

Agenda

- Performance
- Paradox
- World
- New Zealand

Value Creation

- World Economic Forum – Global Competitiveness Report
- Competitive advantage measured on a scale of:
- 1 = low cost of natural resources to 7 = unique products & processes

New Zealand scores 4.1
Ranks 36th

This measurement by the World Economic Forum shows that NZ earns its living in the world economy from producing mainly low value commodity goods, with minimal downstream processing on value add.

Value Capture

- Value chain measured on a scale of:
- 1 = role in chain mainly confined to one step, eg resource extraction
- ...to 7 = involved all the way down the chain, capturing extra value

New Zealand scores 3.8
Ranks 58th

Likewise, the World Economic Forum's analysis shows NZ captures only a part of the value its exports help create. Instead, much of the value is captured by companies that buy our commodities then turn them into higher value products.

Value – creation and capture

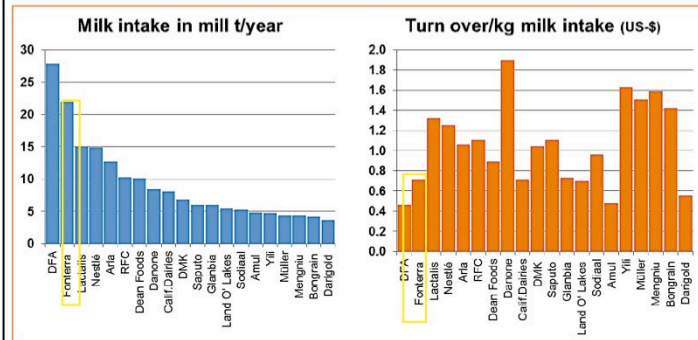
- \$25.3bn – Shipped value of our food & beverage exports (fob)
- \$140bn - \$200bn – Consumer value of food & beverage products primarily of NZ origin; source – Coriolis Research
 - 1 Fonterra plant in NZ makes infant formula for Pfizer
 - 8% Pfizer's Chinese market share for infant formula
 - US\$12bn Nestlé paid for Pfizer's infant formula brands
- = 3 x Fonterra's net asset value

This data shows the value of our food and beverage exports on the dock as they leave NZ...versus the estimated value of the products in supermarkets overseas. Again, this shows we don't fully share in the value we help create.

The rest of the slides describes how Nestlé bought Pfizer's human nutrition business for US\$12bn two years ago. But Pfizer buys most of its infant formula products from manufacturers such as Fonterra, then creates market share and value from them, for example in the Chinese market. All Fonterra's farmers get out of this is the commodity price for milk they sell to Fonterra. And all Fonterra gets is a toll processing fee for turning it into infant formula. Meanwhile Pfizer captures far more of the value downstream

Fonterra's stuck in a commodity trap

- Generates weak sales per kg of milk, by international comparisons



- Source: IFCN Dairy Research Centre, Germany

Fonterra is one of the largest dairy companies in the world...but the turnover it generates per kg of milk is low compared with the majority of other companies in the global top 20. Even the two Chinese dairy companies generate far more revenue. This is further evidence of Fonterra's dependence on basic commodities.



The Productivity Commission's analysis shows how this very weak position in global value chains drastically reduces the economic wealth we generate in NZ, compared with the OECD average and a theoretical figure based on the quality of our laws and institutions and the openness of our economy.

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Paradox

Abundance

Scarcity

The paradox is we think we get rich because of the abundance of new consumers in places like China and India

Poverty

Cows

Scientists

...so the more cows, the more milk the richer we will be

Poverty

Simplicity

Complexity

...and the simpler we keep business and government, the richer we will be



...likewise, the weaker our commitment to sustainability, the richer we will be

Re-invention

Scarcity

Abundance

But the paradox is it is scarcity not abundance that is driving all the most exciting new technologies, markets, consumer choices and the like

Wealth

Lacto-pharmaceuticals

Milk powder

If we focus on more cows, more milk we won't fulfill our economic goals – we're already running into resource constraints.

Our scarcity is not cows, though but scientists...who can turn the milk into far higher value products. But this is science we barely do n NZ>Most of our science is focused on commodity, on-farm production.



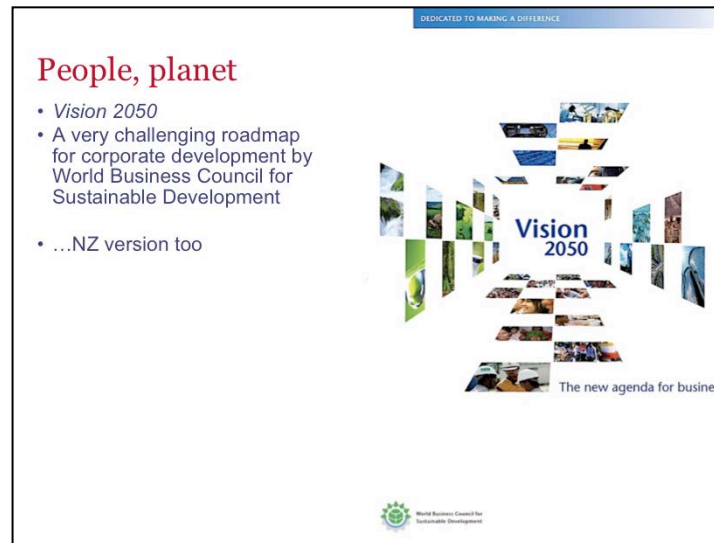
...likewise, we need to learn how to deal with the complexity of new technologies and value chains



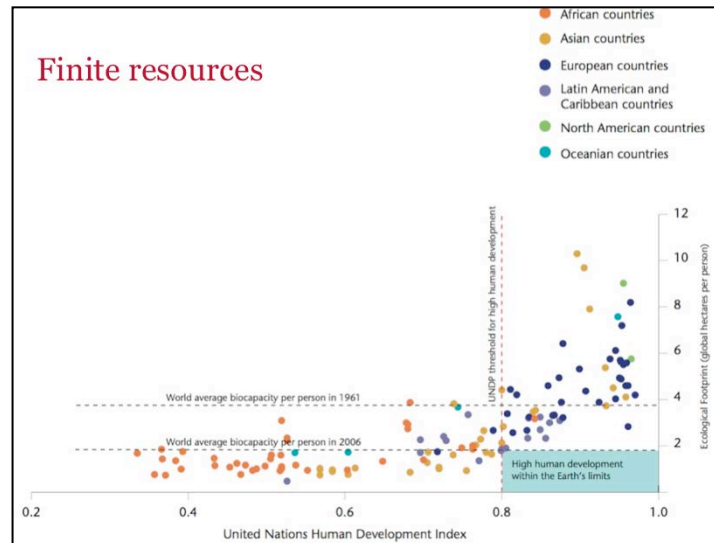
...and make sure we derive great value from being strongly sustainable

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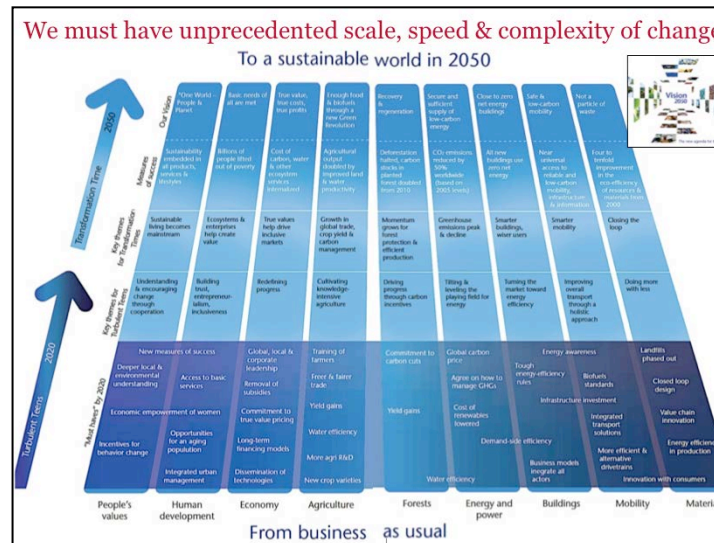


This is a guide to this view of a high value, highly sustainable world...mapped out by the World Business Council for Sustainable Development, which includes leading companies such as Unilever, the Anglo-Dutch consumer goods company.



Each dot is a country, showing where it stands on the UN Human Development Index and what its ecological footprint is.

To be sustainable, every country has to be in the blue box of high development, low footprint, by 2050.



This is a guide to how radical technology change must be in each of these sectors by 2050.

Innovation

Harvard Business Review

Why Sustainability Is Now the Key Driver of Innovation

by Ram Nidumolu, C.K. Prahalad, and M.R. Ranganaswami



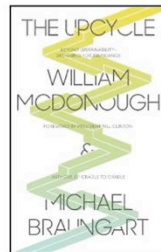
How Green Will Save Us: September, 2009 edition:

“There is no alternative to sustainable development.

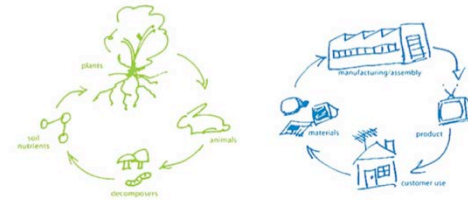
“Our research shows that sustainability is a mother lode of organisational and technological innovations that yield both bottom-line and top-line returns...

...In fact, because those are the goals of corporate innovation, we find that smart companies now treat sustainability as innovation's new frontier.”

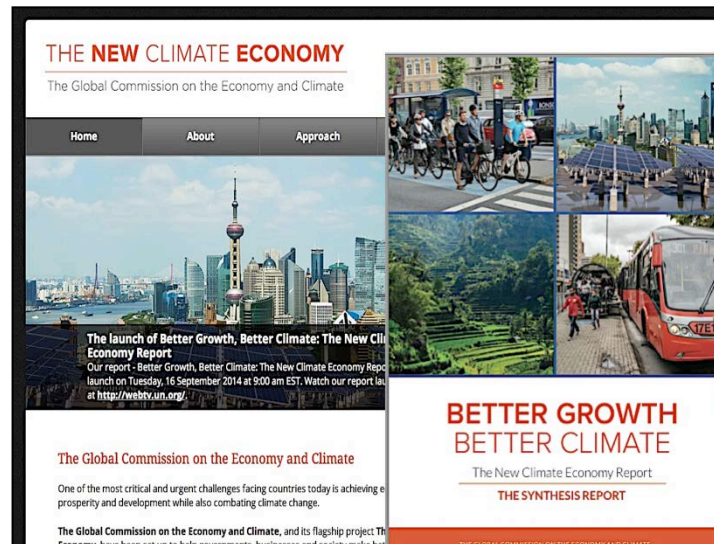
Circular economy



Cradle to Cradle Framework



One concept is to mimic nature in a “circular economy” in which all resources are infinitely reused.

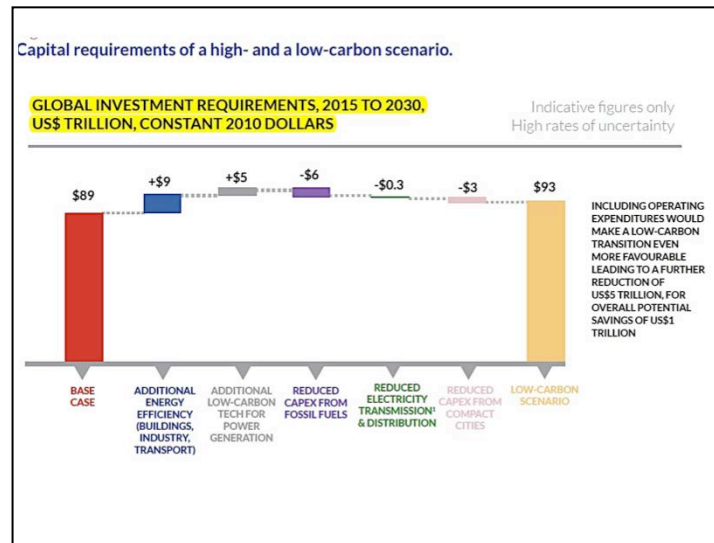


The latest report on the economics of climate change...and the the new low carbon economy.

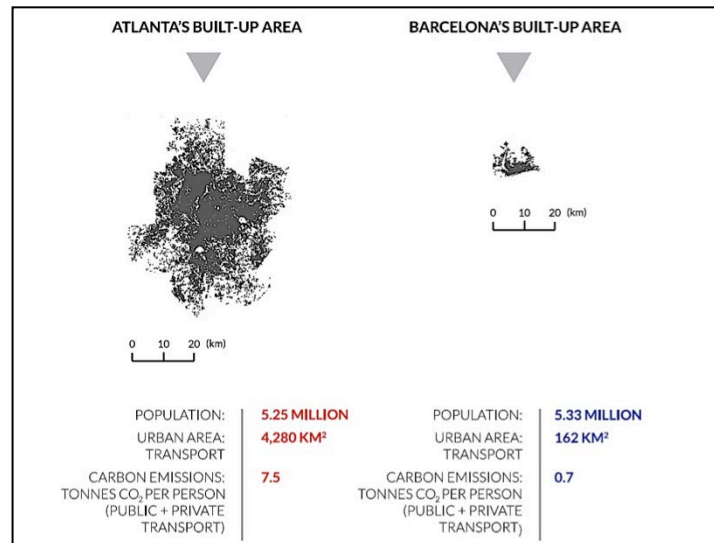
Our choice

- 2014 – 2030
- Total investment in the global economy = US\$ 300 – 400 trillion
- Low carbon investment will cost a bit more than high carbon business-as-usual
 - Extra cost = 1% - 4% of GDP in 2030
 - ...i.e. achieve the same level of GDP about 6 to 12 months later
- High carbon investment
 - Cities, land use and energy sources
 - US\$89 trillion
- Low carbon investment
 - Cities, land use and energy sources
 - US\$93 trillion
- Extra cost for low carbon investment:
 - = US\$4 trillion - probably an over-estimate given inadequacies of conventional economic models
 - = US\$270 billion a year = 1.5x New Zealand's GDP per year
- Low carbon is cheaper than high carbon if operating costs are included

...from that report, is this analysis of the feasibility and desirability of a low carbon economy



...the analysis of high vs low carbon economies



What a high density, attractive, low carbon city (Barcelona) looks like versus the sprawl of Atlanta.

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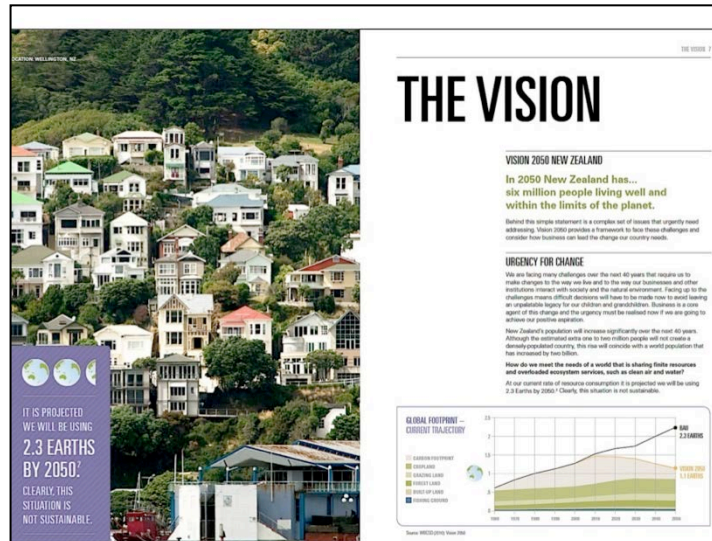
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NZ Vision 2050

- ...by a group of young leaders...
 - ...under the NZ Business Council for Sustainable Development...
 - ...which morphed into Business NZ's Sustainable Business Council
- Download at:
 - <http://www.sbc.org.nz/projects/vision2050>
- Vision 2050 Global report at:
 - <http://www.wbcsd.org/vision2050.aspx>

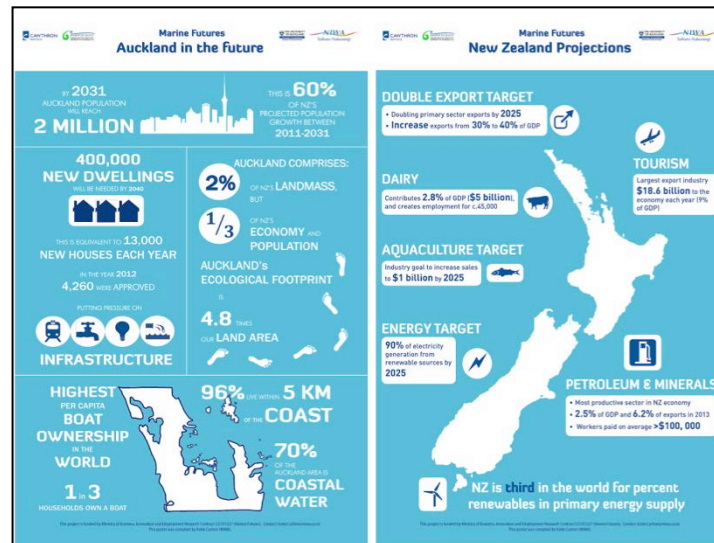
This is the NZ version of Vision 2050, downloadable with this link, likewise the link to the world version





Sector by sector view of the tasks to be done towards the NZ Vision 2050





These sustainability issues for NZ are very much about urban and rural issues and opportunities

Securing our future is a balancing act!

Production prioritised

- ### Unhealthy Ecosystem



**Restricted range of
Ecosystem Services**

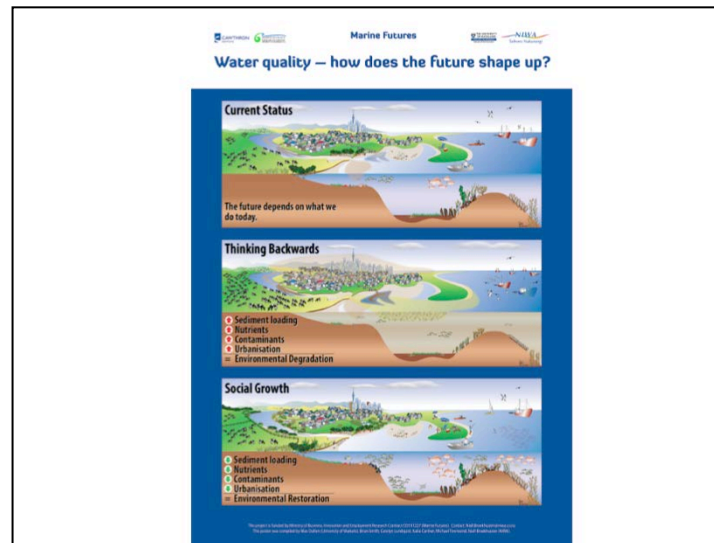
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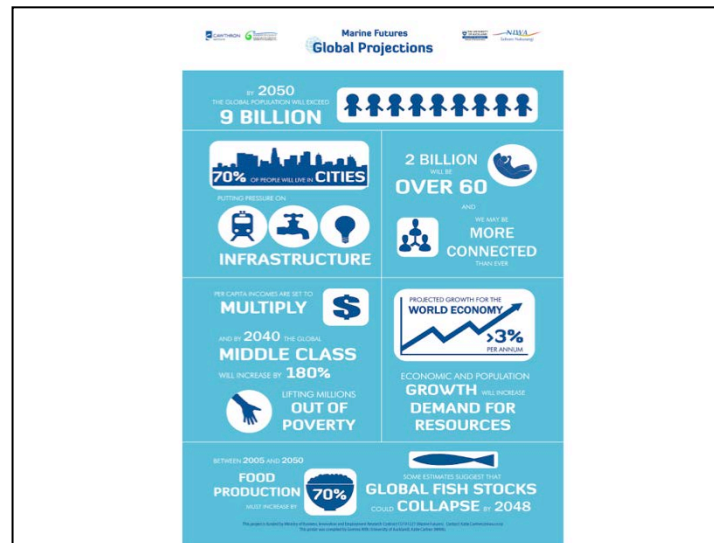
Ecosystem prioritised

-

Greater provision of Ecosystem Services

-







Auckland is growing so fast it has the potential to essentially remake itself as a low carbon, sustainable city...and one that massive reduces its impact on the Hauraki Gulf

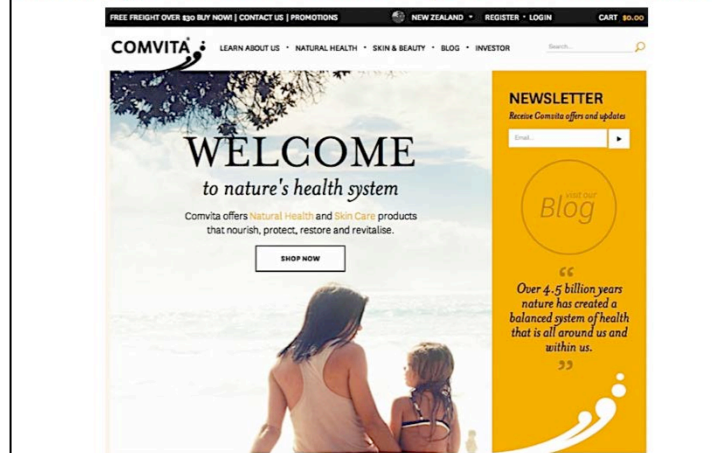
Blue urbanism

- Built environments – Blue Urbanism...
- ...where land and sea meet, mingle & co-exist



...one of the concepts is Blue Urbanism...with better interfaces between land and sea – not the traditional ones, as in the Viaduct Harbour in Auckland but in physically more integrated ways such as on the right the Norwegian State Opera House in Oslo

Building value: Comvita's 10-year transformation



Here's one of the best examples of value chain creation in NZ – by Comvita

Comvita's value chain

- Building it by...
 - Floating on NZX to raise funds
 - Buying back distribution
 - Investing in retail
 - Investing in science
 - Investing upstream in bees
- Virtuous cycle...
- ...each step generated new cash flow to take the next



...Comvita today



About Comvita

COMVITA FOUNDER, CLAUDE STRATFORD BELIEVES WITH A VISION.

He set out to produce natural products that work, and doing so in a way which preserves the environment for generations to come.

[ABOUT COMVITA](#)



Ingredients & Benefits

SHARING NATURE, SHARING LIFE

Comvita sources ingredients in their purest form, harnessing their natural properties, delivering to you the benefits of nature.

[LEARN MORE](#)



Manuka Honey

PURE NEW ZEALAND MANUKA HONEY, UMF® GUARANTEED.

UMF® Honey is honey in its natural form, and a UMF® logo is a guarantee of quality with an approved unique Manuka factor (UMF) logo.

[ABOUT MANUKA HONEY](#)



Huni XA

HUNI XA IS A POWERFUL ACTIVE COMPOUND THAT HELPS SLOW DOWN OF AGEING.

The power of nature's honey is a powerful antioxidant, as well as the bonding properties are a great for high performance in more formulations.

[ABOUT HUNI XA](#)



Broccoli

AN ANTIOXIDANT BOOSTER WHICH HELPS TO PROTECT AGAINST CELLULAR DAMAGE.

See how ingredients like broccoli and vegetables of many colours and varieties are important to our diet and offer us greater protection.

[ABOUT BROCCOLI](#)



Synergy 12

OLIVE LEAF EXTRACT IS AN EXTREMELY POWERFUL NATURAL ANTIOXIDANT AND FREE RADICAL SCAVENGER.

Our unique, Pure Olive Leaf Extract contains 12 natural antioxidants.

[ABOUT SYNERGY 12](#)



Propolis

PROPOLIS IS A POWERFUL DEFENCE SYSTEM PRODUCED BY NATURE TO PROTECT AND HEAL.

A natural antioxidant produced by bees, Propolis acts as nature's best defence against disease.



Olive Leaf Extract

OLIVE LEAF EXTRACT IS A COMPLETELY NATURAL WAY TO ENJOY YOUR BUILT-IN HEALTH.

Traditionally used for immunity, cardiovascular health is now clinically supported to support blood sugar levels.



Omega 3

COMVITA OMEGA 3 IS A NATURAL FISH OIL SOURCED FROM SUSTAINABLE FISH.

Omega 3 fish oils support cellular function, heart and cardiovascular health as well as joint suppleness and flexibility.



Oral Care Ingredients

OUR NEW AND IMPROVED TOOTH PASTE IS A HEALTHY CHOICE FOR THE ENTIRE FAMILY.



Ingredients Glossary

COMVITA SOURCES INGREDIENTS IN THEIR PUREST FORM AND OPTIMISES THEIR NATURAL ACTIVE INGREDIENTS.

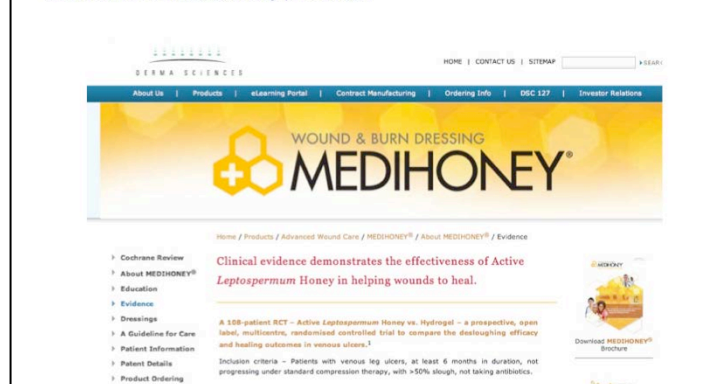


Beauty Ingredients

WE CAREFULLY SELECT INGREDIENTS FOR OUR FORMULATIONS ESPECIALLY FOR YOUR SKIN.

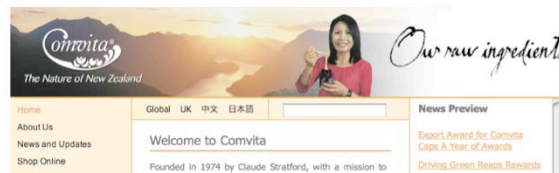
Deals and relationships

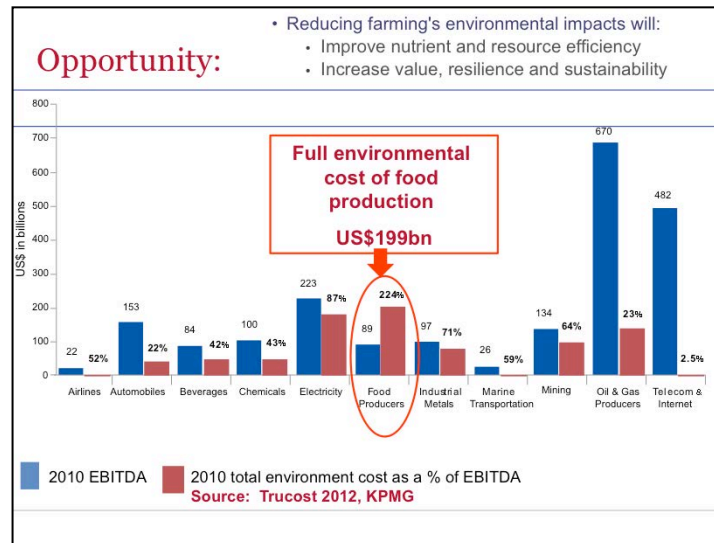
- In 2010, Comvita licensed professional wound care to Derma Sciences, US
- In 2013, Derma Sciences took 7.3% stake in Comvita to help fund upstream investment in manuka honey production



Comvita: High science, high value

- 250gm of honey
- Clover honey..... 1
- Comvita wound care..... 25x
- Comvita wound dressing..... 55x





Globally, agriculture is the only sector where its uncoded environmental impacts (up to the production level, but not including downstream consumption of the products) are greater than its profits.

Farming can tackled this drastically improving resource efficiency and minimizing adverse environmental impacts by, for example, ensuring nutrients are full used rather than escaping into water and air...the nutrient loops are closed to create a circular system

Our opportunity

- 1 litre of milk = 940 gm of CO₂ equivalent

20,000,000,000 litres = 18,800,000,000 kg of CO₂ eq

- 18.8m tonnes of CO₂ eq per year is not a waste product, a liability

Closing the nutrient cycle...
is a brilliant business opportunity...
healthier cows and soil...
= more very high value nutrition

The Greenhouse gases leaking from dairy farming, for example...are very large...and chemically they are the building blocks of nutrition. So closing those nutrient loops would improve the resource use, profitability and environmental performance of farming. That's a very big task...with very challenging science....but that's the task for farming the world over to ensure food production meets fast growing demand in environmentally sound ways.

Re-thinking the New Zealand Fisheries Value Chain



Glenn Simmons, Dr Christina Stringer,
Professor Hugh Whittaker and
Associate Professor Manuka Henare

Department of Management and International Business
The New Zealand Asia Institute
Mira Szász Research Centre for Māori and Pacific Economic
Development
The University of Auckland Business School

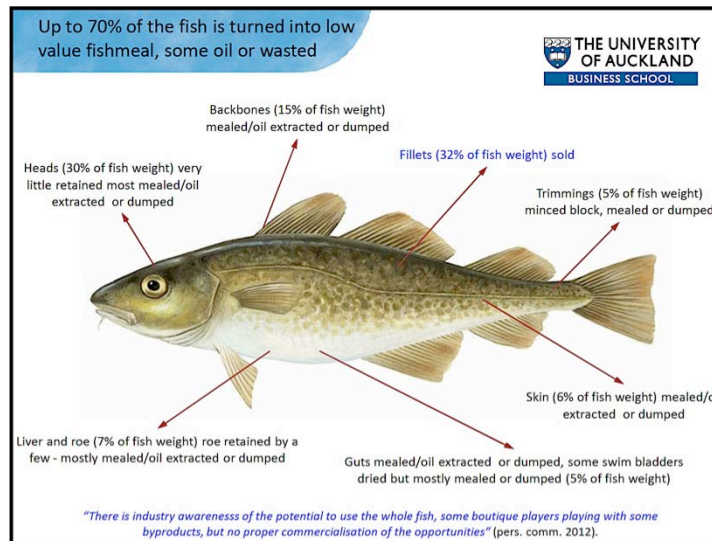
Presentation to
Environmental Defence Society Conference
6 August 2012

NEW ZEALAND ASIA INSTITUTE
THE UNIVERSITY OF AUCKLAND
Kōwhiri Whakaari a Tāmaki Māori

Mira Szász Research Centre for Māori and Pacific Economic Development

THE UNIVERSITY OF AUCKLAND BUSINESS SCHOOL

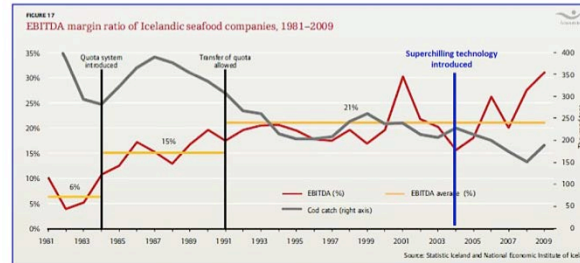
These following slides show how the Icelandic fishing industry has massively invested in science and technology in order to dramatically increase its use of each fish, and the money earned from it. Iceland's fishing profit margin is three times greater than NZ, even though the volume of its catch is declining as it rebuilds its fish stocks.

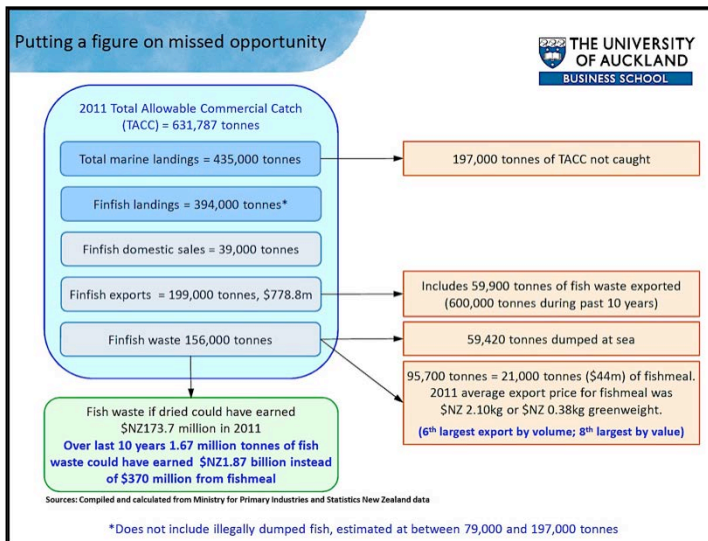


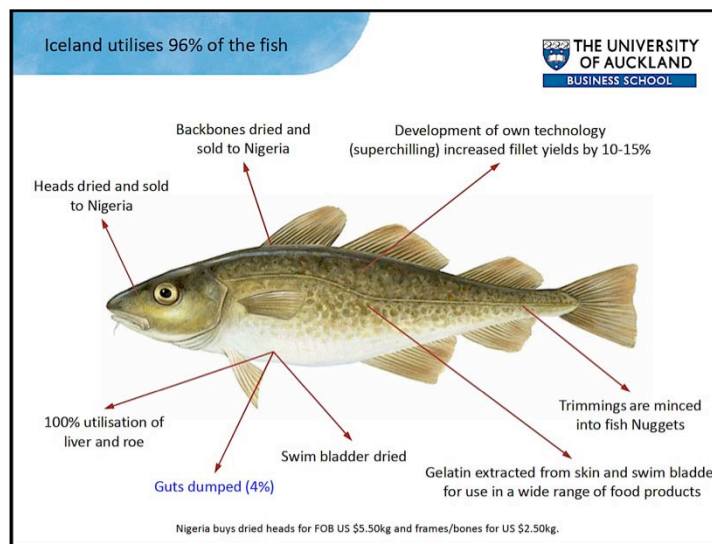
New Zealand industry average EBITDA less than 10% whereas the Icelandic Industry average EBITDA is more than 30% .

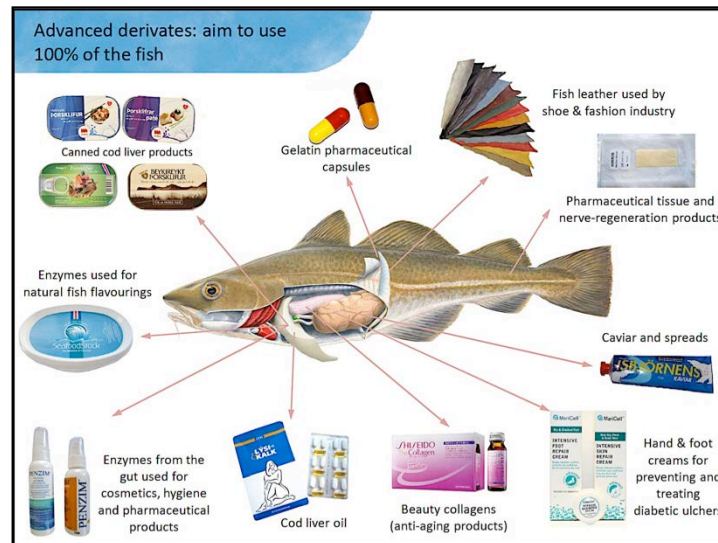
Iceland has been able to achieve a high average EBITDA through, for example:

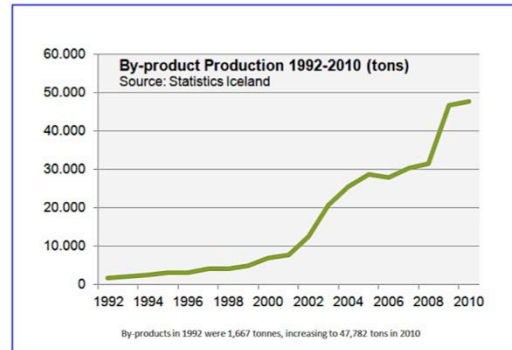
- Transparency
- Auction system
- A collective commitment to innovation











Global Research Centre for
Marine Bio-pharmaceuticals



...imagine if we did that in Auckland through, for example, creating a Global Research Centre for Marine biopharmaceuticals.

