

A satellite image of New Zealand, showing the North and South Islands, surrounded by the Southern Ocean. The land is green, and the surrounding waters are dark blue. The image is taken from a high angle, showing the curvature of the Earth.

Our next revolution

*Making our
future*

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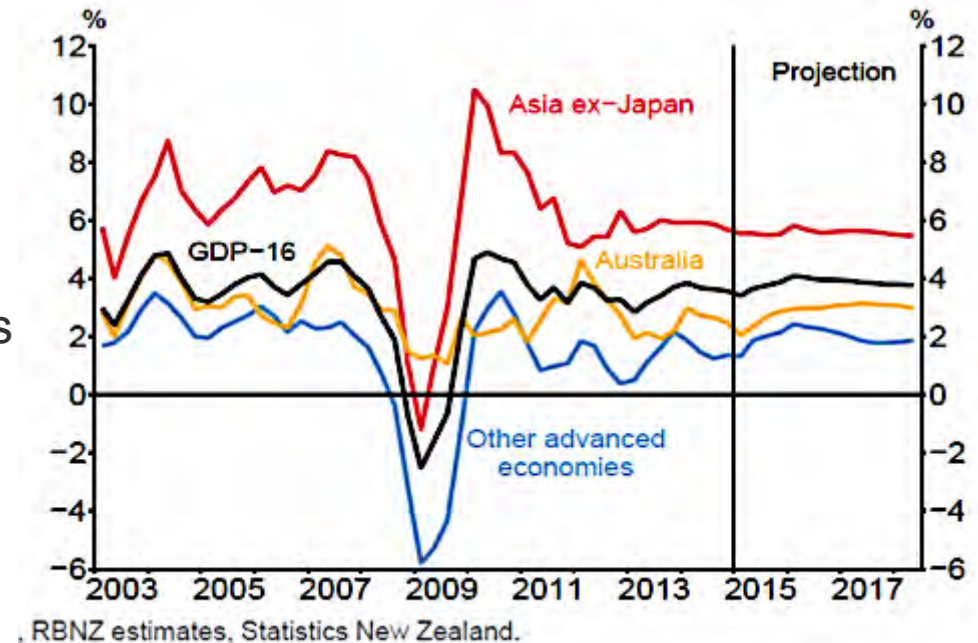
Rod Oram's presentation to
Energise Ōtaki's Business Meeting
Ōtaki, October 28th, 2015

Agenda

- World
- Old NZ
- Revolution
- New NZ

As the world turns...

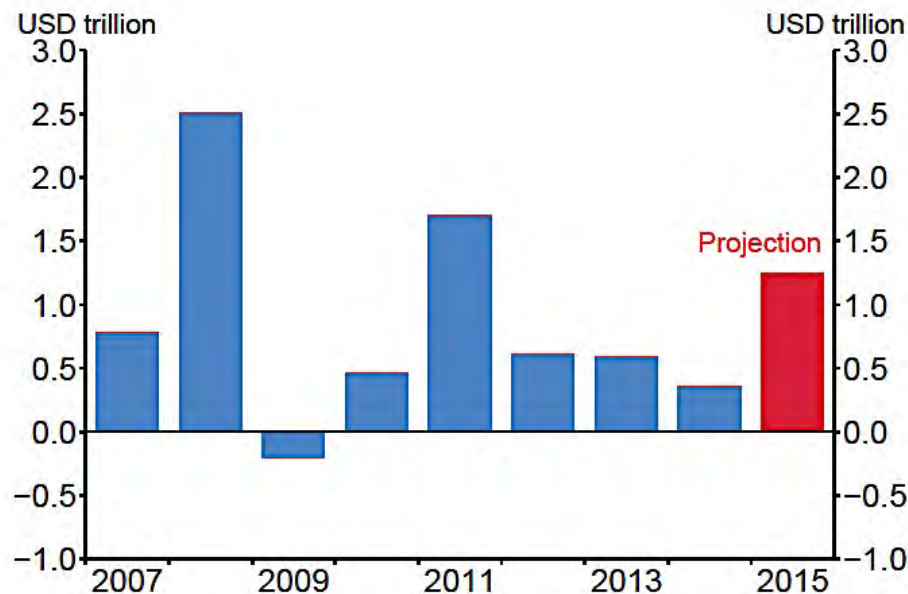
- Dangers of stagnation & deflation
- Economies need to keep reforming
- Major adjustments are underway
 - Deep upheavals in China
 - ...spilling over to its Asian neighbours
 - ...e.g. Australia & NZ suffering from end of Chinese commodities' boom
 - European growth very sluggish
 - US growth strengthening but patchy
 - ...UK likewise



Resuscitation isn't working

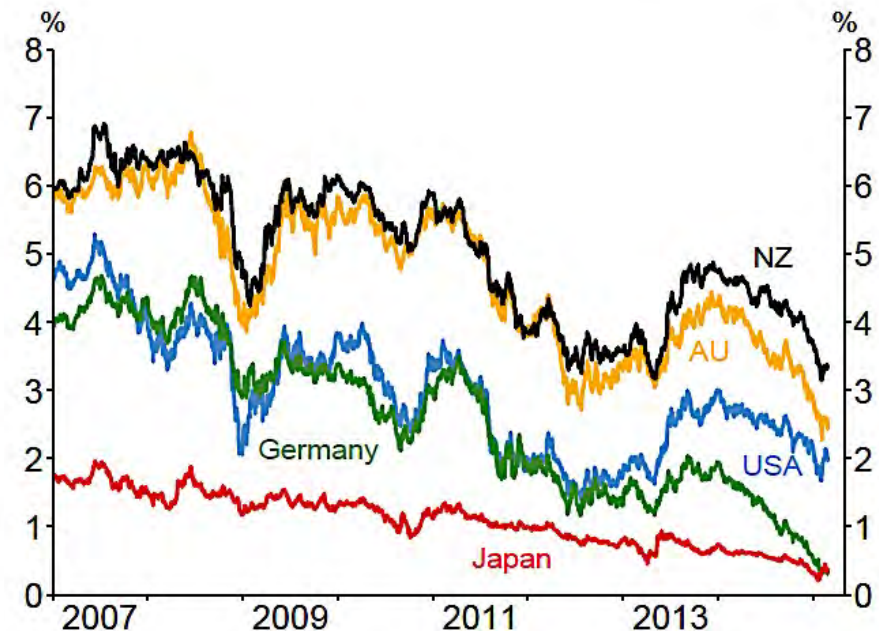
- Massive money creation isn't triggering growth or inflation
- ...so bond yields keep falling

Estimated change in major central bank balance sheets



Source: Bloomberg, RBNZ estimates.

10-year government bond yields



Source: Reuters.

...except in house prices

- Australia is deeply worrying, structurally and psychologically
- New Zealand not quite so debt-fuelled but Auckland – 14th at 8.2x income

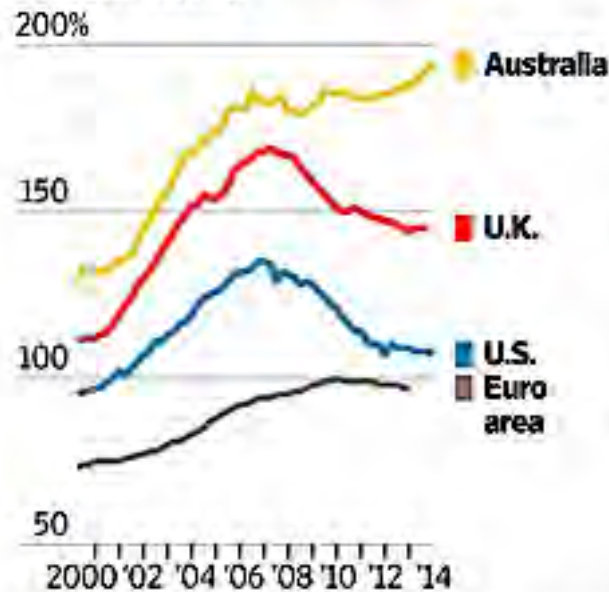
Through the Roof?

Low interest rates and a booming housing market are driving Australians to take on record debt. Real estate is less affordable in Wollongong, a steel town near Sydney, than in New York City.

Overnight cash rate



Household debt as a percentage of annual income



Home prices as a multiple of annual income

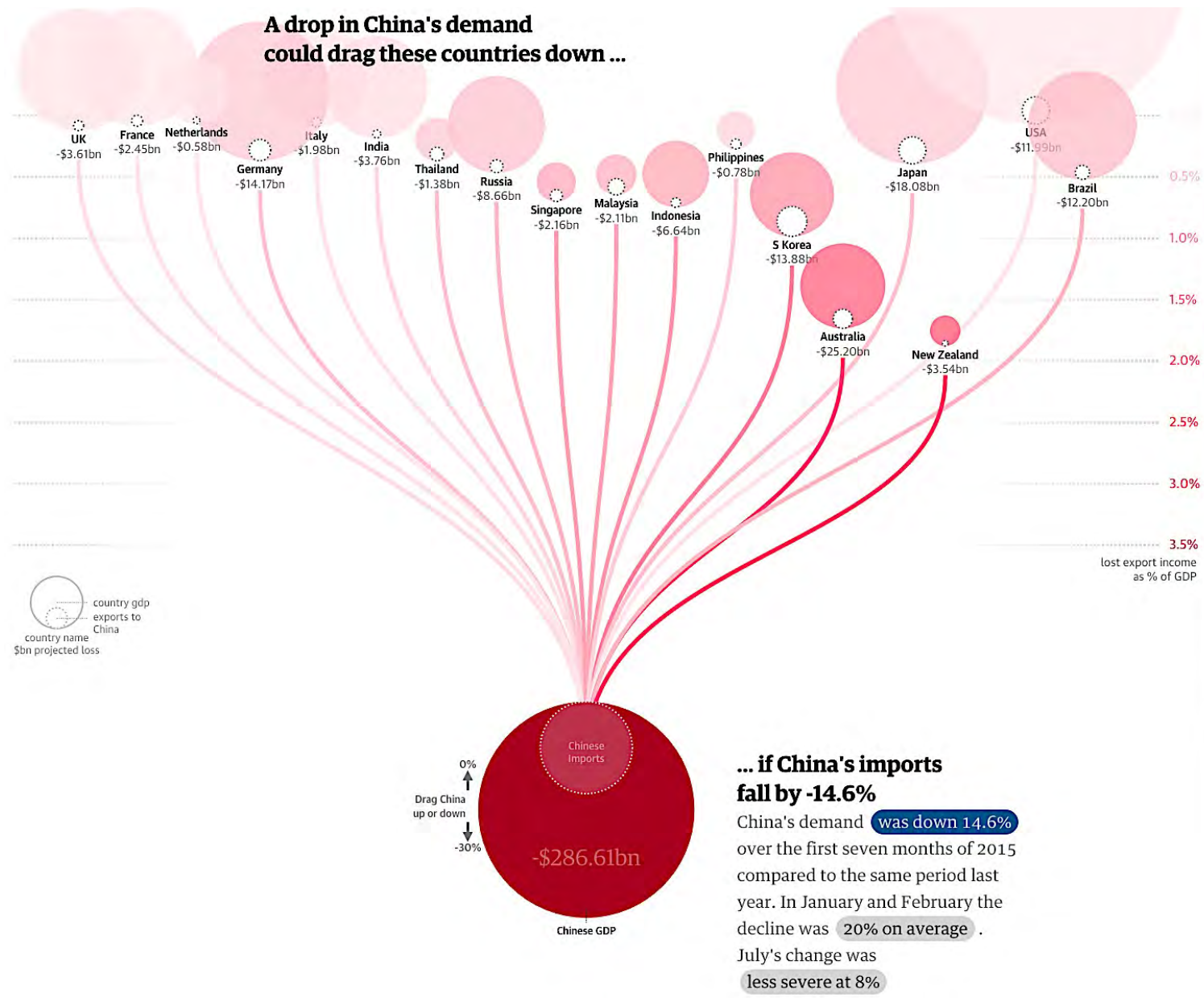


Sources: Reserve Bank of Australia (cash rate); Barclays (debt); 11th Annual Demographia International Housing Affordability Survey (2015) (home prices)

THE WALL STREET JOURNAL.

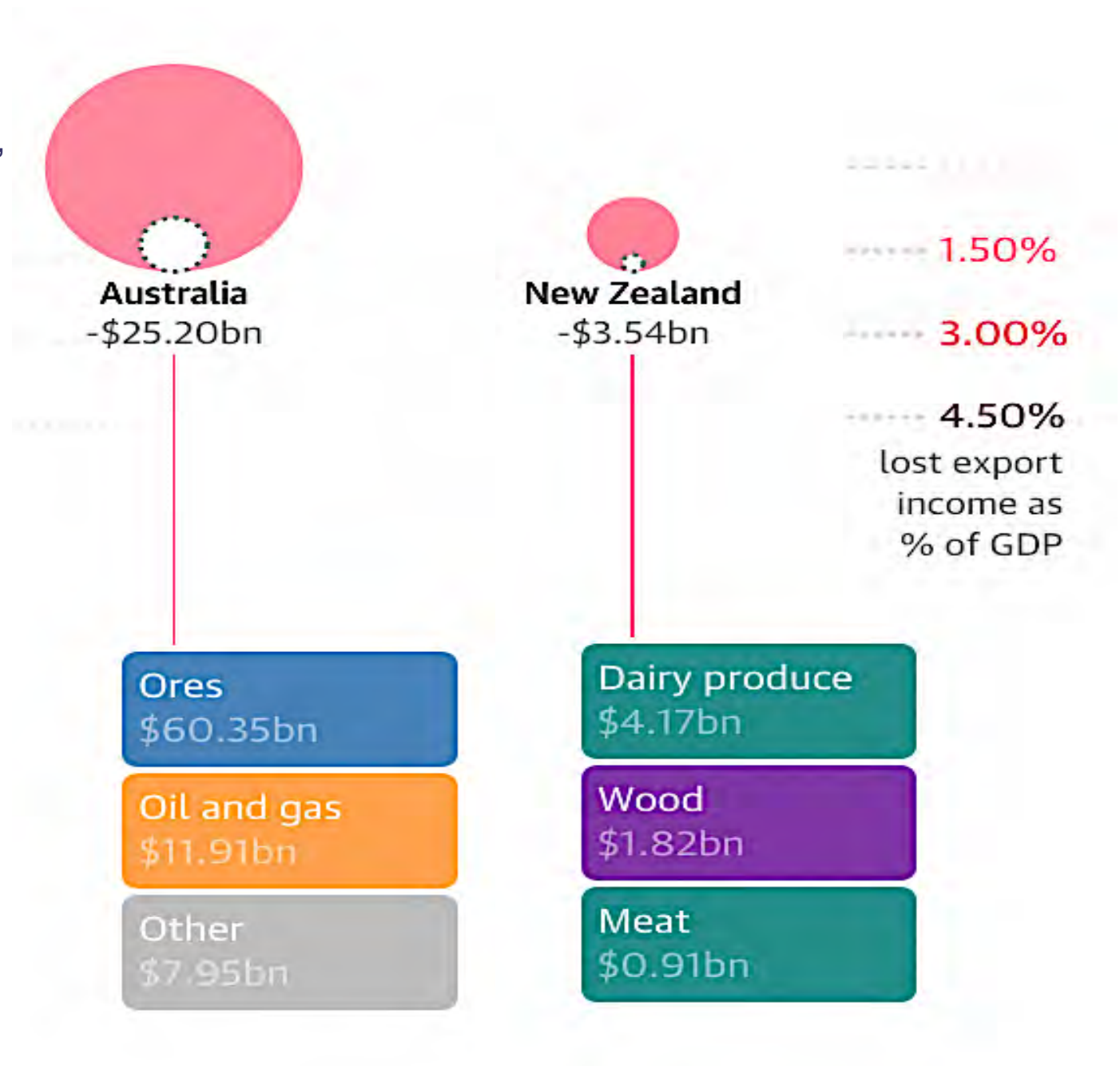
China's slowdown – NZ hardest hit

- www.theguardian.com/world/ng-interactive/2015/aug/26/china-economic-slowdown-world-imports



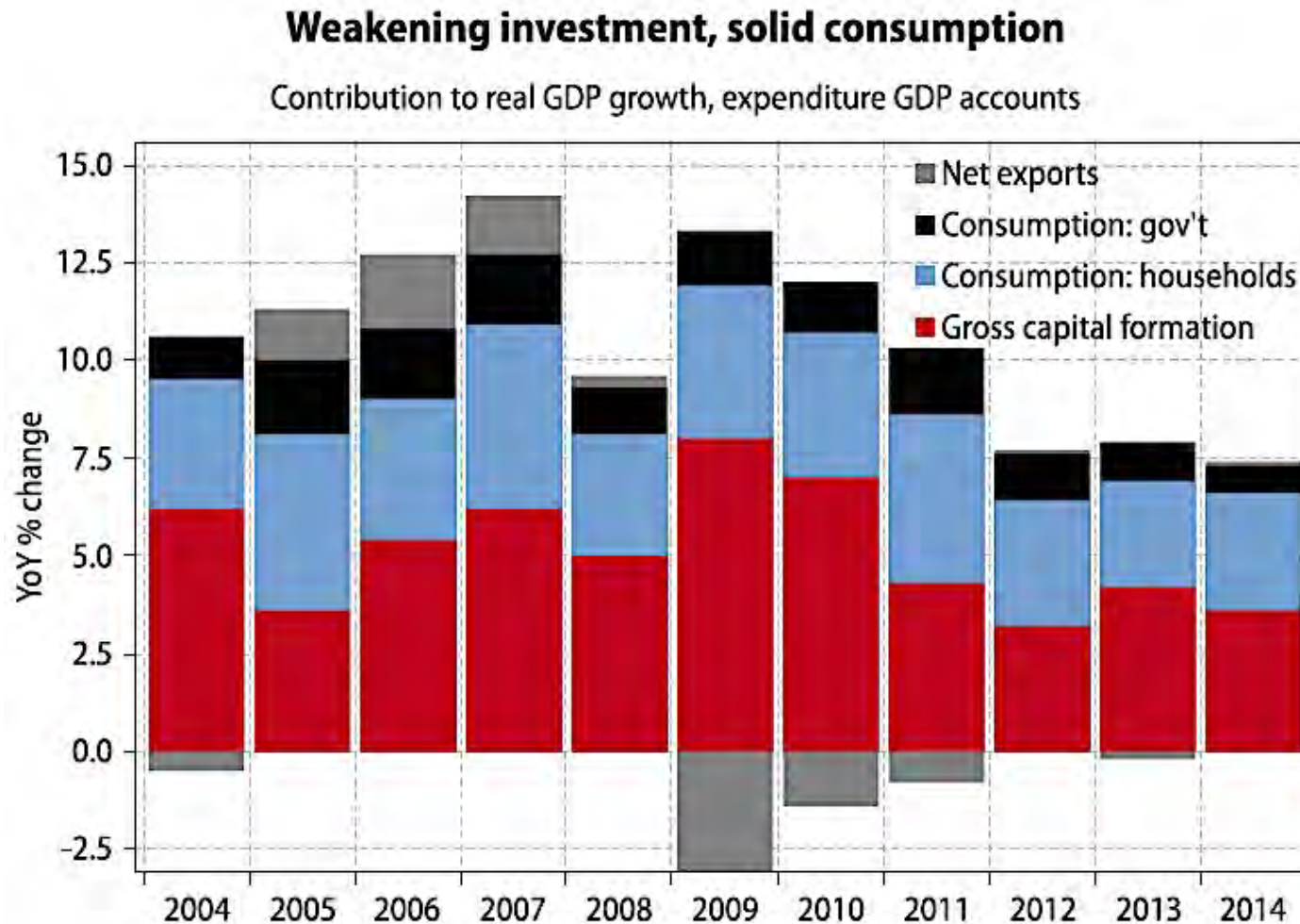
Impact

- Over past 7 months, China's exports have dropped 14.7% at an annual rate
- Impact on NZ:
- Loss of \$3.5bn in exports
- Loss of 1.95% of GDP
- NZ hardest hit



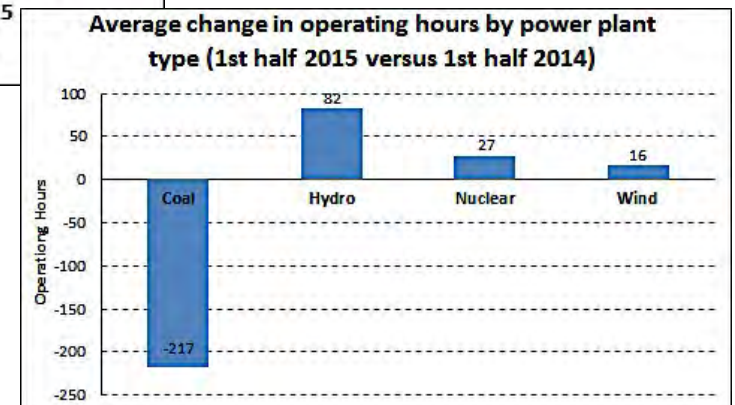
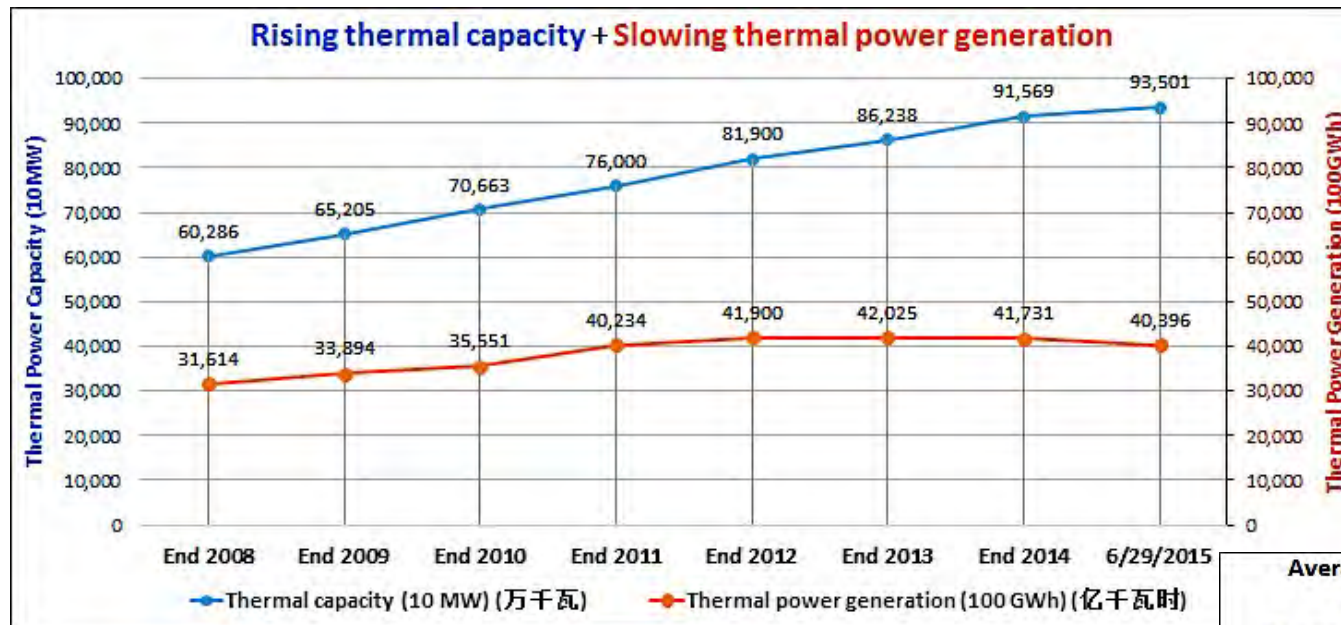
China's radical restructuring - growth

- Profound shift from investment to consumption
- ...but economy slowing so consumption is static
- ...e.g. consumption of dairy products is flat vs. 15% pa growth before



China's radical restructuring - technology

- Very rapid shifts from established technologies to new
- ...e.g. from coal to renewables for electricity generation
- Creating “bubble” of over-investment in coal
- Only one of many “bubbles”: e.g. steel, cement, glass, aluminium

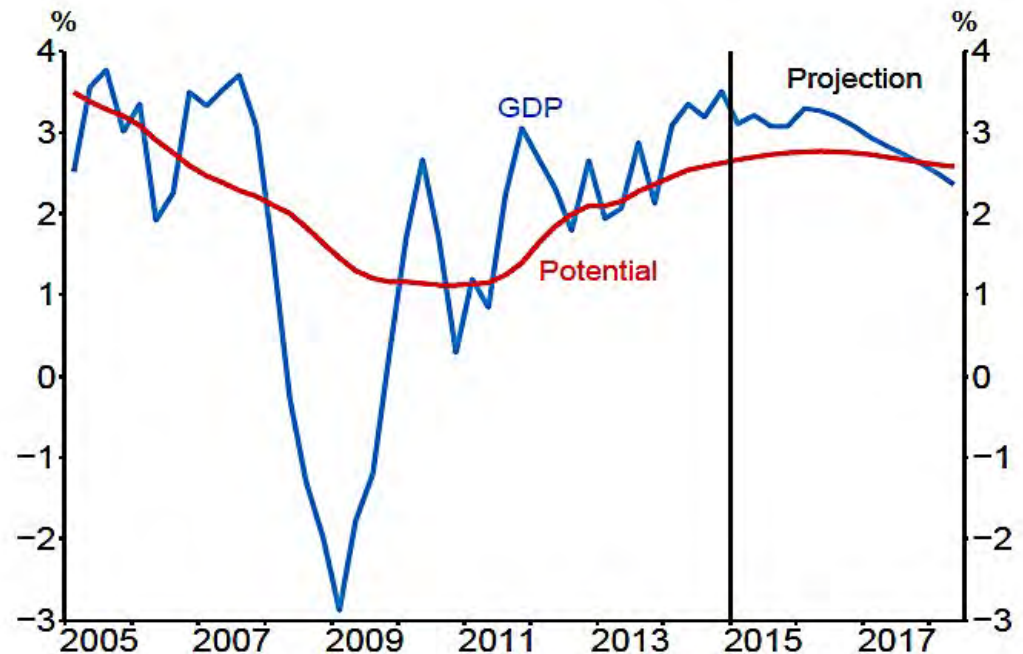


Agenda

- World
- **Old NZ**
- Revolution
- New NZ

NZ growth is slowing

- Growth was driven by:
 - Immigration
 - Milk and log exports
 - Christchurch rebuild
 - Consumer spending
 - ...& some business investment
- But growth peaked mid-2014
 - ...pace is slackening
- GDP +3.5% in year to March 2015
- ...and around 2% in 2016
- We're slipping back to our long term (and slow) growth rate
- *(Potential rate of growth is the RBNZ's estimate of the maximum rate the economy can grow without causing inflation)*



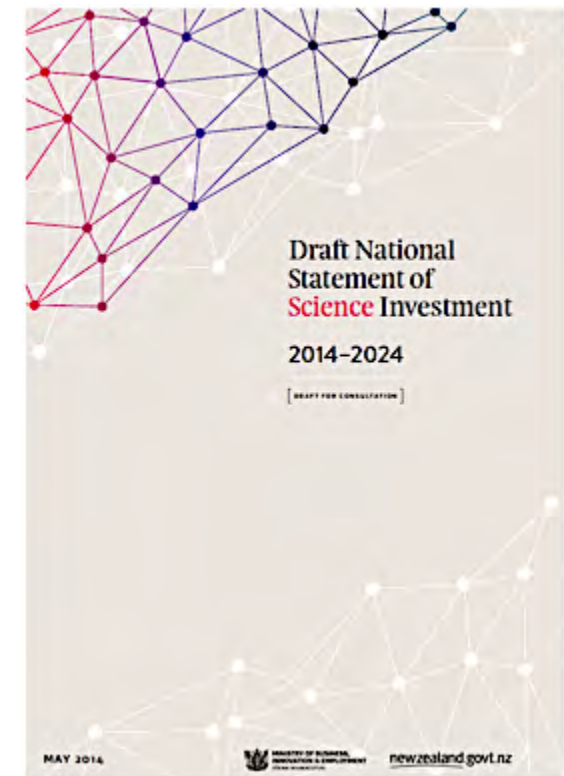
Government Strategy Mk III

- “Business Growth Agenda”
 - 6 ingredients of business growth
- All driven by incremental change
- Some big goals
- E.g. double exports by 2025
- Requires exports to grow 5.5% - 7.5% pa
- Treasury forecasts exports will grow by 1.6% pa to 2014-18



Manufactured exports are falling

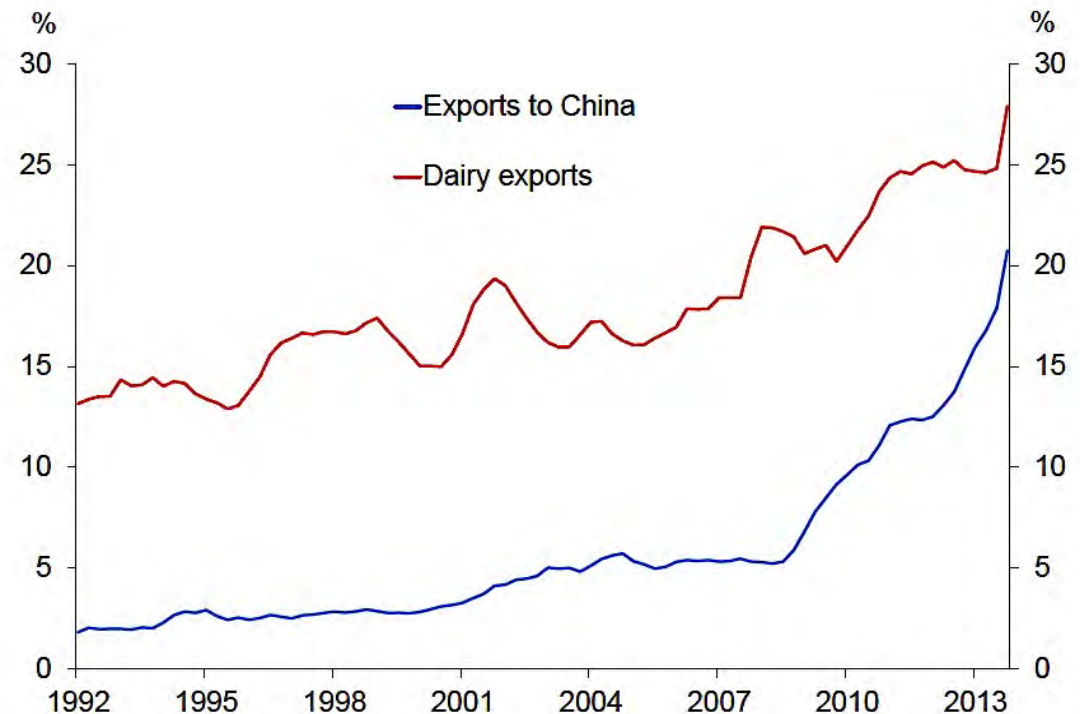
- ...from 37% of total exports in 2003 to 22% today
- ...with commodities taking a growing share of total exports
- Yet, government funding for science and tertiary education is falling in real terms



Simpler exports

- But we're becoming an ever-simpler economy
- Selling more...
- ...but a smaller range of simple products
 - e.g. milk powder & logs
- ...to fewer countries
- Dairy is our largest exports
- But whole milk powder is 80% of dairy exports
- China is our largest customer

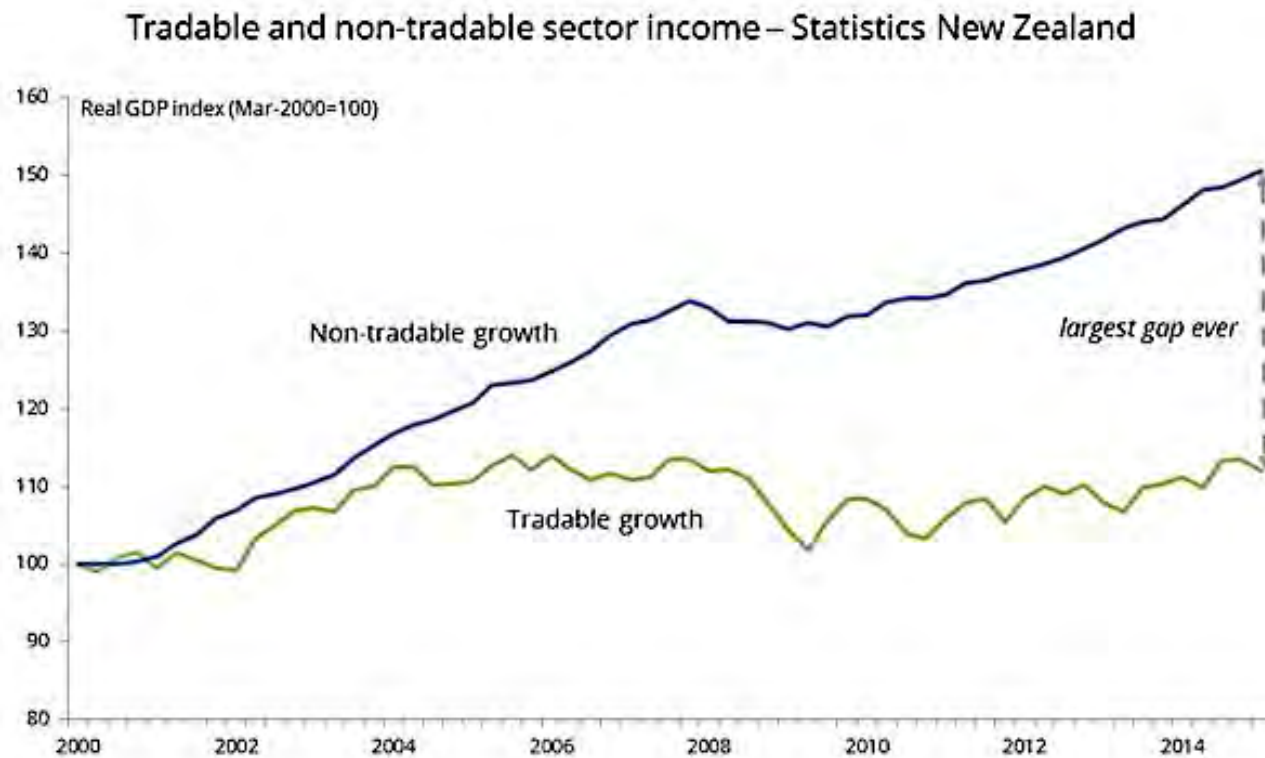
Concentration of New Zealand exports (percent of total exports)



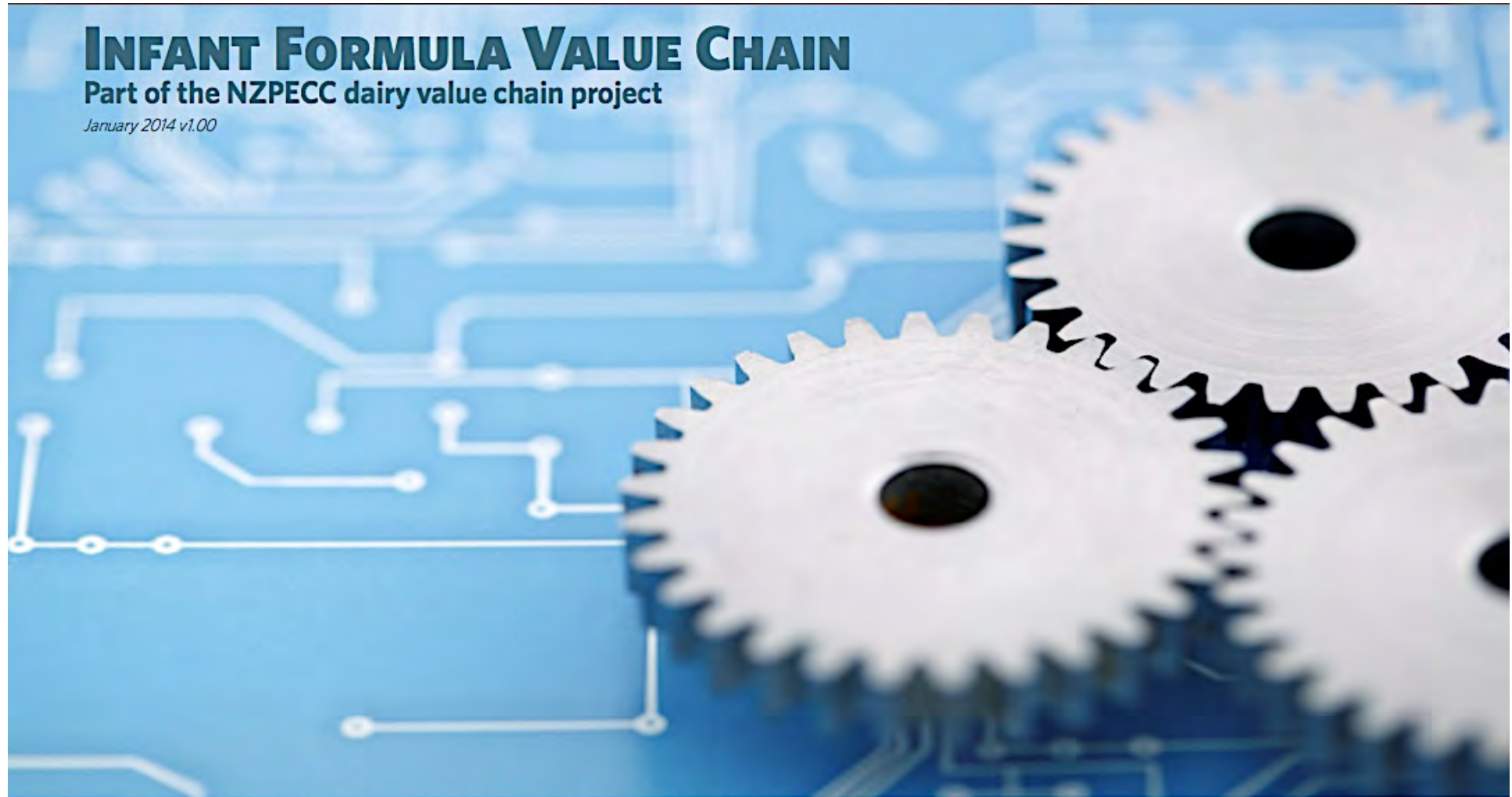
Source: Statistics New Zealand.

Exports have long stagnated

- ...since 2004 - don't be fooled by commodity spikes



Why we're hitting the wall...an example



This information was prepared by Coriolis solely for the use of our client; it is not to be relied on by any third party without prior written consent.

NZ's share of infant formula profits – only 12% *...but we contribute 40% of the assets*

INFANT FORMULA VALUE CHAIN - MARKUP VS. EBITDA VS. ASSETS REQUIRED

CORIOLIS

Looking beyond markup by stage, into profitability (EBITDA) and nominal assets required to achieve the profit highlights relative returns along the chain; the low return of dairy farmers on their farm value stands out

MODEL: Value chain of a nominal "can of infant formula": markup to stage prior, EBITDA and assets required

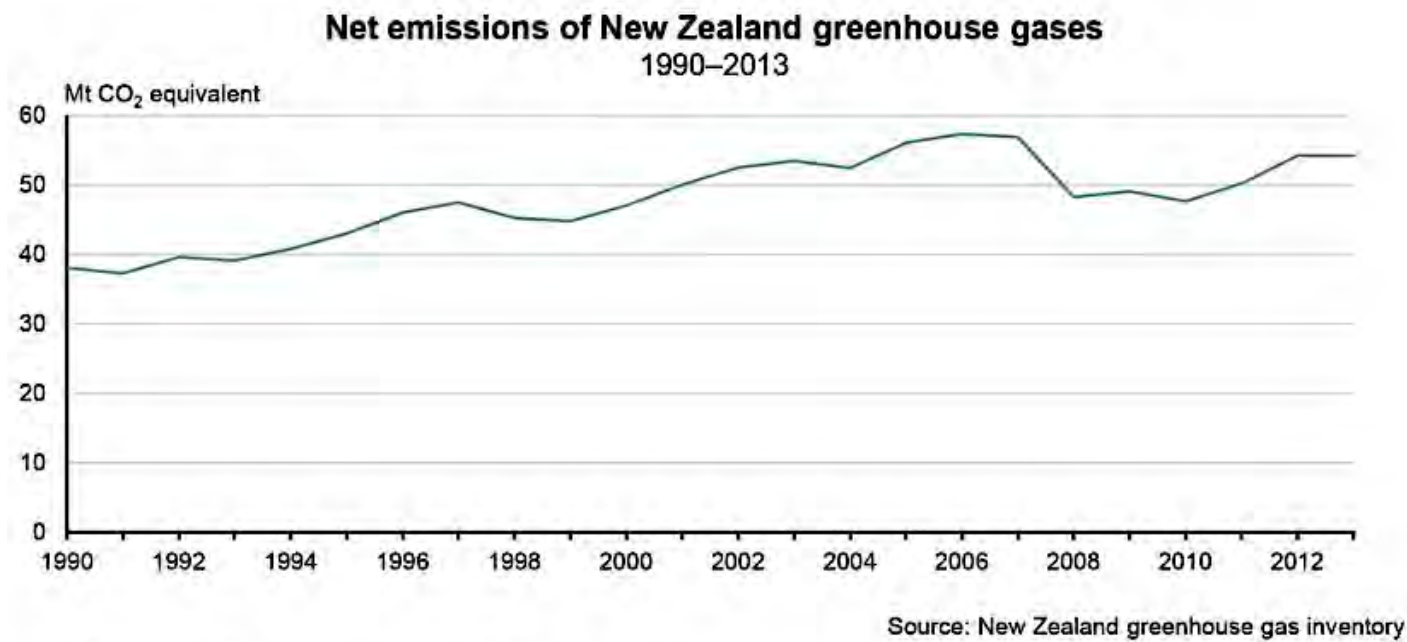
NZ\$: actual; 2012



Pro rata per nominal can

State of Aotearoa's ecosystem

- NZ's first ecosystem assessment in eight years
 - ...first in new statutory reporting framework
- http://www.mfe.govt.nz/sites/default/files/media/Environmental%20reporting/environment-aotearoa_0.pdf



te: Mt CO₂ equivalent – megatonnes equivalent carbon dioxide.



Water

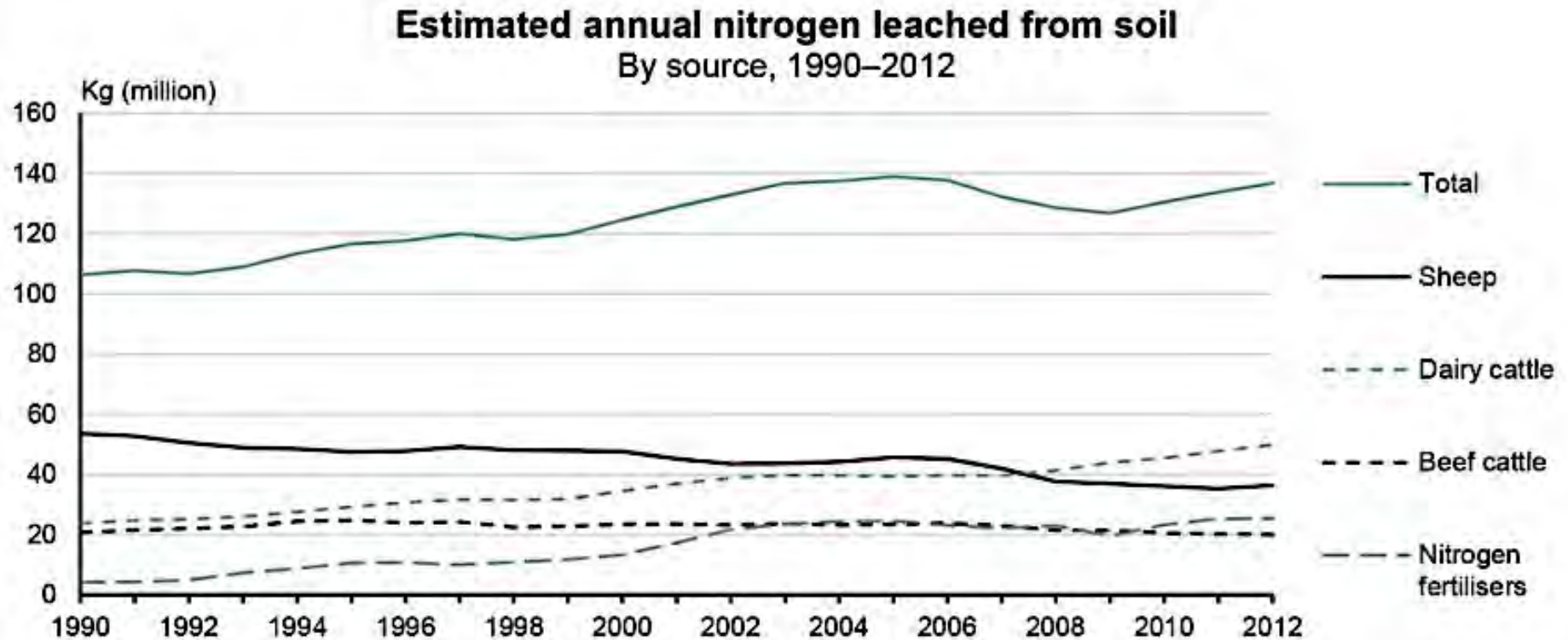
Table 1: Trends for water clarity, nutrients, and macroinvertebrate community index at NIWA sites, 1989–2013

Variable	Trend	Sites showing a statistically significant increase (%)	Sites showing a statistically significant decrease (%)	Sites showing an indeterminate trend (%)
Clarity	↗	64	9	27
Total nitrogen	↗	60	14	26
Nitrate-nitrogen	~	52	27	21
Ammonia-nitrogen	↘	4	78	18
Total phosphorus	~	38	30	32
Dissolved phosphorus	↗	51	14	35
Macroinvertebrate community index (MCI)	~	5	13	83

Source: Larned et al (2015)

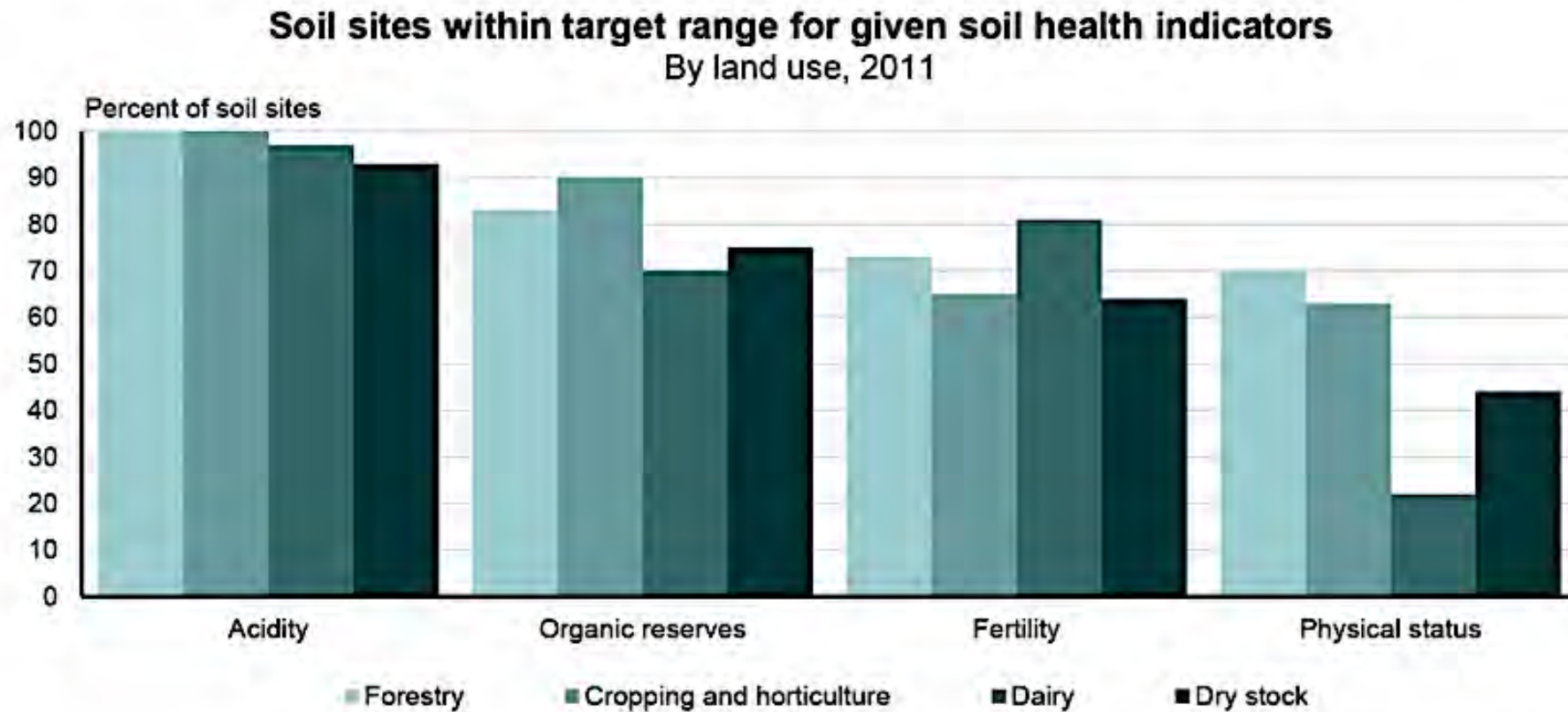
Note: Trends for NIWA's National River Water Quality Network (77 sites). Data are for the period 1989–2013, except for the MCI (covering 462 NIWA and regional council sites) which are for the period 2004–13. Green arrows indicate improving water quality; red arrows indicate declining water quality. No trends could be determined for nitrate-nitrogen, total phosphorus, and the MCI. Percentages may not add to 100 percent due to rounding.

Nitrogen leaching



Source: Ministry for the Environment

Soil health



Source: Landcare Research; regional councils; unitary authorities

Endangered species

Table 3: Indigenous species that are threatened or at risk of extinction, by taxonomic group

Taxonomic group	Still living (number)	Threatened or at risk of extinction (number)	Threatened or at risk of extinction (%)
Bats	4	3	75
Birds	203	164	81
Earthworms	171	32	19
Freshwater fish	39	28	72
Freshwater invertebrates	580	148	26
Frogs	3	3	100
Marine invertebrates	307	233	76
Reptiles	57	50	88
Vascular plants	2378	918	39

Source: Department of Conservation; Threat Classification System 2012–14; Hitchmough et al (2013); de Lange et al (2013); Robertson et al (2013); Newman et al (2013); O'Donnell et al (2013); Goodman et al (2014); Grainger et al (2014); Freeman et al (2014); Buckley et al (2015).

Note: Excludes taxonomically indeterminate taxa, species that do not breed in New Zealand, and groups for which a recent threat classification is not available. In addition to the above species, 40 species are confirmed extinct.

NZ's challenge

- NZ's **theoretical** GDP per capita:
 - \$43,518
- OECD average GDP per capita:
 - \$37,181
- NZ's **actual** GDP per capita:
 - \$30,179
- Our gap between theory & reality
 - minus 30%
- We need much stronger international connections
- ...to grow our way up value chain
 - Productivity Commission's research shows

UNDER EMBARGO UNTIL
WEDNESDAY 16 APRIL 10AM NZT

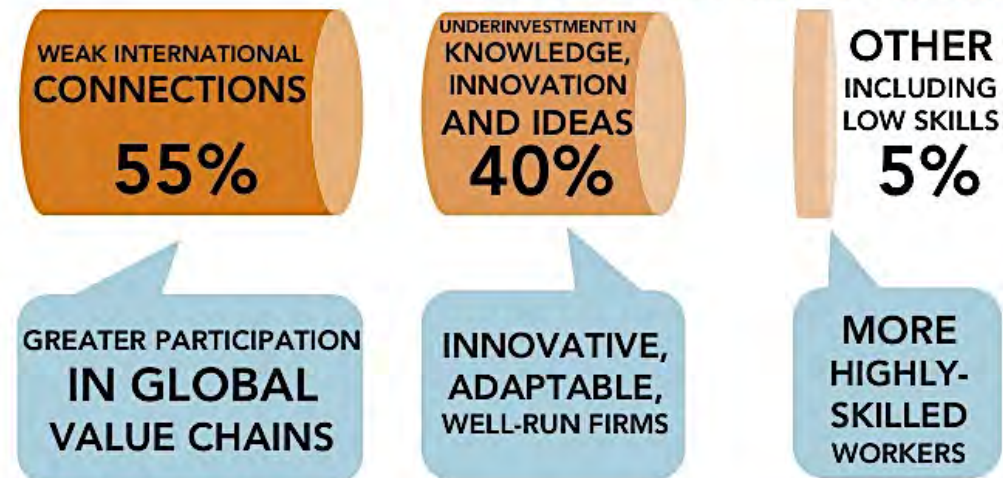


WHY NEW ZEALAND HAS LOW PRODUCTIVITY **KEY FIGURES**



WHY THE PRODUCTIVITY GAP?

AND HOW IT COULD CLOSE



TAKEN FROM "AN INTERNATIONAL PERSPECTIVE ON THE NEW ZEALAND PRODUCTIVITY PARADOX", NEW ZEALAND PRODUCTIVITY COMMISSION WORKING PAPER 2014/01

Agenda

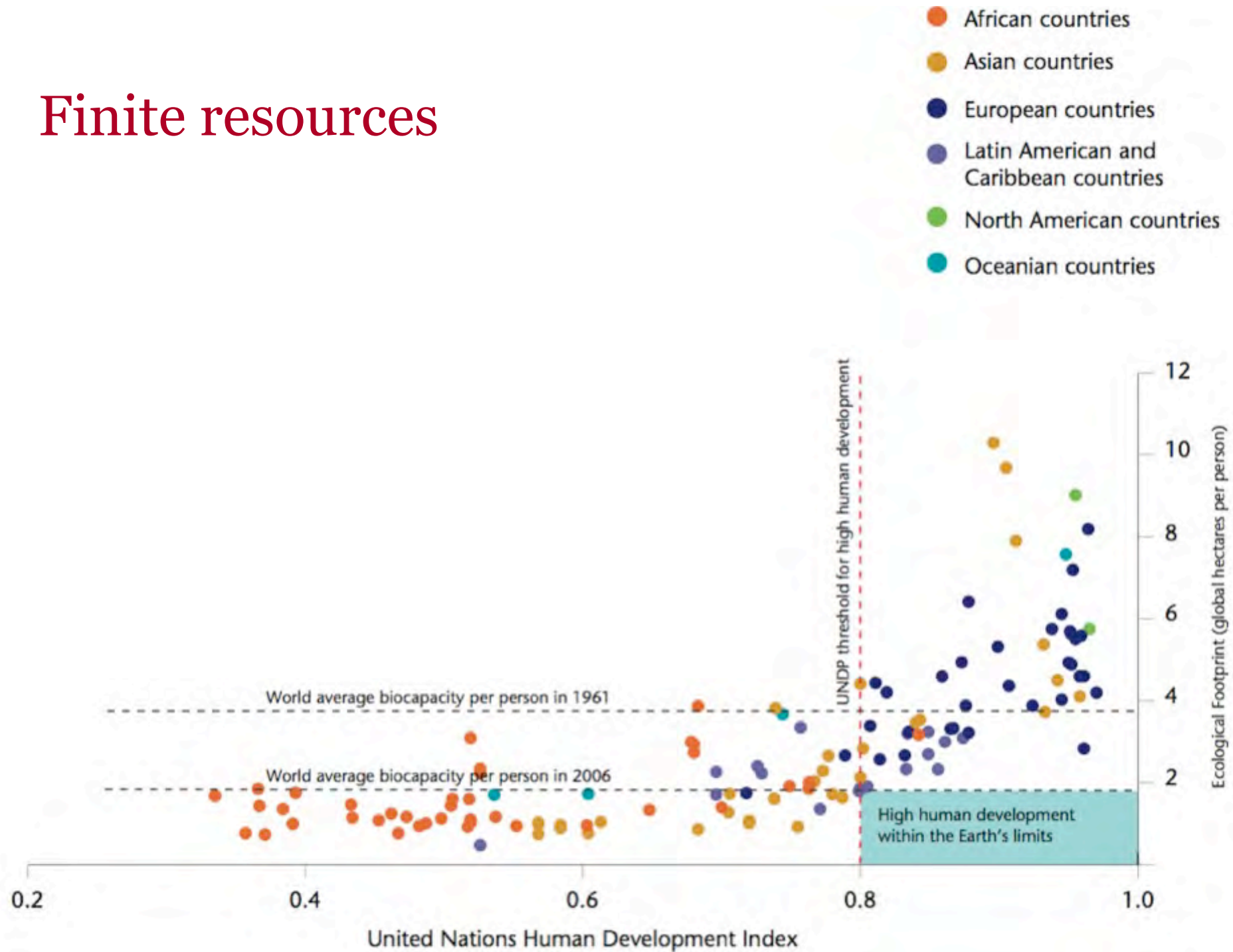
- World
- Old NZ
- **Revolution**
- New NZ

People, planet

- *Vision 2050*
- A very challenging roadmap for corporate development by World Business Council for Sustainable Development
- Vision 2050 Global report at:
 - <http://www.wbcsd.org/vision2050.aspx>
- ...NZ version too

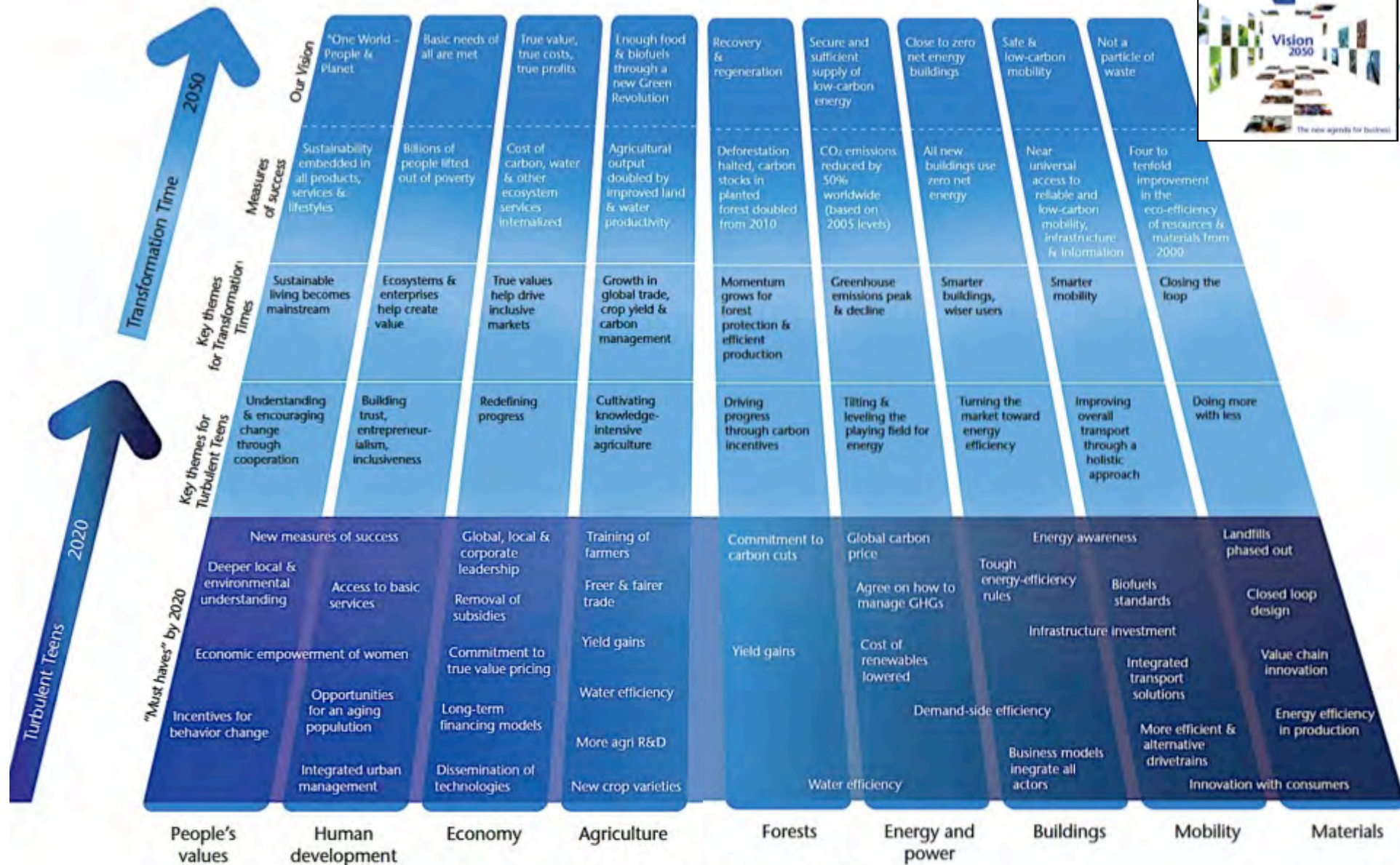


Finite resources

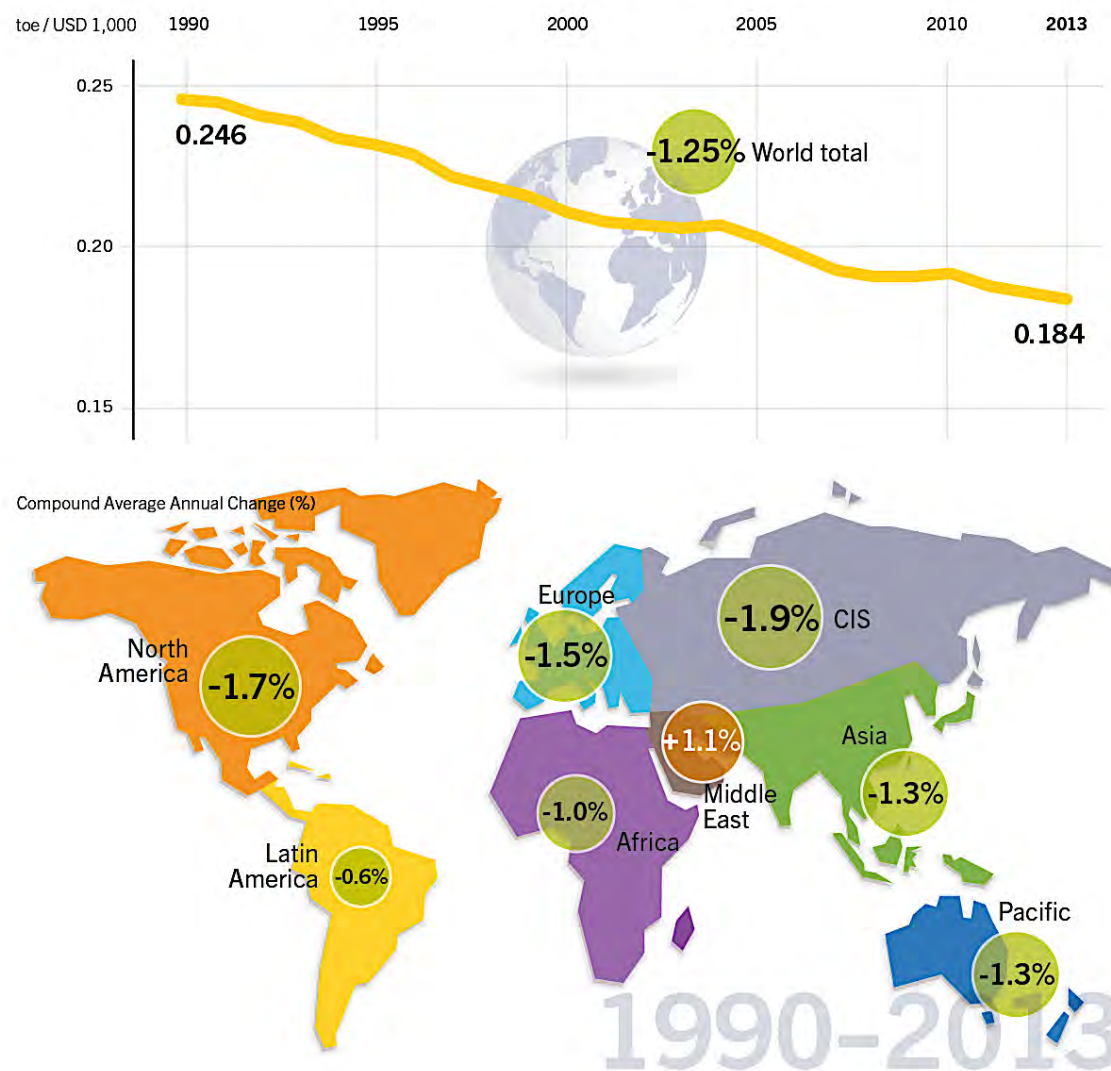


We must have unprecedented scale, speed & complexity of change

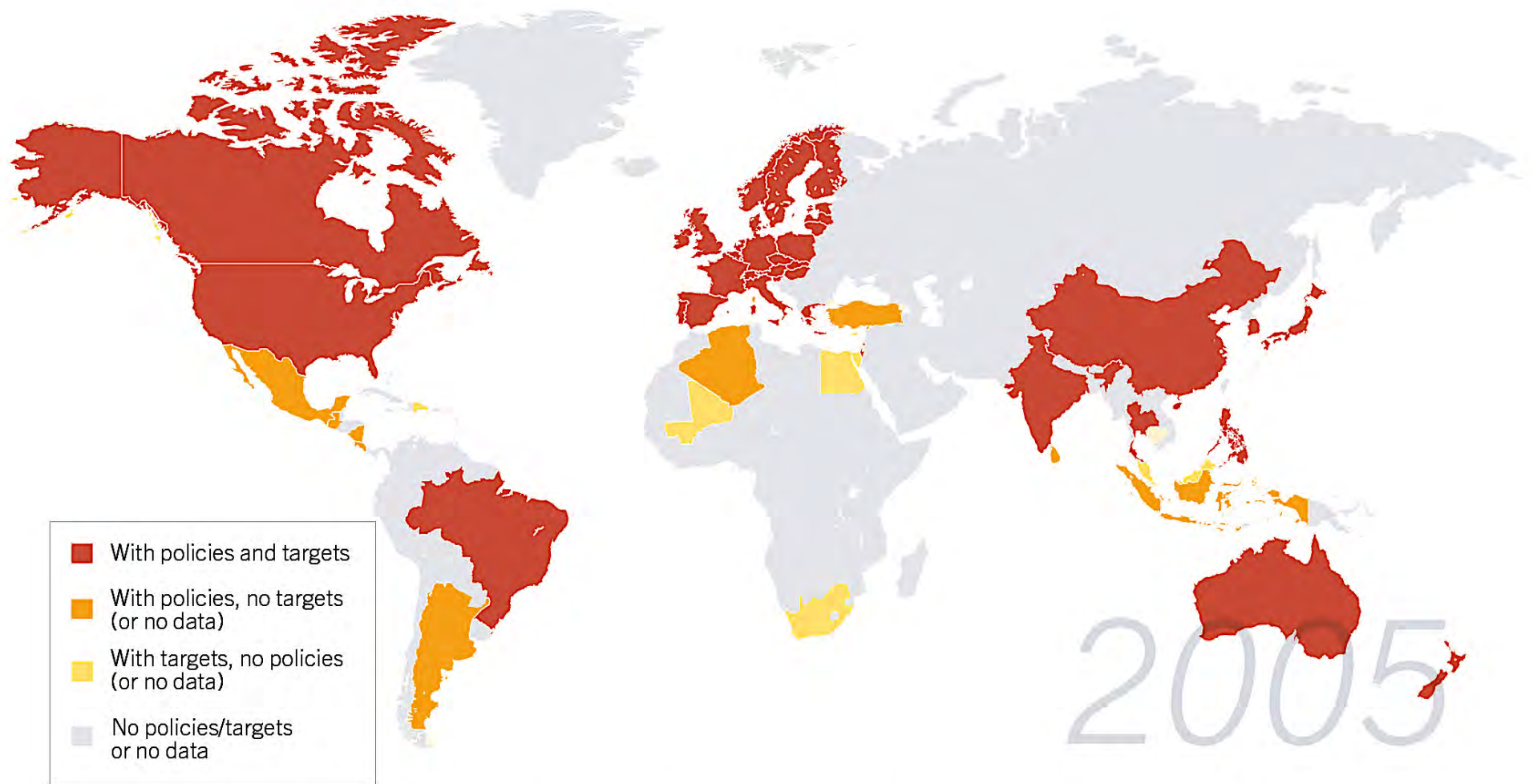
To a sustainable world in 2050



Global Energy Intensity, 1990–2013

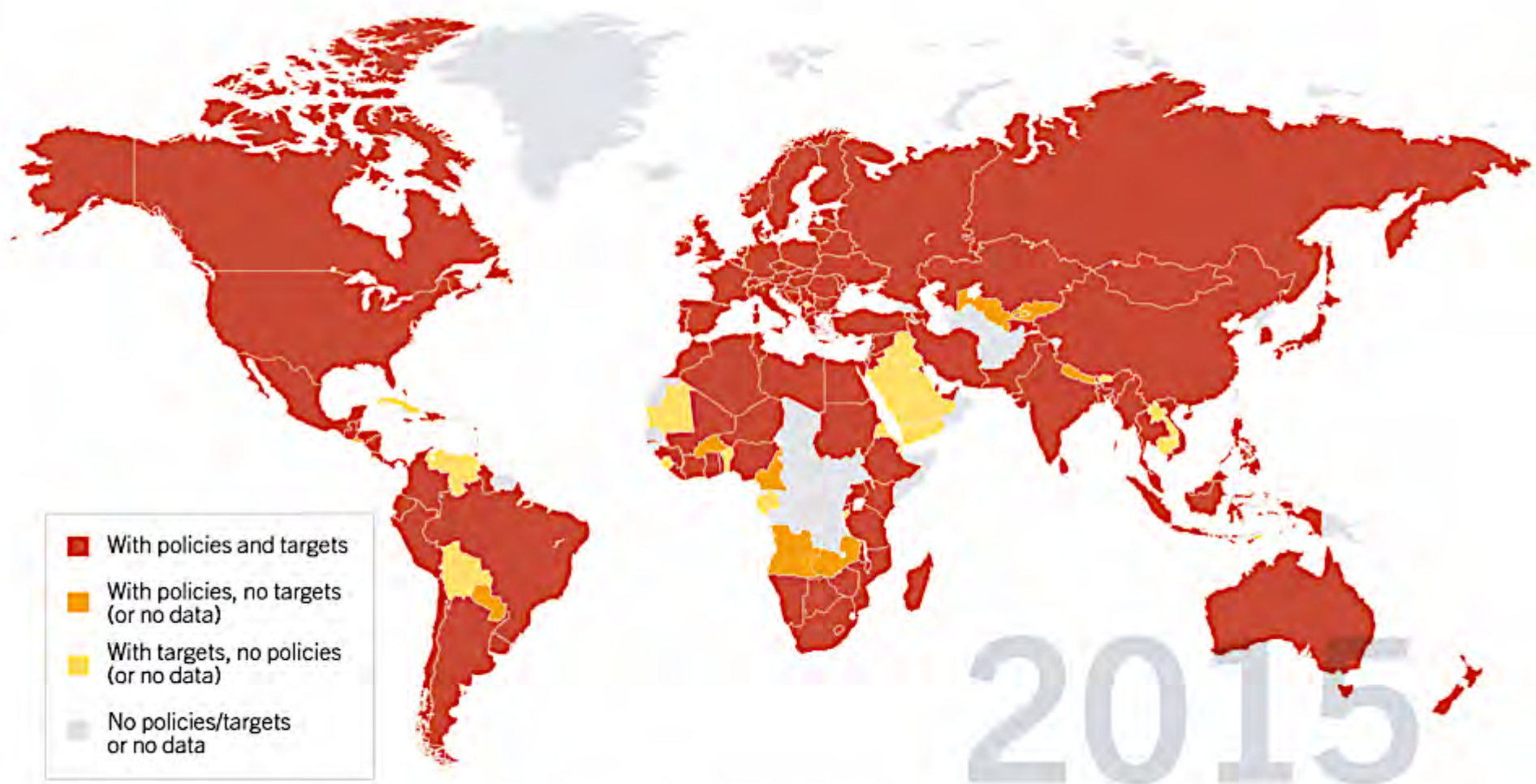


Countries with Renewable Energy Policies and Targets, 2005



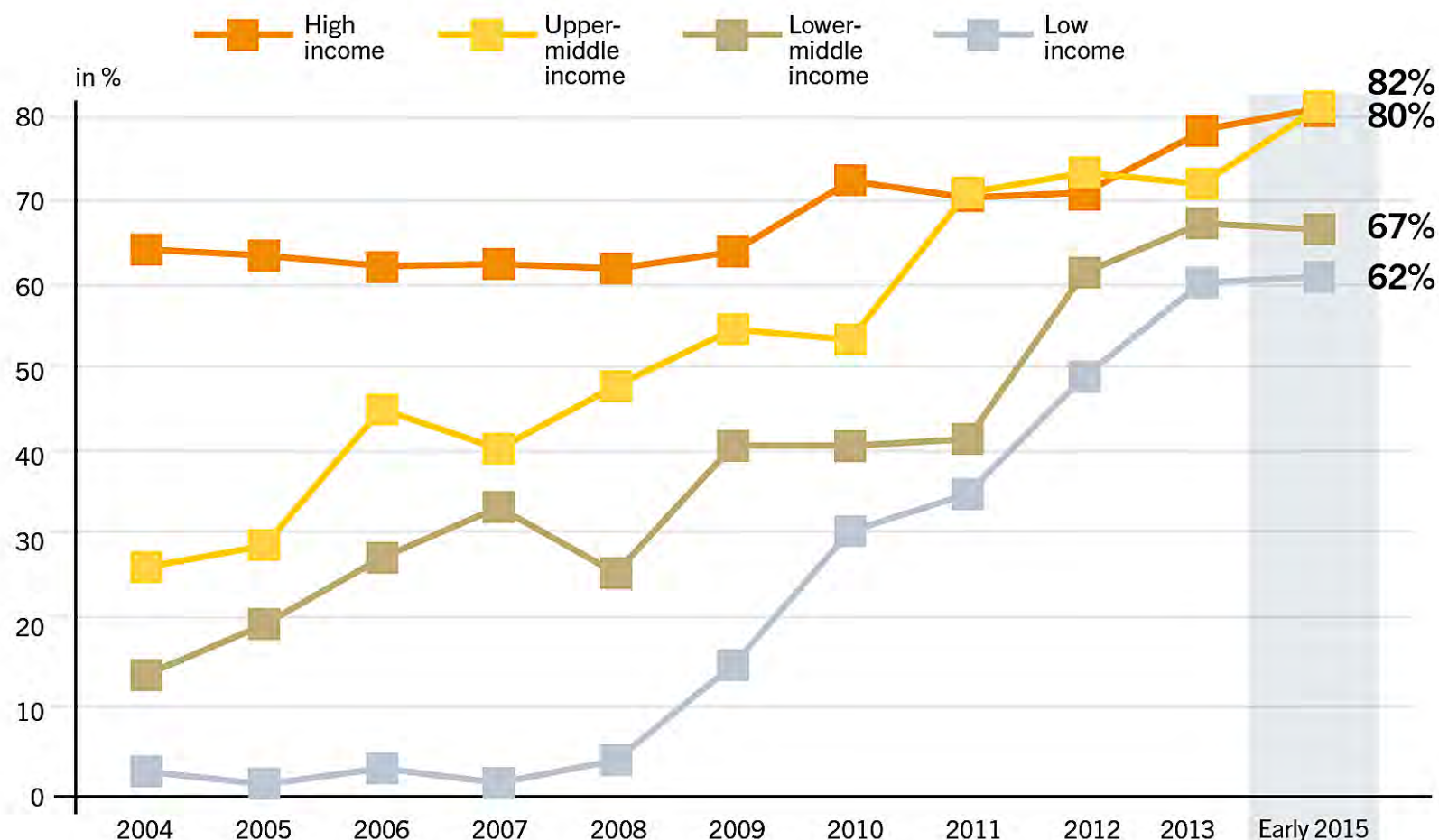
Countries are considered to have policies when at least one national or state/provincial-level policy is in place.

Countries with Renewable Energy Policies and Targets, Early 2015



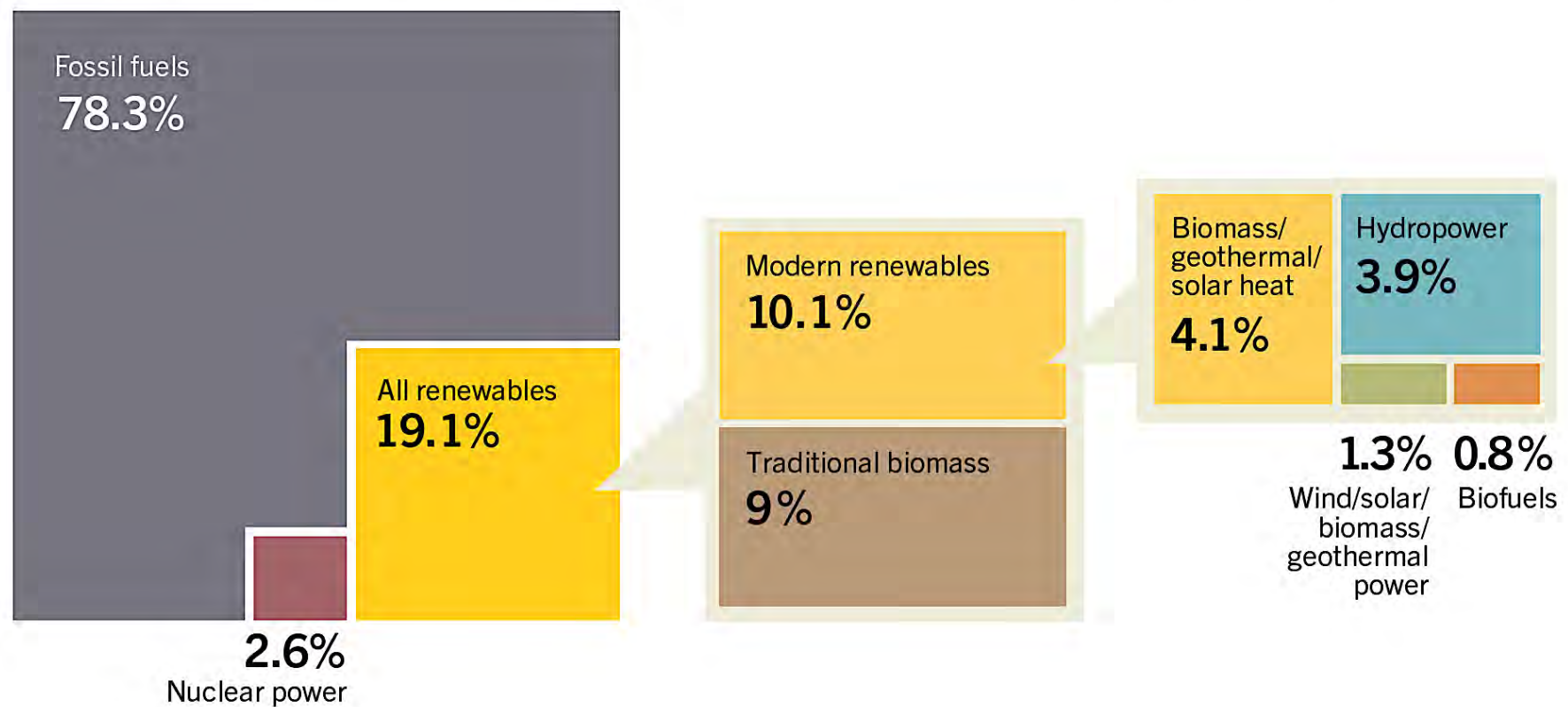
Countries are considered to have policies when at least one national or state/provincial-level policy is in place.

Share of Countries with Renewable Energy Policies, by Income Group, 2004–Early 2015

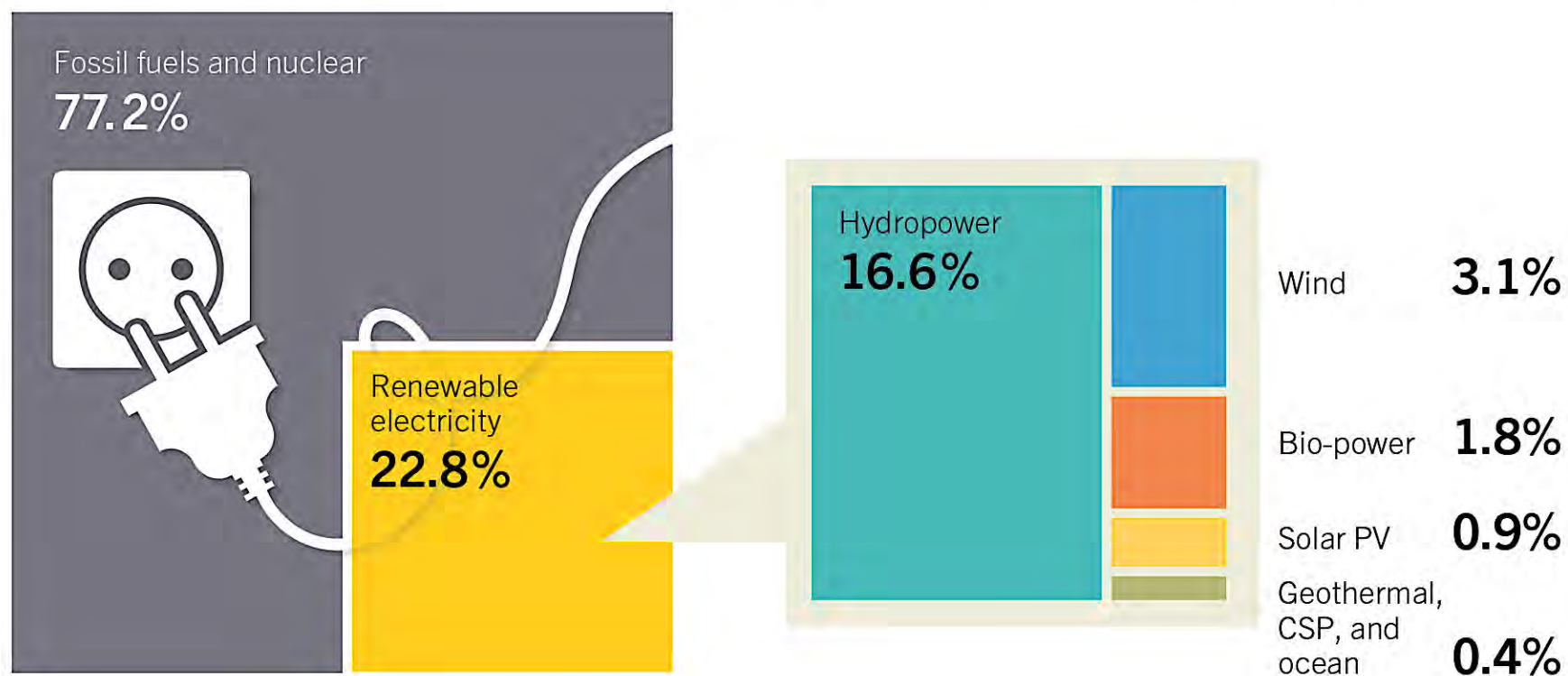


Declines in income group shares in specific years are due primarily to countries moving into new income groups. Over the period 2004–2014, 80 countries made a total of 108 changes in income groups.

Estimated Renewable Energy Share of Global Final Energy Consumption, 2013

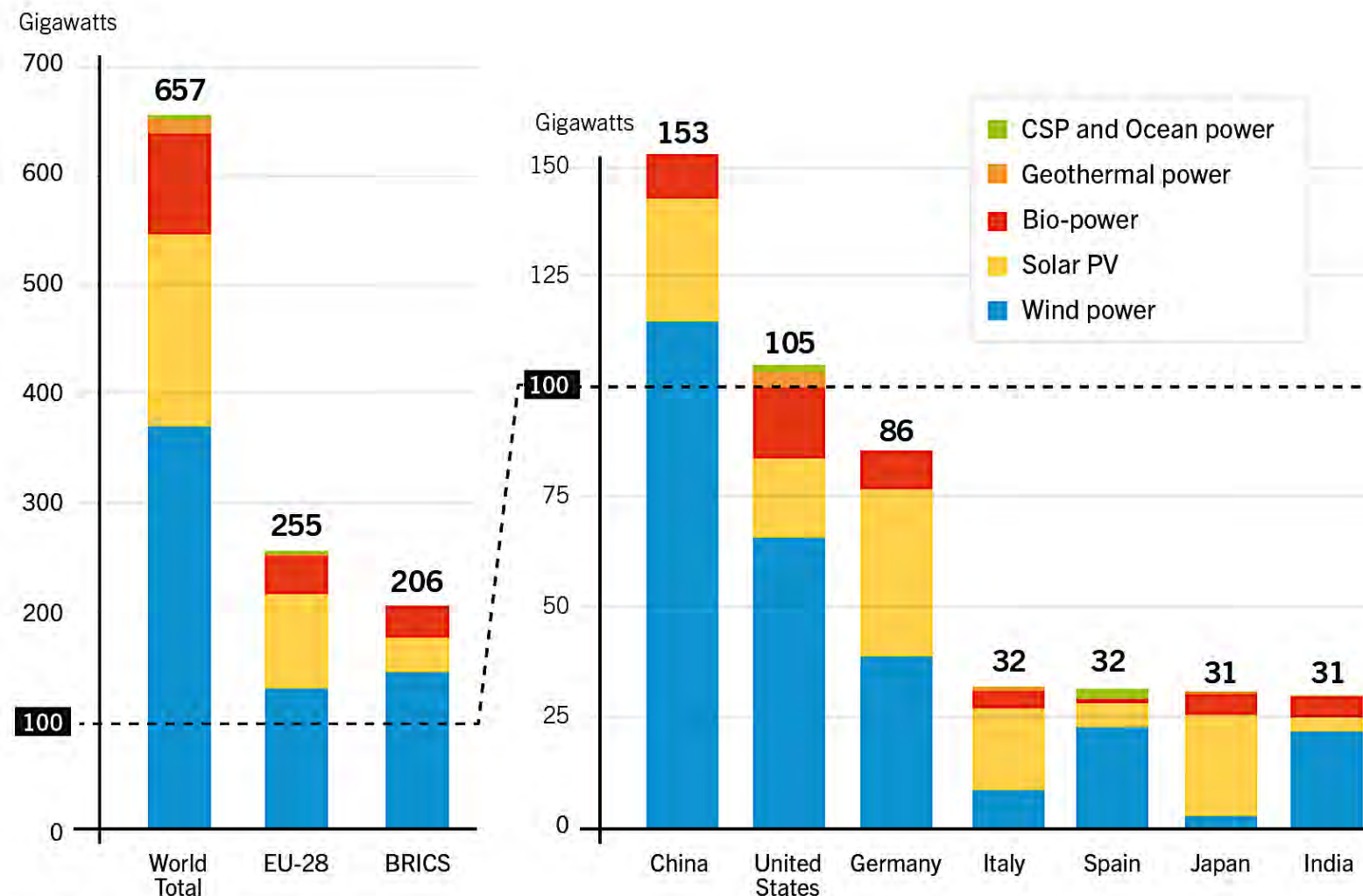


Estimated Renewable Energy Share of Global Electricity Production, End-2014

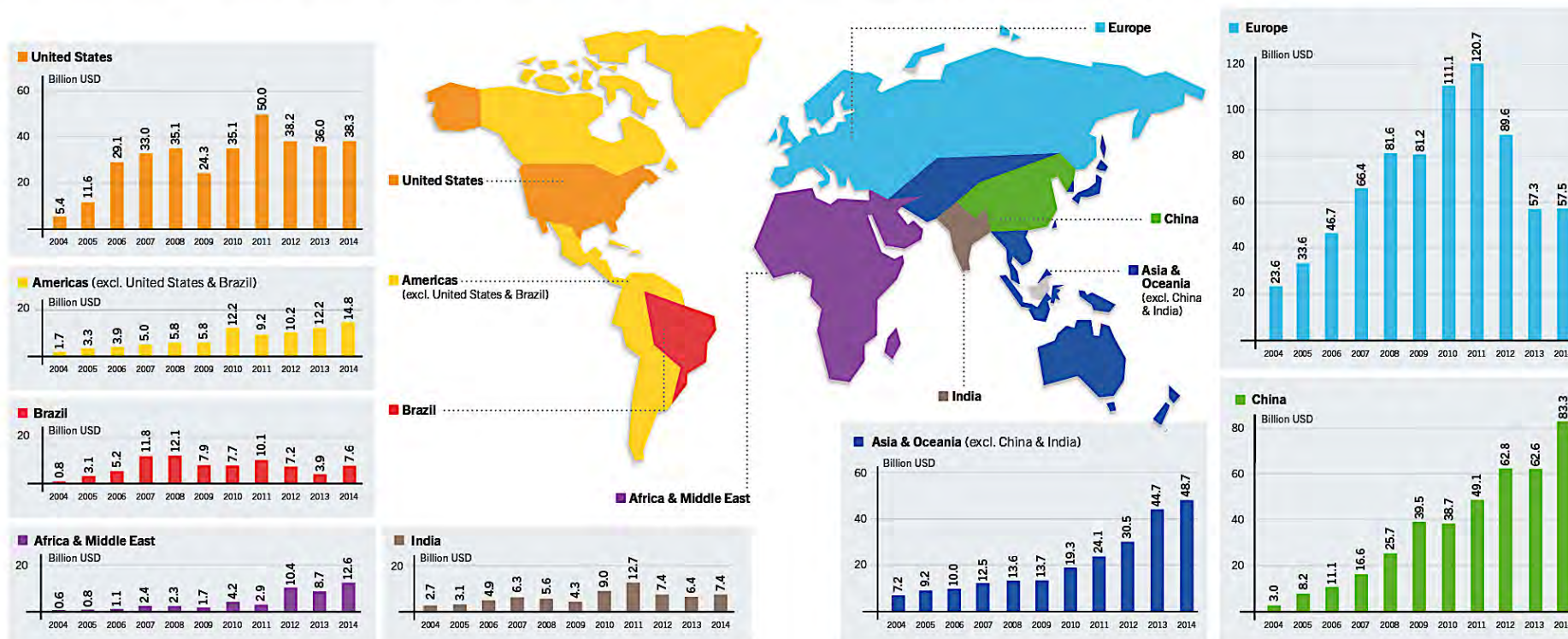


Based on renewable generating capacity in operation at year-end 2014.

Renewable Power Capacities* in World, EU-28, BRICS, and Top Seven Countries, 2014



Global New Investment in Renewable Power and Fuels, by Region, 2004–2013



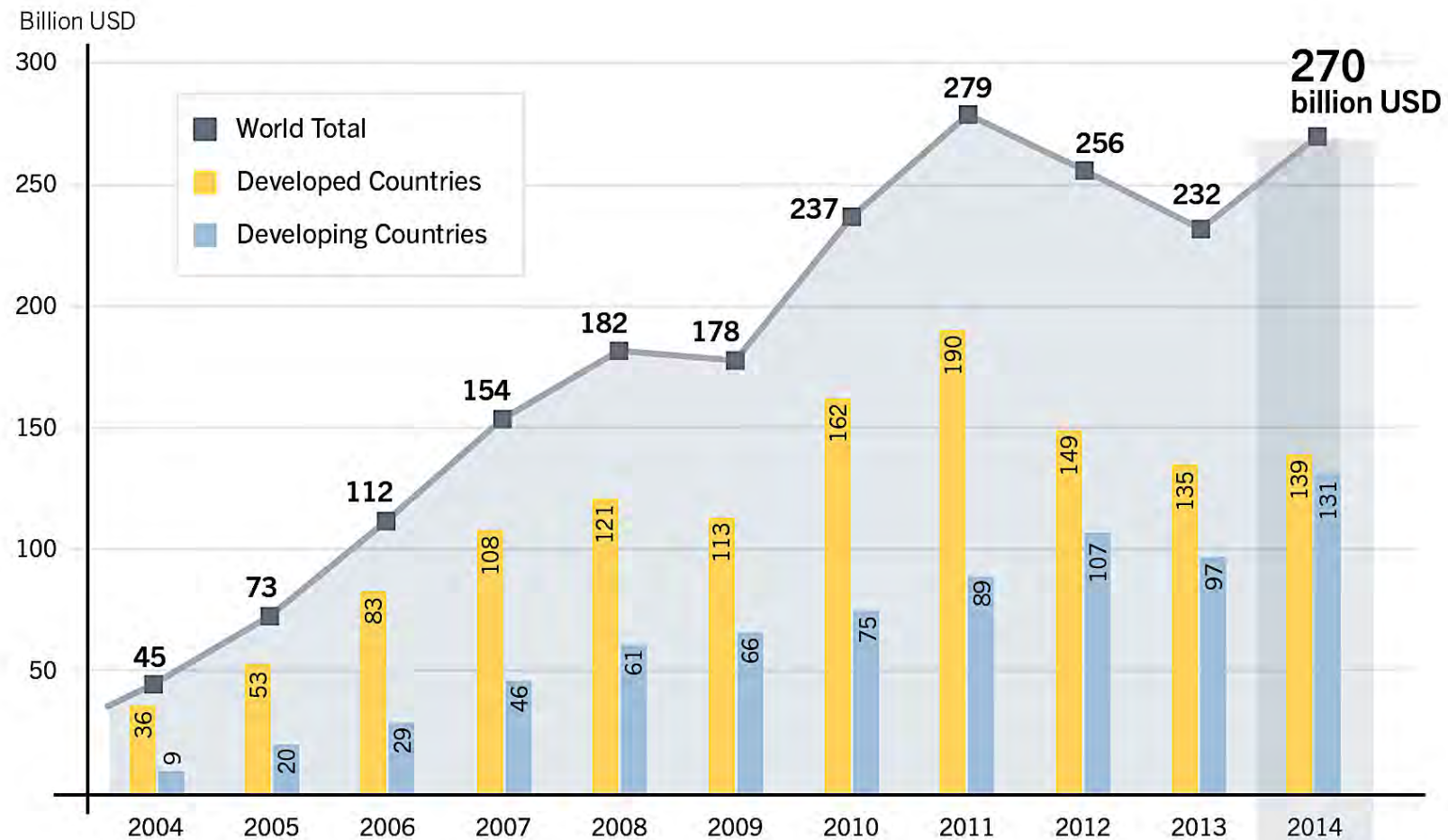
Data include government and corporate R&D.

REN21 *Renewables 2015 Global Status Report*



Source: Frankfurt School–UNEP and BNEF

Global New Investment in Renewable Power and Fuels, Developed and Developing Countries, 2004–2014

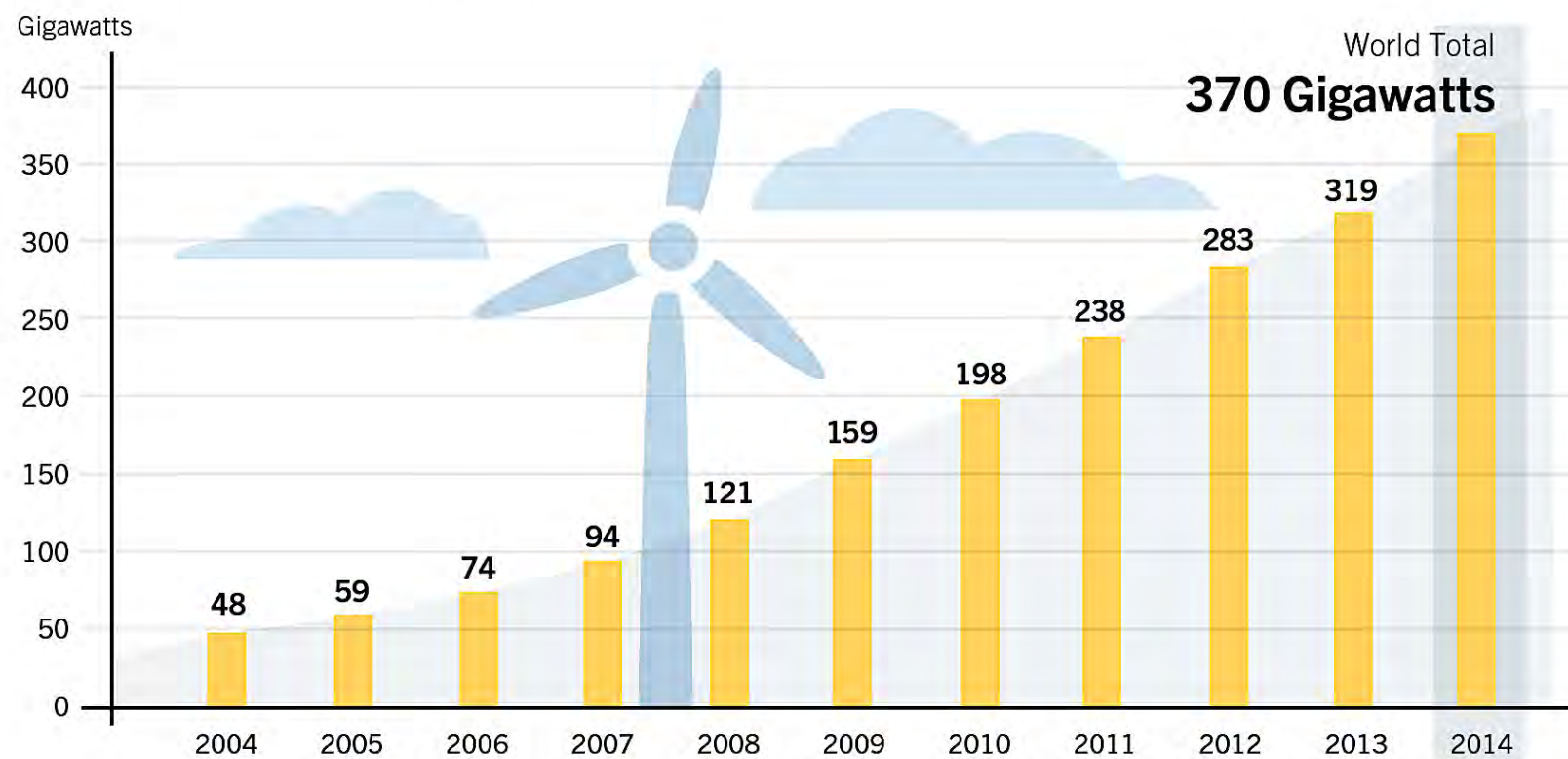


REN21 *Renewables 2015 Global Status Report*

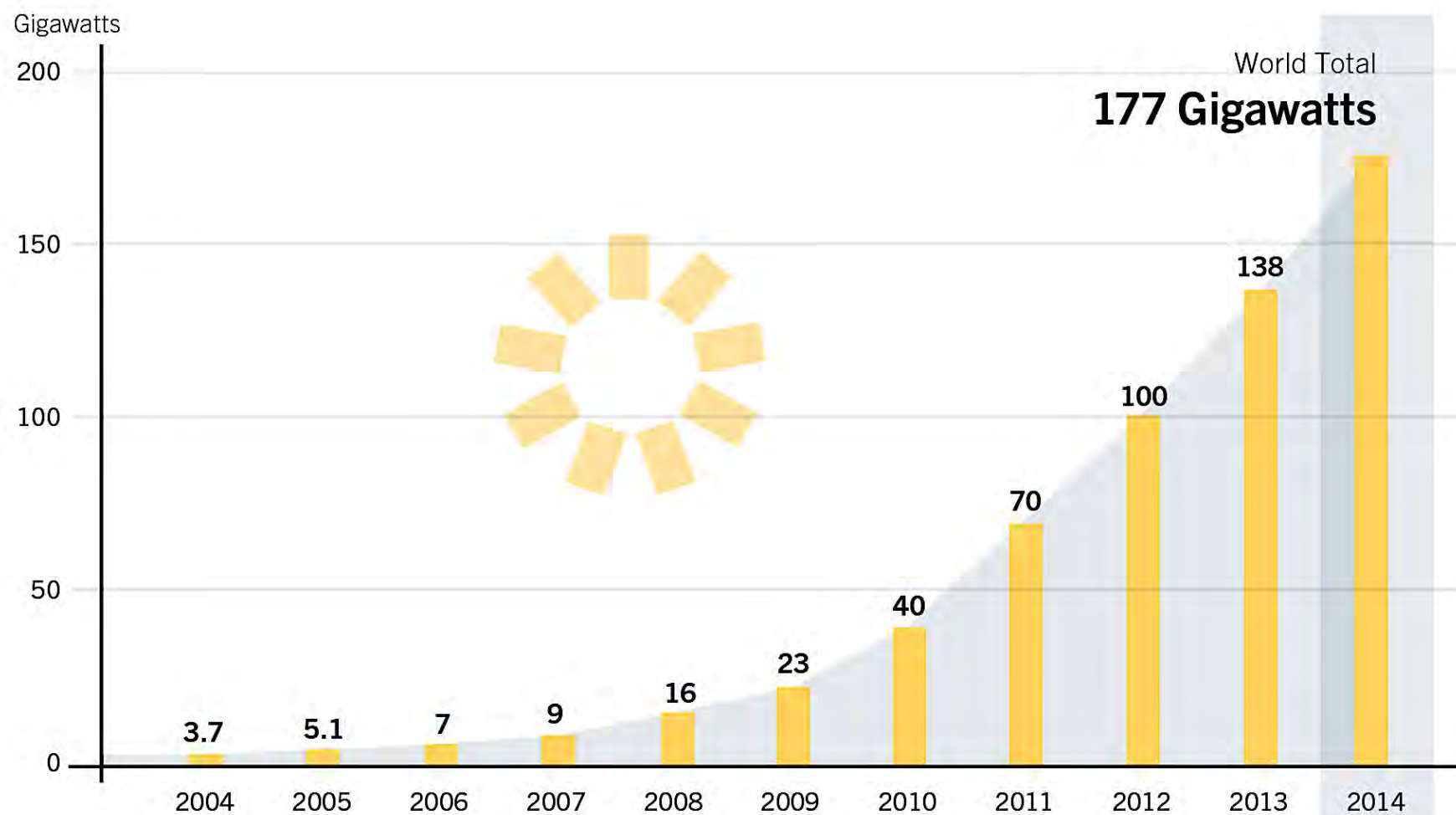


Source: Frankfurt School–UNEP and BNEF

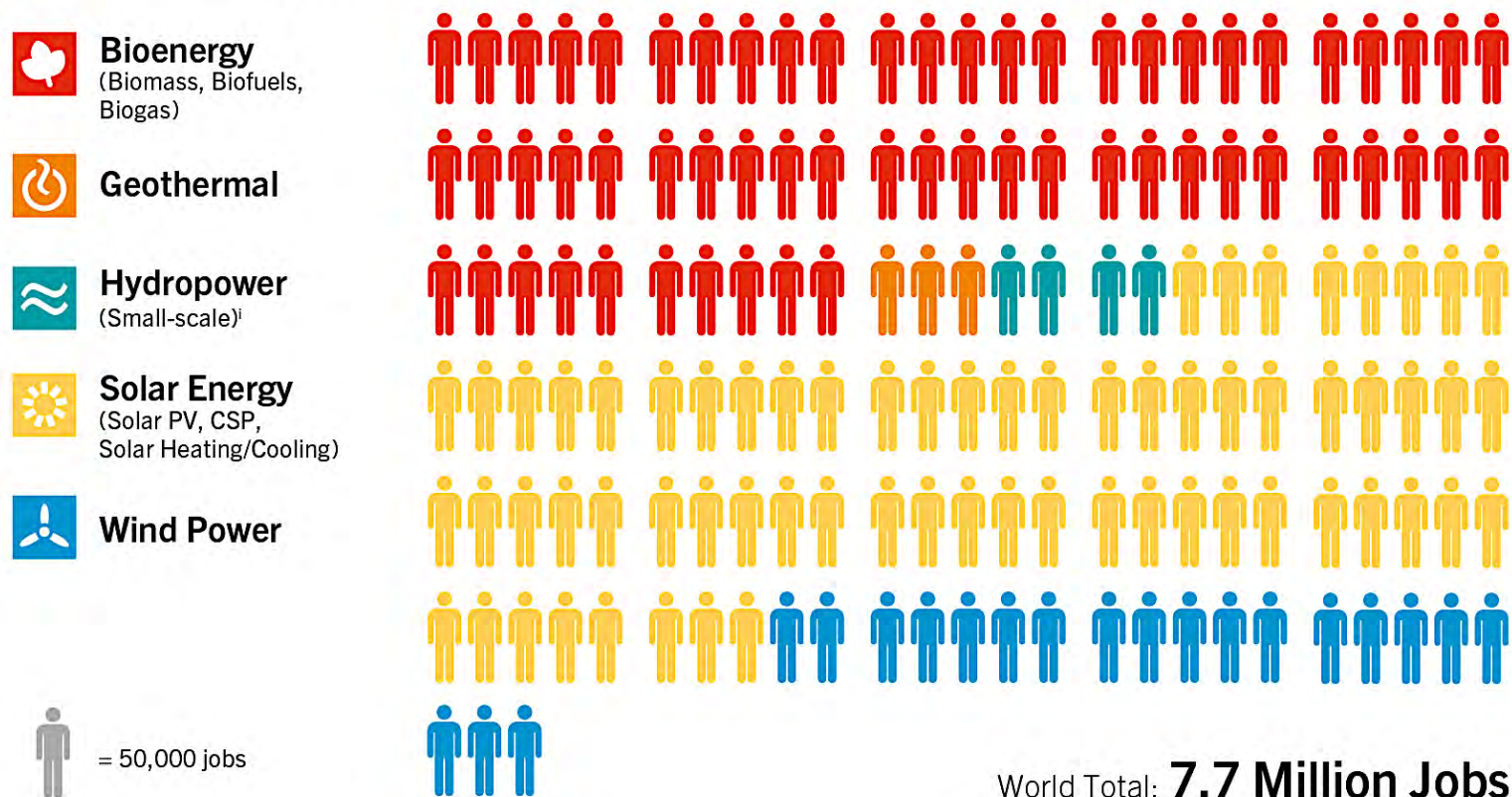
Wind Power Global Capacity, 2004–2014



Solar PV Global Capacity, 2004–2014



Jobs in Renewable Energy, 2014



i - Employment information for large-scale hydropower not included.

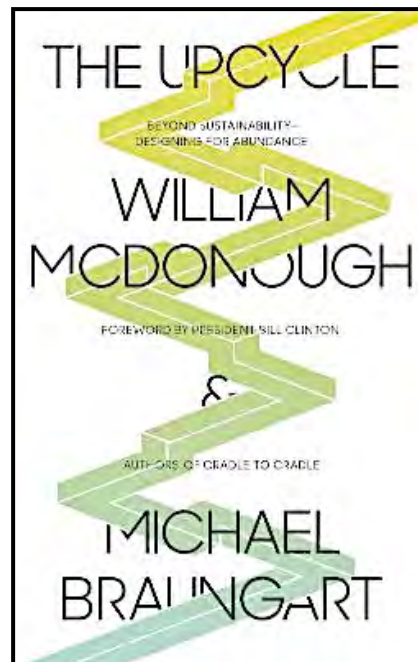
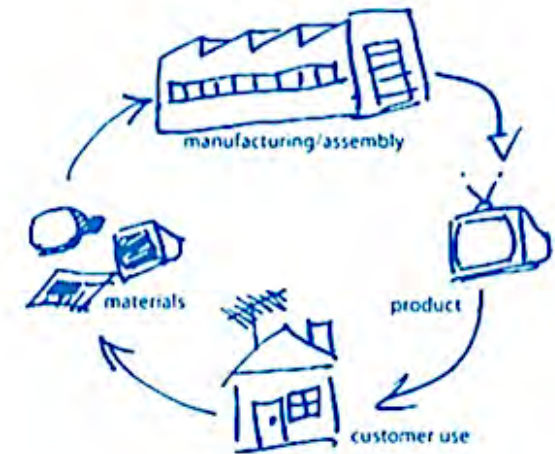
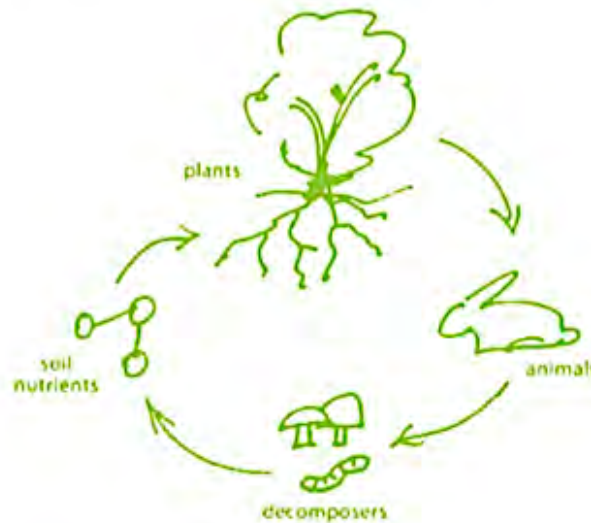
REN21 *Renewables 2015 Global Status Report*

Source: IRENA

Circular economy



Cradle to Cradle Framework



McKinsey – Circular Economy

- Radically re-thinking how we make and use things...
- ...will generate very large economic, environmental and social benefits
- Latest report from McKinsey: bit.ly/McKinseyCircular

Insights & Publications

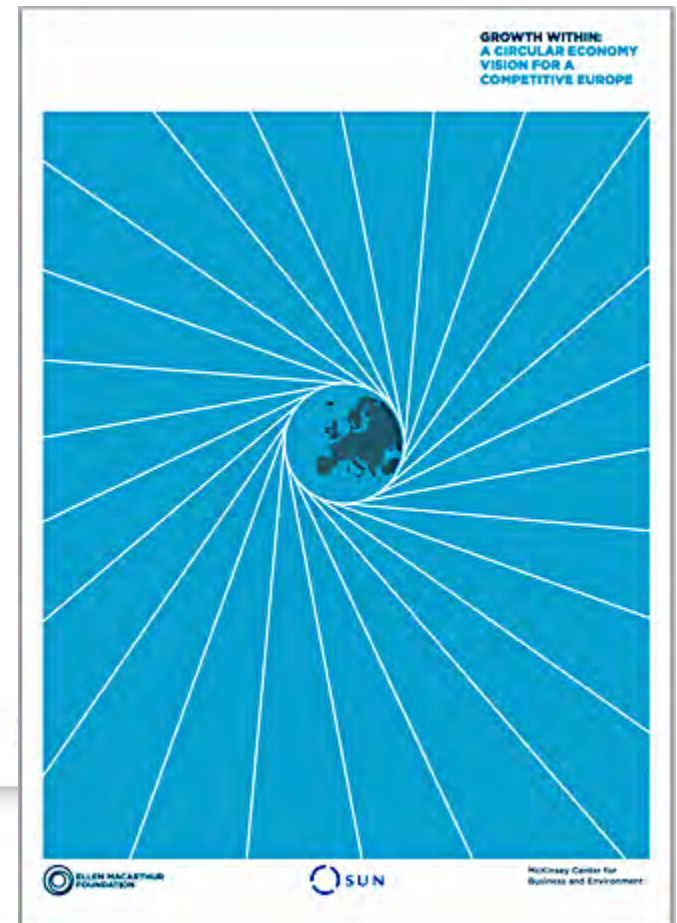
[Latest thinking](#) | [Industries ▼](#) | [Functions ▼](#) | [Regions ▼](#) | [More ▼](#)

Report

Europe's circular-economy opportunity

Adopting circular-economy principles could not only benefit Europe environmentally and socially but could also generate a net economic benefit of €1.8 trillion by 2030.

September 2015



MATERIAL INNOVATIONS

CRADLE TO CRADLE AND
DESIGN FOR DISASSEMBLY:



1. BIOLOGICAL
MATERIALS



2. TECHNICAL
MATERIALS

POLYCARBONATE
TRANSPARENT BODY



SOLARPANEL WITH
ALUMINUM-BASE



WINGS, FRAME, ETC. MADE
OF FLAX-BIOCOMPOUND



SEATS MADE OF
NATURAL FIBERS



Biodegradable, infinitely recyclable, solar-powered aircraft

THE **NEW CLIMATE ECONOMY**

The Global Commission on the Economy and Climate

TRANSLATE 



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Approach

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The launch of Better Growth, Better Climate: The New Economy Report

Our report - Better Growth, Better Climate: The New Climate Economy launch on Tuesday, 16 September 2014 at 9:00 am EST. Watch our report at <http://webtv.un.org/>.



BETTER GROWTH BETTER CLIMATE

The New Climate Economy Report

THE SYNTHESIS REPORT

THE GLOBAL COMMISSION ON THE ECONOMY AND CLIMATE

与清华大学合作开展气候

，请点击下方链接。

ING EVENTS

The Global Commission on the Economy and Climate

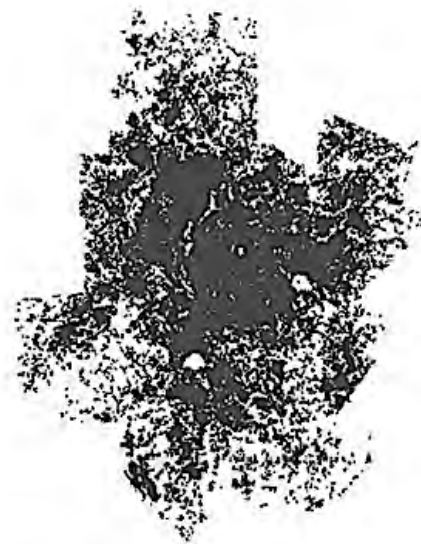
One of the most critical and urgent challenges facing countries today is achieving economic prosperity and development while also combating climate change.

The Global Commission on the Economy and Climate, and its flagship project The New Climate Economy, have been set up to help governments, businesses and society make better-informed

September 16, 2014 9:00am

**New York Launch of the New
Climate Economy at the
United Nations**

ATLANTA'S BUILT-UP AREA



0 10 20 (km)

POPULATION: **5.25 MILLION**

URBAN AREA:
TRANSPORT **4,280 KM²**

CARBON EMISSIONS:
TONNES CO₂ PER PERSON
(PUBLIC + PRIVATE
TRANSPORT) **7.5**

BARCELONA'S BUILT-UP AREA



0 10 20 (km)

POPULATION: **5.33 MILLION**

URBAN AREA:
TRANSPORT **162 KM²**

CARBON EMISSIONS:
TONNES CO₂ PER PERSON
(PUBLIC + PRIVATE
TRANSPORT) **0.7**

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

CLEAN DISRUPTION

WHY CONVENTIONAL ENERGY AND
TRANSPORTATION WILL BE OBSOLETE BY 2030

PRESENTATION TO
NZ SMART GRID FORUM

Te Papa Museum
Wellington, New Zealand
31 March 2015

Tony Seba

www.tonyseba.com

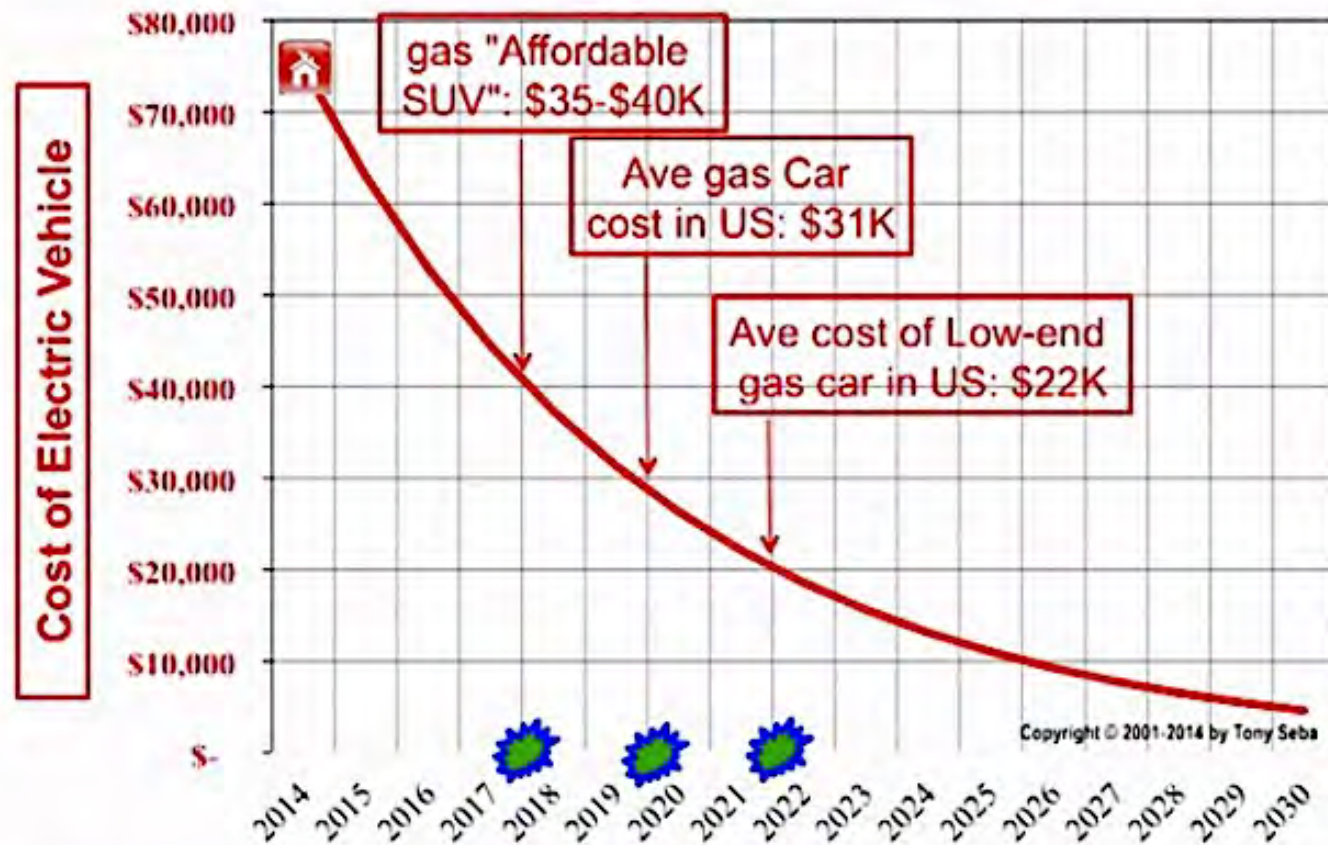


0:05 / 1:27:38



- <https://www.youtube.com/watch?v=j97Rh6DMclg&feature=youtu.be>

Projected Cost of EV with 200-mile range

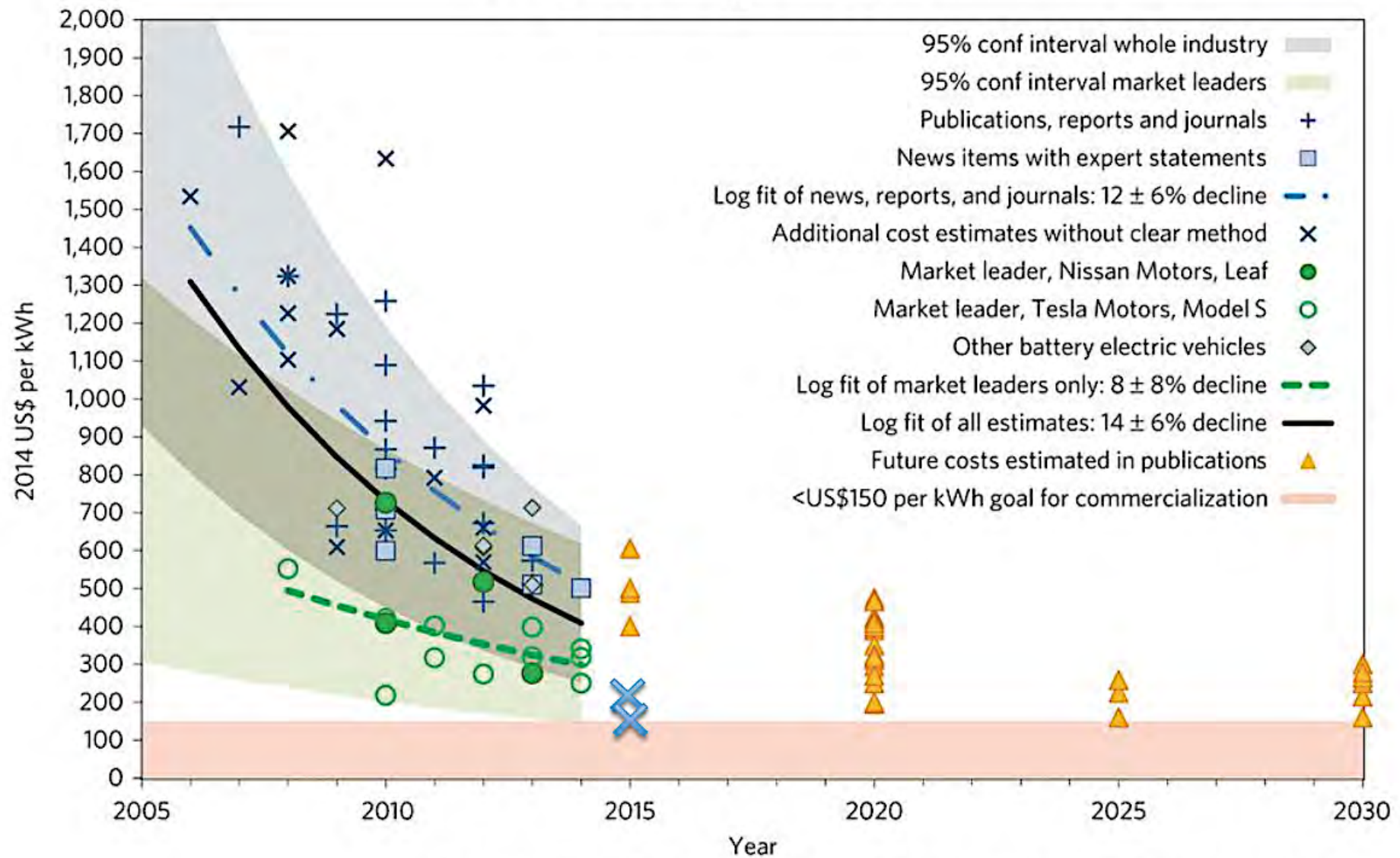


Assumptions: 4 miles/kWh, 50kWh batteries, 16% yearly improvement in battery costs,
EV Costs = 3X cost of battery

Source: Clean Disruption

Figure 5 – Projected cost of electricity vehicle - Source Seba

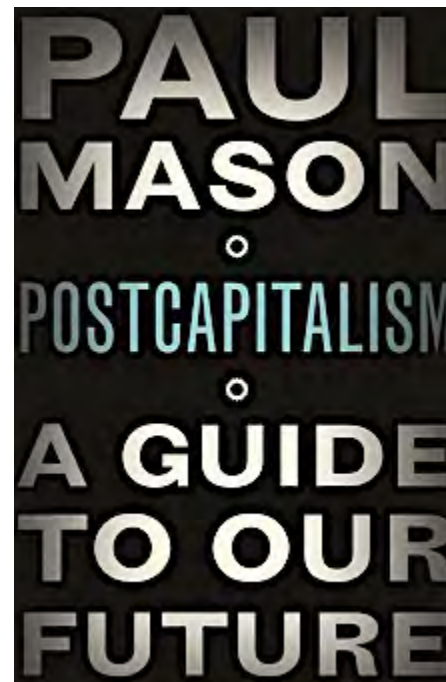
Battery Cost



Source: B. Nykvist & M Nilsson, Nature Climate Change, 2015

Intense pressures on economies, business models

- “Capitalism is a complex, adaptive system which has reached the limits of its capacity to adapt.”
- “Once capitalism can no longer adapt to technological change, postcapitalism becomes necessary.”



Postcapitalism

Three drivers of radical change:

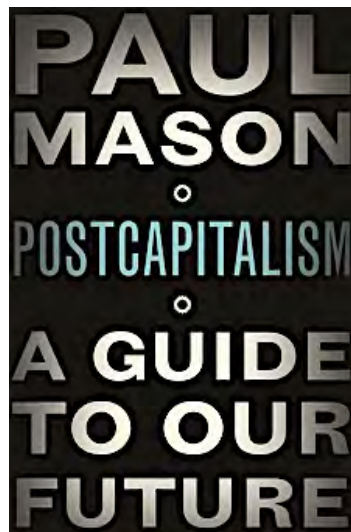
1. “Information technology has reduced the need for work”
 - Automation is now replacing jobs at a startling speed
 - E.g. Half the jobs in the US are at high risk of vanishing within a decade or two, a 2013 report by the Oxford Martin school estimated
2. “Information goods are corroding the market’s ability to form prices correctly”
 - Supply and demand assumes scarcity. Now certain goods are abundant
3. “Goods, services and organisations are appearing that no longer respond to the dictates of the market and the managerial hierarchy”
 - People are collaborating in ways that do not always make sense to traditional economists...
 - ...who are used to assuming that humans act in self-interest and price things according to supply and demand

Postcapitalism

- In a postcapitalist world:
 - Only part of the population will work for cash, on a quasi-voluntary basis
 - The rest will be pursuing non-monetary goals.
 - Governments to provide a guaranteed income for the entire population
 - and free (or low-cost) basic services and public infrastructure
 - Companies automate as much as they can (rather than using cheap labour)
 - Central bankers conduct financial repression to reduce national debt
- Government provides the framework to enable individuals to flourish
- State functions are handed over to citizens
- People are secure — and equal — enough to use the efficiencies unleashed by automation to pursue worthy goals, such as volunteering to write Wikipedia pages

Postcapitalism

- “It is absurd that we are capable of witnessing a 40,000 year old system of gender repression begin to dissolve before our eyes and yet we see the abolition of a 200 year old economic system as an unrealistic utopia” – *Paul Mason*
-
- <http://www.radionz.co.nz/national/programmes/saturday/audio/201775049/paul-mason-postcapitalism>



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Paul Mason: postcapitalism

Updated at 1:52 pm on 19 October 2015

“It is absurd that we are capable of witnessing a 40,000 year old system of gender repression begin to dissolve before our eyes and yet we see the abolition of a 200 year old economic system as an unrealistic utopia” – Paul Mason

Many have predicted or wished for an end to capitalism, but it has proved to be a fairly robust system. Now comes a wishful prediction that capitalism is changing into something completely new.

Paul Mason is Economics Editor of Channel 4 News in the UK, and writes regularly on culture and politics and the economy. His new book is *PostCapitalism: a Guide to Our Future*.

Paul Mason believes that vast numbers of people are already discovering new forms of ownership and business that are quite unlike capitalism and that offer a chance to create a more socially just and sustainable economy. He gets off the tube to talk with Kim Hill.



Paul Mason

Photo: Antonio Olmos

 [Play](#)  [Ogg](#) | [MP3](#) (23' 54")

Tags: [business](#) [economy](#) [politics](#) [technology](#) [postcapitalism](#)

 [Podcast \(MP3\)](#)  [Oggcast \(Vorbis\)](#)

WE NEED A REVOLUTION OF CAPITALISM

Peter Bakker
President, WBCSD;
Former CEO of TNT



Peter Bakker
*World Business Council for
Sustainable Development*

Revolution

- Led by John Elkington and others
 - www.breakthroughcapitalism.com/



John Elkington
Co-Founder and Executive Chairman
Volans

Breakthrough Business Leaders, Market Revolutions



Breakthrough Criteria

A Breakthrough solution meets the following criteria

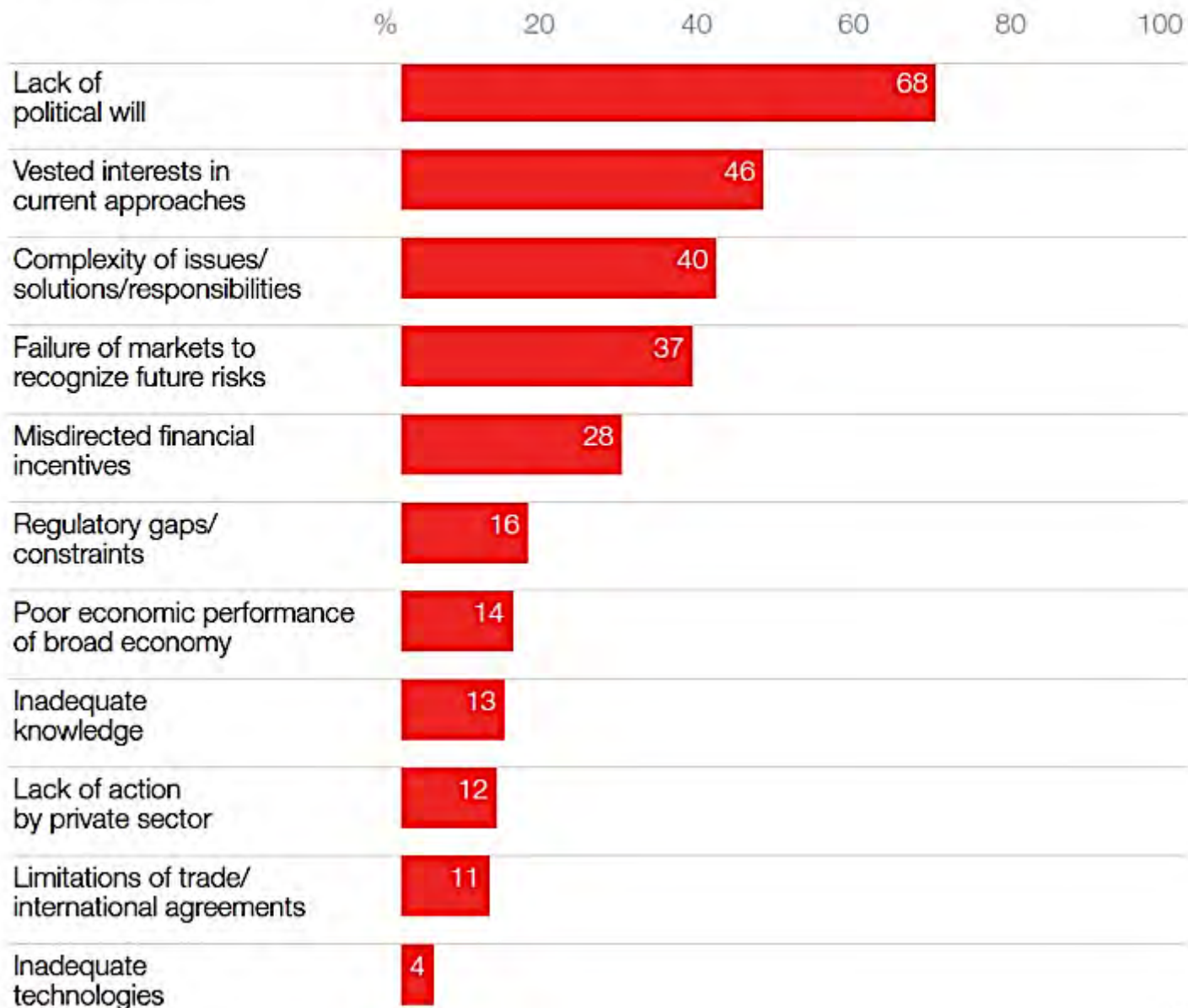
Key Concepts

Future-Ready	Ambitious	Fair	Disruptive
Works well in a world of 7-going-on-9 billion people, providing affordable access to needed products or services, while respecting planetary boundaries. ³⁵	Aims to transform key aspects of capitalism—and drive radically better outcomes across the triple bottom line.	Helps tackle critical equity issues, including the transfer of intergenerational debt created by public borrowing, natural resource extraction and environmental destabilization.	Promises (or threatens, depending on your viewpoint) to disrupt the current economic or governance system, moving the needle from incrementalism to system change.
Ecological Footprinting Global Footprint Network ³⁶	Environmental Profit & Loss PUMA/PPR ⁴¹ The B Team ⁴²	Access to X Where X might be medicines, clean water, renewable energy, education or finance	Biomimicry B Corporation ⁵² Biomimicry 3.8 ⁵³
One Planet Living Bioregional ³⁷	Impact Investment Global Impact Investing Network ⁴³	Fair Trade Fairtrade International ⁴⁹	Circular Economy Ellen Macarthur Foundation ⁵⁴
Planetary Boundaries Stockholm Resilience Centre ³⁸	Zero Interface Mission Zero ⁴⁴ Zero Discharge of Hazardous Chemicals ⁴⁵	Social Innovation / Entrepreneurship / Investment Skoll Centre for Social Entrepreneurship ⁵⁰	Cradle-to-Cradle Design MBDC ⁵⁵
Stranded Assets Carbon Tracker ³⁹ Generation Investment Management ⁴⁰	‘X’ The X Prize Foundation ⁴⁶ Solve for X ⁴⁷ Google X ⁴⁸	Sustainable Living Unilever ⁵¹	Sharing Economy / Collaborative Consumption Oxfam / Marks & Spencer ⁵⁶ Mesh ⁵⁷ yerdle ⁵⁸

Figure 1.1
Barriers To Breakthrough Change

Source: GlobeScan and SustainAbility

Based on a 2012 survey of 1,660 experts in 117 countries. The original question related to progress in implementing 1992 Earth Summit's Agenda 21, sadly still a reasonable proxy for Breakthrough change.¹⁶



Rethinking - Unilever

- Fundamental change, e.g.
- **Energy:** Minimising energy people use consuming Unilever's food, personal care and other products
 - ...***not simply*** reducing Unilever's production energy
- **Farmers:** Ensuring sustainability of farmers and their communities
 - ...***not simply*** securing commodity raw materials
- **Corporate:** Experimenting with new structures & drivers such as Benefit Corporations in US for Ben & Jerry's ice cream subsidiary
 - ...***not simply*** doing a bit of Corporate Social Responsibility

Impact - Unilever

The Economist World politics Business & finance Economics Science & technology Culture

Unilever

In search of the good business

For the second time in its 120-year history, Unilever is trying to redefine what it means to be a virtuous company

Aug 9th 2014 | PORT SUNLIGHT | From the print edition

  359  312

SLEEPING in the open on top of his mansion was a nightly routine for William Lever, founder of what is now Unilever, an Anglo-Dutch consumer-goods giant. When Paul Polman became chief executive of the soap-to-ice-cream-maker in 2009 (joining from a Swiss rival, Nestlé), the Dutchman spent a night in Lever's rooftop bed as part of a total immersion in the history of his new firm. It helped persuade him, a year later, to launch a "Sustainable Living Plan", the name for his attempt to make Unilever the pre-eminent example of how to do capitalism responsibly, just as it had once been under Lever.

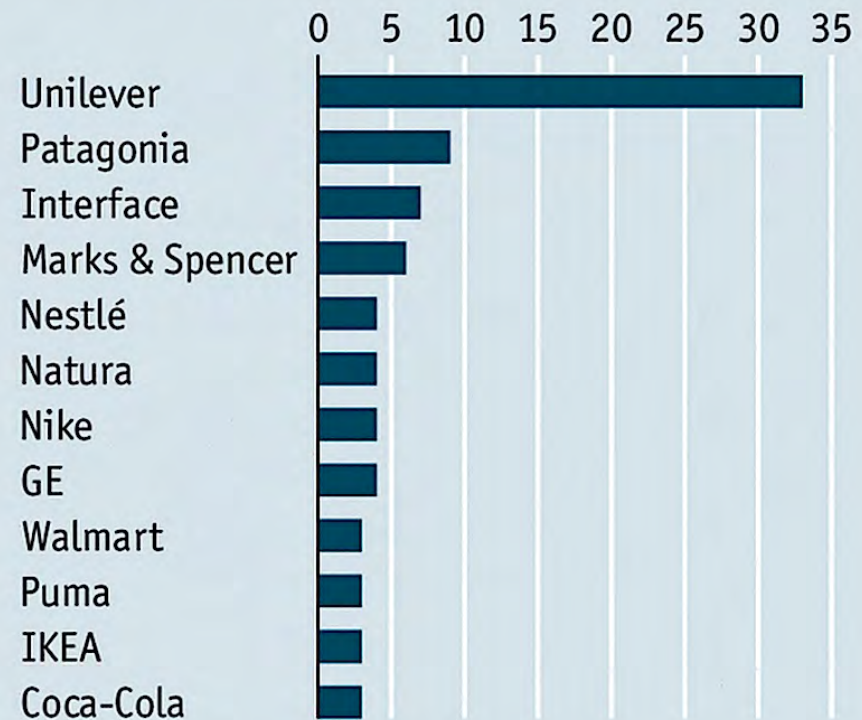
Outdoing even the Cadburys of Birmingham and the Rowntrees of York, Lever had pioneered the Victorian model of paternalistic business. At a time when



Unilever's lifebuoy

By a mile

Leaders in sustainability, % of analysts polled



Source: GlobeScan/SustainAbility Survey

- <http://www.economist.com/news/business/21611103-second-time-its-120-year-history-unilever-trying-redefine-what-it-means-be>

Agenda

- World
- Old NZ
- Revolution
- **New NZ**

Sustainable Business Council

- A big shift from “greening growth”...a slight improvement on business as usual
- ...to “ecosystem health”...the start of a radical rethink of business and nature

The screenshot displays the Sustainable Business Council website. At the top left is the logo with the text 'Sustainable Business Council' and 'wbcscd Global Network Partner'. A search bar with 'Search site...' and a 'GO' button is at the top right. A green navigation bar contains links: ABOUT, NEWS, PROJECTS, EVENTS, RESOURCES & TOOLS, MEMBERSHIP, and CONTACT. Below this, a breadcrumb trail reads 'Home > Projects > Ecosystem Health'. The main heading is 'ECOSYSTEM HEALTH' in green. A quote states: 'The health of our ecosystems underpins all aspects of New Zealand's export economy.' Below this, a paragraph explains: 'The SBC works with businesses to help them understand their dependencies and impacts on ecosystems and how this affects their business strategy and resource use.' The section 'ABOUT THE PROJECTS' follows, describing how SBC members integrate an 'ecosystem approach' into business management. It mentions the 'Valuing Nature Conference' in 2013/14 and the development of 'Q&As' and a 'Glossary'. It also refers to the 'Pitch for Nature' video launched by WBCSD in 2013. On the right, a 'PROJECTS' sidebar lists: Sustainable Leadership, Climate & Resources, Social Impact, Ecosystem Health (highlighted), and Future Leaders' Programme. At the bottom right, a banner for the 'ECOSYSTEM HEALTH WORK PROGRAMME' is visible, featuring a small 'Ecosystem Health' logo.

Sustainable Business Council
wbcscd Global Network Partner

Search site... GO

ABOUT NEWS PROJECTS EVENTS RESOURCES & TOOLS MEMBERSHIP CONTACT

Home > Projects > Ecosystem Health

ECOSYSTEM HEALTH

The health of our ecosystems underpins all aspects of New Zealand's export economy.

The SBC works with businesses to help them understand their dependencies and impacts on ecosystems and how this affects their business strategy and resource use.

ABOUT THE PROJECTS

SBC members work together on projects that will help them integrate an 'ecosystem approach' into their business management. It supports this by brokering partnerships between business and government on biodiversity and ecosystem issues.

In 2013/14 this project delivered the business contribution to the successful **Valuing Nature Conference**. This helped put natural capital on the national agenda. The project has also developed communications materials – **Q&As** and a **Glossary** – to help explain what the concepts of biodiversity and ecosystems services are and why these are important for business. The **"Pitch for Nature" video**, launched by the World Business Council for Sustainable Development (WBCSD) at the inaugural World Forum on Natural Capital in 2013, complements these materials by helping explain what natural capital is and why businesses need to care.

PROJECTS


- Sustainable Leadership
- Climate & Resources
- Social Impact
- Ecosystem Health**
- Future Leaders' Programme

ECOSYSTEM HEALTH WORK PROGRAMME

Ecosystem Health

Sustainable Business Network

- “Reshaping Profit”...also the start of a radical rethink of business and nature



The diagram shows a central white circle with the text "SBN Vision" and "Model Sustainable Nation". Surrounding this are four colored segments: blue (top) with a circular arrow icon and the word "Renewables", green (right) with a cluster of dots icon and the word "Community", yellow (bottom) with a double-loop icon and the word "Mega efficiency", and orange (left) with a spiral icon and the word "Restorative".

Reshaping profit.

If you're looking for an organisation that will invigorate your business, you've found it.


Our members are charting a path to profit that benefits communities, employees and our natural environment as well as shareholders – profit fit for the 21st century.

We help our members succeed in four Transformation Areas.

Click on an icon to learn more.



Renewables Community Mega efficiency Restorative



Home / Restoring New Zealand's Food System

Restoring New Zealand's Food System.

Creating a successful restorative food system.

Restorative.

Restoring NZ's Food System.



Support Partners

Here at the Sustainable Business Network we're trying to help find solutions to the challenges in the food system, from production, manufacturing, distribution, access and eating through to waste. We're bringing together actors to collaborate from different sectors of the food system, who might not ordinarily work together. To read more about the projects we're working on [click here](#).

The shifts that are needed are big and pressing. Innovative and creative business and social solutions are needed to help restore Aotearoa New Zealand's food system. No one organisation or company can do this alone but together we can combine to help create a food system that takes into account health, wellbeing, people and the environment in making a more conscious shift towards better food for Aotearoa New Zealand.



A
race has
begun.

And we are in it.

[Join the race](#)

[Download](#)

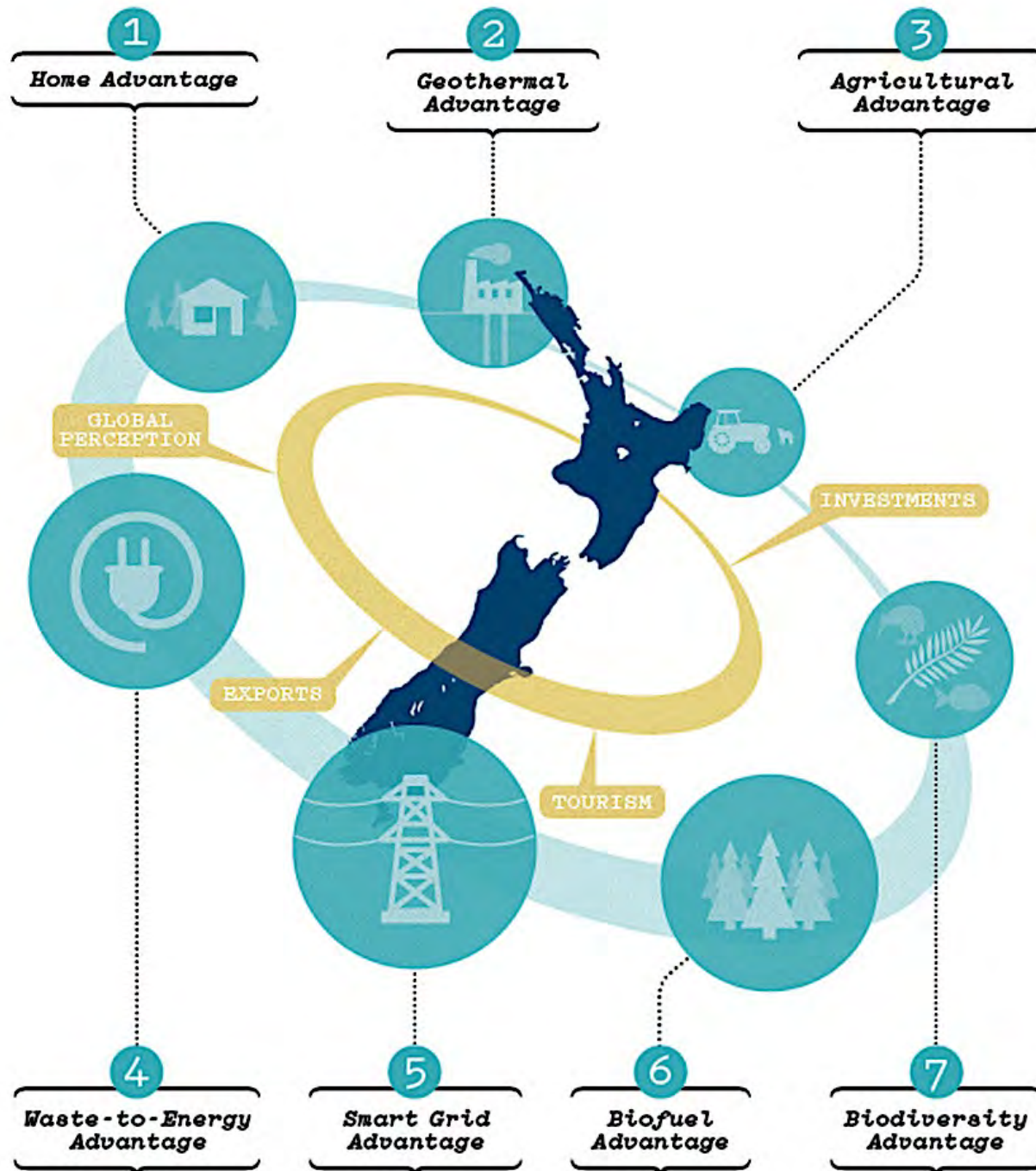
There is an international 'green race' being run. Every country in the world is taking part. It is as inevitable as it is unstoppable. And New Zealand is well placed to lead.

What we do next will dictate whether we continue to be on the pace – or be left behind.

Current Supporters

7,818

People have signed up to show their support for the Pure Advantage



Green growth: opportunities for New Zealand

Report prepared for the New Zealand Green Growth Research Trust

Final report
November 2012





New Zealand Smart Grid Forum

[Publications](#)[Meeting 7: 4 August 2015](#)[Meeting 6: 6 May 2015](#)[Meeting 5: 11 February
2015](#)[Meeting 4: 4 November
2014](#)[Meeting 3: 6 August 2014](#)[Meeting 2: 6 May 2014](#)[Meeting 1: 3 April 2014](#)[Forum establishment](#)

New Zealand Smart Grid Forum



Architecting a future electricity system for all New Zealanders

The Ministry of Business, Innovation and Employment, with the support of the Electricity Networks Association has commissioned a Smart Grid Forum. The Forum brings together relevant parties from business, scientific and academic circles, along with policy makers, regulators and consumers.

The Forum's objective is to advance the development of smart electricity networks in New Zealand through information sharing and dialogue, supported by analysis and by focussed work-streams where these are considered to be appropriate. To achieve this purpose, the Forum will:

- Promote its objectives to parties involved in smart electricity network development to encourage the active participation of the diverse elements of the power demand and supply chain in Forum activities
- Promote and facilitate a collective understanding of current smart electricity network developments
- Collaborate and seek synergies with associated initiatives in areas such as electricity load control, innovation, data sharing, system security and data security, and consumer empowerment
- Identify barriers to investment and the means to address those barriers; and
- Develop and communicate a collective understanding of relevant developments in other jurisdictions.

**NEW
ZEALAND
SMART
GRID
FORUM**

*Architecting a
future electricity
system for all
New Zealanders*

Installed capacity by scenario and storage type

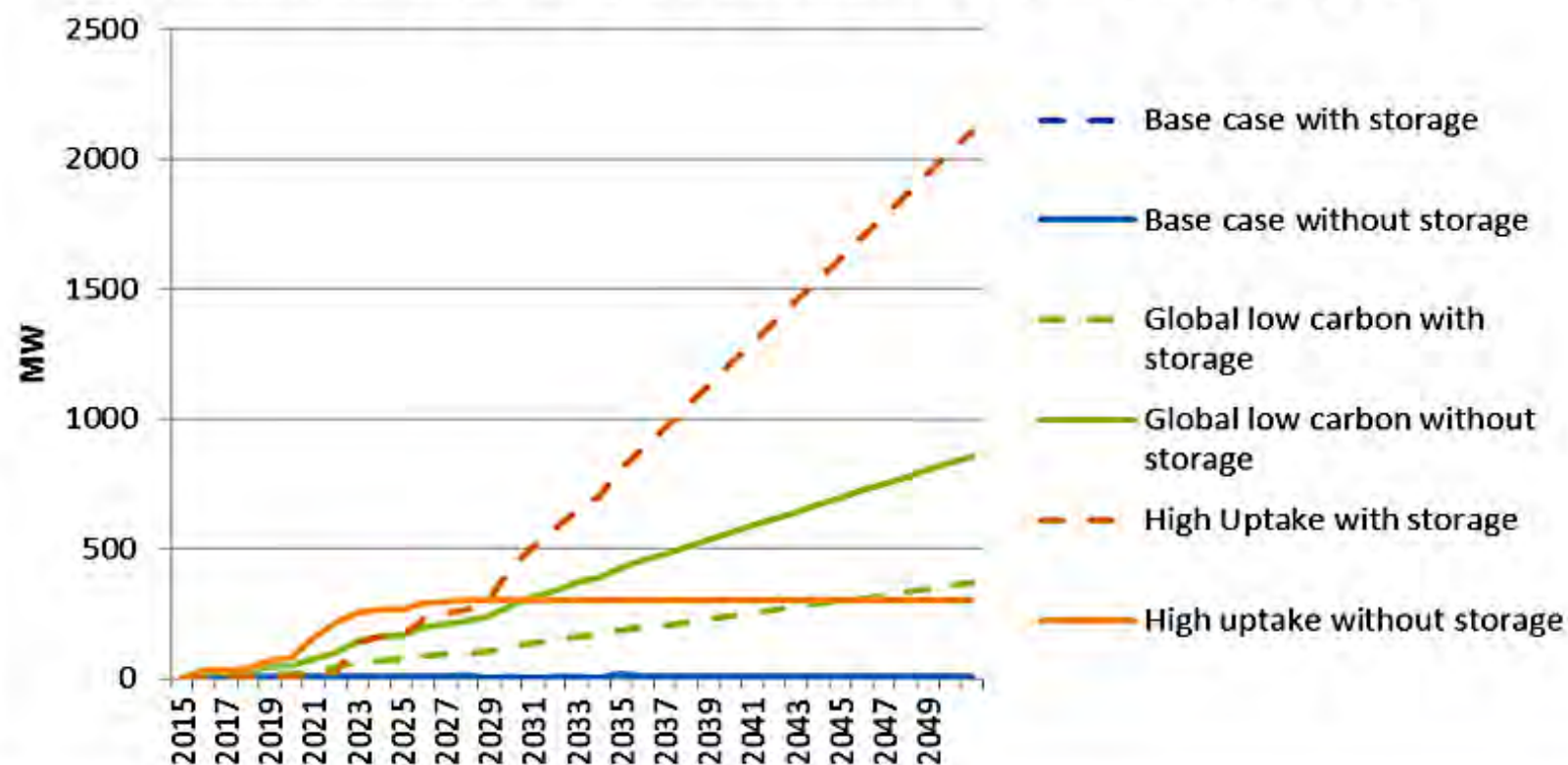


Figure 4 - Transform project scenarios for photovoltaic capacity (lines for “with” and “without” storage are not cumulative – i.e. total installed capacity by scenario is the sum of the dashed and continuous line values)

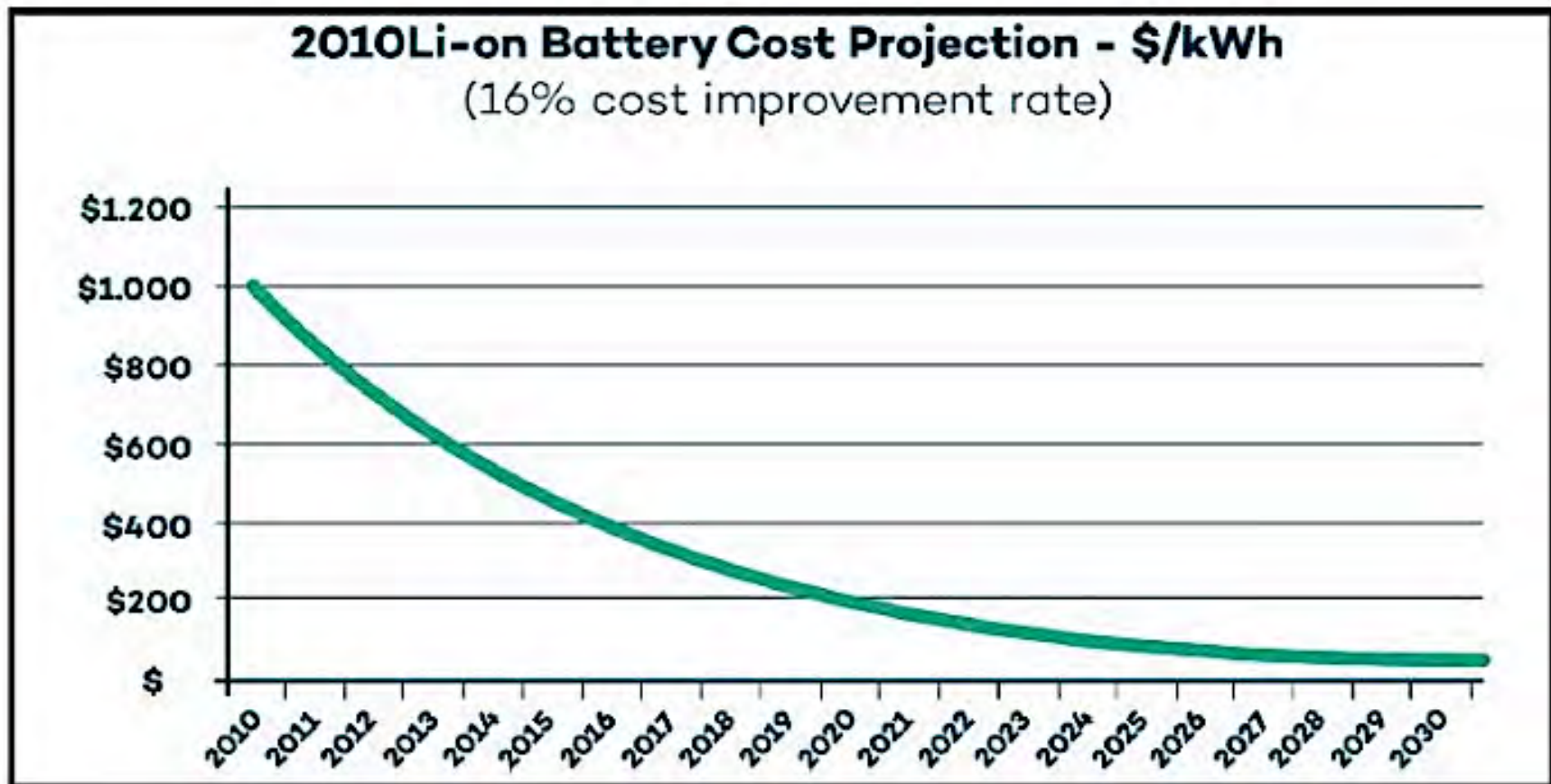


Figure 1 - Li-ion battery cost projection \$/kWh - Source Seba

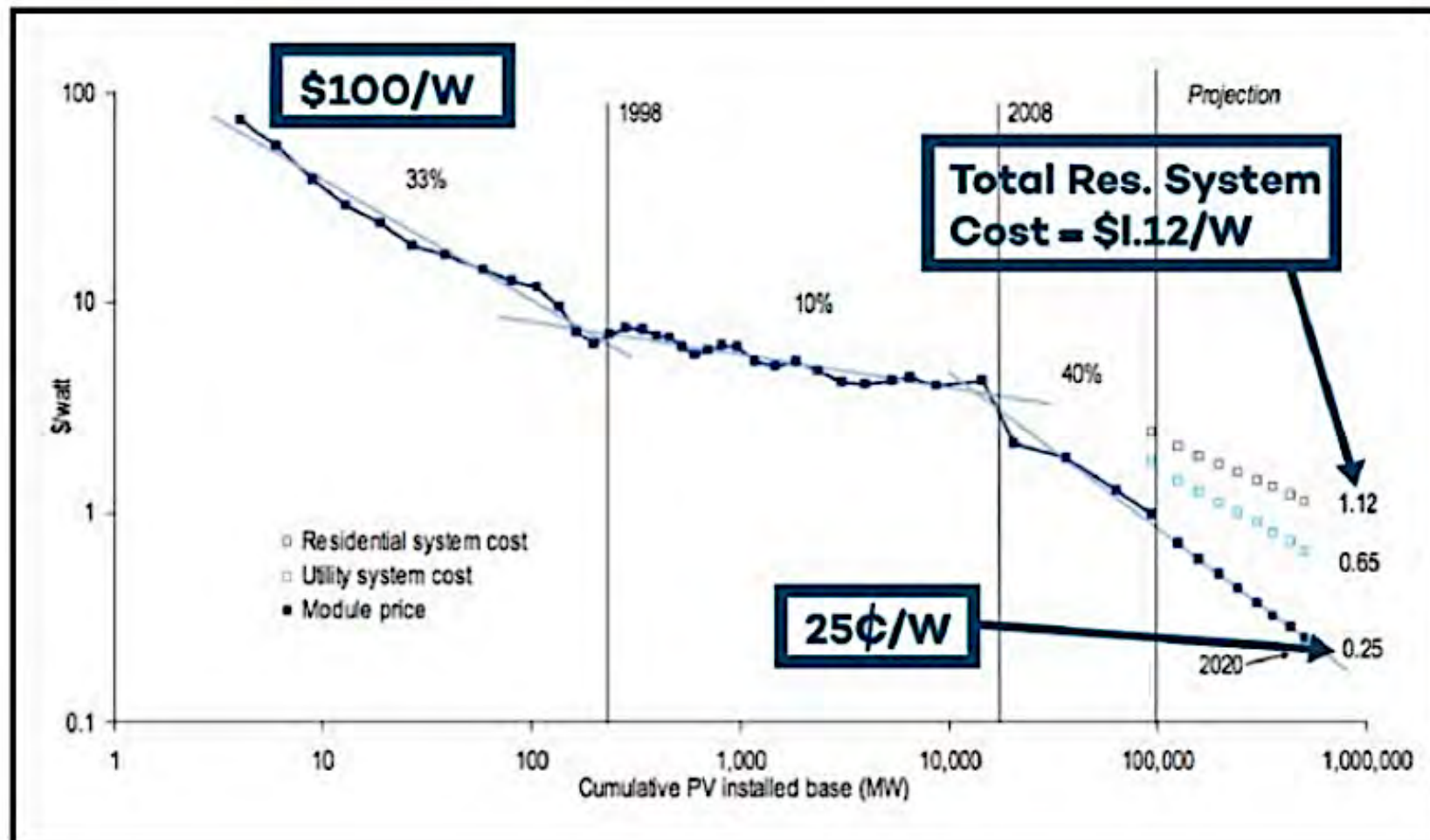


Figure 3 - Solar costs have fallen 154x since 1970 - source Seba

Develop an
energy plan

Technologies

Sectors

Funding
& supportStandards, ratings
& labelsOur partners
& suppliers**Tools**

Log

You are here: Tools » Vehicle total cost of ownership tool

Vehicle total cost of ownership tool

Choosing the right vehicle for your fleet comes down to more than just purchase price. Looking at the total cost of ownership could make a big difference to your bottom line and your carbon footprint. This tool makes it easy for you to compare the cost of buying, running and on-selling new vehicles, whether they are electric, hybrid, petrol or diesel, and helps you decide which one is right for you.



Share + get started, select at least one vehicle type and purchase price range that meets your needs. You may also choose to limit the vehicle options displayed by selecting from the other criteria, or you can leave these open.

**TIP:** select for tips and help

Select your vehicle needs

Vehicle type*



Make



Purchase price*



Fuel type



Drive



Transmission



View >

- <https://www.eecabusiness.govt.nz/tools/vehicle-total-cost-of-ownership-tool>

Vehicles



Nissan LEAF Electric AC
Motor Hatch 5 Seat 80kW



Toyota PRIUS C Hybrid Alloy
Wheels Hatch 5 Seat 54kW



Toyota COROLLA GX Hatch
5 Seat 103kW



+ Vehicle details

Total cost of ownership

Operational term: 36 months

Km over term: 63,780

Total cost over term	\$23,747.38	\$23,766.61	\$26,521.07
Cost per month	\$659.65	\$660.18	\$736.70
Cost per km	\$0.37	\$0.37	\$0.42

Want to customise your results?

The following table outlines the costs included in the total cost of ownership. To customise your results you can edit some fields in the table below and adjust the default input values.

[Adjust default inputs](#)

+ Purchase costs	\$35,067.19	\$28,114.46	\$29,668.70
+ Finance & tax	(\$4,157.70)	(\$5,171.87)	(\$6,018.01)
+ Compliance costs	\$533.78	\$533.78	\$533.78
+ Running costs	\$2,920.10	\$6,288.23	\$9,744.60
+ Net residual value	\$10,616.00	\$5,998.00	\$7,408.00

Vanguard NZ companies

- An exciting new class of NZ companies is emerging:
- Hallmarks:
 - Inspired products & services offering unique value
 - Originality born of NZ roots
 - Smart strategies for international markets
 - Astute management skills to acquire & develop human & technology skills; capital
 - Confidence & skills to collaborate with partners, suppliers, customers abroad
- Across the economy: domestic; import; export

Building value: Comvita's 10-year transformation

FREE FREIGHT OVER \$30 BUY NOW! | CONTACT US | PROMOTIONS

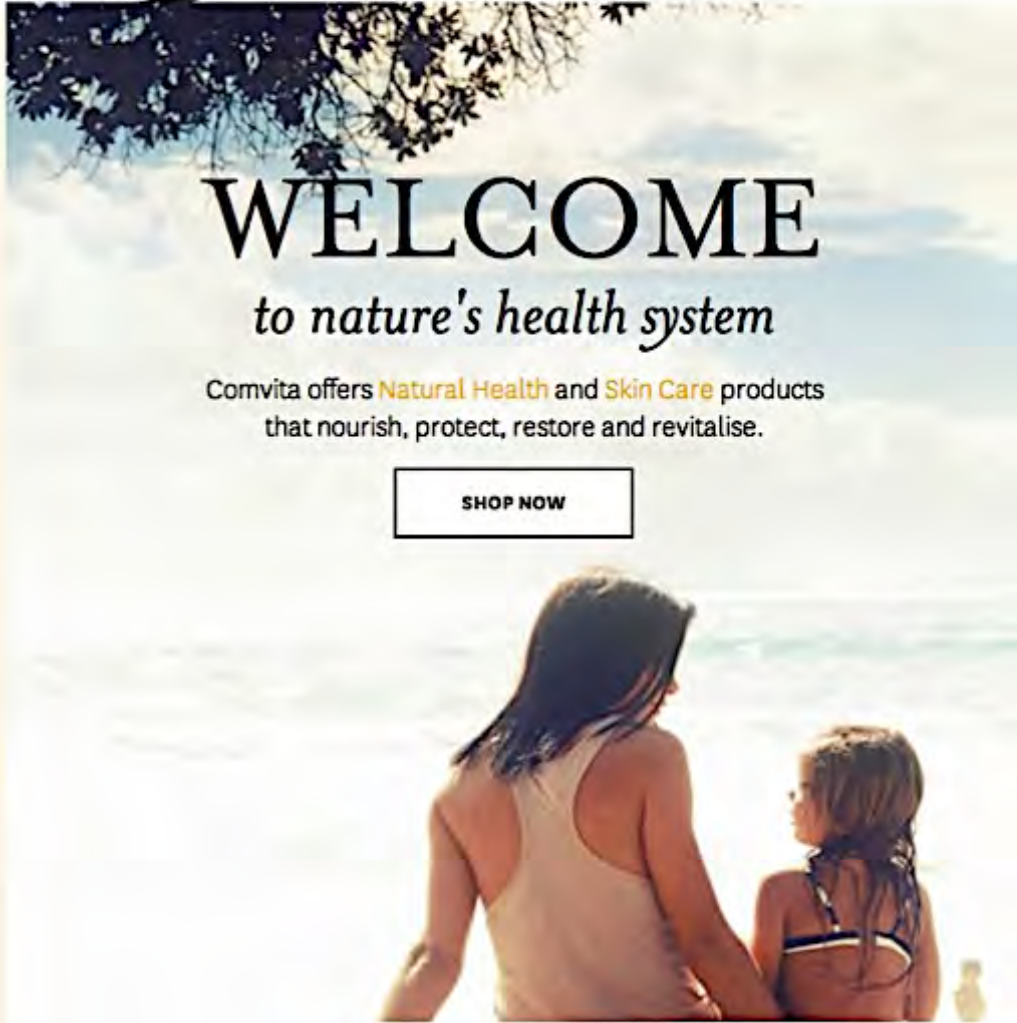
NEW ZEALAND ▾ REGISTER • LOGIN

CART \$0.00

COMVITA

LEARN ABOUT US • NATURAL HEALTH • SKIN & BEAUTY • BLOG • INVESTOR

Search...



WELCOME

to nature's health system

Comvita offers **Natural Health** and **Skin Care** products that nourish, protect, restore and revitalise.

SHOP NOW

NEWSLETTER

Receive Comvita offers and updates

Email

visit our **Blog**

“Over 4.5 billion years nature has created a balanced system of health that is all around us and within us.”

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 BEGAN WITH A VISION.

His wish was 'to produce natural products that work, and acting 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, optimising their natural properties, delivering to you the benefits of nature.

[LEARN MORE](#)



Manuka Honey

PURE NEW ZEALAND MANUKA HONEY, UMF® GUARANTEED.

UMF Manuka honey is nature's gift, and a jar of liquid gold sealed with an approved Unique Manuka Factor (UMF) logo.

[ABOUT MANUKA HONEY](#)



Huni XA

MANUKA HUNI XA CONTAINS ACTIVE COMPOUNDS THAT HELP SLOW SIGNS OF AGING.

The phenolic structure, Manuka honey geographical source, as well as the blending process we use to create our high performance skincare formulations.

[ABOUT HUNI XA](#)



Broccoli

AN ANTIOXIDANT BOOSTER WHICH HELPS TO PROTECT AGAINST CELLULAR DAMAGE.

We now recognise that while fruit and vegetables of many colours and varieties are important in our diet as they offer us greater protection.

[ABOUT BROCCOLI](#)



Synergy 12

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

Our unique, fresh Olive Leaf Extract contains no less than 12 natural polyphenolic antioxidants.

[ABOUT SYNERGY 12](#)



Propolis

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

A natural antioxidant produced by bees, Propolis acts as nature's best defence to protect and heal.



Olive Leaf Extract

OLIVE LEAF EXTRACT IS A COMPLETELY NATURAL WAY TO UNLOCK YOUR BODY'S VITALITY.

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



Omega 3

COMVITA'S OMEGA 3 IS A NATURAL FISH OIL SOURCED FROM DEEPWATER 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 TOOTHPASTES ARE A HEALTHY CHOICE FOR THE ENTIRE FAMILY.



Ingredients Glossary

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



Beauty Ingredients

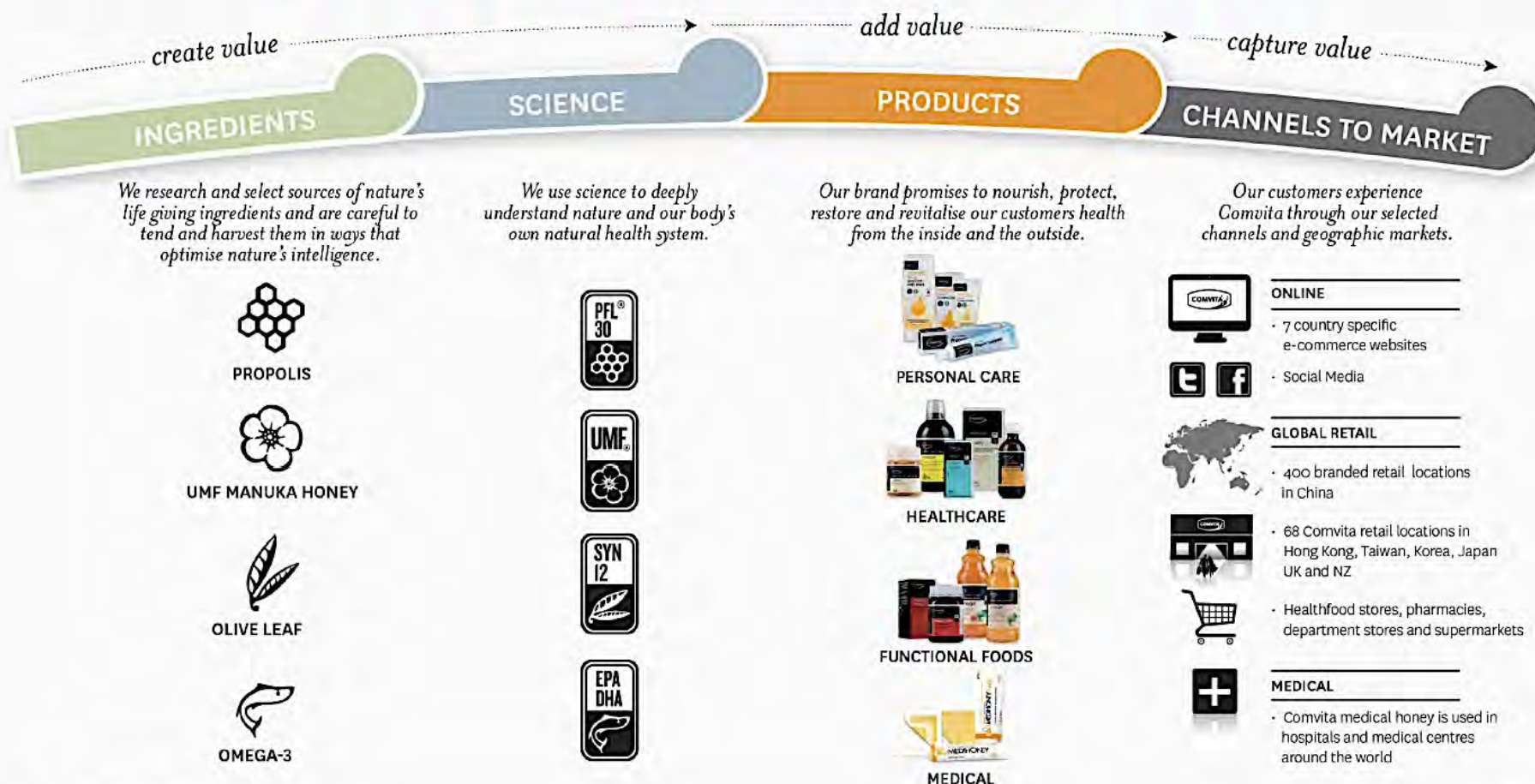
WE CAREFULLY SELECT INGREDIENTS FOR OUR FORMULATIONS ESPECIALLY FOR YOUR SKIN.

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 VALUE MODEL



Share Nature. Share Life.

VALUE ADDED



Share Nature. Share Life.

Retail selling price per 250g equivalent of raw Manuka honey





SOGO
商品名称: 新西兰
产地: 新西兰
零售价: 3031.00
北京市发展和改革委员会 监制号 ZM-19-9

编号	名称	规格	数量	单位	零售价
15577	礼券	一	1	张	15577.00
	礼券	一	1	张	15577.00
	礼券	一	1	张	15577.00

OMEGA 3
Fish Oil
Each capsule contains fish oil 1000mg
300 Capsules AUST L 119519
Dietary Supplement
NUTRITIONALS INC.

A satellite image of Earth from space, showing the Pacific Ocean and parts of North and South America. The landmasses are green and yellow, surrounded by blue oceans and white clouds. The image is oriented vertically, with the horizon line visible on the right side.

**“You’ll have
no future...**

**...if you don’t
make one
for yourself”**

Johnny Rotten