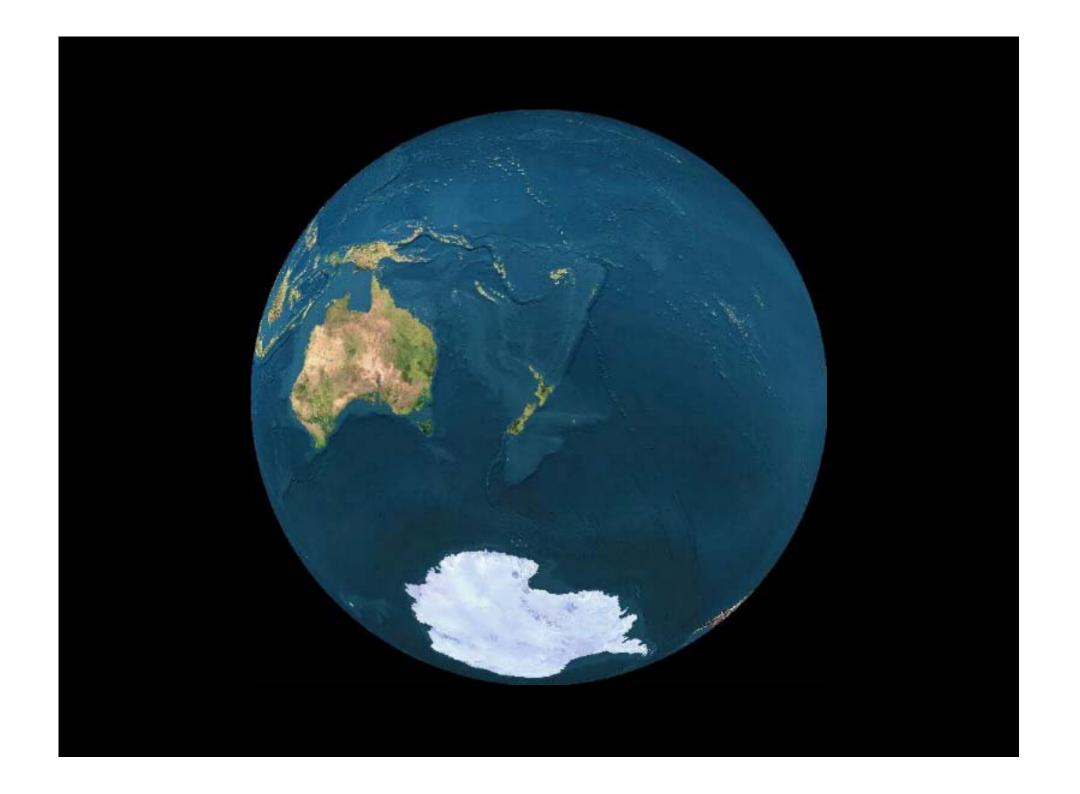
PROJECT 2058 Helping build a sustainable future





OUTLINE

- 1. Aim and Assumptions
- 2. What is New Zealand?
- 3. Project 2058 Methodology
- 4. Research in Depth
 - A. The World
 - B. New Zealand
- 5. What We Have Learned
- 6. Example
- 7. Concluding Remarks



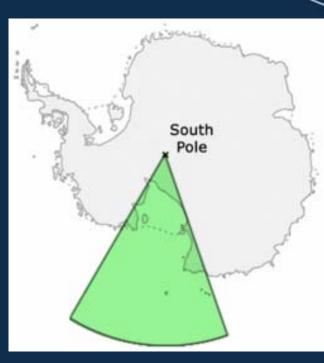
1. AIM & ASSUMPTIONS

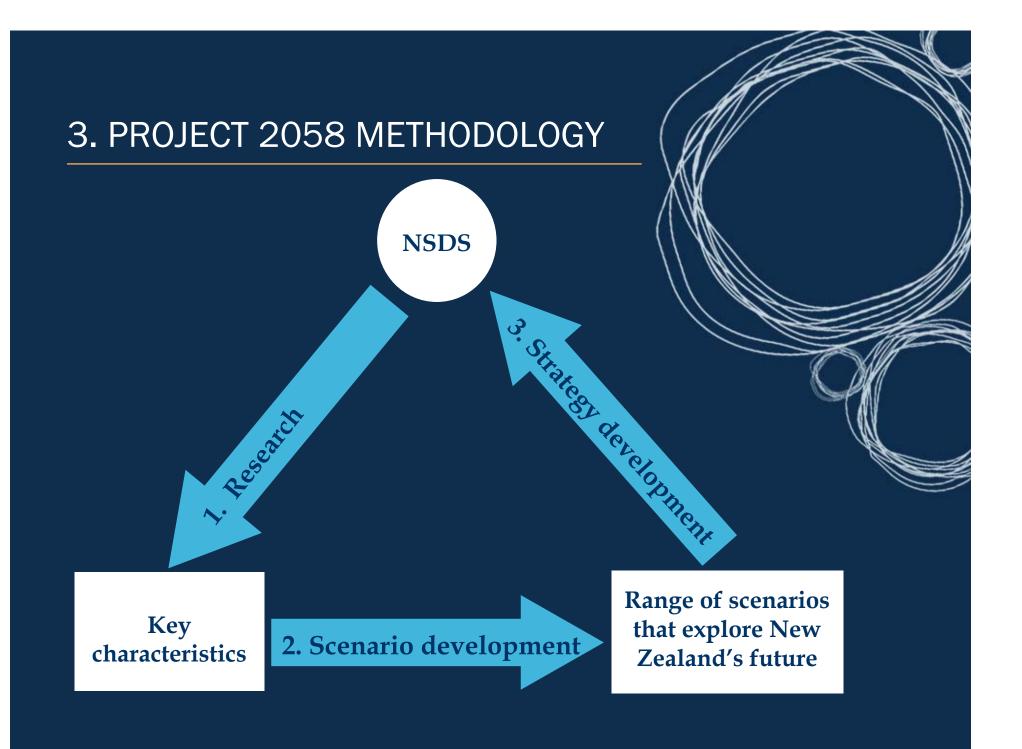
Promote integrated long-term thinking, leadership and capacity-building so that New Zealand can effectively explore and manage risks and opportunities over the next 50 years.

- Many ways to explore the future
- Project 2058 is a research based approach
- Strong sustainability approach
- Risk management
- Public good concept
- Participatory democracy

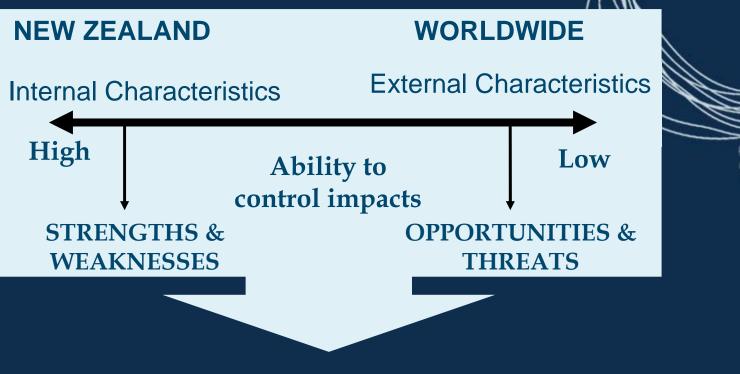
2. WHAT IS NEW ZEALAND?

- North, South and Stewart Islands
- Chatham Islands
- Kermadec Islands
- Sub Antarctic islands
- Tokelau
- Cook Islands
- Niue
- Ross Dependency

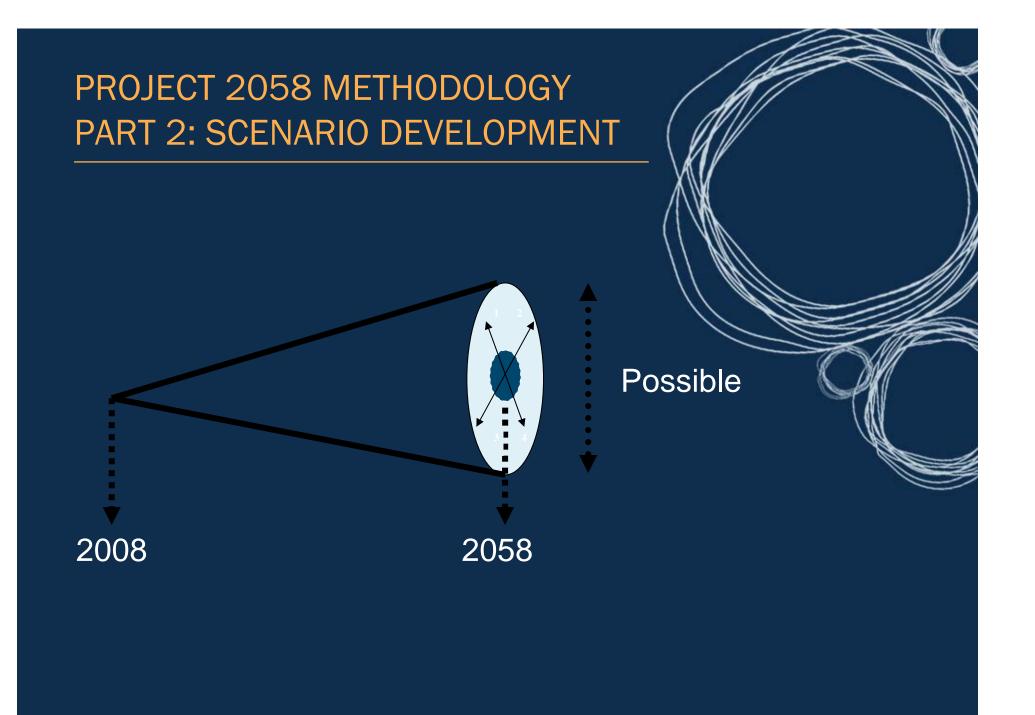




PROJECT 2058 METHODOLOGY PART 1: RESEARCH

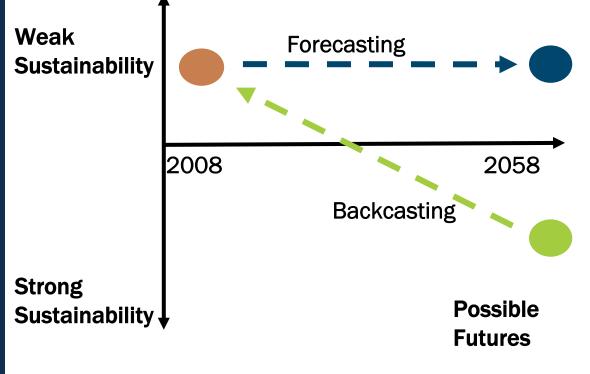


Identify key characteristics of change



PROJECT 2058 METHODOLOGY PART 3: BACKCASTING

A National Sustainable Development Strategy (NSDS)





4. RESEARCH IN DEPTH

Identify key characteristics of change

'Walk into the future backwards' 1858 1908 1958 2008 2058?



RESEARCH: KEY CHARACTERISTICS

Discrete Event Wild Cards

Technological Leaps Semi-Known (innovation/capacity/acceptance)

Trends Over Time Known

Underlying Tensions Known and are likely to always exist (bubbling away)

RESEARCH: WHAT MAKES A RISK – A RISK?

Assumptions:

- Multiplier effect
- All risks have opportunities
- A risk is anything that significantly breaks down society's thin veneer.
- A 'thin veneer' exists



"Courtesy is only a thin veneer on the general selfishness." (Honore De Balzac 1799-1850)

RESEARCH: HOW TO INCREASE THE DEPTH OF THE VENEER?

- 1. Transparent Institutions
- 2. Reporting and Informing Institutions
- 3. Independent Institutions
- 4. Adaptive Institutions
- 5. Mature Institutions
- 6. Future thinking Institutions
- 7. Interlinking Institutions
- 8. Educated and Informed Public
- 9. Democratic Electoral System
- 10. Timely Infrastructure

11. Effective Foreign Policy (Neutrality / Alliances)

RESEARCH: HOW TO REDUCE THE DEPTH OF THE VENEER?

Do not:

- 1. Invest in quality institutions, processes and infrastructure
- 2. Complete a risk assessment of the future
- 3. Have a vision for the long-term
- 4. Have an overarching strategy to deliver on the vision (and align institutions)
- 5. Develop an action plan that is easy to both assess, hold implementers accountable, monitor and understand

RESEARCH: IMPLICATIONS

A Thin Veneer X A Significant Risk (or two) = New Zealand in Crisis A Thick Veneer X A Significant Risk (or two)

New Zealand as Survivor



RESEARCH: INSTITUTIONAL MEMORY

I tend to think my childhood as having been fairly normal. But there were a few telltale signs....

All the years I was growing up, we had gold hidden in the basement of our house. "Dad," I would plead, "there are these things called **banks** …". "You never know." he would reply, thoughtfully holding up a gold bar, "One of these might buy a loaf of bread, or a sack of potatoes, some day." And so the gold remained, a hedge against eventualities I could never quite wrap my head around.

SON OF A HOLOCAUST SURVIVOR

RESEARCH: THREE STEPS

- 1. Where we have been in the past (our wisdom/baggage)?
- 2. Where and what are we now? What do we have to manage?
- 3. What is the future looking and feeling like?



A: The World B: New Zealand

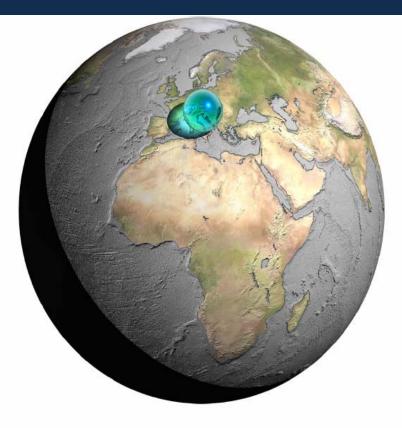
A. THE WORLD

- 1. Wild Cards (pandemic, financial collapse)
- 2. Technological Leaps (nuclear, medical, communication, carbon storage, robots, Antibiotic Resistance (leap backwards))
- 3. Trends Over Time
 - Population Growth (growing population)
 - Environmental disaster (climate change)
 - Economic Power Changes (BRIC Countries)
 - Scarce Resources and Security of Supply (oil, water, food, infrastructure, transport)
- 4. Underlying Tensions
 - Religious (Islam/Christianity), Terrorism (individual rights/security)

IMPLICATIONS:

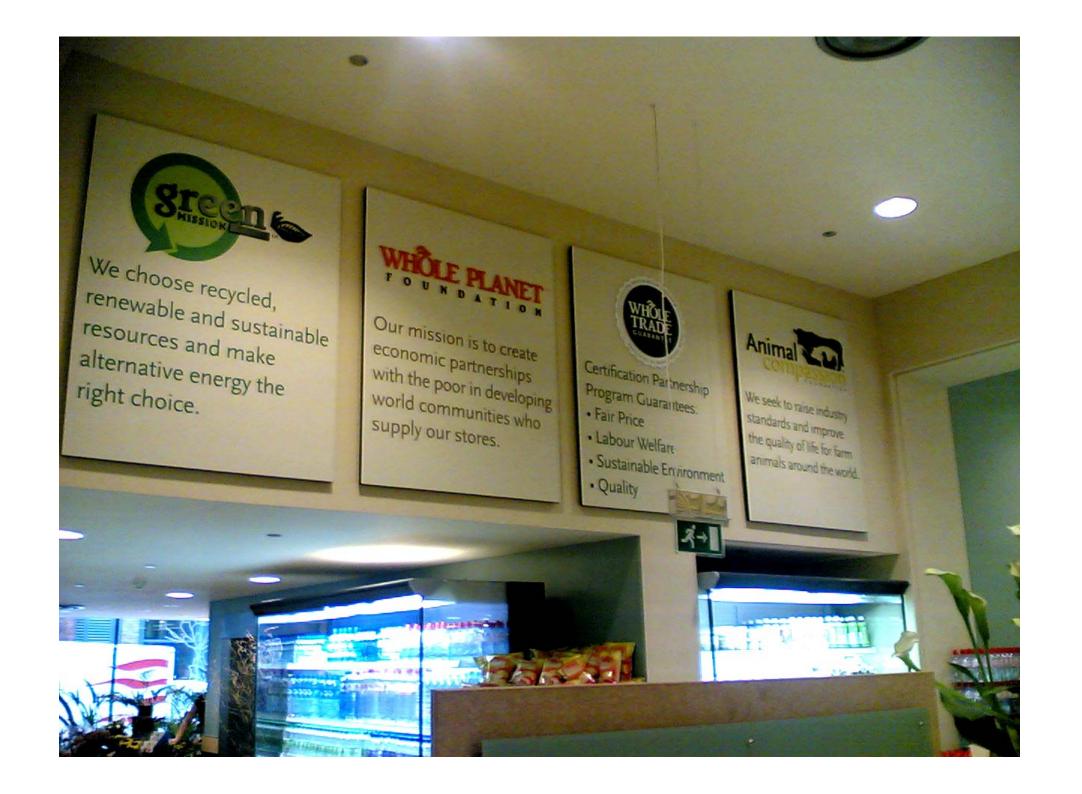
terrorism, war, poverty, disease, migration, invasion/takeover, an increase in multi-country agreements/protocols (and foreign policy)

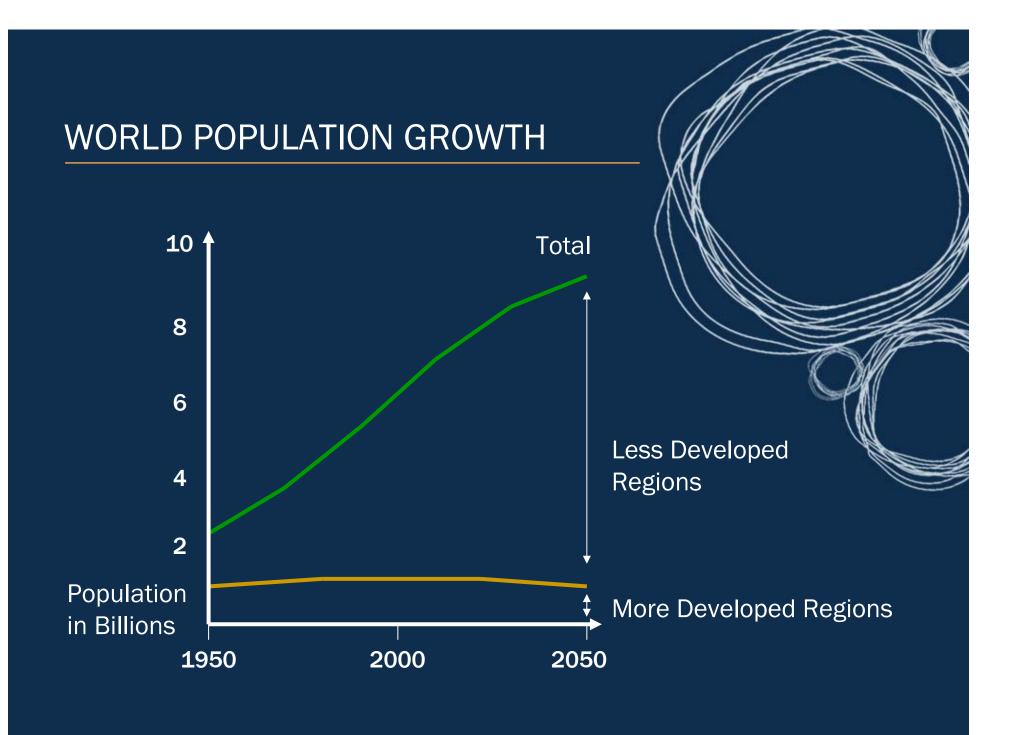






All the water in the world (1.4087 billion cubic kilometres of it) including sea water, ice, lakes, rivers, ground water, clouds, etc. Shown on the same scale as the Earth. All the air in the atmosphere (5140 trillion tonnes of it) gathered into a ball at sealevel density. Shown on the same scale as the Earth.





WORLD TENSIONS ARAB/ISRAEL CONFLICT

'In essence, the conflict that exists today is no more than an old-style struggle for power, once again presented to mankind in semi-religious trappings. The difference is that, this time, the development of atomic power has imbued the struggle with a ghostly character; for both parties know and admit that, should the quarrel deteriorate into actual war, mankind is doomed.'

Einstein: A Final Message 1960

B. NEW ZEALAND

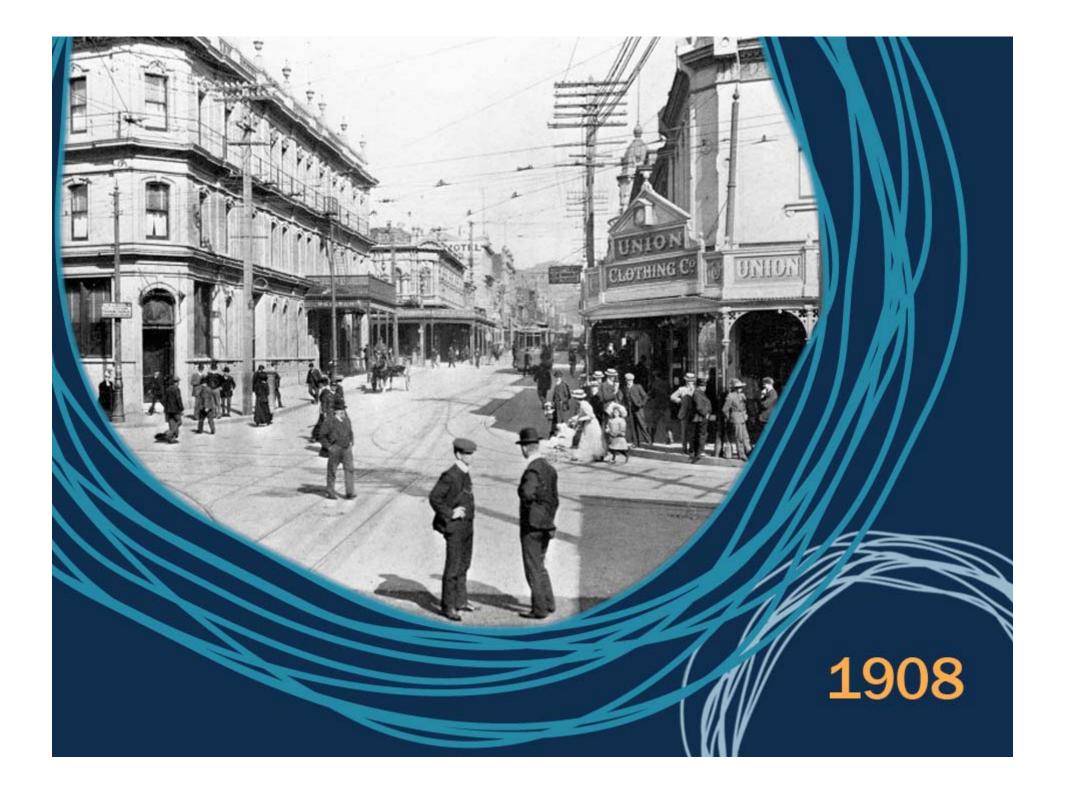
- 1. Wild Cards (environmental, pandemic)
- 2. Technological Leaps (agricultural)
- 3. Trends Over Time
 - Population Growth (ageing population)
 - Environmental disaster (climate change)
 - Economic Power Changes (Asia)
 - Scarce Resources and Security of Supply (oil, water, food, infrastructure, transport)
 - Wealth distribution expanding (crime, health)
 - Media (concentration, fragmentation, competition, democratisation)
- 4. Underlying Tensions (cultural tensions, local/central government, individual rights/security, land use, land access, public/private ownership)

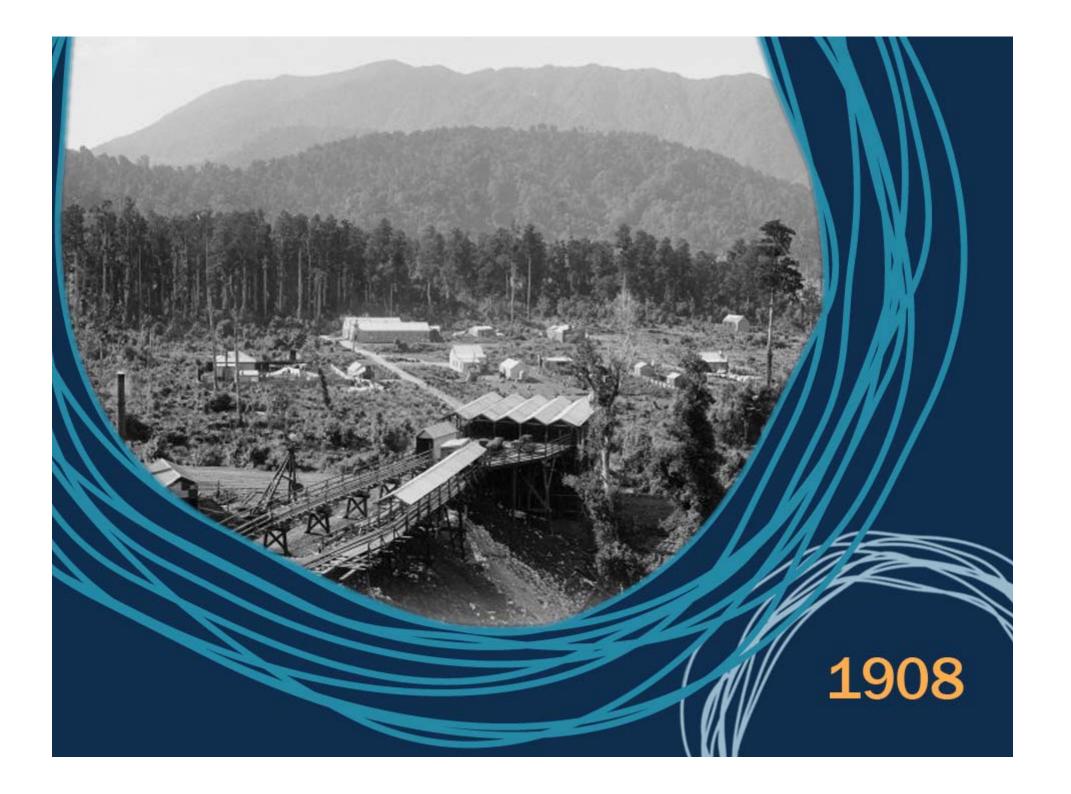
IMPLICATIONS:

poverty, immigration, invasion/takeover, health, poor governance, weak infrastructure, pollution, economic downturn, damage to clean-green brand



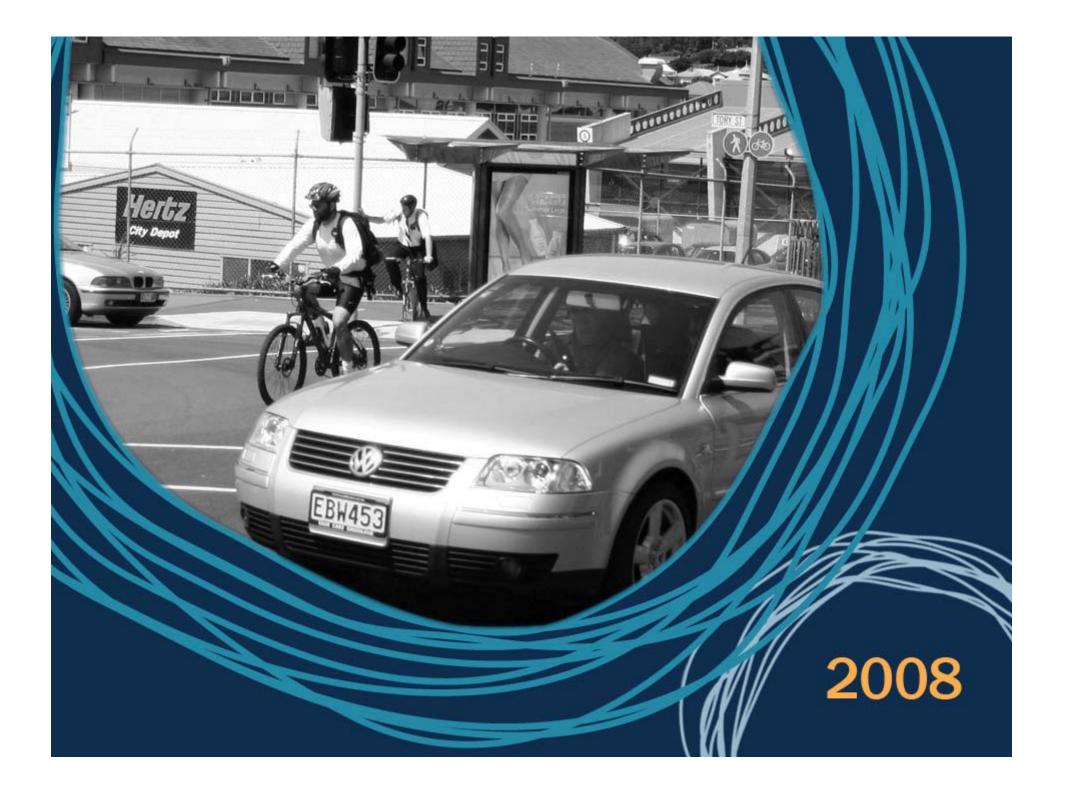








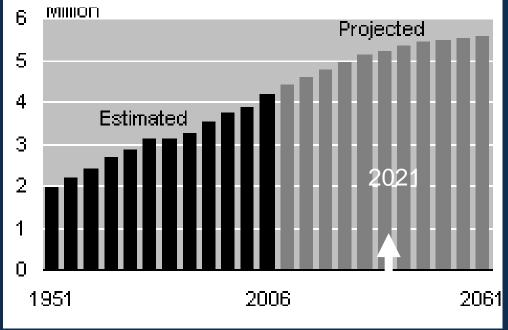






NEW ZEALAND: POPULATION CHANGES

New Zealand Population 1951-2061



In 2021 - More New Zealanders over 65 years of age than under 15 year olds

NEW ZEALAND: RURAL DRIFT

1858	1908	1958	2008
60%	52%	26%	14%



NEW ZEALAND: FIVE LARGEST EXPORTS

By Type

1958	2008 NB: Not Comparable
Wool	Dairy
Lamb	Meat
Butter	Wood
Beef	Machinery
Cheese	Aluminium

ł	By Country		
	1958	2008	
	UK 56%	Aust 21%	
	US 15%	US 14%	
	France 6%	Japan 11%	
	Aust 4%	China 5%	
	Germany 3%	UK 5%	

NEW ZEALAND: FIVE LARGEST IMPORTS

By Country

By Type

1958	2008
Machinery	Vehicles and Parts
Base	Mechanical
Metals	Machinery
Textile /	Mineral
Clothing	Fuels
Food	Electrical
Beverages	Machinery
Chemicals / Fertiliser	Plastics

1958	2008
United Kingdom	Australia
Australia	Japan
USA	China
Germany	USA
India	Germany

5. WHAT WE HAVE LEARNED

- 1. No Government Commitment to a NSDS
- 2. Lack of Government Strategy Framework
- 3. Lost opportunity of Long-Term Fiscal Position
- 4. Many barriers to effective Public Science Funding in order to deliver well-being
- 5. Lack of co-ordination at a national level of local SD initiatives
- 6. Past governments have actively sought long term thinking but there have been political challenges

6. EXAMPLE Publicly Funded Science Under the Microscope

Aim:

To identify and explore barriers to an optimal publicly-funded science system in New Zealand.

6. EXAMPLE

Publicly Funded Science Under the Microscope

- 1. Lack of overarching sustainability strategy guiding investments
- 2. Deficient funding
- 3. Contestable Funding
- 4. Commercialism in science and the public/private funding split
- 5. Diminishing Environment Fund
- 6. Maori research funding
- 7. Lack of Social Research Funding
- 8. Lack of basic untargeted research
- 9. Policy, Purchase, Provision
- 10. Disaggregated Funding

7. CONCLUDING REMARKS A Vision

...To be the first nation to be truly sustainable — across the four pillars of the economy, society, the environment, and nationhood." (Clark, 2007)





www.sustainablefuture.info