



Lessons from the Future

sustainablefuture.info

Four Questions

- I. What is Acceptable?
- II. What is Possible?
- III. What should we Focus On?
- IV. What are the Obstacles?

Numbers

a thousand in a pinch

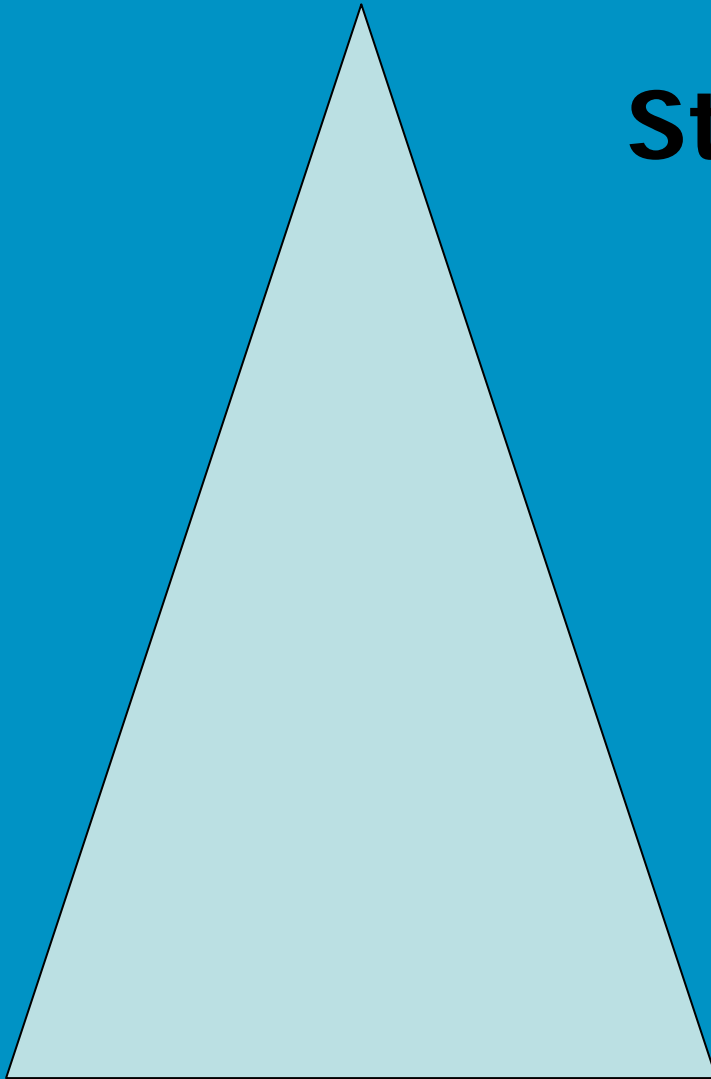
a million in a cup

a billion in a bathtub

a trillion in a classroom

a quadrillion in 10 football
fields,
covered 6 feet
deep





Strategic Knowledge



Information



Data

Steps Towards Scenarios

1. **Define** project parameters, trends, driving forces, assumptions
2. **Explore** uncertainties and rank
3. **Build** scenario worlds, write stories, test
4. **Use**, consider implications, review, communicate

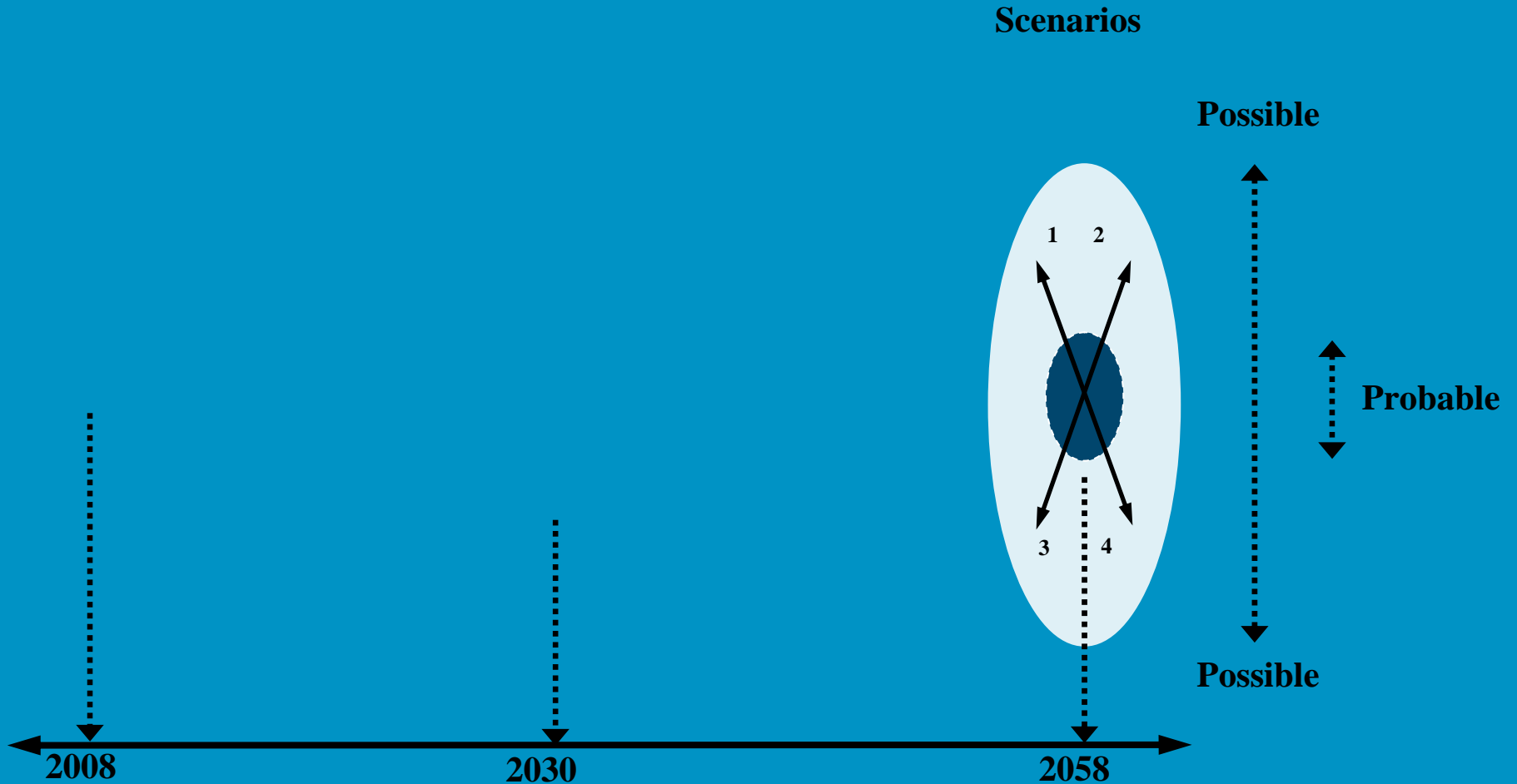
Futures Studies

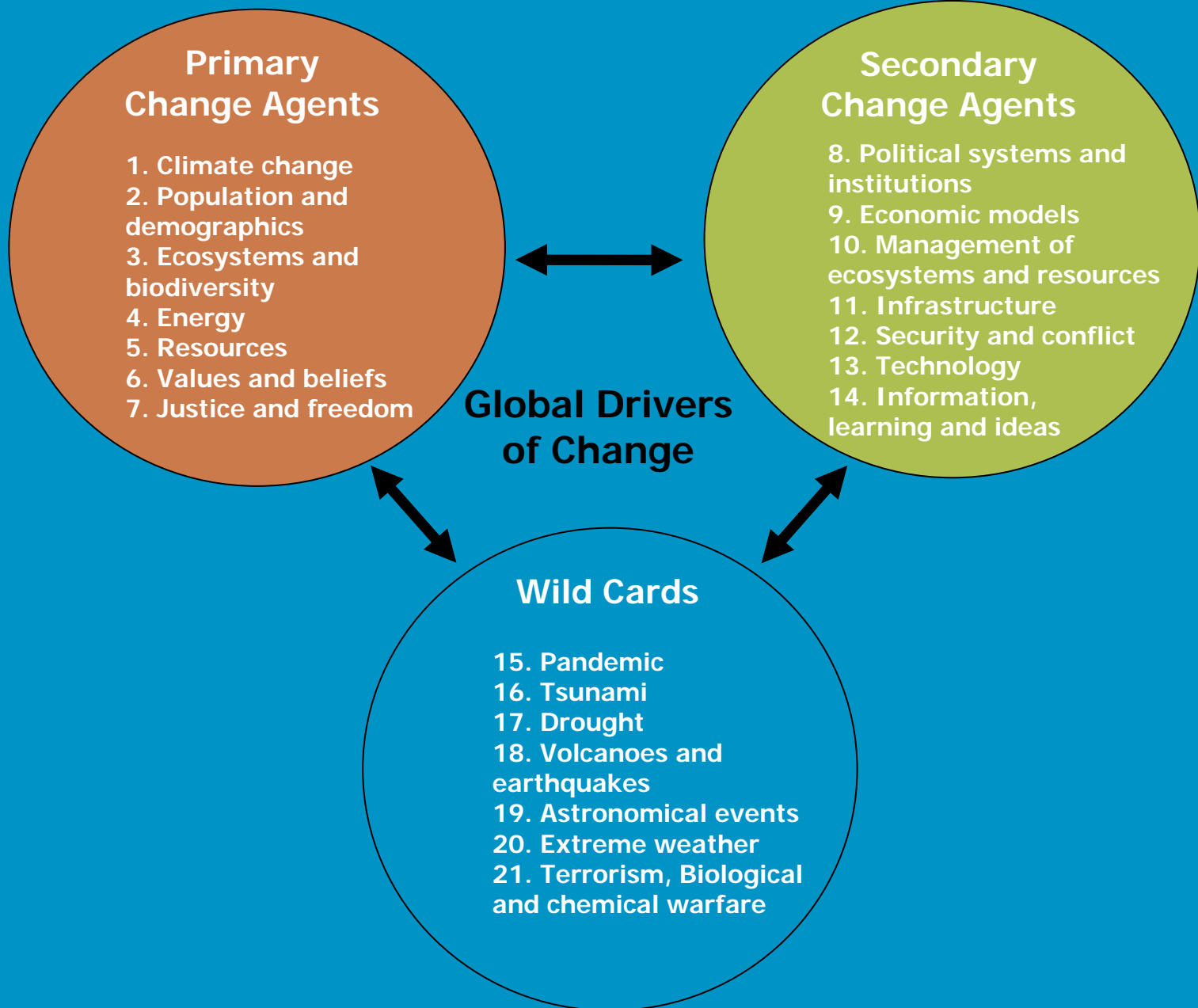
Probable futures: forecasting and sometimes prediction (Status Quo)

Possible futures: scenarios, risks (Explorative)

Preferred futures: strategies and agendas for change, propelled by innovation and leadership (Visionary)

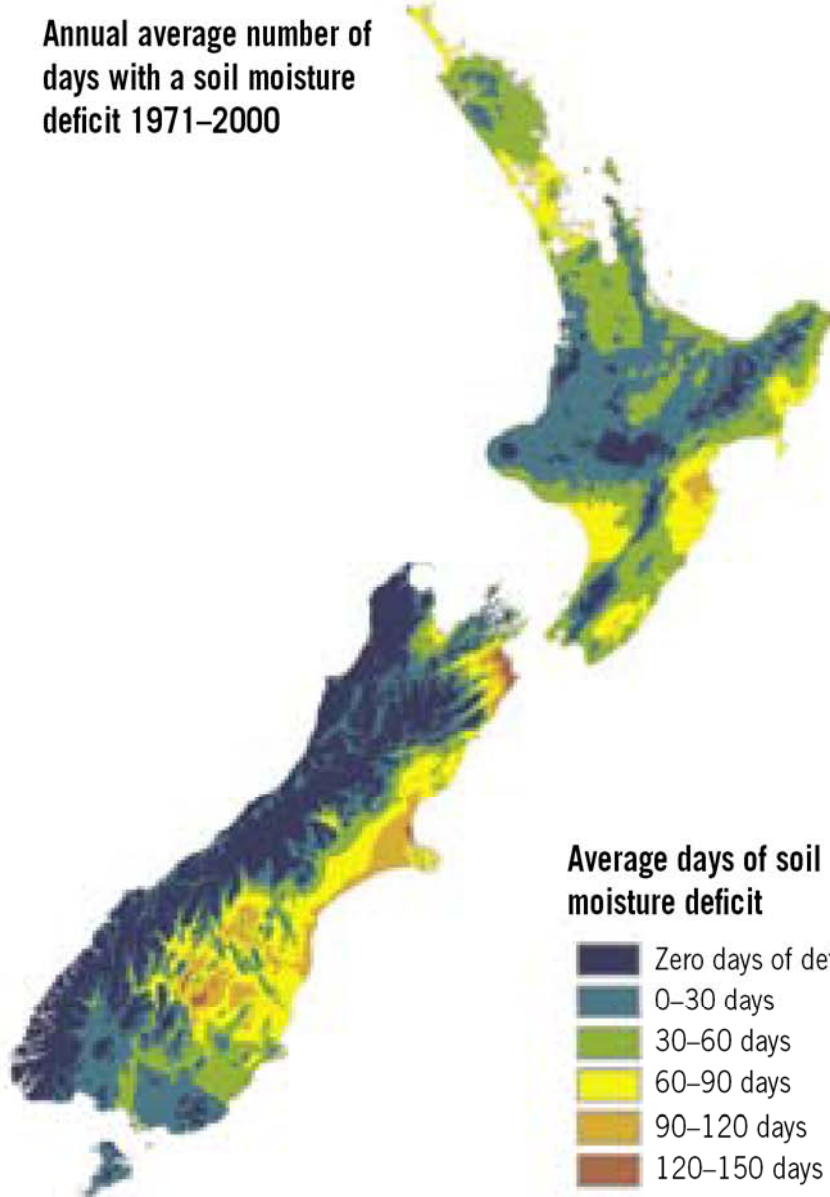
Sustainable Future: *Project 2058*



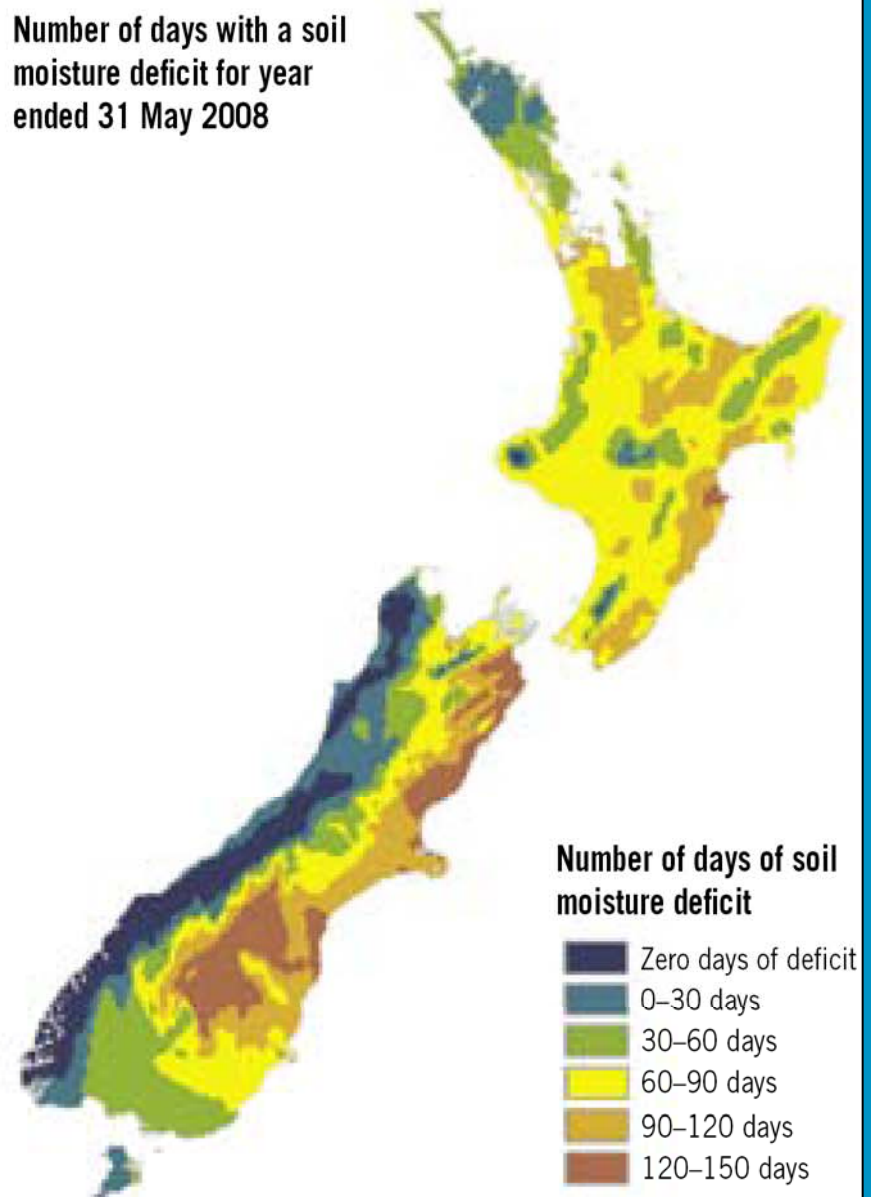


Climate Change – New Zealand

Annual average number of days with a soil moisture deficit 1971–2000



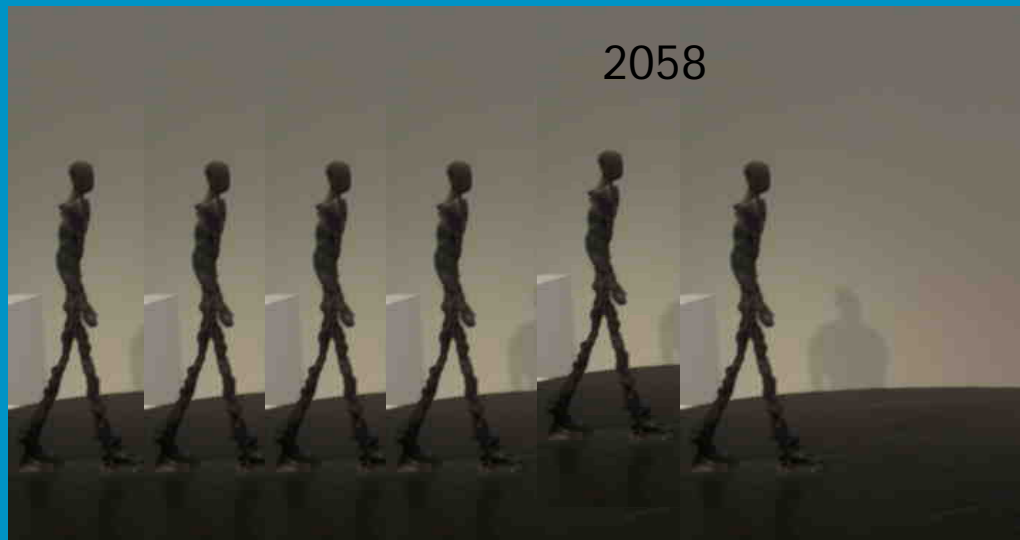
Number of days with a soil moisture deficit for year ended 31 May 2008



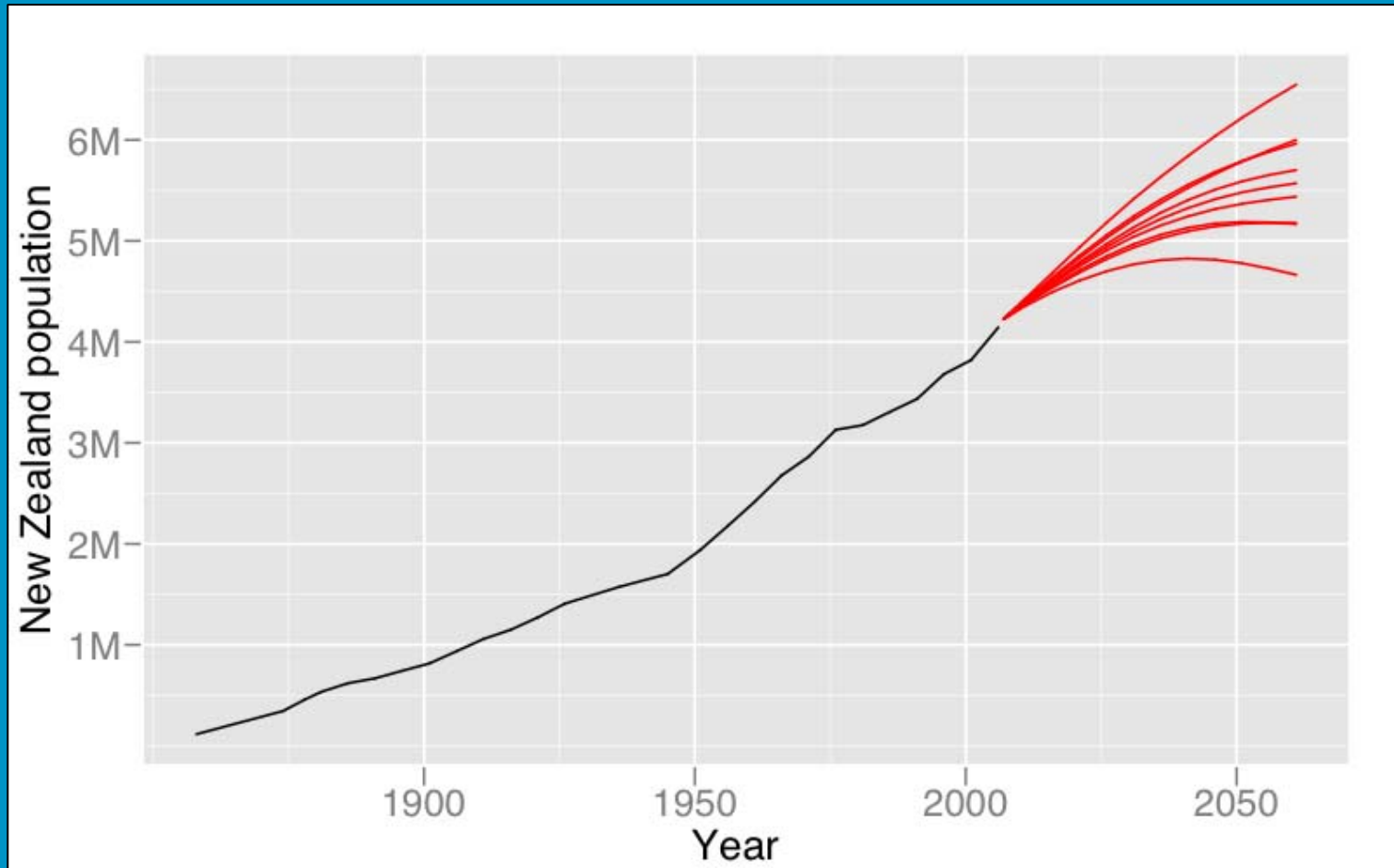
Climate Change & Demography – Global

In 2008, 3 billion make \$2 or less per day.

In 2058, the developed countries and China grow old – while Africa remains young.

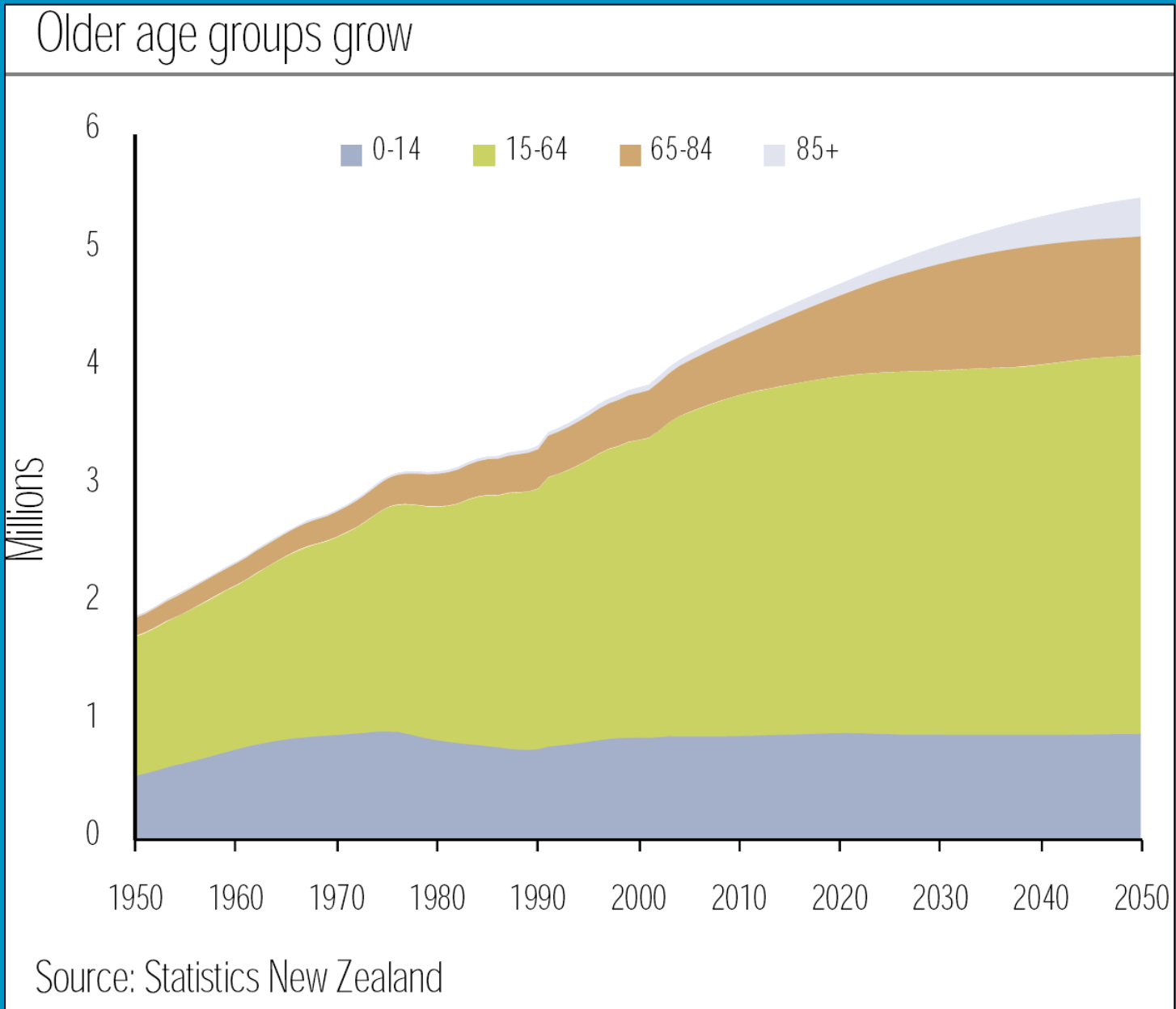


Demography – New Zealand

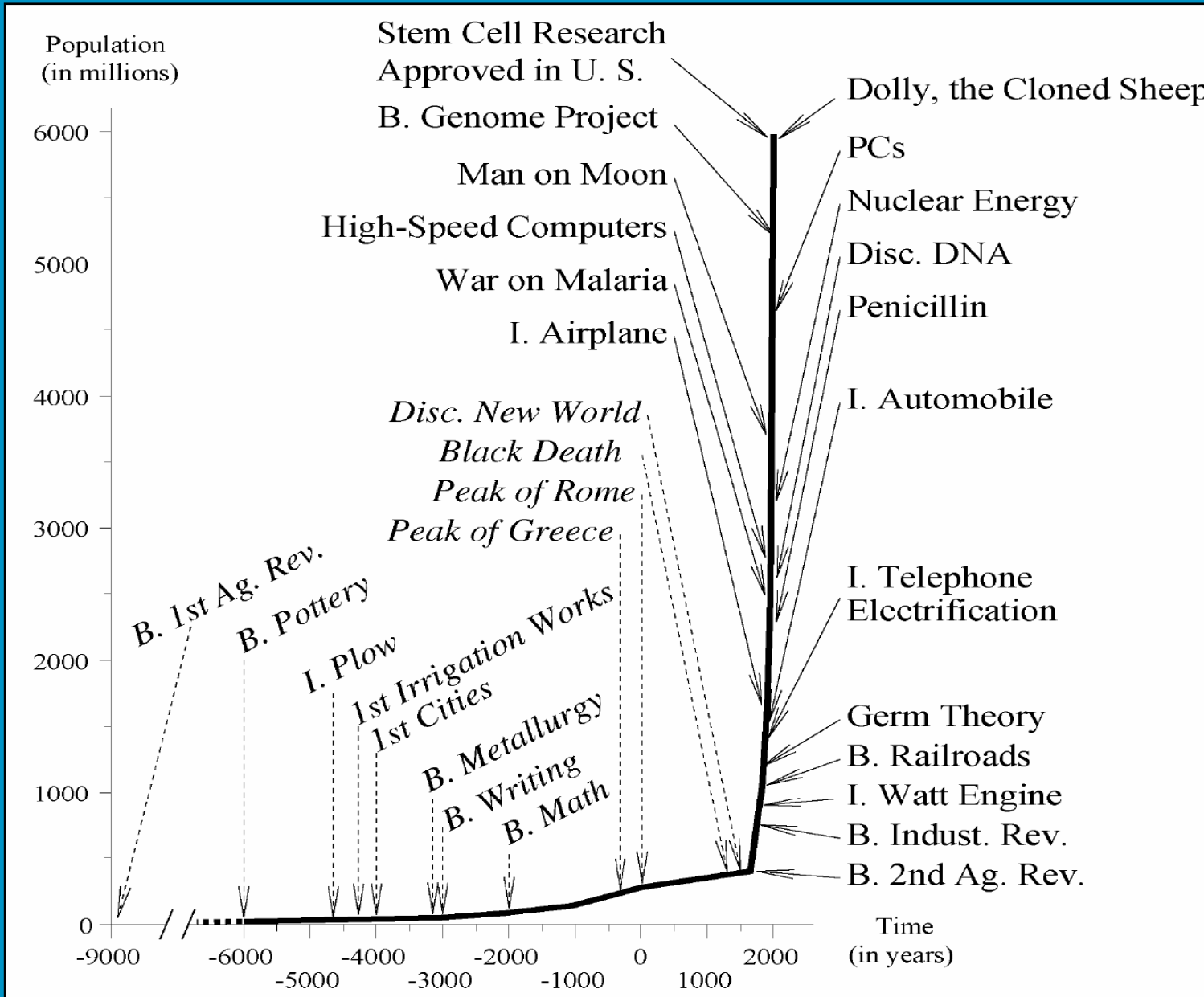


But New Zealand experiences one of the highest rates of combined immigration and emigration (population turnover) in the world.

Demography – New Zealand



Technology – Global



Technology – Global

The US
Department of
Energy's Oak Ridge
National
Laboratory
Computer can
crunch a
'quadrillion'
calculations per
second!

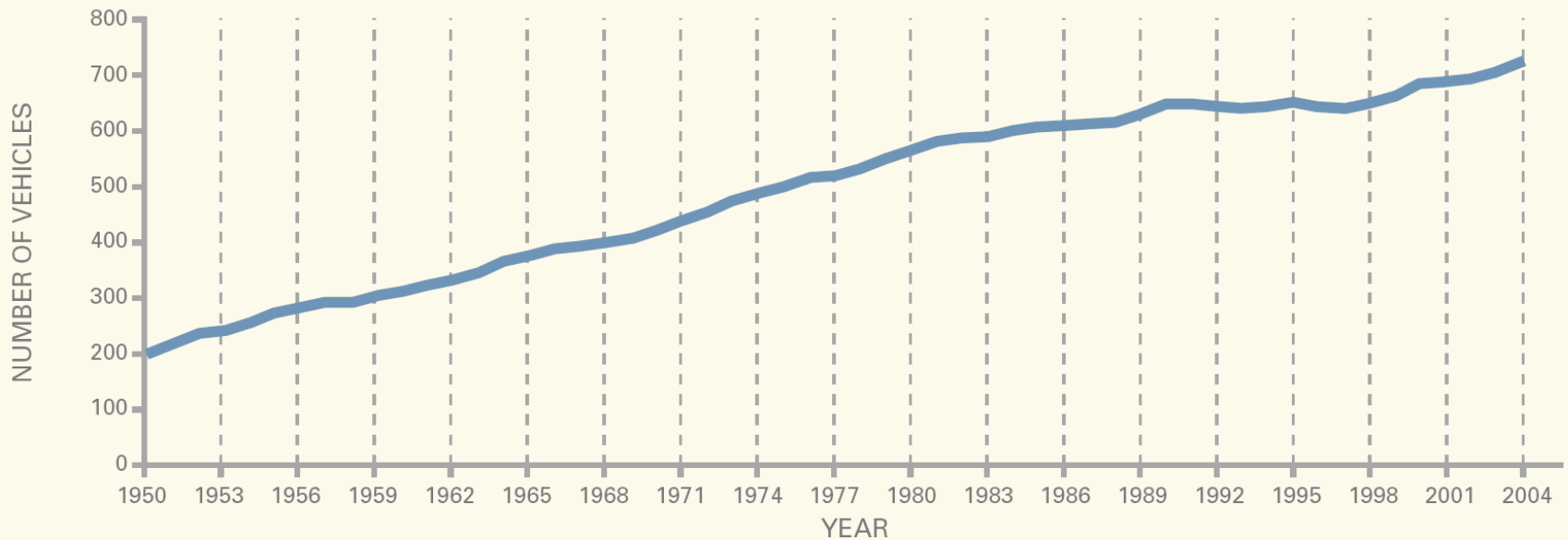
If everyone in the
world performed
one mathematical
calculation per
second, it would
take 650 years to
do what this
machine can do in
one day.



Technology – New Zealand

**In the last fifty years, car ownership
has almost quadrupled...**

VEHICLES (INCLUDING CARS, VANS, TRUCKS, BUSES, MOTOR CARAVANS,
MOTOR CYCLES AND MOPEDS) PER 1000 PEOPLE



Source: Ministry of Transport, 2005

Security & Terrorism – Global

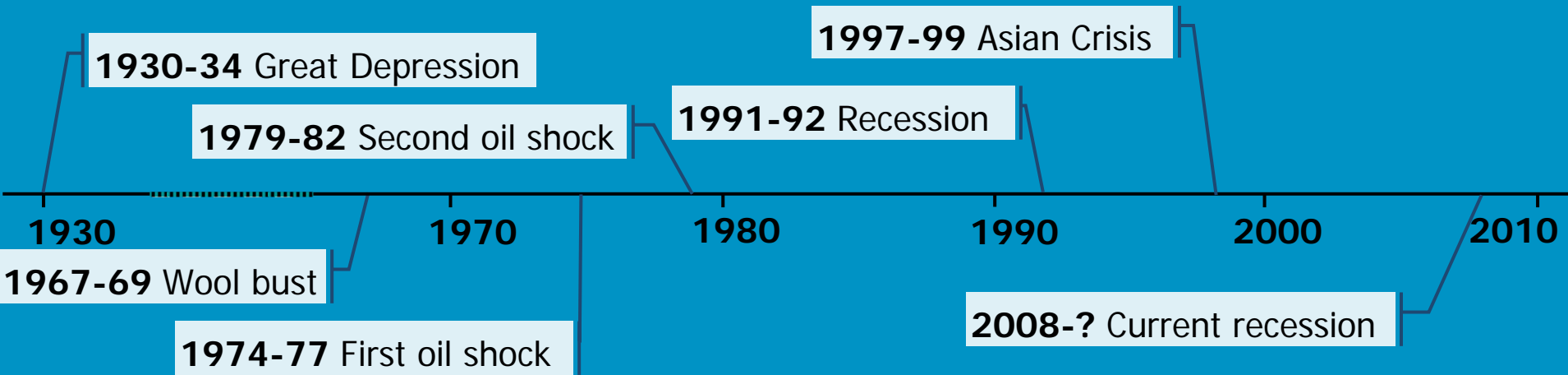


When U.S. forces went into Iraq in 2003, they had zero robotic units on the ground.

By the end of 2004, the number was up to 150.

By the end of 2008, it was projected to reach as high as 12,000. And these weapons are just the first generation.

Economic Risks – New Zealand



Economic Risks – Global

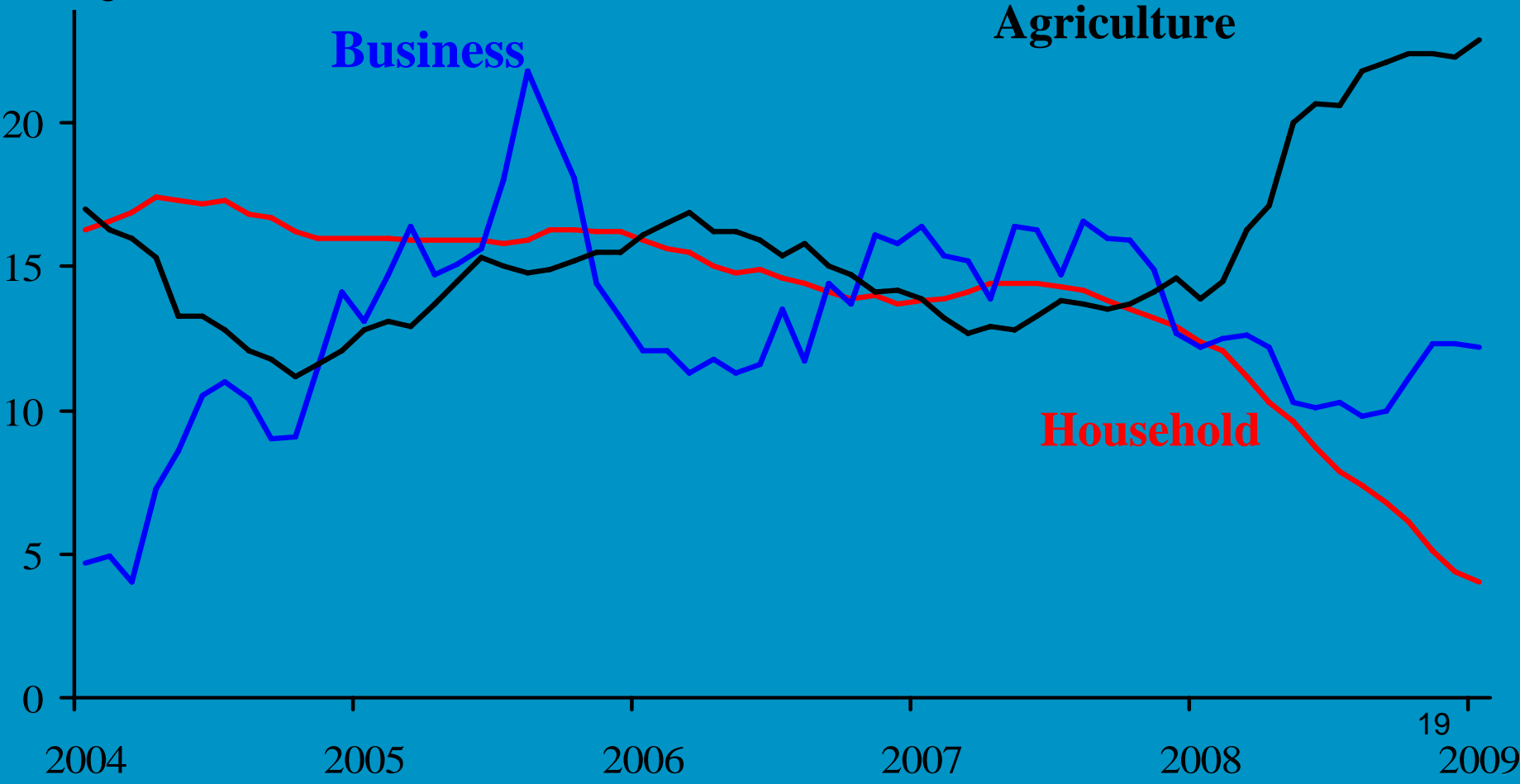
The biggest destruction of global wealth ever?

	Value loss (est. \$US)
Credit-related losses	\$2 trillion
Equity Markets	\$30 trillion
Housing	\$4 trillion
Lost output	\$3 trillion

Economic Risks – New Zealand

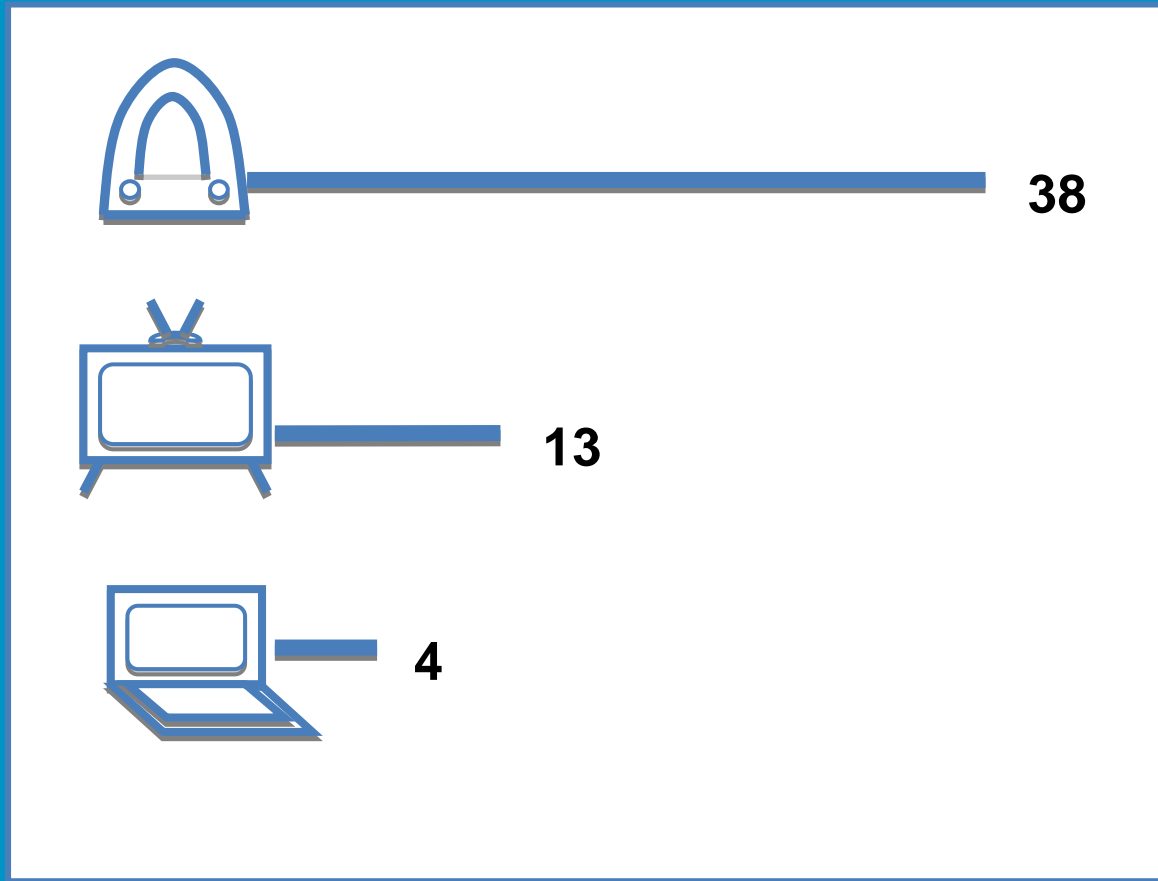
Domestic credit growth

Annual
Percent
Change



Information & Ideas – Global

Years it took to reach a market audience of 50 million



Our Methodology

	The world does manage its strengths, weaknesses, opportunities and threats	The world does not manage its strengths, weaknesses opportunities and threats
New Zealand does manage its strengths, weaknesses, opportunities and threats	Scenario 1: Power to the People New Zealand ✓ World ✓	Scenario 2: An Island Paradise: but Back to the Jungle New Zealand ✓ World ✗
New Zealand does not manage its strengths, weaknesses, opportunities and threats	Scenario 3: Missed the Global Bus New Zealand ✗ World ✓	Scenario 4: All Over Rover New Zealand ✗ World ✗

Our Findings

Scenario Matrix	...the World does manage its opportunities and threats	...the World does not manage its opportunities and threats
New Zealand does manage its strengths and weaknesses and..	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 
New Zealand does not manage its strengths and weaknesses and...	<input type="checkbox"/> 	<input type="checkbox"/> 

What to Watch For?

1. **Fortress Mentality**
2. **Disparities**
3. **Leadership**
4. **Ethics**

1. Fortress Mentality

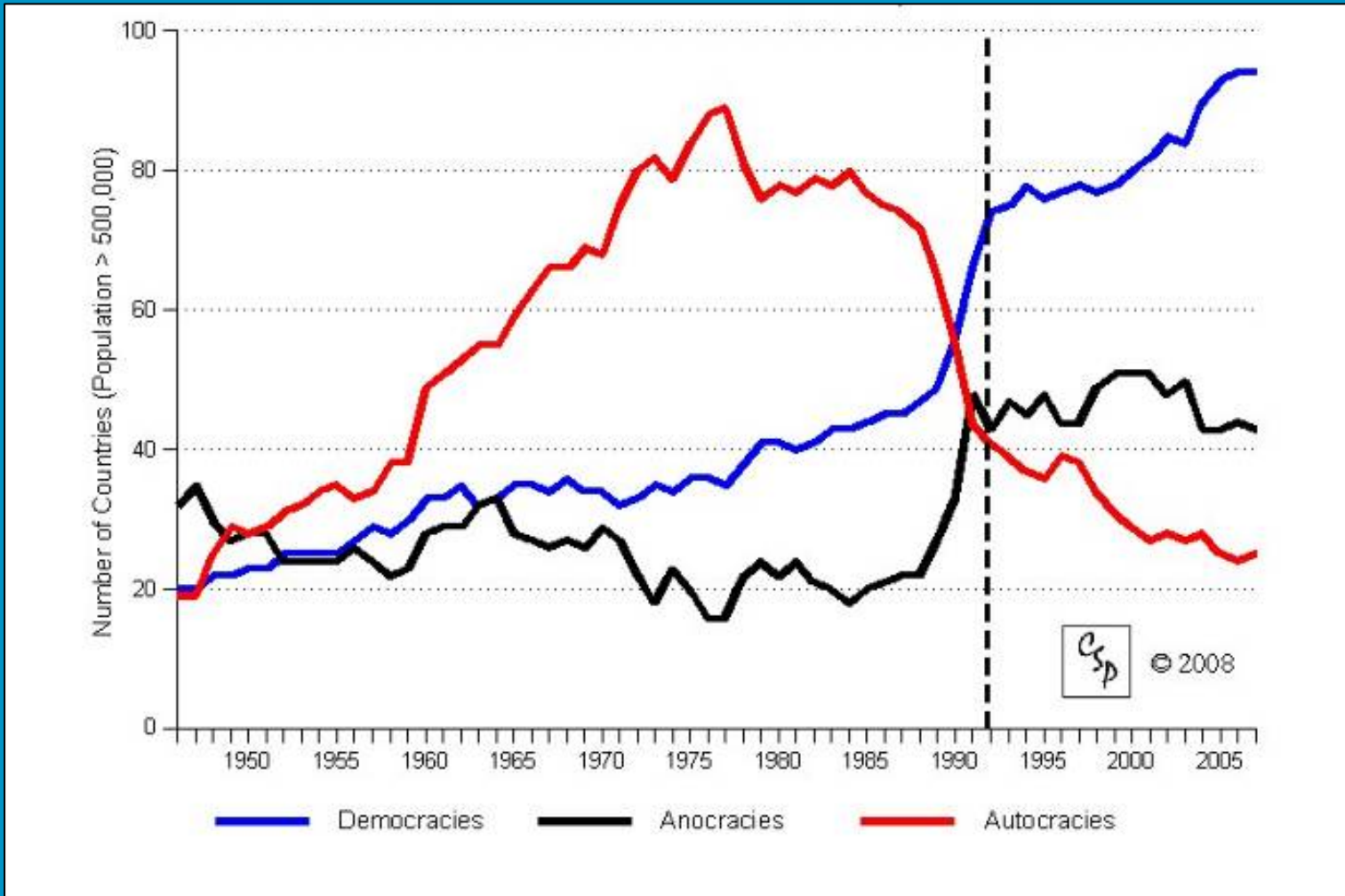
- \$1 trillion pa Illicit Trade
- 150 unauthorised use of nuclear or radioactive materials in the last 4 years
- 20,000 active nuclear weapons



2. Disparities

Total Human Development Index	Includes Education Index	Includes Disparity of income (ratio of richest 10% to poorest 10%)	Includes RST expenditure (% GDP)	Includes GDP (per capita)
1. Iceland (0.968)	1= Australia (0.993)	1. Japan (4.5)	1. Israel (4.46)	1. Luxembourg (60 228)
3. Australia (0.962)	1= New Zealand (0.993)	42. Ireland (9.4)	20. Australia (1.70)	16. Australia (31 794)
19. Italy (0.945)	6. Norway (0.991)	64. Macedonia (1.25)	25. Russia (1.17)	27. UAE (25 514)
20. New Zealand (0.944)	12. Ireland (0.978)	65. New Zealand (12.5)	26. New Zealand (1.16)	28. New Zealand (24 996)
21. UK (0.942)	18. UK (0.970)	66. Australia (12.5)	27. Ukraine (1.16)	29. Greece (23 381)
177. Sierra Leone (0.336)	177. Burkina Faso (0.255)	126. Bolivia (168.1)	91. Peru (0.10)	174. Malawi (667)

3. Leadership Global trends in governance, 1946-2007



4. Ethics

Example 1: Economic

G20 summit must make the moral case for capitalism

The privatisation of gains, but the socialisation of losses, or what the Governor of the Bank of England calls "moral hazard" – is at the heart of popular anger.

It is an issue which must be addressed: bankers developed a culture of reckless risk with our money in part because they believed that, if things went wrong, the Government would step in and bail them out.

In the long term, "moral hazard" is not a feasible basis on which to run an economic system. What should it be replaced with? One temptation that needs to be firmly resisted is the idea that the panacea of our economic ills is more government control of the economy. (Source: Telegraph UK, 9 March 2009)

Example 2: Social



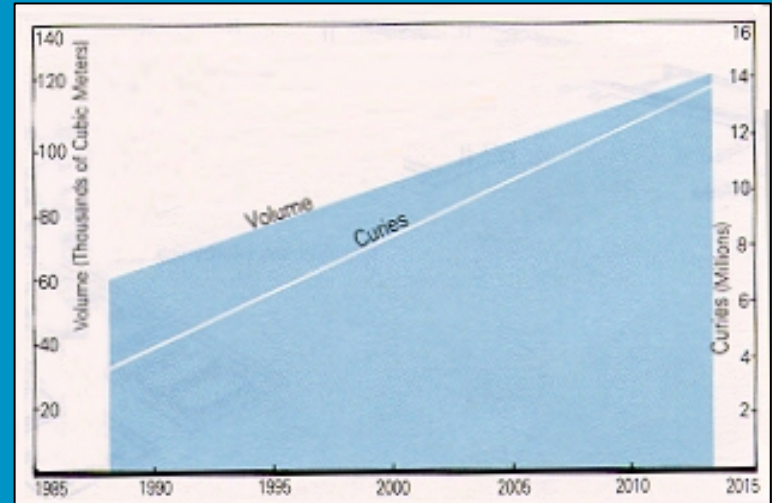
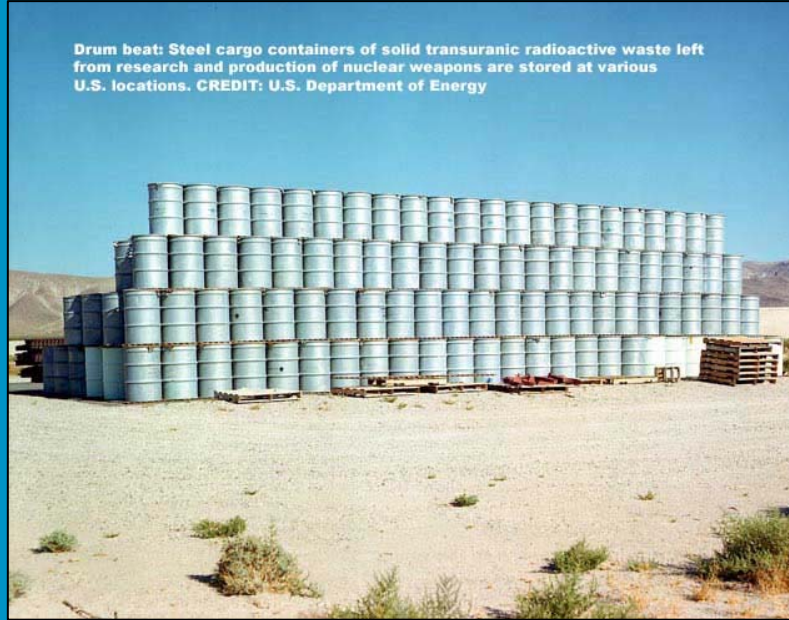
N.J. Senate committee approves increase in fines for ocean medical waste dumping

A New Jersey Senate committee has approved a bill that would double the fines for a host of medical waste violations.

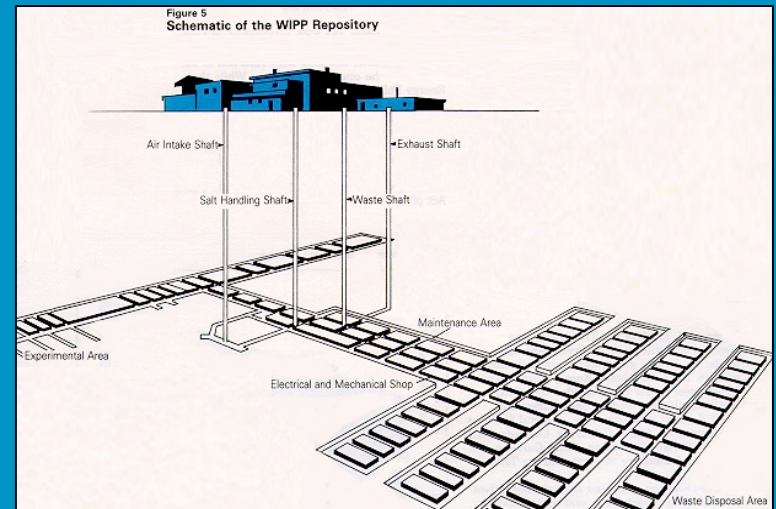
(Source: The Associated Press Monday March 16, 2009)

This 2004 photo shows Dr. Thomas McFarland with his wife, Joanne, on the pier at their home in Avalon, N.J. McFarland, a suburban Philadelphia dentist. Doctor McFarland was charged on Sept. 5, 2008 for dumping medical waste that fouled beaches in Avalon.

Example 3: Environmental



The total volume of Transuranic Radioactive Waste and contaminated soil is estimated at around one million cubic meters. It will remain harmful after 24,000 years. The graph provides the projected amount of waste to the year 2015. The map, the proposed storage site for up to two million cubic meters.



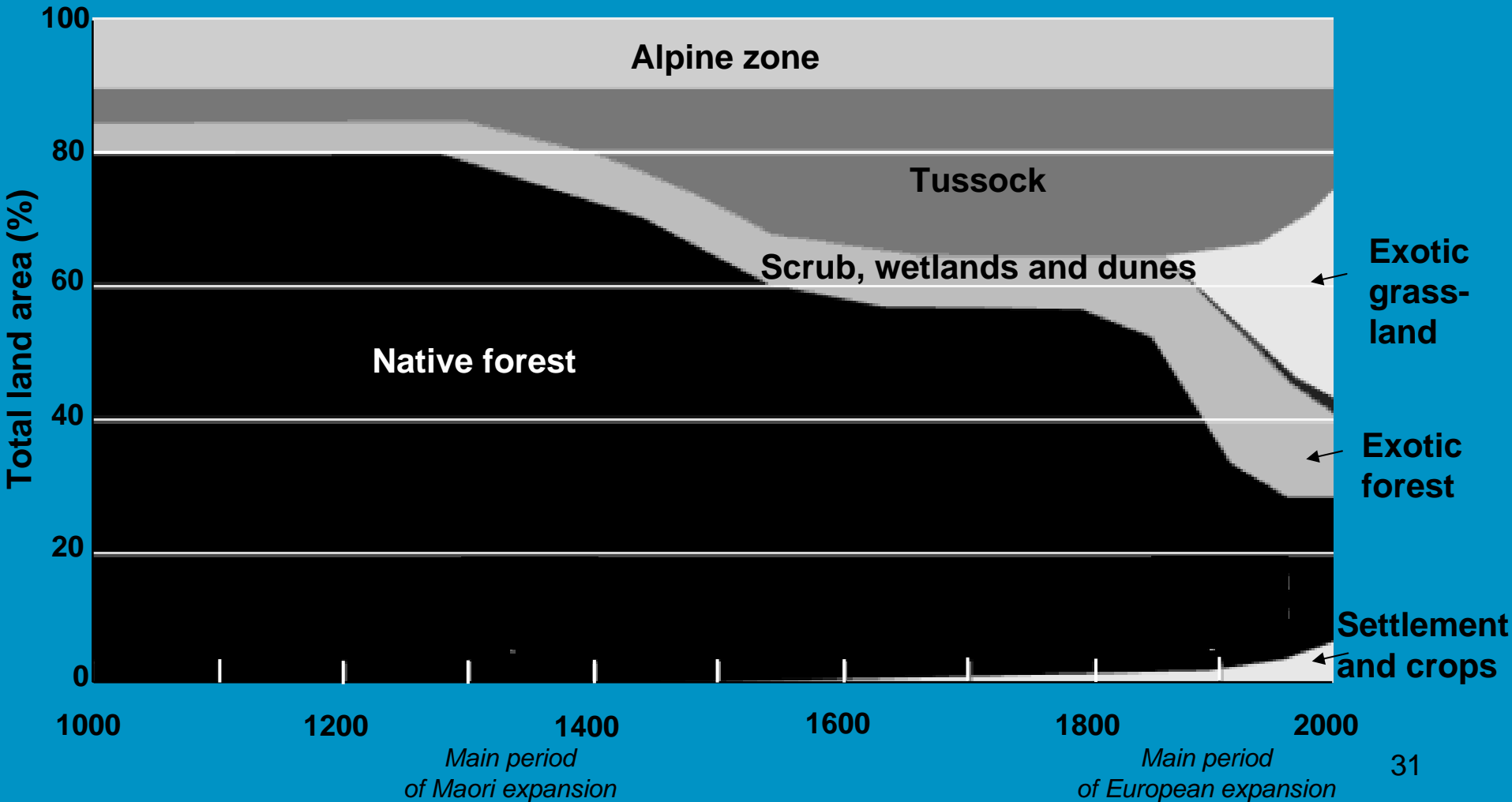
III. There is no Silver Bullet...

so what should we focus on?



1. Land
2. Isolation
3. Infrastructure
4. Community
5. Attitude
6. Networking

Land Cover

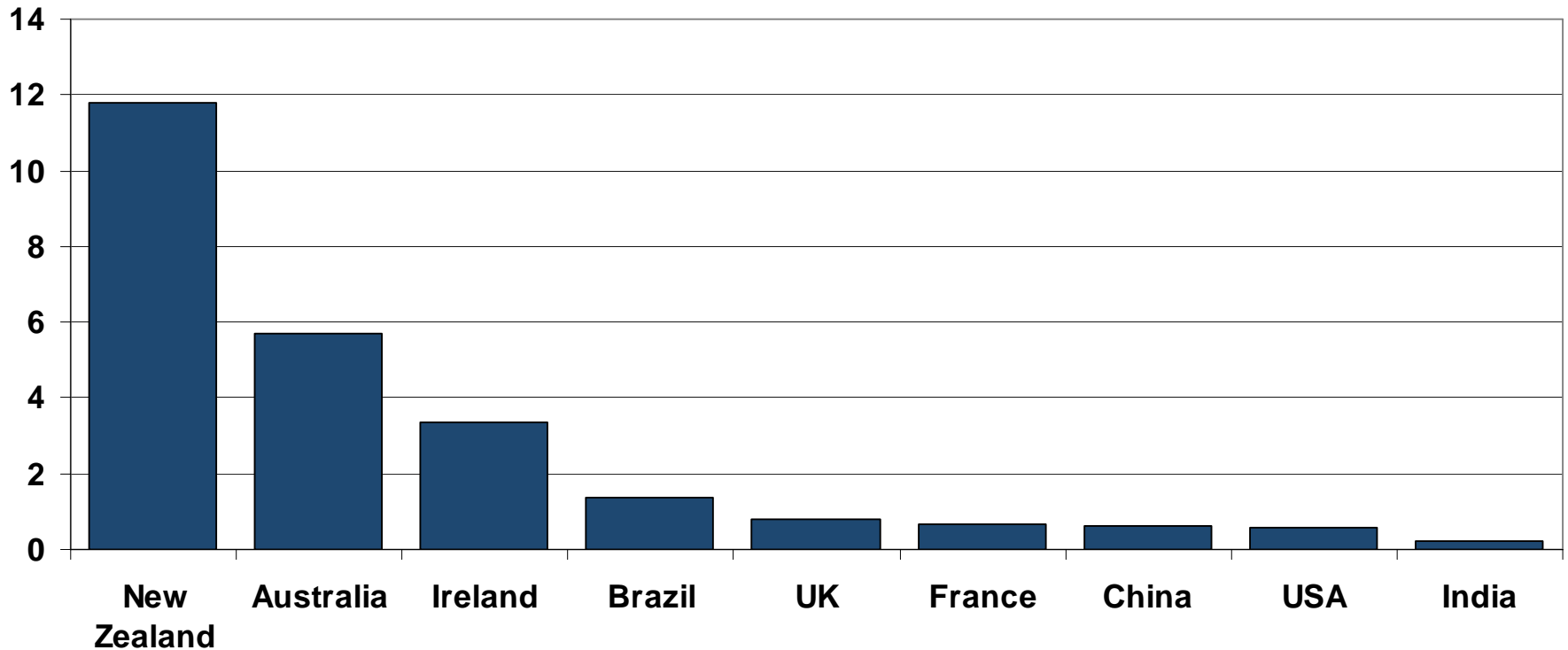


Livestock

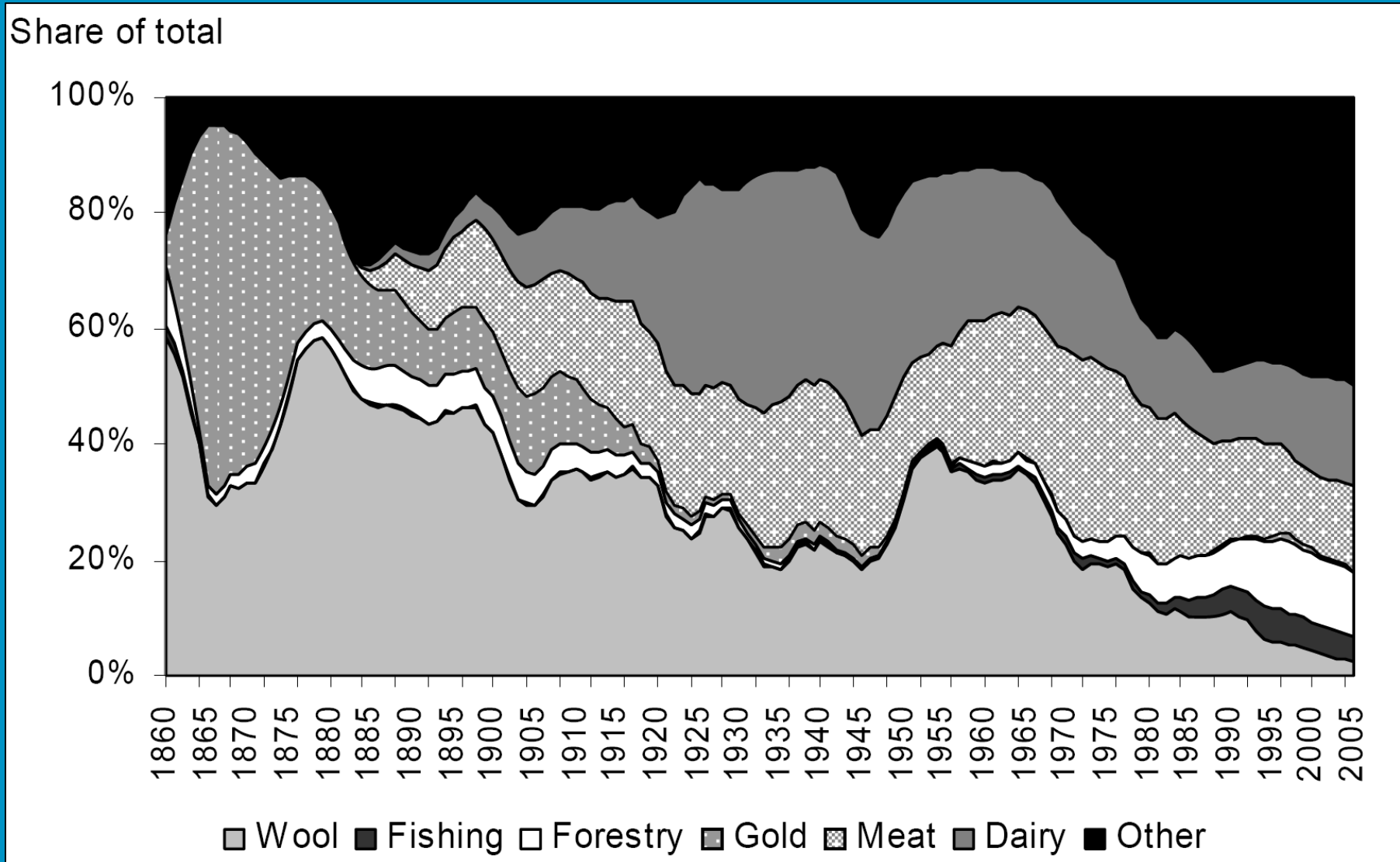
Total number of livestock per country per person as at 30 June 2007

Total number per
person

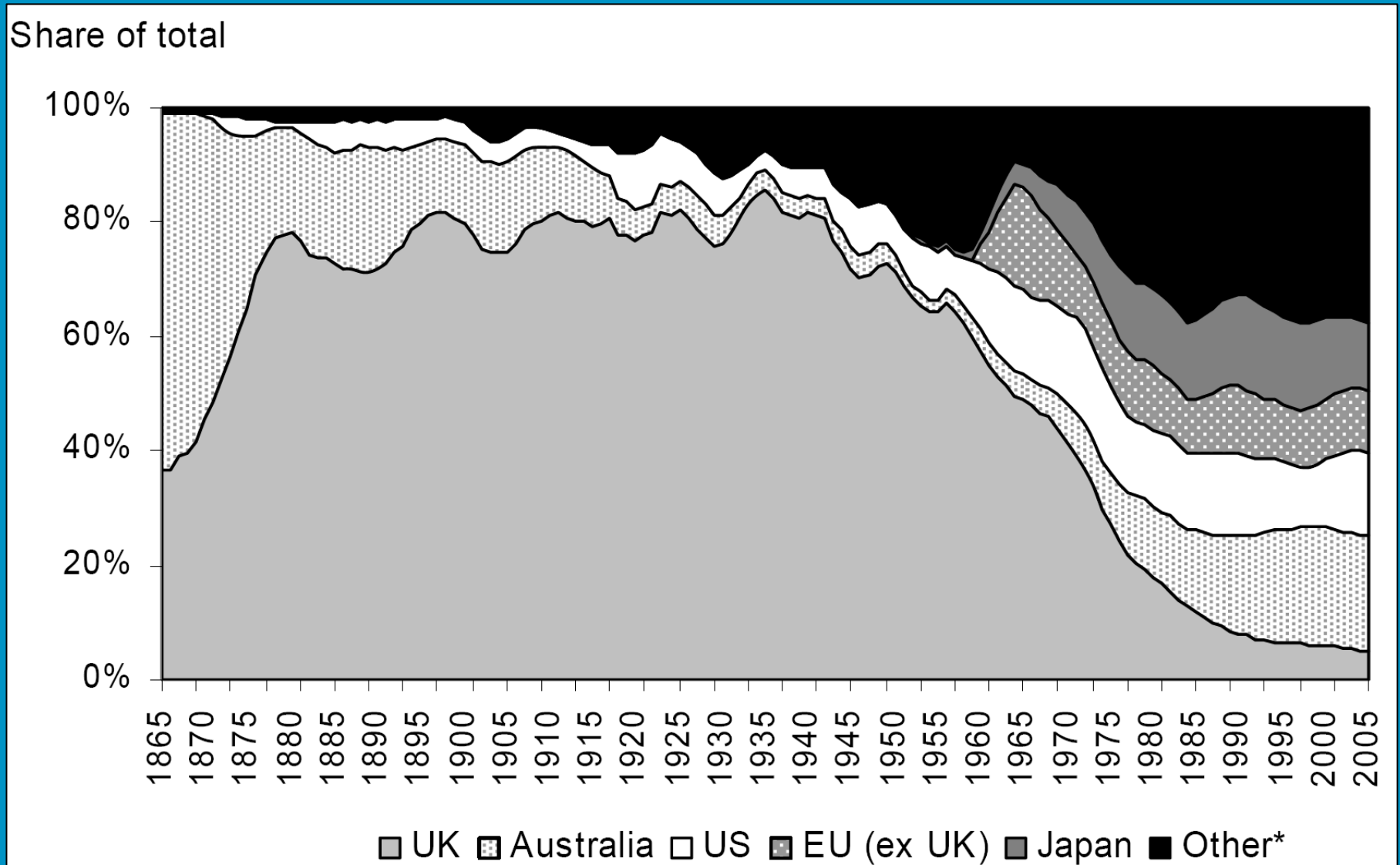
(Includes all cattle, sheep, and pigs)



Composition of Export (Goods)



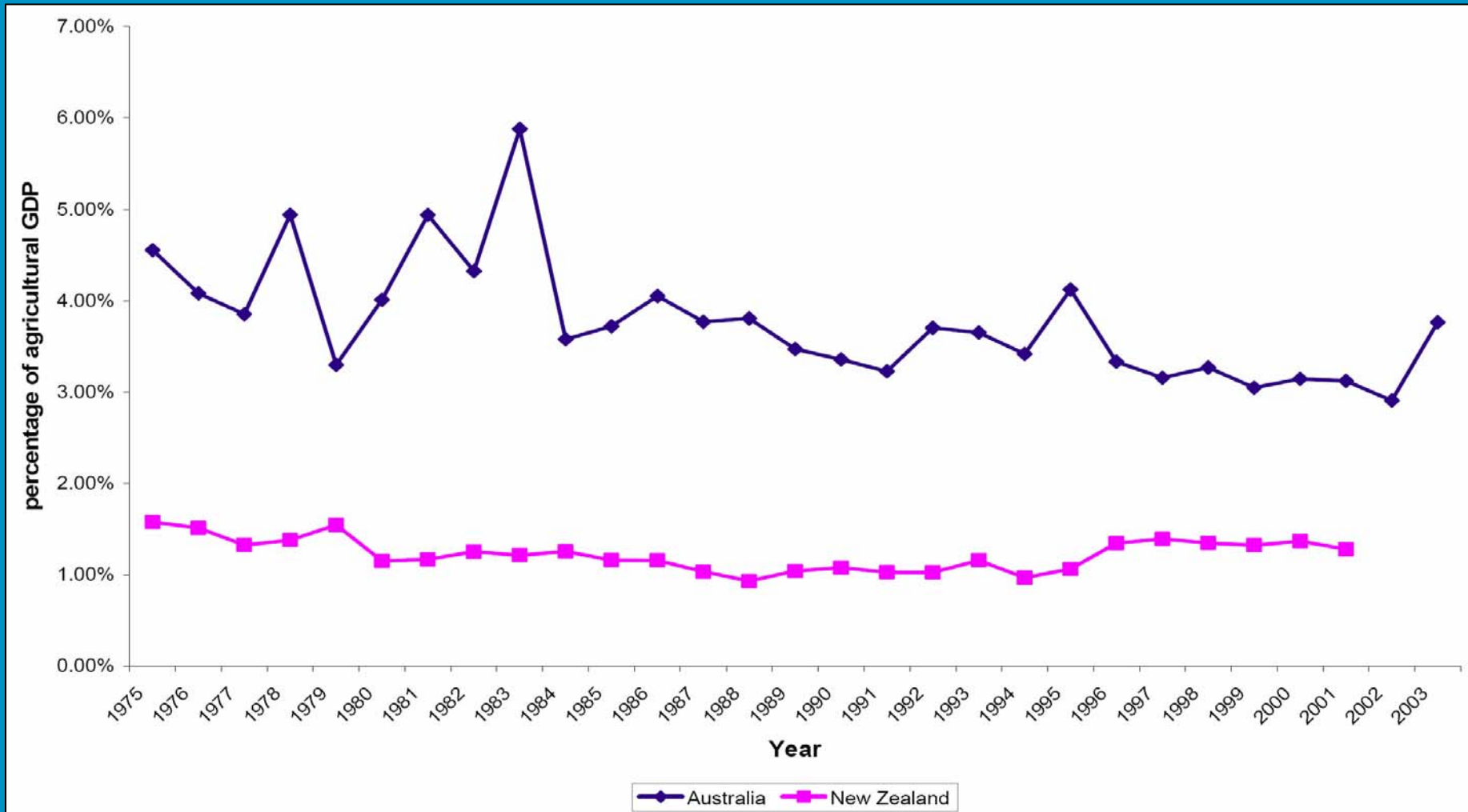
Destination of Exports (Goods)



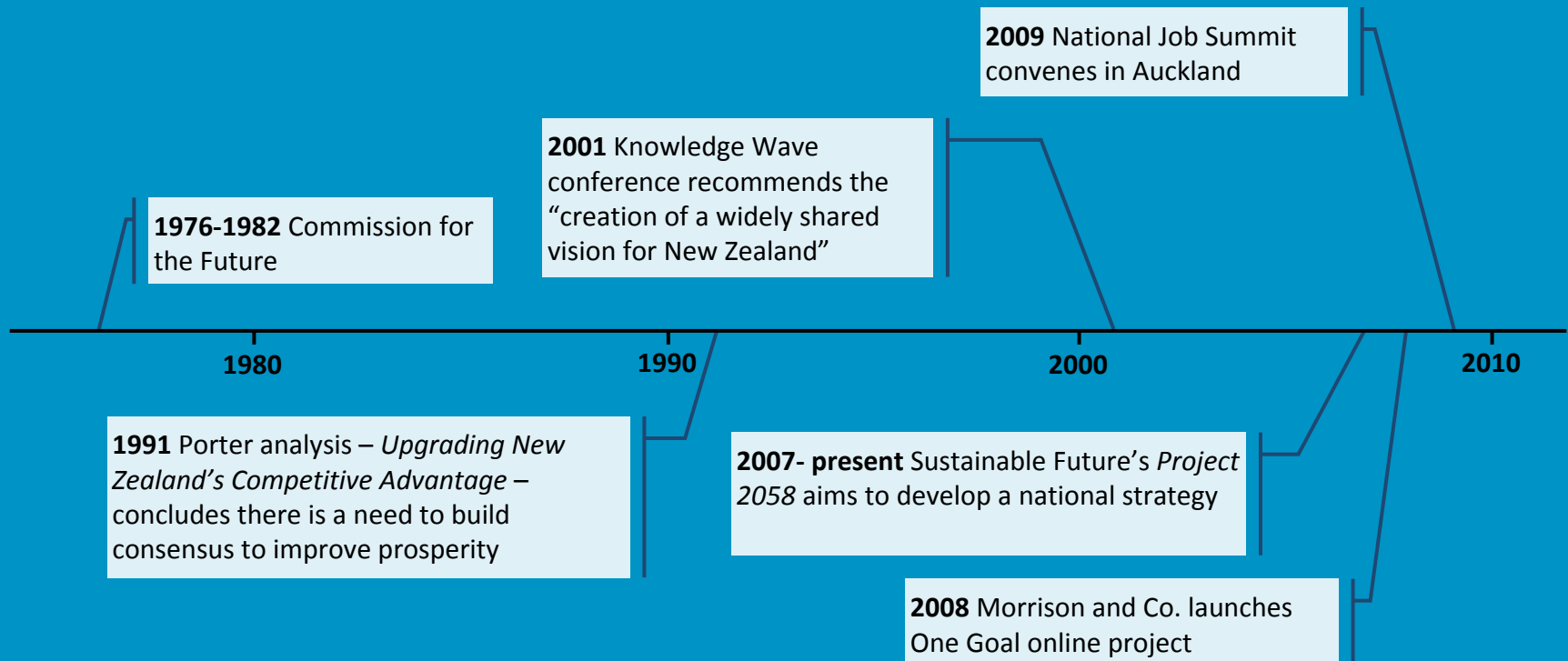
IV. What are the Obstacles?

1. Our Mindset
2. Relevant Information
3. Space for Long-Term Thinking
4. The Recession

Level of public spending on agricultural R&D in New Zealand compared to Australia



Initiatives to progress long-term thinking in New Zealand



	Number	Duration
National Job Summit	210 participants	1 day
One Measurable Goal project	112 comments	3 months
<i>Project 2058</i>	19 publications	3 years
Knowledge Wave	450 participants	3 days
Commission for the Future	Over 20 publications	6 years



**New Zealand
needs a
'National Strategy'
to optimise our future,
to align our industry,
to reinforce our national brand and
to be an example of what is possible**

**- not because we have to, but because we
want what it can deliver**



THANK YOU

