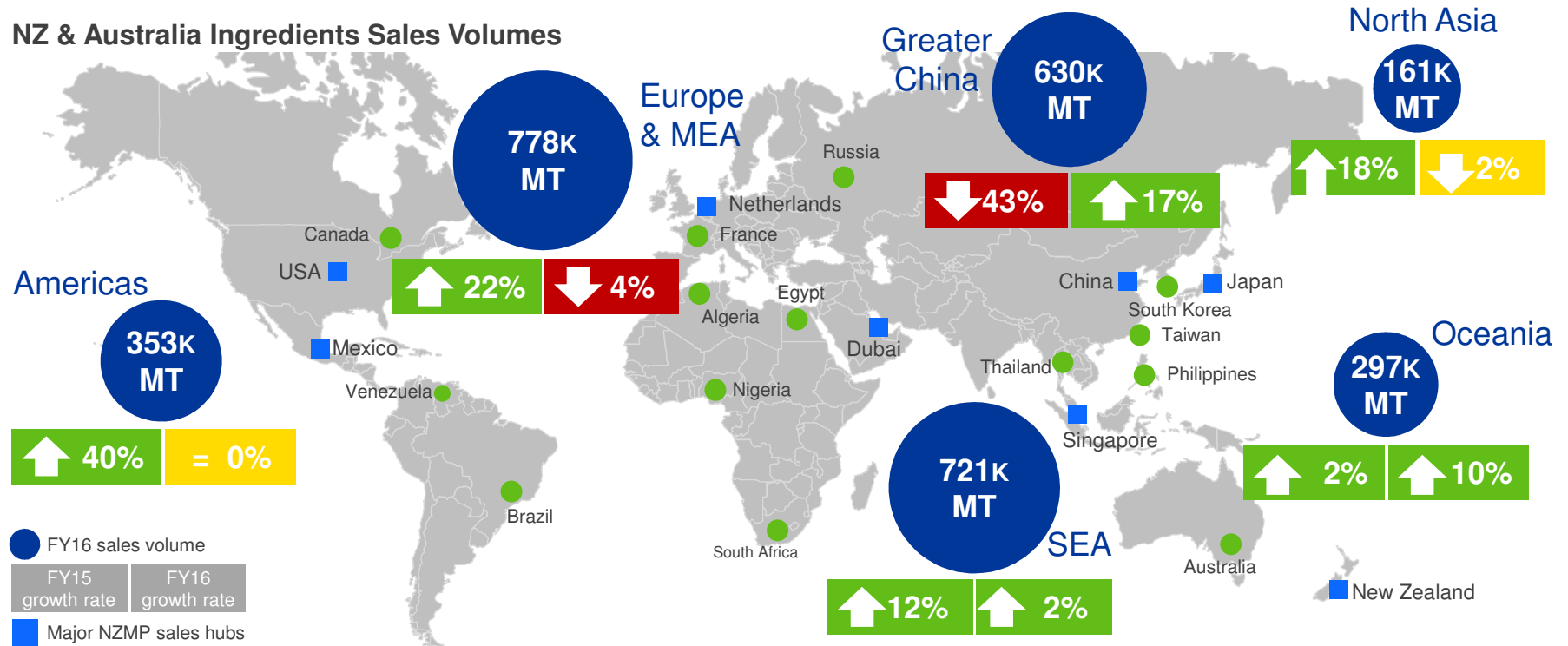




# NZMP – ingredients business with global reach

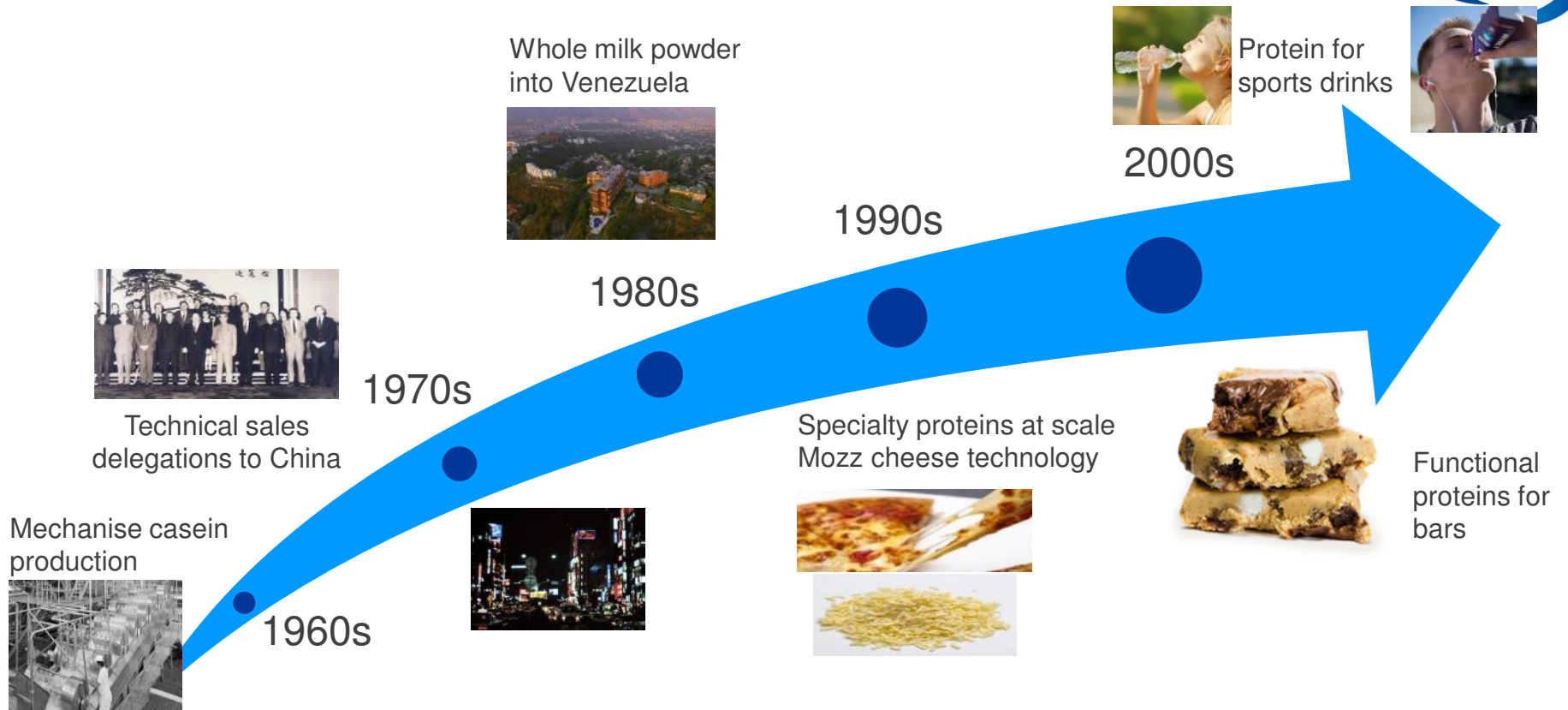
Our major hubs and sales offices are close to our customers

## NZ & Australia Ingredients Sales Volumes



- FY16 sales volume
- FY15 growth rate | FY16 growth rate
- Major NZMP sales hubs
- NZMP sales office

# We have a long history of developing products and markets



# Five strategic pathways to drive sustained value creation



# Investing in our People and Processes



## 1 Sales & Marketing Capability



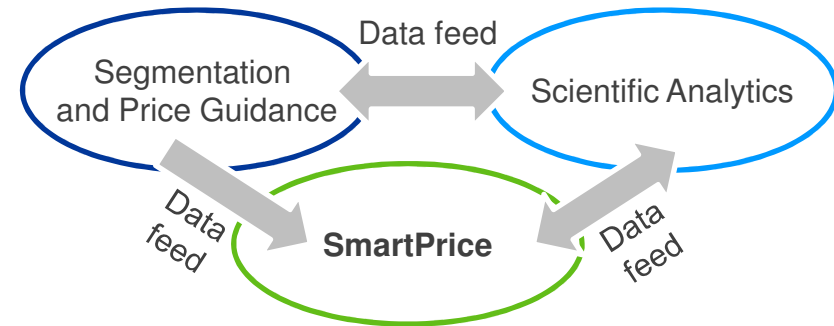
## 2 Customer-central Roadmap



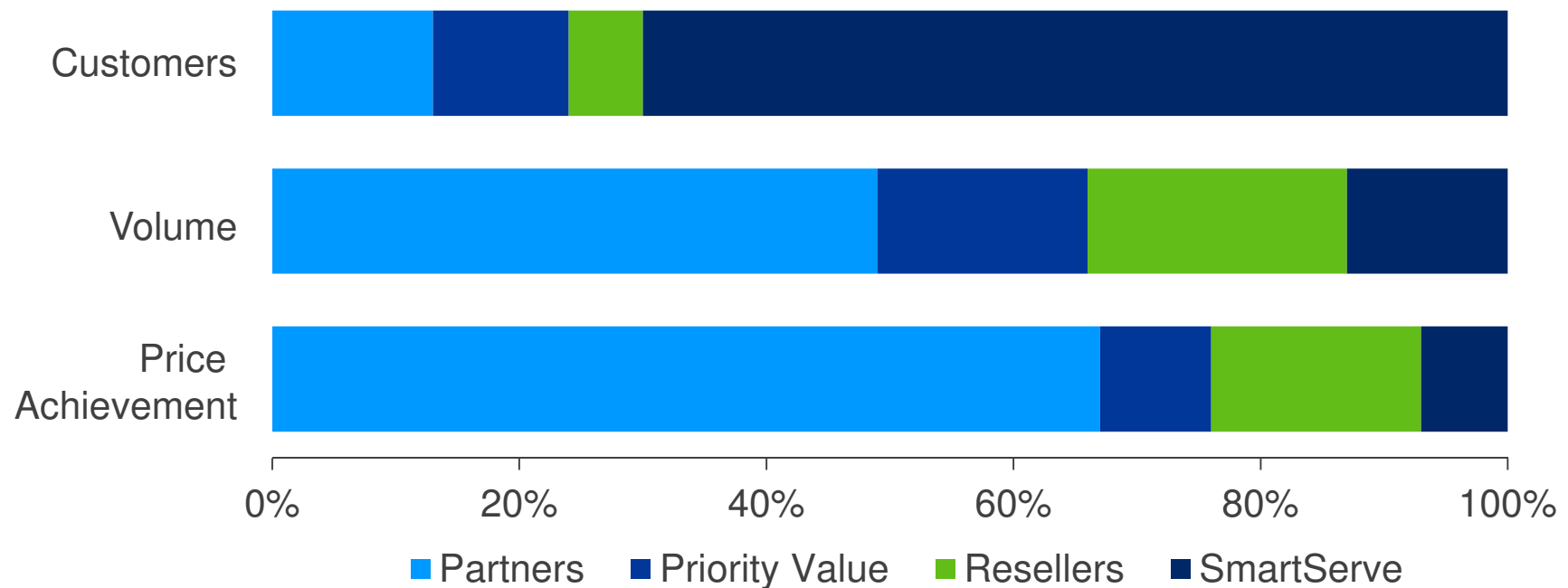
## 3 Integrated Business Planning



## 4 SmartPrice



# Customer segmentation – targeted value propositions





# Five focus categories to drive future differentiation ...

## ... and develop solutions with a segmented customer base



Consumer Powders



Dairy Beverages



Dairy Foods



Active Nutrition



Paediatrics

### Definition

Powders supplied to B2B customers for repacking

Dairy/non-dairy beverages and cultured brands, targeted at mainstream consumers

Foods that use dairy as a key ingredient: cheese, butter, desserts

Category covering sports, healthy lifestyles/aging and medical nutrition

Dairy nutrition to support the growth and development of new-borns and infants

### Consumer Trends

Affordability and new experiences

Freshness and premiumisation

Convenience and westernisation

Increasing health awareness

Nutrition offerings that match benefits parents are looking for

# Unlocking value through Central Portfolio Management



## Sales Book Management



- Sales tactics
- Monetising insights
- Contract tenor

## Arbitrage



- Tariff efficiency across global milk pools
- Geographic pricing spreads

## Customer PRM Solutions



- Spread between buy-side and sell-side products
- Contract markets eg. fixed price

## Monetising Optionality



- Asset flexibility
- Mix optimisation
- Financial markets

# Enabled by the continued development in our supply chain



## US

Whey and lactose partnership supports our whey portfolio and provides lactose for standardisation in New Zealand

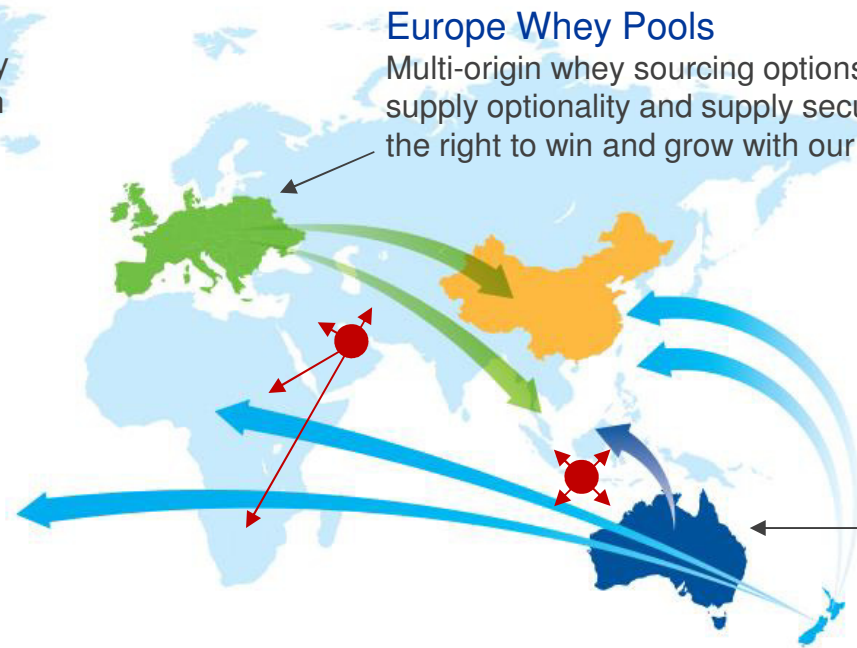


## Chile

Cheese and butter to Mexico and the US

## Europe Whey Pools

Multi-origin whey sourcing options increases supply optionality and supply security; giving us the right to win and grow with our key partners



## Australia

Cheese to North Asia

Milk Powder / Foodservice

Cheese / Whey / Infant Formula

Whey

UHT / Foodservice

● New regional hub



# Examples of delivering solutions for our customers to build sustainable premiums

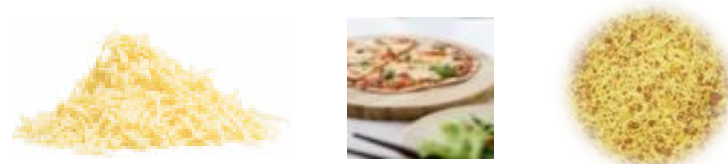
## Tailored Whey Offering

Whey innovation for sports nutrition with leading Japanese dairy company – backed by multi-origin sourcing options



## Cheese Innovation

New affordable cheese formulation with increased 'stretch' for pizzas in our key Asia markets



## Financial Services

Long fixed price contracts to a portfolio of customers to manage cost of goods – backed by hedging derivative



## Supply Chain Solution

Dubai in-market warehouse increasing customer responsiveness on order lead times

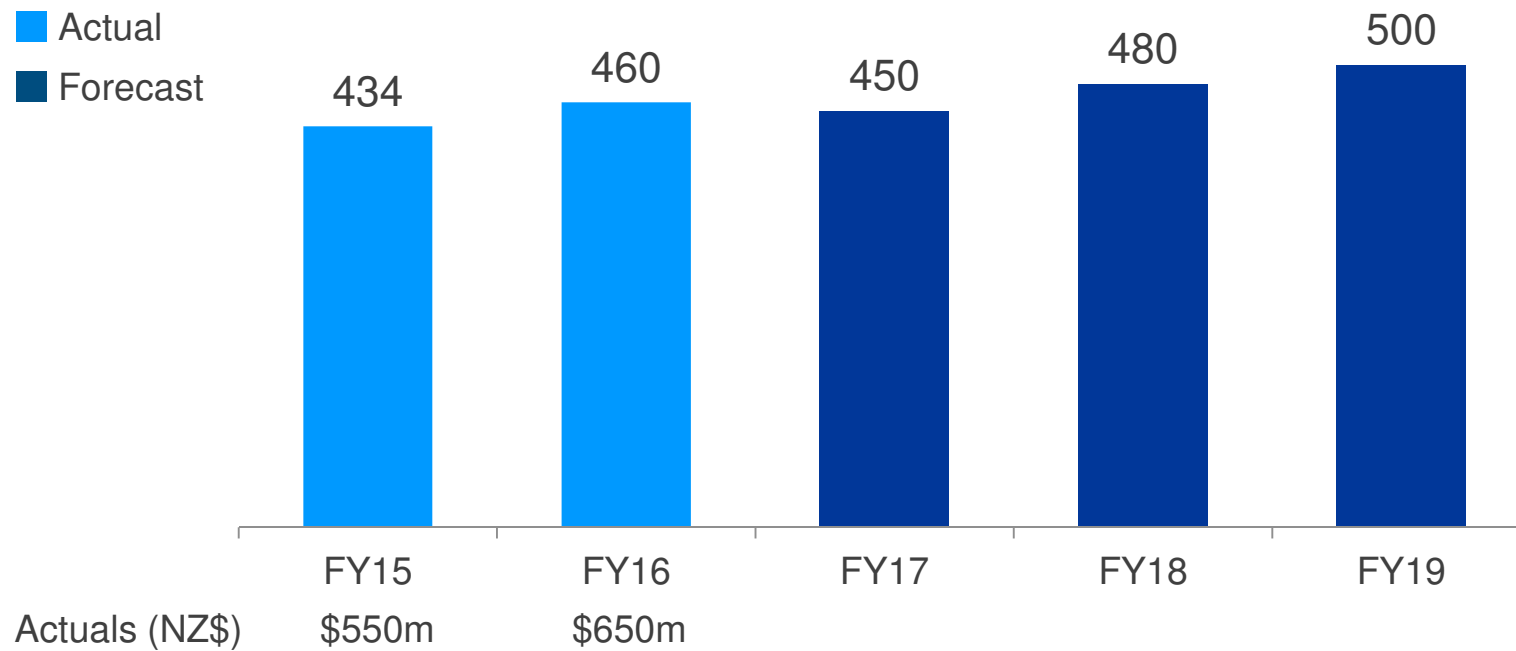


	INNOVATION	SCALE	REPUTATION	TRANSPARENCY	REACH	BREADTH



# Strong ability to capture premiums over time

Price Achievement (US\$m)





## Key messages on NZMP

- Global sales network and well established customer base
- Proven track record navigating volatility, building markets and innovation
- Earning premiums for product and service differentiation above reference prices
- Focused investment in innovation, capability and services to win with targeted customers
- Leveraging global supply footprint to build out success options



# Fonterra Strategy

## Theo Spierings

### CEO

# On track to meet our 2025 ambition

## OUR 2025 AMBITION

Make a difference in the lives of 2 billion people by 2025

<p><b>GROW AT HIGHER VALUE</b></p>  <p><b>30 Billion</b> LITRES 5-6 Milk Pools</p> <p><b>\$35 BILLION</b> TURNOVER</p>	<p><b>MARKET LEADERSHIP</b></p> <p><b>NO.1</b> INGREDIENTS</p> <p><b>No. 1 or 2</b> Consumer business in our Strategic Markets Supported by Foodservice</p>	<p><b>TRUST</b></p> <p><b>TOP 3</b> REPUTATION in our Strategic Markets</p> <p><b>WORLD CLASS</b> Engagement </p>
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## THIS IS FONTERRA

With our purpose, story and values at the heart, our 'this is Fonterra' framework brings together our people, identity and strategy commitments to guide us 'to be the world's most trusted source of dairy nutrition'.


**V<sup>3</sup> OUR STRATEGY**  
The V3 strategy is growing volume to higher value at velocity. It is delivered through our **seven strategic paths**:

- OPTIMISE**  
New Zealand milk
- BUILD AND GROW**  
beyond our current consumer positions
- DELIVER**  
on Foodservice potential
- GROW**  
our Anlene™ business
- DEVELOP**  
leading positions in paediatric and maternal nutrition
- SELECTIVELY INVEST**  
in milk pools
- ALIGN**  
our business and organisation

Value Creation  
**NO PAT**  
**ROC**  
Maximum Sustainable Milk Price

**OUR IDENTITY**  
Creating long term shared value for our **farmers**, our **communities** and the **environment**

**OUR PEOPLE**  
All of us together, **farmers** and **employees**, part of one team. Delivering our potential.



## OUR VALUES

Our Values are our guide and underpin how we do business

 <b>CO-OPERATIVE SPIRIT</b>	 <b>DO WHAT'S RIGHT</b>	 <b>CHALLENGE BOUNDARIES</b>	 <b>MAKE IT HAPPEN</b>
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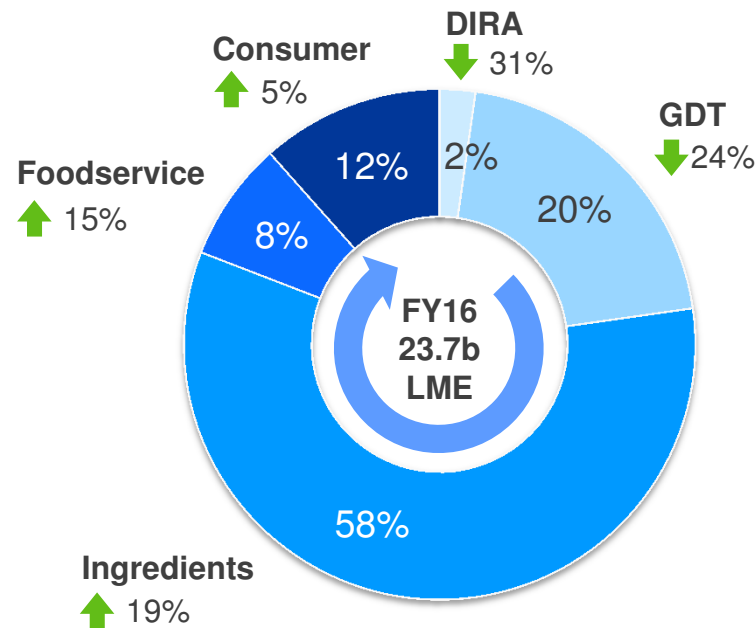




# Delivering our strategy

## Volume to higher Value at Velocity

- 1 **Optimise**  
NZ milk
- 2 **Build and grow**  
beyond our current consumer positions
- 3 **Deliver**  
on Foodservice potential
- 4 **Grow**  
our Anlene™ business
- 5 **Develop**  
leading positions in paed & maternal nutrition
- 6 **Selectively invest**  
in milk pools
- 7 **Align**  
our business and organisation



### FY16 result

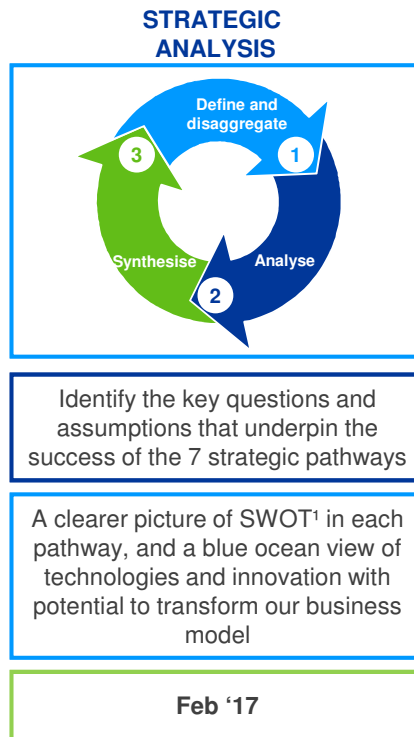
- GDT volume lower
- Ingredients
  - Optionality improved mix
  - Ingredients solutions for customers adding value
  - Lower operating costs
  - Return on capital of 13.4%
- Consumer and Foodservice
  - Added 380m more LMEs
  - 1 billion added in two years
  - Return on capital of 41.7%

↑ % FY16 sales volume growth over FY15

Note: Return on Capital (ROC) excludes goodwill, brands and equity accounted investments

Source: Wheel shows percentage of total FY16 external sales (LME) by strategic platform; Growth rates include intercompany sales to other strategic platforms

# Strategic planning cycle



1. Strengths, Weaknesses, Opportunities and Threats.

# Food has a massive global economic, social and environmental footprint...







# The productivity and climate challenge

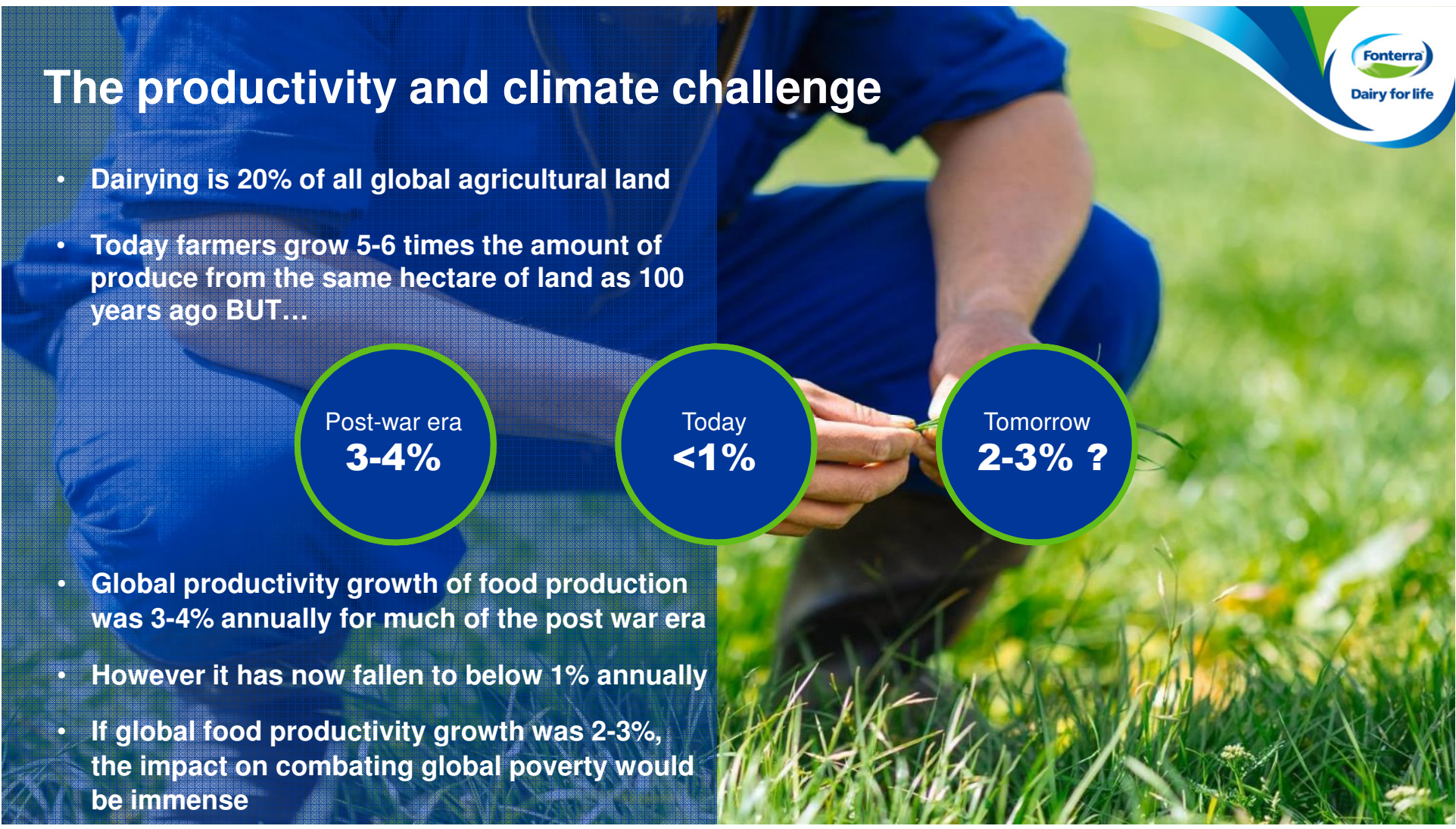
- Dairying is 20% of all global agricultural land
- Today farmers grow 5-6 times the amount of produce from the same hectare of land as 100 years ago BUT...

Post-war era  
**3-4%**

Today  
**<1%**

Tomorrow  
**2-3% ?**

- Global productivity growth of food production was 3-4% annually for much of the post war era
- However it has now fallen to below 1% annually
- If global food productivity growth was 2-3%, the impact on combating global poverty would be immense







**BREXIT**



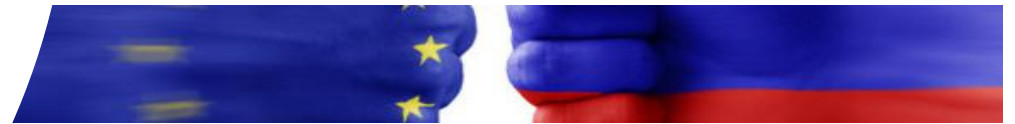
**TURKEY**



**CHINA**



**RUSSIA**



**USA**



# Global mega trends and social responsibility influence our choices



- Climate change working against future of food
- Food production contributes 30% of global greenhouse gas emissions
- Serious land degradation affects 20% of world's arable land

## Climate Change

## Nationalism

- Resurgence of nationalism brings uncertainty
- Protectionism threatens global trade
- Volatility in commodity prices to prevail

## Global Trends

## Socio-economic

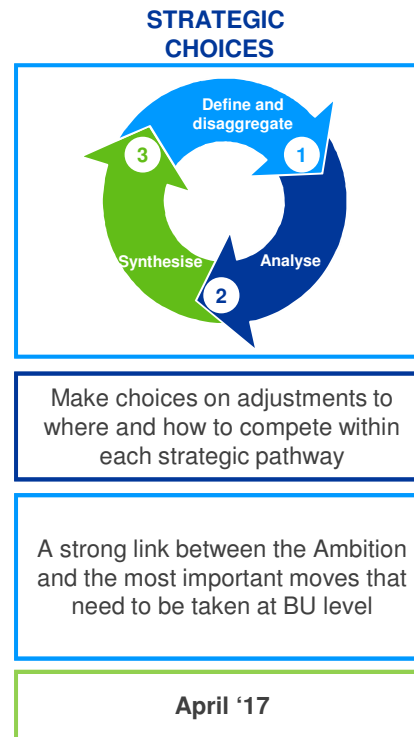
- Dairying is 20% of all global agricultural land
- Current food productivity growth is 1% per annum
- If we could raise it to 2-3% we could help alleviate world poverty

## Productivity

- Feeding the world (7.5B people), a third of which is wasted
- Food has a massive global impact:
  - 40% of global employment
  - NZ\$8 trillion industry – 10% of consumer spend
- Dairy contributes >NZ\$12bn to the NZ economy supported by a 30,000 strong family

# Strategic planning cycle

Approach
What this gives us
Timing



# Our strategic choices are anchored by our beliefs and assessed through commercial filters



## Beliefs

Dairy is demand-led

NZ milk can sustainably grow at 2-3% p.a.

Offshore milk is needed to meet demand

## Filters

Strategic  
Relevance

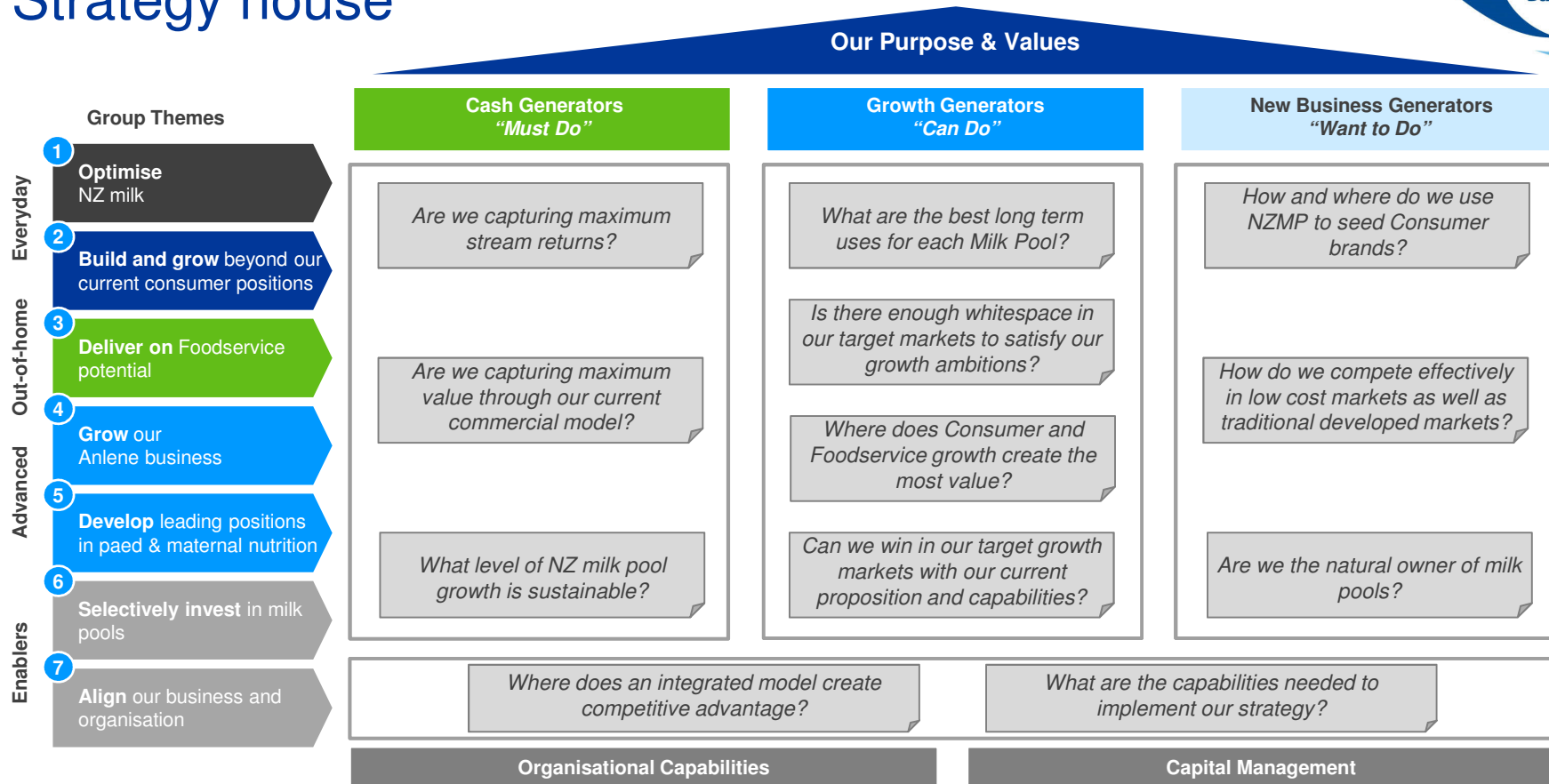
Return on  
Capital

Market  
Potential

Ability to  
Win



# Strategy house





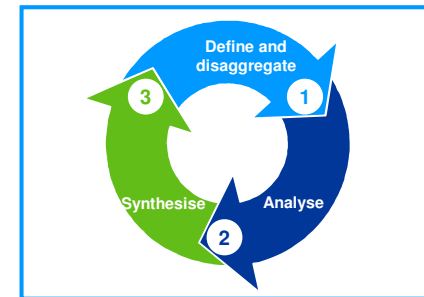
# Strategic choices

	V3 Strategy 'Cash' and 'Growth'	Future Growth Platforms 'Growth' and 'New Business'	Sustainable Long-term Model
Scope	<ul style="list-style-type: none"> <li>• Market / Product Selection</li> <li>• Commercial Models</li> <li>• Growth Paths</li> <li>• Resource Allocation</li> </ul>	<ul style="list-style-type: none"> <li>• Innovation</li> <li>• Disruption</li> <li>• Technology</li> <li>• Digital Transformation</li> <li>• M&amp;A</li> </ul>	<ul style="list-style-type: none"> <li>• Future of Food</li> <li>• Future State Operations</li> <li>• Consumer of the Future</li> <li>• Sustainable Production</li> </ul>
Value Horizon	<b>1-3 years</b>	<b>5-10 years</b>	<b>&gt;10 years</b>

# Strategic planning cycle



## STRATEGIC IMPLEMENTATION



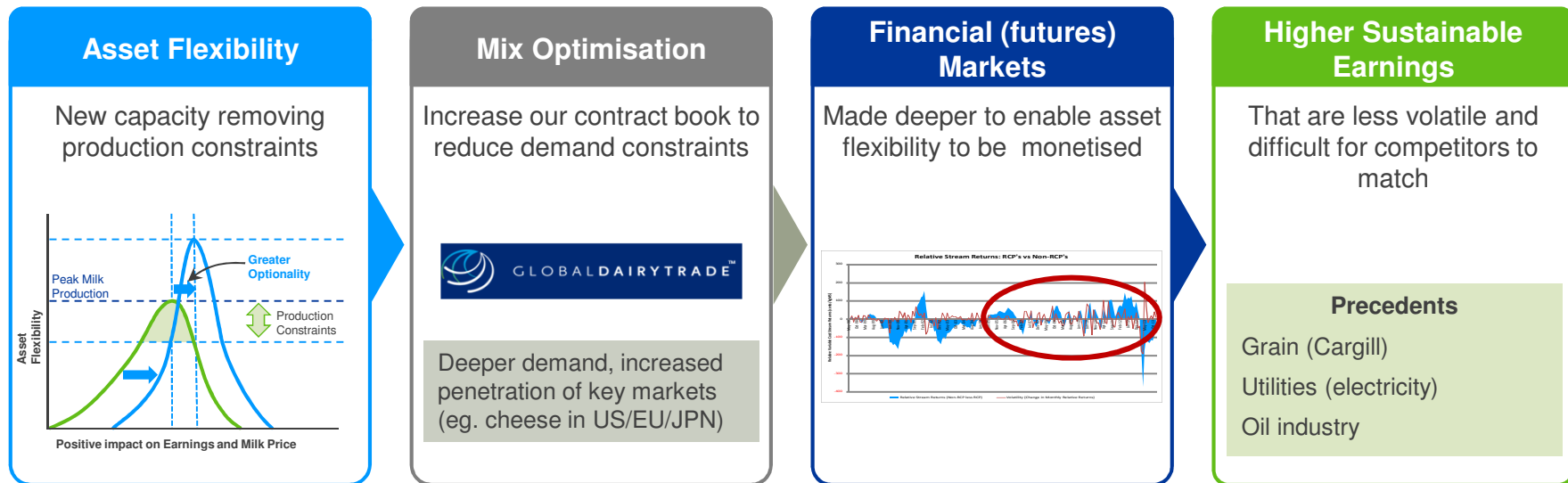
Identify the most important actions to take to maximize the chances of successfully 'landing' the strategy

A clear implementation plan connected to action, aligned and integrated with the three year business plan

**June '17**

<b>Approach</b>
<b>What this gives us</b>
<b>Timing</b>

# Ingredients strategy in place and underway



**If the scale of our capacity is matched by greater depth and flexibility in sales channels, and financial markets, substantially higher and less volatile earnings are possible**

# Consumer & Foodservice strategy delivering higher incremental returns







... by focusing on key benefit platforms...

BENEFIT PLATFORMS
<b>Energy</b> The day-to-day sustained fuel we need to function.
<b>Growth and Development</b> Nutrition that fuels growth & development.
<b>Mobility</b> Nourishment enhancing the strength, stamina & flexibility of joints, muscles & bones.
<b>Cognition</b> Nutrition that delivers enhanced mental performance.
<b>Uncompromised Taste Texture and Quality</b> Product solutions providing superior taste & functionality

...enabled by our current and future core strengths...

TECHNICAL DIFFERENTIATORS
Consumer and recombined powders
Functional proteins
Milkfat and emulsion expertise
Unlocking & validating the nutritional benefits of our dairy components
Grass to glass traceability
Enabling authentic/genuine milk production

...commercially delivered through 8 big plays

8 BIG PLAYS
 1 EVERYDAY VITALITY
 2 UNLEASH POTENTIAL
 3 CULINARY @HOME
 4 ADVANCED MOBILITY
 5 ADVANCED COGNITION
 6 ASIAN BAKERIES – CHEF LED
 7 ITALIAN KITCHENS – CHEF LED
 8 QSR SUPPLIER OF CHOICE

...focused on 4 + 4 Markets



Demand Generation	Route to Market	End to End Supply Chain	Capital	People	Operating Model	Digital
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## Supplementary Slides



# Gross Margin composition in FY15

	FY15	Revenue		Milk Cost		Other COGS		Gross Margin
<b>Fonterra</b>	<b>NZ Ingredients</b>	<b>1,554m kgMS</b>						
	per kgMS:	\$8.43	—	\$4.75	—	\$2.73	=	\$0.95
	<b>Non-RCP</b>	<b>395m kgMS</b>						
	per kgMS:	\$9.24	—	\$5.57	—	\$1.94	=	\$1.73
	<b>RCP</b>	<b>1,092m kgMS</b>						
	per kgMS:	\$6.79	—	\$4.50	—	\$1.57	=	\$0.72
	<b>Milk Price Model</b>	<b>1,614m kgMS</b>						
	per kgMS:	\$6.53	—	\$4.40	—	\$1.51	=	\$0.69

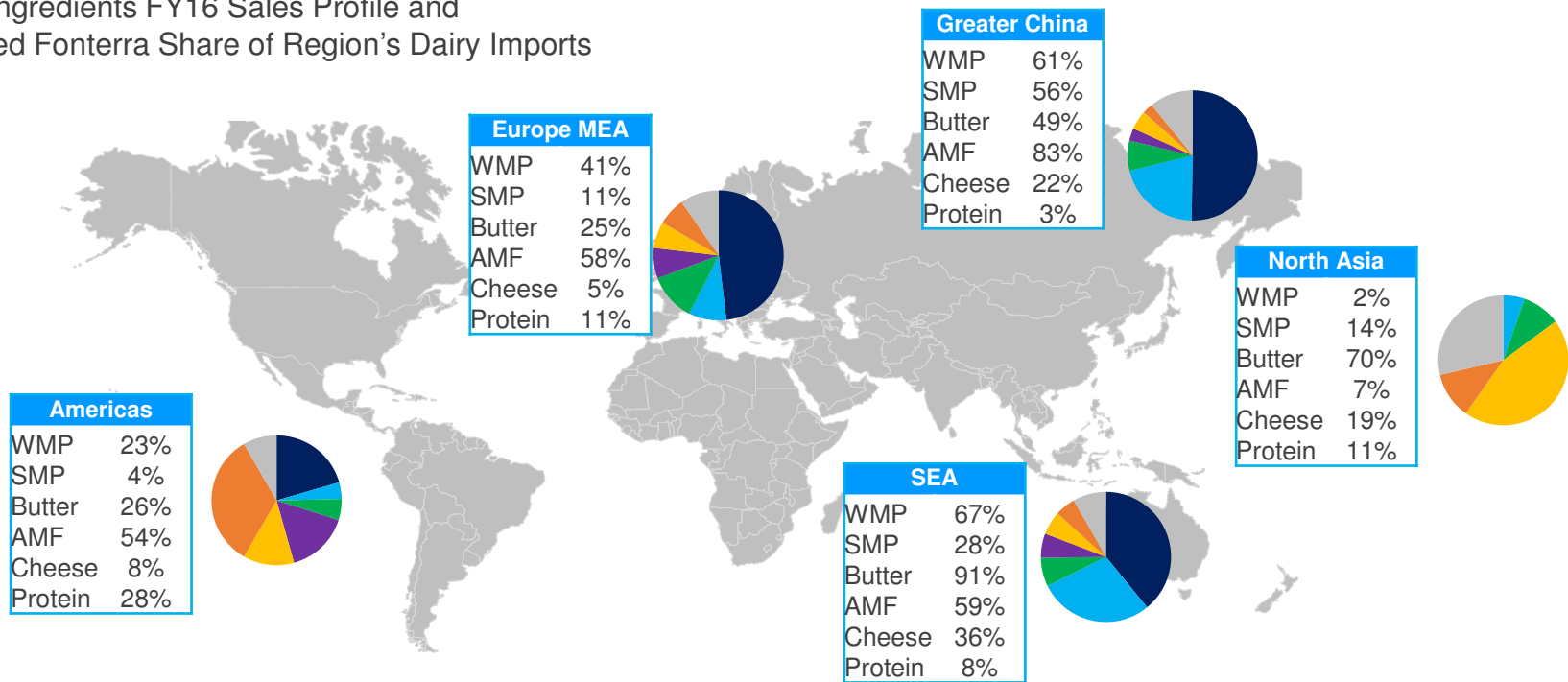


# Ingredients business with global reach

## Leadership position in key product portfolios

Global Ingredients FY16 Sales Profile and Estimated Fonterra Share of Region's Dairy Imports

- WMP
- SMP
- Butter
- AMF
- Cheese
- Protein
- Other



Note: FY16 sales (MT) are shown on the basis of the shipping destination for the product.



# Example NZMP products



Consumer Powders



Dairy Beverages



Dairy Foods



Active Nutrition



Paediatrics

## Products

- WMP (Instant, Reg etc.)
- Instant SMP
- Flavoured milk powders
- FFMP & Powder Blends
- Casein(ates) & MPCs

- UHT WMP
- MPC
- SMP (Reg & UHT)
- WPCs

- Mozzarella
- Natural Cheese (Edam, Gouda, Egmont)
- Butter
- AMF
- MPC

- WPC/WPI
- MPC (70, 85, functional)
- Functional WPCs
- Caseinates
- TMP
- Specialty whey e.g. hydrolysates

- IF, FO & GUMP base powders
- Paediatric grade WMP, SMP & BMP
- WPC80, D90
- IF grade Lactose & GOS
- Hydrolysate, lactoferrin
- Probiotics



# Appendix

## Milk Price Model



## Milk Price Model – building blocks

Assumes all milk collected in a season is processed into a Reference Commodity Product (RCP)

Revenue

*less*

- Allocation of milk to product streams broadly matches Fonterra
- Sales phasing aligns to Fonterra, and contract phasing broadly aligns
- Lactose for standardisation – effectively a ‘negative revenue’
- Notional US\$ revenue converted to NZ\$ at Fonterra’s average monthly conversion rate

Cash costs

*less*

- Manufacturer specifications of resource usage for modern powder plants, but Fonterra unit costs
- Fonterra collection costs
- Commission / supply chain costs assume set percentage sold via GDT, and minimal offshore network
- Administration / overhead a scaled down (RCP only) version of Fonterra costs

Capital charge

- Manufacturer specifications for ‘standard’ 1.9 million litre per day milk powder plants – new powder plants 2.4 million litres per day from 2013 on
- Other assets based on Fonterra replacement cost
- Working capital follows Fonterra’s, but based on powder stream only
- Depreciation allowance and post-tax WACC capital charge on total capital employed



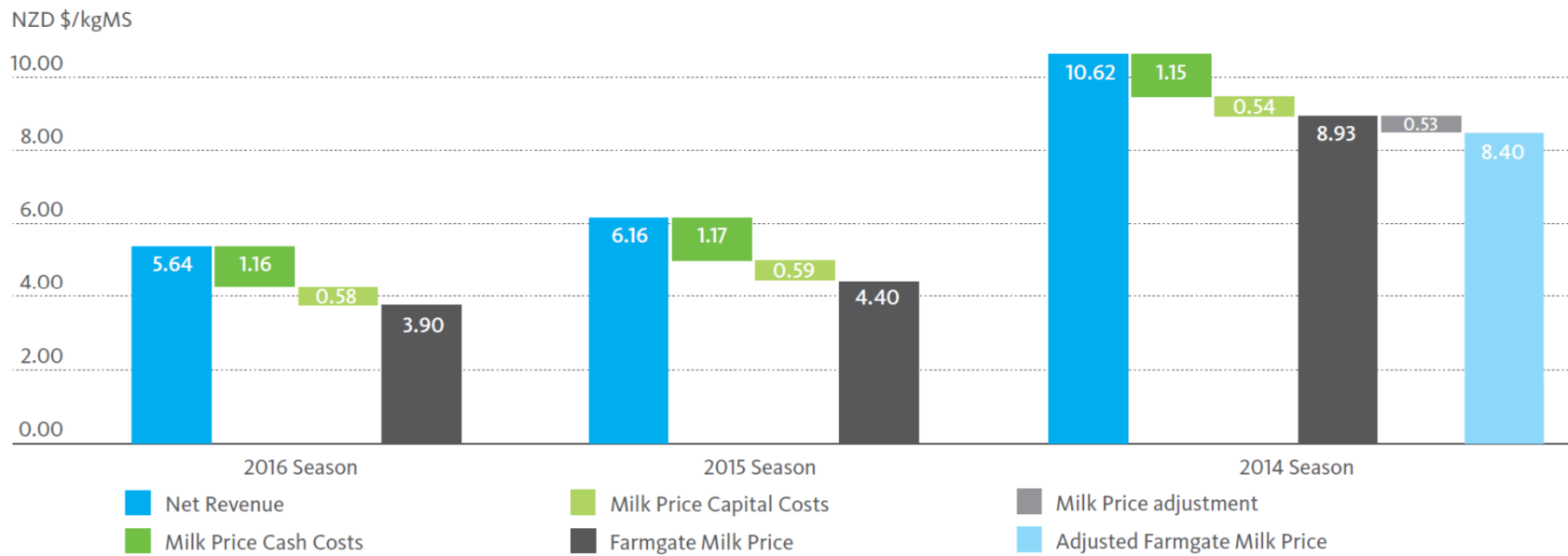
## Milk Price Model – detailed P&L

Milk Price Model (NZD \$m)	2016	2015	2014
<i>Million kgMS</i>	1,566	1,614	1,584
<b>Net Revenue</b>	<b>8,832</b>	<b>9,937</b>	<b>16,834</b>
Milk Cost	(6,101)	(7,096)	(14,151)
Cash Costs	(1,815)	(1,889)	(1,819)
Depreciation	(266)	(263)	(250)
<b>Regulated Return (EBIT)</b>	<b>650</b>	<b>689</b>	<b>614</b>
WACC – fixed assets	(407)	(393)	(436)
WACC – net working capital	(73)	(120)	(26)
Tax	(170)	(176)	(152)
<b>NPAT</b>	<b>–</b>	<b>–</b>	<b>–</b>
<i>Fixed assets</i>	<i>\$6.9b</i>	<i>\$6.5b</i>	<i>\$6.4b</i>
<i>Working capital</i>	<i>\$1.3b</i>	<i>\$2.3b</i>	<i>\$0.9b</i>
<i>WACC rate</i>	<i>5.9%</i>	<i>6.1%</i>	<i>6.8%</i>



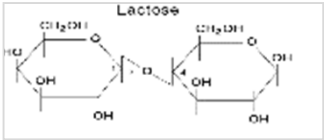


Note: Milk Price year is to 31 May versus Fonterra financial year ending 31 July



# Milk Price Model – components



# Milk Price Model – cash costs assumptions

<b>Cash Costs</b>	<b>Milk Collection</b>	
	<b>Factory</b>	
	<b>Lactose</b>	
	<b>Supply Chain</b>	
	<b>Admin / Overhead</b>	

- Fonterra’s collection cost
- Manufacturer’s specifications of resource usages (energy, labour, losses) for modern powder plants, but Fonterra’s unit costs
- Bought-in lactose for powder standardisation
- Reflect assumption that Milk Price business supported by an offshore network
- Based on Fonterra’s, but reflect narrower scope of milk price business



## Milk Price Model – capital charge

- Fixed asset base reflects:
  - Manufacturer’s costs for ‘standard’ 2.5m litres per day milk powder plants
  - Other assets based on Fonterra replacement costs
  - WACC charge and depreciation allowed for in respect of fixed assets
  - Working capital requirements over the course of the season primarily vary with Milk Price sales phasing and the profile of payments to farmers (Advance Rate Schedule)
  - Capital charge is applied to monthly net working capital balance (one implication is that farmers are compensated for deferral of payments for milk, and that Milk Price therefore effectively includes an interest component, which varies from year to year)
  - WACC is post-tax, so separate provision included for tax