Agenda

- Fonterra and its Supply Chain
- Why is the productivity of our Supply Chains important? What supply chain challenges does NZ face?
- How do we compare Globally?
- Are we doing enough? what should we do?
- Innovation
Fonterra and its Supply Chain

Fonterra at a glance

- 10,500 shareholders
- $11b ingredients revenue
- 25% NZ exports
- 14.8 billion litres NZ
- $5b consumer revenue
- $14.1b in assets
Here in New Zealand our consumer portfolio includes some of the Country’s most familiar and trusted names.

Fonterra’s supply chain – “Cow to customer”

- 11,000 Farms
- 4 million cows
- 15 billion litres of milk
- 432 Milk Tankers
- 23 production sites
- 100+ stores
- 2.5m MT of product
- 11 NZ origin ports
- 1,500 voyages
- 280 destination ports
- 100+ destination stores
- 5,000 customers
- Millions of consumers
We operate a truly global supply chain

Why is the productivity of our supply chains important?
What supply chain challenges does NZ face?
Compared with key competing countries and regions, New Zealand is disadvantaged by its balance of physical container flows and lack of scale. Other distinguishing features of the sector include:

- 70-80% of New Zealand’s imports are destined for Auckland.
- Total container traffic relatively small e.g. 800,000 TEU exports, 450,000 TEU imports
- The country has multiple container imbalances
  - Nationwide reefer deficit
  - Dry surplus upper north Island, deficit South Island
- Poor Intermodal connectivity and modal scale
- A relatively small number of international ocean carriers serve the country resulting in very limited competition
- At the expense of the Country’s exporters and importers, internationally carriers have slashed capacity and services in recent months

There are a range of challenges facing New Zealand’s exporters

Container balances heavily influence the competitiveness of freight for exports – they are not in New Zealand’s favour

Container balances and scale determine the competitiveness of freight, NZ is disadvantaged on all counts

- Europe – Far East 15 million TEU
- Europe – Far East 5 million TEU
- North America – Far East 4 million TEU
- North America – South America 7 million TEU
- Far East – South America 4 million TEU
- Far East – North America 13 million TEU
- South America – EC S America 7 million TEU
- EC S America – Far East 4 million TEU
- NZ all origins / destinations Imports 400K TEU
  Exports 800K TEU
How do we compare Globally?

What the world thinks

An interesting assessment and comparison of obstacles to trade in 121 countries
How do we rate?

At face value New Zealand does quite well ranked 11 out of 121. We are ranked above competitors such as Australia and the United States does this mean our export supply chains are efficient?.....

How do we compare with Australia?

Border administration at a glance ✓
Transport Infrastructure at a glance ❌
Border administration - the devil is in the detail

Our high ranking masks a far from desirable position with respect to export procedures

Infrastructure – no surprises

On the infrastructure front we’re behind with respect to:
- Roads,
- Rail
- Air

And it’s just a question of time before this gap gets significantly bigger
Others have already recognised the importance of the supply chains upon their economy’s competitiveness

- “Improving the movement of freight across its end to end journey and understanding where pinch points exist is essential to maintaining and improving the UK’s competitive position”. *Source – UK department of Transport 2008.*

- “High logistics costs and more particularly low levels of serves are a barrier to trade and foreign direct investment and thus economic growth. *Source – World economic forum 2008.*

- “Globally, freight operations have shifted from a modal approach (that is, road, rail, air, sea considered individually) to a ‘whole of supply chain’ approach (mine to port, paddock to plate etc), reflecting the growing focus on supply chain management.

In order for businesses to remain competitive, it is crucial that the route from ‘paddock to plate’ is both cost effective and reliable, driving efficiency within supply chains”. *Source – Australian, National Transport Commission*

And are advancing their thinking of what the next steps should be

i.e. Not only is Australia spending billions of dollars on actual infrastructure development in addition they are exploring concepts such a logistics city to further enhance their international competitiveness
What is being done? what is required?

Are changes closing the gap – Rail?

- Long term the country’s export (and domestic) supply chains need rail if productivity is to be materially lifted
- We believe KiwiRail are making good progress
- Recent funding announcements are a big step in the right direction
- We need to now turn action into words with respect to plans to rehabilitate rail’s freight capability e.g.
  - Speed
  - Train length
  - Loco’s and wagons
Are changes closing the gap – Road?

Example
- A fleet of over 400 vehicles
- Travelling over 70 million KM per year
- Applying state of the art scheduling and dispatch technology
- Using state of the art measurement equipment.

- Value of recent Road Mass Changes..........

What should industry do?

Without central facilitation cargo owners must demand that the wider supply chain and transport community to demonstrate a desire to lift productivity, by:

- Seeking new business models and innovative solutions
- Delivering a high level of alignment across the sector
- Enabling the exporting and importing sectors lift their (hence New Zealand’s) overall productivity
What can we do – Develop Intermodalism

There are significant national benefits to realised through a greater focus on intermodalism
- Successful internationally, New Zealand is a slow adopter
- The country needs to shift its focus from mode specific strategies to truly Intermodal solutions, these can;
  – enable sustainable efficiencies to be delivered
  – enable significant growth in rail usage while improving profitability of the road transport industry.
  – provide significant environmental benefits
  – avoid unnecessary capital expenditure and accelerate delivery of benefits to NZ economy

Enable Bigger Ships

• Within 3-5 years New Zealand needs at least 2 ports with the capability to accommodate big ships i.e. 7000 TEU
• Not all ports need to attract big ships
• All ports have a role to play
• We can not wait for overseas carriers to drive such change
• The required changes will NOT cost billions and are unlikely to need port mergers
As cargo owners we must take responsibility and drive productivity improvements through innovation.

Crawford Street, an example of innovation:
- Ambient storage 44,000MT
- Cool storage 60,000MT
- Annual container throughput 40,000+ (Equivalent to a tier 2 port)
- True intermodal solution
- Product inbound via Road and Rail
- Rail delivery to ports of Auckland and Tauranga
Technological Innovation is equally important

To drive efficiencies throughout the length of its supply chain and when suitable off the shelf solutions are not are available we are prepared to develop the technology here in New Zealand

- INRO is a New Zealand start-up company established to develop and commercialise an idea conceived by INRO and Fonterra
- INRO at the time being a small start-up company in Auckland’s The ICEHOUSE.
- Fonterra are key shareholder and the key development partner
- The solution is deployed in our Kauri operation

Automated Guided Vehicle equivalence = AGVe

An INRO Automated Forklift is just like an AGV but:
• relocatable
• relocatable
• safe and
• no expensive

If the forklift is available, the lead time in implementing an AGV system can be less than 3 months.

INRO AGVs delivered 10.4% reliability during design trials on the Tu Automatic SMP line.
Thank You