



THE PHOENIX EFFECT

New Frontiers for Sustainability and the Economy



GreenCapital
BUILDING SUSTAINABLE ECONOMIES

The Phoenix Effect is a publication for Green Capital's Sustainable Economic Frontiers Project

I think we find ourselves at a transformative moment - an absolute transformative moment, a moment where the task moves to being reframed in the context of building a sustainable economy and understanding what good markets look like.

- Sam Mostyn, non-executive company director and sustainability advisor, speaking at Green Capital event The Phoenix Effect in Sydney, 19th June 2013

‘What we need is a full-speed global economy, and one that works at a growth that is solid, sustainable, balanced, but also inclusive and very much rooted in green developments’

– Christine Lagarde, Head of the International Monetary Fund, 19th April 2013

‘A new term has emerged in recent years to describe our modern era – the Anthropocene. It rightly implies that in this age humans became the dominant force shaping our physical environment. It is evident that an economy that extracts resources at increasing rates without consideration for the environment in which it operates, without consideration for our natural planetary boundaries, cannot continue indefinitely. In a world of soon to be nine billion consumers who are actively buying manufactured goods, this approach will hamper companies and undermine economies. We need a new way of doing business.’

- Paul Polman, Unilever CEO, speaking at Davos WEF 2013. Polman is a signatory of the Circular Economy 100 project and a member of the B Team.¹

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‘[The Phoenix Effect report] traces the extraordinary extent of rethinking that’s going on all around the world and should encourage us all to continue to work - to do more and more work - in Australia because we are a part of this global conversation... I think what Green Capital is doing in driving us to think about an emerging set of economies based on what we as populations want to be; is guiding us to a whole new level of sustainability. But it will take leadership, at all levels.’

- Sam Mostyn, non-executive company director and sustainability advisor, speaking at Green Capital event The Phoenix Effect in Sydney, 19th June 2013

Acknowledgements

Green Capital is Australia's leading independent business sustainability program, offering forums, cutting-edge research, policy development, and stakeholder engagement and networking opportunities for our members. Founded in 2002 by one of Australia's oldest and most innovative environmental groups, the Total Environment Centre (est. 1972), Green Capital acts as a hub for business, government and civil society to debate and drive progress towards a sustainable economy and society.

Sustainable Economic Frontiers is our major two-year project, with anchor funding from The Pratt Foundation and with the active support of leading sustainability advisory firm Banarra. We will track, analyse and interpret the economic transformation process now gathering pace around the world, taking a uniquely Australian perspective, including a particular focus on the state economy of NSW and the regional economy of Greater Sydney.

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For more information, please visit our new website www.greencapital.org.au

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Introduction to a new agenda

During the first half of 2013, Green Capital reinvented itself to meet the needs of a new era. We see the economic and societal story of sustainability being rewritten. This means that business, government and civil society need to be informed and involved. Green Capital is now 'Building Sustainable Economies'. We'll operate as a 'think-and-do tank' with our own Network, diverse forums and events, research and publishing, stakeholder roundtables, alliance building and training and Master Classes.

There is a growing realisation that 21st century environmental challenges require a substantial change to the way in which the economy works – a transformation that reaches well beyond the tinkering of traditional corporate social responsibility (CSR). Globally, and in Australia, diverse discourses are emerging, painting a picture of a bold sustainable economic future based upon innovation, collaboration, new investment, sustainable sector growth and a spirit of optimism. A broad diversity of approaches is a key strength as these new frontiers open up for exploration. Green Capital's Sustainable Economic Frontiers project is seeking to map and make sense of this exciting new landscape. We are providing spaces for cutting edge debate, generating timely and practical publications and tools, establishing ourselves as a leading platform for innovation and action, and contributing to building sustainable economies for the future.

Post GFC, 21st century sustainability leadership is now moving on decisively:

From

...The original CSR and sustainable development era that produced mainly incremental change in individual businesses and industry sectors, typically with modest, selective and sporadic government buy-in.

Towards

...An emerging transformation of industry sectors, companies, cities and even whole economies, with the rise of new citizen movements and 'networks', business models, technology advances and a global rethinking of outdated 20th century economic growth models.

An 'Internationally Informed' Australian Perspective

This Position Paper is the first major release from Green Capital's Sustainable Economic Frontiers project. The project will explore and analyse the dynamic, fast-evolving and diverse field of sustainable economic frontiers, from a distinctively Australian perspective. Australia has a growing pool of world-class thought-leaders, agenda-setters and action role models who provide their own unique perspectives. Simultaneously there is a growing wave of bottom-up civil society, local government and business action aimed at delivering more sustainable and resilient communities and enterprises. We will aim to work closely with all of these stakeholders as the project develops.

This paper is an initial overview of the broad landscape of Sustainable Economic Frontiers and is a core reference document. Upcoming research and publications by Green Capital will focus upon: unpacking and comparison of discourses to identify underlying assumptions and theories of change; and development of practical tools designed to assist people and organisations to engage in meaningful ways, supporting them to tailor transformative change to their situations.

The Change Factors At Work

Green Capital sees a number of factors combining to create the circumstances for the new sustainability story:

- Resource scarcity and 'limits to growth' are becoming apparent, and in some cases impacting society, which creates costs and risks but also opportunities.
- Strengthening scientific evidence of climate change and the potential for a catastrophic 4°C+ average temperature rise this century. Present-day extreme weather events such as Hurricane Sandy in the US are increasing public engagement with the realities of such change, in turn driving political action.
- Flaws are now apparent in early-generation business sustainability approaches - e.g. 'soft' corporate social responsibility, over-emphasis on reporting versus action, inadequate outcomes and lack of core business commitment.
- Failures in policy, arising from the current global and national economic focus on outdated growth models and value measurement - i.e. Gross Domestic Product (GDP). Market and management are characterised by short-termism leading to perverse outcomes. They require systemic transformation to incorporate long-term thinking into business and economic decision-making, including whole-of-life cost/benefit assessment. With continuing fallout from the GFC on traditional social outcomes, let alone environmental sustainability, many are asking: can we come up with a better economic system?
- Lack of top-level political vision on sustainability transformation and partisan politics on key policies - e.g. carbon pricing, biodiversity protection, extended producer responsibility.
- Frustration over slow progress and weak outcomes from international processes - e.g. the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, Rio+20, etc.
- Tightening business (and government) budgets leading to cutbacks on traditional CSR roles and programs, with greater attention to finding business value creation opportunities - e.g. improve margins/cut costs, better manage risks, improve reputation and strategic relationships.

Fresh discourses emerging

With this shift, exciting fresh discourses are now emerging. Some are coming from new voices and others are from veterans of the 1980s, 1990s and 2000s who have rethought or expanded on earlier prescriptions for change to match the evolving circumstances. These discourses are diverse and each will appeal to particular groups across business, government and civil society – it is not about any particular idea winning out over the others, but rather their collective impact. They can be mutually supportive, forming a rich tapestry of change possibilities.

We believe this is more than just talk – action is increasingly evident, indicative of wider change to come. Each discourse is represented by numerous real-world examples, grounded in communities of actively engaged people, from CEOs to mass social movements. Green Capital is working to make sense of this landscape and provide tools for navigation and engagement.

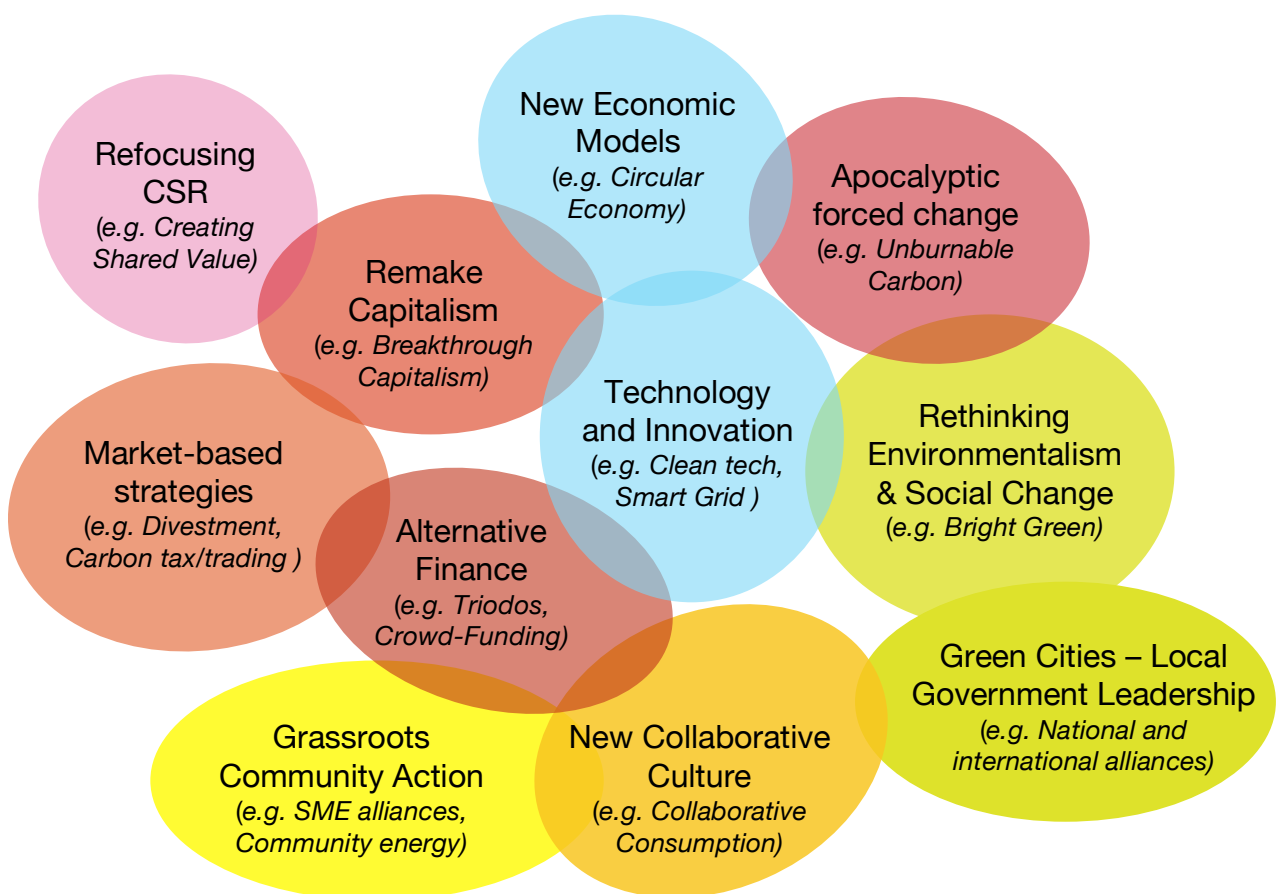


Fig.1. Sustainable Economic Frontiers: A diverse landscape of new discourses

What follows is an overview of many of the core ideas, models and initiatives that increasingly characterise the frontiers of sustainable economic change.

Re-thinking/remaking capitalism itself

- **Breakthrough Capitalism** (e.g. Volans²), which may be seen as a re-working of Triple Bottom Line (John Elkington). Social and environmental issues gain equal attention. A top-down approach that relies upon strong leadership, personal action and innovation. Includes B Team³ (Richard Branson) and Conscious Capitalism (e.g. CCA⁴).
- **Natural Capitalism** (coined by Hawken, Lovins and Lovins, 1999⁵), where ecosystems are seen as assets that should be valued in economic terms. This encompasses the concept of ecosystem services - where a price is placed upon the functions provided by an ecosystem to the economy (e.g. The Economics of Ecosystems and Biodiversity⁶) – as well as mechanisms such as full-cost accounting and polluter pays. Whilst over a decade old, the idea is now gaining mainstream support (e.g. the signing of the Natural Capital Declaration by 39 countries at Rio+20 in 2012, a joint initiative by UNEP and a number of other global institutions).
- **Social enterprise**, whereby a business exists to fulfill a social purpose. All profits are channeled into growing the capacity of the business to better serve that purpose. Closely aligned with profit for purpose. The School for Social Entrepreneurs⁷ is a worldwide program that provides training, tools and support to thousands of new startups.

New economic visions

- **New Wave Sustainable Development** approaches, including Green Growth (OECD⁸), UNEP's Green Economy⁹ (with a strong focus upon human rights and core social issues), The Regeneration Map¹⁰ (SustainAbility and GlobeScan), and The Green New Deal¹¹.
- **Design innovation and new business models**, including The Circular Economy - design for zero-waste, shift from goods to services (e.g. The Ellen MacArthur

Foundation¹²); and The Blue Economy - innovation inspired by bio-mimicry (Gunter Pauli¹³).

- **Post-growth/steady-state economy** (New Economics Foundation ¹⁴) and mechanisms for measuring prosperity that shift beyond GDP (e.g. The Happy Planet Index)¹⁵.

Refocusing CSR and corporate sustainability

- **Creating Shared Value (CSV)**, where business value and societal value is co-created by incorporating social and environmental factors into core business strategy.
- **Environmental Social Governance (ESG)**, where environmental impacts of a business are viewed by its leaders through the lenses of integrated risk evaluation and informed investment decision-making (linked to Breakthrough Capitalism and Natural Capitalism).

CSV, ESG and associated models (e.g. B Corporations) are seen as the more market and business attuned successors to TBL, CSR itself and ESD.

Community-based change

- **Collaborative Consumption** (Rachel Botsman¹⁶).
- **Open-source development**, now moving from software development to physical products (e.g. Open Source Ecology¹⁷, the OScar Project¹⁸), enabled by the Internet as well as through emerging technologies - e.g. the advent of 3D printing, empowering local production.
- **Co-working spaces**, which activate social enterprise (e.g. the global HUB movement¹⁹)
- **SME business alliances**, built on decentralised networks and founded on principals of localism, community and sustainability (e.g. Business Alliance for Local Living Economies²⁰).
- **Community energy** (e.g. Hepburn Wind²¹).
- **City-level sustainability visions and local government leadership**, with

ambitious targets, based upon community consultation (e.g. Sydney 2030²²). National and international alliances of cities/mayors for Green Cities (ICLEI²³, UCLG²⁴, World Mayor's Council on Climate Change²⁵).

- **Grassroots pressure groups** against destructive industries (e.g. 350.org²⁶) and for constructive alternatives (e.g. Beyond Zero Emissions²⁷, ReCitizen²⁸).

Apocalyptic 'forced transformation' scenarios

- **Resource Scarcity**, including Peak Oil and 'Peak Everything' (Richard Heinberg²⁹). This intersects with 'limits to growth' (e.g. Paul Gilding's 'Great Disruption'³⁰) whereby the earth cannot supply the resources required by an exponentially growing economy. Gilding identifies the ongoing financial crisis as symptomatic of having reached these limits.
- **Market disruptions**, including the notion of unburnable carbon and the resultant 'Carbon Bubble'. Popularised by Bill McKibben (Do the Math³¹), but recently strongly supported by top global leaders and organisations (including Lord Nicholas Stern³², the IEA³³, HSBC³⁴).
- **Advancing climate chaos**, where change is catalysed by extreme events (e.g. Mayor of New York City Michael Bloomberg announcing \$US20 billion for resilience measures against sea-level rise and storm events, in the wake of super-storm Sandy)³⁵.

Market-based strategies for change

- **Divestment and Ethical Investment**, where money is actively withheld from destructive industries (e.g. fossil fuels) and actively invested in sustainability solutions (e.g. organic farming, renewable energy). This is carried out at an individual level through popular movements (e.g. Do the Math), and at an institutional level by alternative investment and banking institutions (e.g. Australian Ethical³⁶, Triodos³⁷, Gemeinschaftsbank³⁸).
- **Crowd-Funding and Crowd-Lending**, where finances are raised from a broad decentralised community of supporters (e.g. Pozible³⁹ and FundingKnight⁴⁰). Linked closely to the growing collaborative consumption culture. Whilst its roots are in

community projects and social enterprise, large institutions increasingly recognise the model. The Bank of England has now openly encouraged this approach⁴¹ whilst ING Direct has formed a partnership with crowd-fund StartSomeGood (UK) to directly support social enterprise⁴².

- **Carbon Markets**, including emission trading schemes such as ‘cap and trade’ (e.g. the EU system and the recently launched Shenzhen Trading), and taxes such as the current Australian Carbon Tax. Designed to provide a direct financial incentive for emission reduction, with emphasis on efficiency improvements.

Technological and social innovation step-change

- **New-wave activism** such as Bright Green environmentalism (Alex Steffen)⁴³ - optimistic, innovation-driven, transformative and solutions-based action, with a focus upon cities and livability. Includes business as part of this activism (e.g. The Sixth Wave, James Bradfield Moody⁴⁴).
- **Participatory sustainability think tanks**, which are varied, but tend to eschew arguably outmoded 20th century left-right political orthodoxies and concern themselves with gathering, researching and incubating innovations and mechanisms for change. They include The Breakthrough Institute⁴⁵ and The New Economics Institute⁴⁶ (US); Forum for the Future⁴⁷ and the New Economics Foundation⁴⁸ (UK); the Centre for Social Impact⁴⁹ and the Centre for Policy Development⁵⁰ (Australia).
- **Accessible and popular global forums**, such as the TED⁵¹ format, which has exploded worldwide, with TEDx events proliferating⁵² and online videos reaching audiences of millions. GE’s Ecomagination⁵³ and the aligned Focus Forward video awards⁵⁴ have similarly taken hundreds of innovative designs to a global audience.
- **The Clean Technology revolution**, including micro-renewables (1 million solar rooftops in Australia⁵⁵), decentralised energy, tri-generation, smart grids and the ‘internet of things’, electric vehicles, bio-mimicry and bio-based industries. Also includes the development of entirely new capabilities such as 3D printing, which intersects with open-source design and may become a core component of a ‘circular economy’. There is a strong focus on these new technologies outcompeting old technologies on the open market, against a backdrop of ‘forced transition’ scenarios.

From Niche to Mainstream

Increasingly, these once niche discussions now exist in the economic and societal mainstream. This is illustrated by the following list of quotes from prominent global institutions and thought-leaders.

International Monetary Fund (IMF)

'Even more important is the issue of climate change, which, in my view, is by far the greatest economic challenge of the 21st century. The science is sobering—the global temperature in 2012 was among the hottest since records began in 1880. Make no mistake: without concerted action, the very future of our planet is in peril. So we need growth, but we also need green growth that respects environmental sustainability. Good ecology is good economics. This is one reason why getting carbon pricing right and removing fossil fuel subsidies are so important.'

– A New Global Economy for a New Generation, address to the 2013 World Economic Forum by Ms. Christine Lagarde, Managing Director of the IMF, February 2013⁵⁶

World Economic Forum 2013 (Davos)

'The need to better understand the relationship between economic competitiveness and social and environmental sustainability has been revealed by events such as the "Arab Spring", the rise of unemployment in many advanced economies – particularly among the young and less skilled population –, increasing income inequalities and social unrest in rapidly-growing economies as well as by increasing pressure on natural resources or the high levels of pollution.'

– Sustainable Competitiveness, World Economic Forum 2013⁵⁷

International Energy Agency (IEA)

'The world is not on track to meet the target agreed by governments to limit the long-term rise in the average global temperature to 2 degrees Celsius (°C) ... To keep open a realistic chance of meeting the 2 °C target, intensive action is required before 2020, the date by which a new international climate agreement is due to come into force. Energy is at the heart of this challenge: the energy sector accounts for around two-thirds of greenhouse-gas emissions, as more than 80% of global energy consumption is based on fossil fuels.'

– Redrawing the Energy-Climate Map, World Energy Outlook Special Report, International Energy Agency (represents 29 country members including Australia), June 2013⁵⁸

Global Business and Thought Leaders

'A new term has emerged in recent years to describe our modern era – the Anthropocene. It rightly implies that in this age humans became the dominant force shaping our physical environment. It is evident that an economy that extracts resources at increasing rates without consideration for the environment in which it operates, without consideration for our natural planetary boundaries, cannot continue indefinitely. In a world of soon to be nine billion consumers who are actively buying manufactured goods, this approach will hamper companies and undermine economies. We need a new way of doing business.'

- Paul Polman, Unilever CEO, speaking at Davos WEF 2013. Polman is a signatory of the Circular Economy 100 project and a member of the B Team.⁵⁹

"Extreme, dangerous, carbon-intensive and polluting resources run the very substantial risk of being stranded assets... I think the progress of solar and wind is moving faster than most investors realise and ... I expect the continuous rise in the price of hydrocarbons."

- Jeremy Grantham, founder and CEO of GMO, June 2013⁶⁰

"Global energy use and resulting emissions may have to change or we will have to adapt to a warmer world...as a consequence, financial models that are based on past performance and creditworthiness may not be relevant in the future."

- Report released by Standard & Poor's, What A Carbon-Constrained Future Could Mean For Oil Companies' Creditworthiness, March 2013⁶¹

Civil Society Leaders

"Smart investors ... can see that investing in companies that rely solely or heavily on constantly replenishing reserves of fossil fuels is becoming a very risky decision"

- Lord Nicholas Stern, April 2013⁶²

"Only resource-efficient cities will ensure the livelihoods of their citizens. The challenges of climate change and the scarcity of natural resources such as water are becoming very relevant topics for the daily agenda of local governments around the globe"

- Elisabeth Gateau, Secretary General United Cities and Local Governments (UCLG)⁶³

Green Growth: an overarching discourse - OECD

The *Towards Green Growth* report⁶⁴ (2011), by the Organisation for Economic Co-operation and Development (OECD), opens with the following statements, which may be viewed as a more general definition of the Green Growth concept:

'Green growth means fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. To do this it must catalyse investment and innovation, which will underpin sustained growth and give rise to new economic opportunities.'

*'A return to 'business as usual' would be unwise and ultimately unsustainable, involving risks that could impose human costs and constraints on economic growth and development. It could result in increased water scarcity, resource bottlenecks, air and water pollution, climate change and biodiversity loss which would be irreversible; thus the need for strategies to achieve greener growth.'*⁶⁵

Key words: growth, investment, innovation, natural assets, environmental services

The OECD sees a 'Green Growth' transition⁶⁶ currently occurring, from high-carbon to low-carbon socio-economic activities. The transition is occurring across four main domains, each with different but complementary paths and trajectories, being:

- Frontier research and innovation
- Civic society
- Enterprises (business)
- Governments

These four domains encompass the totality of the current socio-economic reality and may be understood to include all of the key areas of thinking that we have identified as sustainable economic frontiers. Within the key areas of thinking that we have identified, a number of discourses appear to fit closely alongside or within the Green Growth concept.

Sustainable Economic Frontiers that fit within Green Growth include:

- Business leadership around new models of capitalism at high levels (e.g. B Team) and at grassroots (e.g. social enterprise).
- Certain new economic visions, such as Circular Economy.
- Refocused and better-integrated CSR efforts.
- International development in the form of 'Green Economy' (UNEP).⁶⁷
- Local government leadership and the greening of cities.
- A recognition of community based (civil society) impact upon the political landscape (e.g. pressure groups) and the market (e.g. community energy or SME alliances such as BALLE).
- Most apocalyptic 'forced transformation' scenarios (e.g. scarcity).
- The role of national and trans-national carbon markets and carbon-related legislation in providing incentives and deterrents for leveraging change.
- Technological and social innovation-enabled step-change.

Green Growth assumes growth and creative adaptation through innovation. It appears to exclude certain core approaches such as steady state economy, which is anti conventional-growth. It has yet to really engage with decentralised social innovations such as Collaborative Consumption and open source development. It also tends to avoid some of the more disruptive views (e.g. Unburnable Carbon).

Circular Economy – Ellen MacArthur Foundation

At the 2013 World Economic Forum in Davos, Switzerland, leading international business figures like Unilever's CEO, Paul Polman endorsed new work on the concept of a 'Circular Economy'. This is a growth economy that aims to eliminate waste and pollution through design, with non-toxic materials flowing continuously in a closed-loop system. It is being championed by a dynamic new think tank, the Ellen MacArthur Foundation (EMF), which was established in 2010, with economic analysis by major global business strategy firm, McKinsey & Company. Unilever's Polman, who is leading his global consumer products manufacturer and veteran sustainability leadership company into the new era, says:

*'We need a new way of doing business. The concept of a circular economy promises a way out. Here products do not quickly become waste, but are reused to extract their maximum value before safely and productively returning to the biosphere. Most importantly for business leaders, such an economy can deliver growth. Innovative product designers and business leaders are already venturing into this space.'*⁶⁸

In January 2013 Polman, together with 100 CEOs from some of the world's best-known companies, signed the EMF's 'Circular Economy 100' (C100)⁶⁹, a commitment to road-test Circular Economy thinking in their businesses, to turn talk into action.

Creating Shared Value (CSV) – Michael E. Porter and Mark R. Kramer

The Shared Value or CSV thesis is that:

*'[The solution lies in] the principle of shared value, which involves creating economic value in a way that also creates value for society by addressing its needs and challenges. Businesses must reconnect company success with social progress. Shared Value is not social responsibility, philanthropy, or even sustainability, but a new way to achieve economic success. It is not on the margin of what companies do but at the centre. We believe that it can give rise to the next major transformation of business thinking.'*⁷⁰

CSV has been sweeping the corporate sustainability world as a new trend and has reached Australia as an increasingly dominant framing for business, social and sustainability strategy in the 2010s. Core aspects of the model include:

- Social and environmental issues are equally problems and opportunities for business and therefore can cause loss or help make profits.
- Shared Value is beyond incremental change and CSR or philanthropic fiddling at the edges. Rather it is innovative, creative and transformative – aiming to reflect genuinely new ways of doing things.
- Outputs need to be measured and evidence of results revealed (what others have

described as ‘show me don’t tell me’).

- Shared value is a process of action-learning, breaking new ground, making mistakes and adapting. All of the key players – across business, government and civil society – need to be on the ‘journey’ (i.e. there is no ‘set way’ to assess or create Shared Value, with each entity finding its own path).

Green Capital’s partner for the Sustainable Economic Frontiers project, the sustainability firm Banarra, sent one of its personnel Rita Fentener van Vissingen to a Shared Value Initiative⁷¹ professional training forum in Boston in the US in May 2013, with 40 other consultants from around the world. In her report to a sustainability practitioners’ audience in Sydney in June 2013, Ms. Fentener van Vissingen said the original Porter-Kramer article ‘How to Fix Capitalism’ had become the Harvard Business Review’s ‘most influential article of the past 10 years’. She also stressed how Shared Value remained ‘an emerging concept’, with intense debate about how it should be interpreted and deployed. While its ‘value’ was most important - how the ‘materiality’ of key factors should be addressed is under debate, as she notes: ‘Shared Value is unapologetic about understanding, embracing and leveraging the desire of business to make money.’

Collaborative Consumption – Rachel Botsman

Billed as the arrival of a ‘new economic model’, Collaborative Consumption tags itself as ‘sharing reinvented through technology’. It is the intellectual creation of Sydney-based thought-leader Rachel Botsman, author of the book *What’s Mine is Yours: How Collaborative Consumption is Changing the World*.⁷²

Named by TIME as one of the ‘the 10 ideas that will change the world’⁷³, the Collaborative Consumption website describes the shift in consumer values from ownership to access:

‘Together, entire communities and cities around the world are using network technologies to do more with less by renting, lending, swapping, bartering, gifting and sharing products on a scale never before possible.’

⁷⁴

Collaborative Consumption is inherently community focused. Best known early forms include car sharing schemes like Sydney's GoGet⁷⁵. Now the model is rapidly expanding and diversifying. Peer-to-peer sharing such as France's Buzzcar⁷⁶ completely remove the line between producer and consumer. Co-working spaces like HUB⁷⁷, often directly supported by city governments⁷⁸, are becoming hotbeds of social innovation around the world. Crowd-funding and crowd-lending models are an example of how collaborative consumption crosses into finance – such models have channeled billions of dollars into socially and environmentally enriching projects world-wide and are increasingly recognised by mainstream institutions.

"It's a time of opportunity knocking for finance. Hopefully, the growth of peer-to-peer lenders, such as Zopa, Funding Circle and Thin Cats, and those involved in crowd-funding, such as Crowdcube, will help solve the problems we have in the UK with lending for SMEs."

- Andy Haldane, director of financial stability at the Bank of England, Dec 2012⁷⁹

Lately, big business has been catching on – it is possible that Collaborative Consumption may come to redefine the relationship between producers and consumers across the entire economy.

Time for optimism with caution

‘Change, most likely sweeping change, is now certain even if the best responses to it remain unclear for many decision-makers.’

This reframing and widening of the sustainability story faces many challenges. In Australia, the political and business mood has been swinging heavily against environmental regulation and the carbon-pricing scheme. Even renewable energy is under assault⁸⁰. Yet arguably community-based action is stronger than ever, including rooftop solar⁸¹, energy efficiency driven by high power prices, support for deposit/refund recycling laws⁸², and the anti-coal seam gas movement uniting farmers and environmentalists⁸³.

Another challenge is the sheer profusion of change ideas that are afoot, which means having to make choices, just like standing at the gelato bar, with 36 different flavours to select from. It comes, however, with an advantage that did not exist when CSR and sustainable development first started to gain significant traction with business and government in the 1990s and into the 2000s.

Simply put, there are now robust proof points showing that transformation in major sectors – early examples are energy and property development – is not just aspirational, but actually achievable and beneficial. Continuing a business-as-usual path can no longer be assumed to be a viable alternative to confronting the uncertainty – the costs, risks and opportunities - of change. Because change, most likely sweeping change is now necessary, even if the best responses to it remain unclear for many decision-makers.

In Australia, these proof points include economically and systemically significant shifts that were unthinkable for most people even five years ago.

Early examples of change in Australia include:

- There are now 1 million homes with rooftop solar PV generation in Australia, with the potential to go to 2 million by 2020.⁸⁴
- The clean technology sector in Australia is now worth nearly \$30 billion a year and growing, similar in size to the troubled auto sector.⁸⁵
- National demand for electricity is falling⁸⁶, not rising as it always has (and was until recently predicted to) as the economy expands, driven in part by energy efficiency at domestic and commercial levels.
- Green building has shifted from a niche for the construction sector to the mainstream in under a decade.^{87,88}
- Telecommunications and accompanying digital technologies are transforming how and when people work, commute, trade, transact and travel.⁸⁹
- Sharing and swapping as alternatives to owning or buying new, are expanding rapidly as new business models. There appears to be a noticeable shift from goods to services provision.⁹⁰

No Silver Bullets

Experience of more than two decades of corporate sustainability exploration and implementation suggests there will be no 'one true path', single guiding guru, or silver bullet solution to move from early transformative successes to a full-scale economy-wide transformation.

Which concepts - like 'Green Growth', the 'Circular Economy', 'Creating Shared Value' and 'Collaborative Consumption' - will have legs and guide real change? Which will fade away barely leaving a mark? What are the ideas and insights from the growing field of possibilities that need to be sifted, sorted, mixed, matched, reassembled and further developed to provide the local as well as global responses we need for successful, resilient economies in the future?

Finding answers to these questions will be the work of Green Capital's two-year Sustainable Economic Frontiers project, which begins in earnest with this paper. There are numerous themes to be explored, options to be weighed, plans to be tested, and decisions to be made.

Exploring The Phoenix Effect

‘For businesses, governments and civil society organisations it is no longer enough to bolt on a policy or position with a three-letter acronym like CSR, ESD (Environmentally Sustainable Development), TBL (Triple Bottom Line), ESG (Environment Social Governance), or even the latest manifestation, CSV.’

As this Position Paper illustrates, articulating how change will unfold is now a dynamic field for thought-leaders and policy-makers alike. What kind of dominant economic model or multiple models will rise in the face of a challenging trinity of mounting economic, social and environmental pressures on the world’s economies?

For businesses, governments and civil society organisations it is no longer enough to bolt on a policy or position with a three-letter acronym like CSR, ESD (Environmentally Sustainable Development), TBL (Triple Bottom Line), ESG (Environment Social Governance), or even the latest manifestation, CSV.

There is no longer a question about whether social and environmental issues are matters for business leaders and economists to worry about. No one can seriously continue to question the need for an alternative to ‘business as usual’. It is now clear to many – from the IMF and the OECD, to the International Energy Agency and the World Economic Forum, as well as social change activists - that the case for systemic economic transformation is compelling. The intellectual momentum is building. It’s not just a sustainability issue - it’s a whole-of-economy issue.

We have a global economy that has moved from a confident assumption of resource abundance in the 20th century, to a growing realisation in the 21st century that key resources like oil, water and food are in fact constrained. There really are ‘Limits to Growth’, as first canvassed in 1972 by the seminal Club of Rome⁹¹ scenarios study, although to this day it remains both controversial and widely misunderstood.

The world's climate is also moving from relative stability to increased chaos, and both logic and science indicate that the response required needs to be at a scale and speed that previously was not being seriously contemplated by mainstream business and political leaders. Paul Gilding, author, blogger, corporate adviser and Fellow with the University of Cambridge's 'Programme for Sustainability Leadership', says:

*'It is now realistic to imagine removing the coal, oil and gas industries from the economy in less than 20 years. Doing so is required if we are to have an 80 percent or greater likelihood of preventing the climate warming past 2 degrees C, a point past where the system could spin out of control.'*⁹²

Fatih Birol, chief economist of the International Energy Agency, has echoed this same sense of urgency in a statement that highlights how the phasing out of fossil fuels is becoming a mainstream agenda:

*"The IEA has also warned of the dangers of locking in fossil fuel infrastructure, which would need to be retired early, at great additional cost, in order to meet the 2C target. The IEA's message is crystal clear: dither and delay in making the transition to a low-carbon energy system will be risky and expensive."*⁹³

Today's big questions:

- How can society execute an orderly yet timely economic transformation to a model that is environmentally and socially sustainable in the long term?
- How can mature economies rediscover the economic prosperity and dynamism of earlier times, but do it cleanly and sustainably?
- How can developing economies 'catch up' and attain equity and comparable prosperity while using fewer resources and causing less environmental harm?

“It is increasingly evident that the old paradigm is failing”

The case for change becomes compelling when the status quo is no longer the best option. The recent flowering of many change themes and the increasing mainstream attention to them is a symptom of growing demand for a new agenda.

Undoubtedly change will be disruptive. Existing interests will complain and have significant resources to cause delay and even fear. Business people, policy-makers and other leaders throughout society need help to navigate securely across shifting ground and to work out what's important for them.

Leaders should be asking themselves the following questions:

- What does this shift in the sustainability story mean for my key audiences?
- Based on the trends, where are we headed – in Australia, and globally?
- How are businesses responding? What's working, what isn't? What's possible?
- How do individual enterprises assess the risks/opportunities for them? Then what do they do about them?
- What are policy-makers doing, if anything? How can policy empower a desire for change by business?

Conclusion

Green Capital does not envisage the company directors and executives of the nation sitting around the board table in 2013 debating the intricacies of 'Green Growth', the 'Circular Economy', 'Creating Shared Value', 'Collaborative Consumption' or similar such discourses. When Green Capital began in 2002, sustainability was still barely on the business and political agenda. A business program devoted to this field was cutting edge to its early fan base, unnecessary to its critics and unnoticed by many at the big end of town.

Over a decade later we see sustainability becoming more diverse than ever as the drivers become more compelling, the stakes get higher and the big thinking gets distilled into action. One message from our summary of the growing literature is that it is still early days for exploration. Nonetheless, new generations of business leaders and managers are now being engaged. New market infrastructure, products and services that didn't exist 10 or even 5 years ago are now available. And the new thinking that is emerging is challenging everyone.

The Phoenix Effect is the current blossoming of diverse ideas and action at every scale of the economy, from every section of society, with transformation towards sustainability and social justice as the binding themes. Wherever change takes the world, new economic frontiers are looming. If long-term sustainability for human society is the objective – with sustainable economic prosperity within a finite planetary ecology - then we need The Phoenix Effect to be part of the new reality. Through The Phoenix Effect and the wider Sustainable Economic Frontiers project, Green Capital is immersing itself in the transformation process. We will explore it, explain it and, through the Green Capital Network, we aim to help drive action across enterprises, civil society and governments.

References

- ¹ Confino, J. (2013), Davos 2013: taking the circular economy to scale, Guardian Sustainable Business, 30 January 2013, <http://www.guardian.co.uk/sustainable-business/davos-2013-ellen-macarthur-report>
- ² Volans, <http://www.volans.com/>
- ³ The B Team, <http://bteam.org/>
- ⁴ Conscious Capitalism Australia, <http://www.consciouscapitalism.org.au/>
- ⁵ Hawken, P., Lovins, A. and Lovins L. H. (1999), Natural Capitalism: Creating the next industrial revolution.
- ⁶ The Economics of Ecosystems and Biodiversity (TEEB), <http://www.teebweb.org/>
- ⁷ School for Social Entrepreneurs, <http://www.the-sse.org/>
- ⁸ OECD (2011), Towards Green Growth, <http://www.oecd.org/greengrowth/48224539.pdf>
- ⁹ Green Economy Initiative (GEI) of the United Nations Environment Program (UNEP), <http://www.unep.org/greeneconomy/>
- ¹⁰ The Regeneration Roadmap <http://theregenerationroadmap.com/>
- ¹¹ The Green New Deal, <http://www.greennewdealgroup.org/>
- ¹² Ellen MacArthur Foundation, <http://www.ellenmacarthurfoundation.org/>
- ¹³ Pauli, G. (2010), The Blue Economy: 10 years – 100 innovations - 100 million jobs
- ¹⁴ New Economics Foundation, <http://www.neweconomics.org/>
- ¹⁵ Happy Planet Index, <http://www.happyplanetindex.org/>
- ¹⁶ Botsman, R. and Rogers, R. (2010), What's Mine is Yours: The Rise of Collaborative Consumption
- ¹⁷ Open Source Ecology, <http://opensourceecology.org/>
- ¹⁸ The OScar Project, <http://www.theoscarproject.org/>
- ¹⁹ The HUB, <http://www.the-hub.net/>
- ²⁰ Business Association for Local Living Economies (BALLE), <http://bealocalist.org/>
- ²¹ Hepburn Wind, <http://hepburnwind.com.au/>
- ²² Sydney 2030, <http://www.sydney2030.com.au/>
- ²³ Local Government for Sustainability, <http://www.iclei.org/>
- ²⁴ United Cities and Local Governments (UCLG), <http://www.uclg.org/>
- ²⁵ World Mayors Council on Climate Change, <http://www.worldmayorscouncil.org/>
- ²⁶ 350.org, <http://350.org/>

-
- ²⁷ Beyond Zero Emissions, <http://bze.org.au/>
- ²⁸ ReCitizen, <http://www.recitizen.org/>
- ²⁹ Heinberg R. (2007), *Peak Everything: Waking Up to the Century of Declines*
- ³⁰ Gilding, P. (2011), *The Great Disruption: How the Climate Crisis Will Transform the Global Economy*
- ³¹ Do The Math, <http://math.350.org/>
- ³² Carbon Tracker & The Grantham Research Institute, LSE (2013), *Unburnable Carbon 2013: Wasted Capital and Stranded Assets*, <http://carbontracker.live.kiln.it/Unburnable-Carbon-2-Web-Version.pdf>
- ³³ International Energy Agency (2013), *Redrawing the Energy Climate Map: World Energy Outlook Special Report*, <http://www.worldenergyoutlook.org/media/weowebiste/2013/energyclimatemap/RedrawingEnergyClimateMap.pdf>
- ³⁴ Carbon Tracker & The Grantham Research Institute, LSE (2013), *Unburnable Carbon 2013: Wasted Capital and Stranded Assets*, <http://carbontracker.live.kiln.it/Unburnable-Carbon-2-Web-Version.pdf>
- ³⁵ City of New York (2013), *A stronger, more resilient New York*, June 2013, <http://www.nyc.gov/html/sirr/html/report/report.shtml>
- ³⁶ Australian Ethical, <http://www.australianethical.com.au/>
- ³⁷ Triodos, <http://www.triodos.com/en>
- ³⁸ Gemeinschaftsbank, <http://www.gemeinschaftsbank.ch/>
- ³⁹ Pozible, <http://www.pozible.com/>
- ⁴⁰ Funding Knight, <https://www.fundingknight.com/>
- ⁴¹ Pagano, M. (2012), *Bank supremo: Peer-to-peer lending is a good reason to be cheerful*, *The Independent*, 17 December 2012, <http://www.independent.co.uk/news/business/news/bank-supremo-peertopeer-lending-is-a-good-reason-to-be-cheerful-8421036.html>
- ⁴² Fitzsimmons, C. (2013), *ING Direct banks on doing some good with sustainable grants program*, 21 February 2013, http://www.brw.com.au/p/marketing/ing_direct_banks_program_doing_some_BsJOL6r7K8zdLOx9BJaYOL
- ⁴³ World Changing, <http://www.worldchanging.com/>
- ⁴⁴ Bradfield Moody, J. (2010), *The Sixth Wave: How to succeed in a resource limited world*
- ⁴⁵ The Breakthrough Institute, <http://www.thebreakthrough.org/>
- ⁴⁶ The New Economics Institute, <http://neweconomicsinstitute.org/>
- ⁴⁷ Forum For the Future, <http://www.forumforthefuture.org/>
- ⁴⁸ New Economics Foundation, <http://www.neweconomics.org/>
- ⁴⁹ Centre for Social Impact, <http://www.csi.edu.au/>
- ⁵⁰ Centre for Policy Development, <http://cpd.org.au/>

-
- ⁵¹ TED, <http://www.ted.com/>
- ⁵² TEDx Sydney, <http://tedxsydney.com/>
- ⁵³ GE Ecomagination, <http://www.ecomagination.com/>
- ⁵⁴ GE Focus Forward, <http://focusforwardfilms.com/>
- ⁵⁵ Eadie, L. and Elliott, C. (2013), Going solar: renewing Australia's electricity options | LANDMARK REPORT, Centre for Policy Development, April 2013 http://cpd.org.au/wp-content/uploads/2013/04/Going-Solar_report1.pdf
- ⁵⁶ Lagarde, C. (2013), A New Global Economy for a New Generation. Speech by Christine Lagarde, Managing Director, International Monetary Fund, 23 January 2013, <http://www.imf.org/external/np/speeches/2013/012313.htm>
- ⁵⁷ Sustainable Competitiveness, World Economic Forum website. Retrieved 27 June 2013 from <http://www.weforum.org/content/pages/sustainable-competitiveness>
- ⁵⁸ International Energy Agency (2013), Redrawing the Energy Climate Map: World Energy Outlook Special Report, <http://www.worldenergyoutlook.org/media/weowebiste/2013/energyclimatemap/RedrawingEnergyClimateMap.pdf>
- ⁵⁹ Confino, J. (2013), Davos 2013: taking the circular economy to scale, Guardian Sustainable Business, 30 January 2013, <http://www.guardian.co.uk/sustainable-business/davos-2013-ellen-macarthur-report>
- ⁶⁰ Hickman, L. (2013), Jeremy Grantham on how to feed the world and why he invests in oil, The Guardian Environment Blog, 16 April 2013, <http://www.guardian.co.uk/environment/blog/2013/apr/16/jeremy-grantham-food-oil-capitalism>
- ⁶¹ Standard & Poor's (2013), What A Carbon-Constrained Future Could Mean For Oil Companies' Creditworthiness, 1 March 2013 http://www.carbontracker.org/wp-content/uploads/downloads/2013/03/SnPCT-report-on-oil-sector-carbon-constraints_Mar0420133.pdf
- ⁶² Carbon Tracker & The Grantham Research Institute, LSE (2013), Unburnable Carbon 2013: Wasted Capital and Stranded Assets, <http://carbontracker.live.kiln.it/Unburnable-Carbon-2-Web-Version.pdf>
- ⁶³ Robrecht, H. and Meyrick, D. (2008), ecoBudget: Introduction for Mayors and Municipal Councilors. A collaborative paper by ecoBudget, UN HABITAT, UNEP and ICLEI, http://www.unep.org/Urban_Environment/PDFs/ICLEI_Ecobudget.pdf
- ⁶⁴ OECD (2011), Towards Green Growth, <http://www.oecd.org/greengrowth/48224539.pdf>
- ⁶⁵ *ibid*
- ⁶⁶ OECD (2012), Measuring the Potential of Local Green Growth: An analysis of greater Copenhagen, p.28, http://www.oecd.org/cfe/leed/Measuring%20Local%20Green%20Growth_Copenhagen_29%20January%2013%20FINAL%20for%20Francois.pdf
- ⁶⁷ Green Economy Initiative (GEI) of the United Nations Environment Program (UNEP), <http://www.unep.org/greeneconomy/>
- ⁶⁸ The Guardian Online <http://www.guardian.co.uk/sustainable-business/davos-2013-ellen-macarthur-report?intcmp=122>
- ⁶⁹ Ellen MacArthur Foundation, Circular Economy 100 initiative, <http://www.ellenmacarthurfoundation.org/business/ce100>

⁷⁰ Porter, M. E. and Kramer, M. R. (2011), How to Fix Capitalism, Harvard Business Review, January 2011
http://www.fsg.org/Portals/0/Uploads/Documents/PDF/Creating_Shared_Value.pdf

⁷¹ <http://www.sharedvalue.org/>

⁷² Botsman, R. and Rogers, R. (2010), What's Mine is Yours: The Rise of Collaborative Consumption

⁷³ Walsh, B. (2011), 10 ideas that will change the world – Today's smart choice: Don't own. Share, Time, 17 March 2011 http://www.time.com/time/specials/packages/article/0,28804,2059521_2059717,00.html

⁷⁴ <http://www.collaborativeconsumption.com/>

⁷⁵ <http://www.goget.com.au/>

⁷⁶ Buzzcar, <http://www.buzzcar.com/en/>

⁷⁷ <http://www.the-hub.net/>

⁷⁸ Lee, M. (2012), City of Sydney seeks help to build startup space, ZDNet.com, 21 November 2012

<http://www.zdnet.com/au/city-of-sydney-seeks-help-to-build-citys-biggest-startup-space-7000007712/>

⁷⁹ Pagano, M. (2012), Bank supremo: Peer-to-peer lending is a good reason to be cheerful, The Independent, 17 December 2012, <http://www.independent.co.uk/news/business/news/bank-supremo-peertopeer-lending-is-a-good-reason-to-be-cheerful-8421036.html>

⁸⁰ Parkinson, G. (2013) Are renewables doomed to failure in Australia?, RenewEconomy, 03 May 2013, <http://reneweconomy.com.au/2013/are-renewables-doomed-to-failure-in-australia-47501>

⁸¹ Eadie, L. and Elliott, C. (2013), Going solar: renewing Australia's electricity options | LANDMARK REPORT, Centre for Policy Development, April 2013 http://cpd.org.au/wp-content/uploads/2013/04/Going-Solar_report1.pdf

⁸² Boomerang Alliance, <http://www.boomerangalliance.org.au/>

⁸³ Lock The Gate, <http://www.lockthegate.org.au/>

⁸⁴ Eadie, L. and Elliott, C. (2013), Going solar: renewing Australia's electricity options | LANDMARK REPORT, Centre for Policy Development, April 2013, http://cpd.org.au/wp-content/uploads/2013/04/Going-Solar_report1.pdf

⁸⁵ Parkinson, G. (2013), Australian cleantech sector tips \$30bn – outranks car making, Renew Economy, 18 March 2013, <http://reneweconomy.com.au/2013/australian-cleantech-sector-tips-30bn-outranks-car-making-38503>

⁸⁶ Palmer, D. (2013), Special Report: Australia's electricity demand collapse, Climate Spectator, 23 April 2013, <http://www.businessspectator.com.au/article/2013/4/23/climate/special-report-australia-s-electricity-demand-collapse>

⁸⁷ A Decade of Green Building (2012), Green Building Council of Australia, http://www.gbca.org.au/uploads/170/34474/A_decade_of_green_building_.pdf

⁸⁸ Brooks Rainwater, on behalf of the American Association of Architects (2008), Local Leaders in Sustainability: A study of green building programs in our nation's communities, <http://www.greenresourcecouncil.org/pdfs/Green%20Bldg%20Programs%20-%20AIA%202007.pdf>

⁸⁹ Frost and Sullivan (2011), The changing role of mobile communications in the workplace, http://www.sterling.net/wp-content/uploads/2011/06/The_Changing_Role_of_Mobile_Communications_in_the_Workplace.pdf

⁹⁰ Wise, S. (2013), New survey reveals disownership is the new normal, 3 April 2013, Sunrun website, retrieved 27 June 2013 from <http://www.sunrunhome.com/blog/new-survey-reveals-disownership-is-the-new-normal/>

Note: The above reference refers to a study in the US, however we feel that the scale of change recorded in consumer behaviour in that country is reliably indicative of similar trends in Australia.

⁹¹ Club of Rome, Limits to Growth (1972). Original copy available online at <http://www.donellameadows.org/wp-content/userfiles/Limits-to-Growth-digital-scan-version.pdf>

⁹² Gilding, P. (2013), Victory at Hand for the Climate Movement?, 20 March 2013, <http://paulgilding.com/cockatoo-chronicles/victoryathand.html>

⁹³ Fatih Birol, International Energy Agency chief economist, cited in; Harvey, F. (2013), Waiting on new climate deal 'will set world on a path to 5C warming', The Guardian, 10 June 2013, http://www.guardian.co.uk/environment/2013/jun/10/waiting-climate-deal-set-world-path-5c?CMP=tw_t_gu