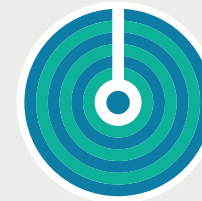
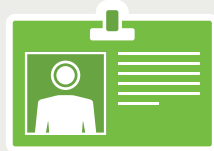


REASON

The executive guide to
the probable future



REASON

THE EXECUTIVE GUIDE TO THE PROBABLE FUTURE

JOHN DRUMMOND, CHAIRMAN, HOW ON EARTH/CORPORATE CULTURE



Long-term success requires a focus on context. This report seeks to capture the current best available evidence on the probable future. It is designed to help inform thinking on business strategies to achieve sustainable success.

Please contact me directly at:
john.drummond@corporateculture.co.uk

“The most important thing I’ve learned since becoming CEO is context. It’s how your company fits in with the world and how you respond to it.”

Jeff Immelt, Chairman and CEO,
The General Electric Company











THE *HOW ON EARTH* SERIES

THE *HOW ON EARTH* SERIES ON SUSTAINABLE SUCCESS WILL ULTIMATELY INCLUDE FIVE REPORTS:



A WORLD OF RISK AND OPPORTUNITY

THE PROBABLE FUTURE IS A WORLD OF RISK – BUT IT IS ALSO A WORLD OF OPPORTUNITY. HERE ARE THE HEADLINES:

	POPULATION	ENERGY	WATER	FOOD	RESOURCES	CLIMATE CHANGE	POVERTY AND WEALTH
							
 THE WORLD	11BN PEOPLE BY 2100. <small>(UNITED NATIONS)</small>	56% PROJECTED INCREASE IN GLOBAL ENERGY CONSUMPTION, 2010 TO 2040. <small>(US ENERGY INFORMATION ADMINISTRATION)</small>	3.5BN PEOPLE COULD EXPERIENCE WATER SCARCITY BY 2025. <small>(WORLD BANK)</small>	50% PROJECTED GROWTH IN DEMAND FOR FOOD BY 2030. <small>(UNITED NATIONS ENVIRONMENT PROGRAMME/FOOD AND AGRICULTURE ORGANISATION)</small>	82BN TONNES PROJECTED GLOBAL RESOURCE EXTRACTION BY 2020. <small>(ELLEN MACARTHUR FOUNDATION)</small>	0.3°C TO 0.7°C LIKELY INCREASE IN GLOBAL MEAN SURFACE TEMPERATURE, 2016 TO 2035. <small>(INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE)</small>	970M STILL LIVING IN EXTREME POVERTY BY 2015. <small>(WORLD BANK)</small>
 BUSINESS	4.9BN IN THE MIDDLE CLASS, GLOBALLY, BY 2030. <small>(THE BROOKINGS INSTITUTION)</small>	£200BN THE ESTIMATED INVESTMENT REQUIRED UP TO 2020 TO RETAIN ENERGY SECURITY IN THE UK. <small>(OFFICE OF GAS AND ELECTRICITY MARKETS, 2009)</small>	70% OF ANNUAL GLOBAL FRESHWATER RESOURCES USED BY AGRICULTURE ALONE. <small>(WORLD ECONOMIC FORUM)</small>	28% OF THE GLOBAL POPULATION IS DIRECTLY OR INDIRECTLY EMPLOYED BY AGRICULTURE. <small>(WORLD RESOURCES INSTITUTE)</small>	\$2.6TN ESTIMATE OF MATERIAL VALUE LOST (EACH YEAR) I.E. NOT RE-USED, RECYCLED OR COMPOSTED. <small>(ELLEN MACARTHUR FOUNDATION)</small>	\$100BN THE ANNUAL COST OF CLIMATE CHANGE ADAPTION FOR DEVELOPING COUNTRIES. <small>(WORLD ECONOMIC FORUM)</small>	531x AVERAGE PAY OF MAJOR US COMPANY CEO COMPARED TO THE COMPANY'S AVERAGE WORKER. (42x IN 1980) <small>(BUSINESS WEEK)</small>
 THE CONSUMER	82 AVERAGE GLOBAL LIFE EXPECTANCY BY 2100. <small>(UNITED NATIONS)</small>	1.3BN CURRENTLY LACK ACCESS TO THE ELECTRICITY THEY NEED TO RAISE THEIR STANDARD OF LIVING. <small>(WORLD RESOURCES INSTITUTE)</small>	884M HAVE NO ACCESS TO A SAFE SUPPLY OF CLEAN DRINKING WATER TODAY. <small>(WORLD WATER DAY, 2014)</small>	800M PEOPLE, GLOBALLY, ARE PERIODICALLY HUNGRY TODAY. <small>(WORLD RESOURCES INSTITUTE)</small>	\$30TN ESTIMATED VALUE OF CONSUMPTION IN EMERGING MARKETS BY 2025. <small>(ELLEN MACARTHUR FOUNDATION)</small>	2BN COULD BE VULNERABLE TO FLOOD DISASTER BY 2050. <small>(UNITED NATIONS UNIVERSITY)</small>	13M IN OR AT RISK OF POVERTY IN UK (2011/2012), 23% OF POPULATION. <small>(JOSEPH ROWNTREE FOUNDATION)</small>

THE ECONOMY

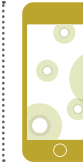
EMPLOYMENT

HEALTH

PARTICIPATION

TECHNOLOGY

TRUST



THE WORLD

\$14TN
THE VALUE OF
THE WORLD'S
BIGGEST PENSION
FUNDS IN 2012.
[THE TIMES]

300M
YOUNG PEOPLE
ARE NOT IN
PRODUCTIVE WORK.
[WORLD BANK]

65%
OF THE WORLD'S
POPULATION LIVE IN
COUNTRIES WHERE
EXCESS WEIGHT AND
OBESITY KILL MORE
PEOPLE THAN LACK
OF WEIGHT.
[WORLD HEALTH ORGANISATION]

<70%
VOTER TURNOUT
IN RICH COUNTRIES.
[THE ECONOMIST]

3.2BN
PEOPLE OR HALF THE
WORLD POPULATION
USED MOBILE PHONES
IN 2013.
[GSMA MOBILE ECONOMY, 2013]

16%
OF PEOPLE TRUST
GOVERNMENT
LEADERS TO
SOLVE SOCIAL OR
SOCIAL ISSUES.
[EDELMAN TRUST BARMETER, 2013]



BUSINESS

2.16M
SMEs IN THE UK -
A SIX-YEAR HIGH.
[NATIONAL ASSOCIATION OF
COMMERCIAL FINANCE BROKERS]

8.5M
ADULTS IN ENGLAND
AND NORTHERN
IRELAND WITH THE
NUMERACY LEVELS
OF A 10-YEAR-OLD.
[ORGANISATION FOR ECONOMIC
CO-OPERATION AND DEVELOPMENT,
2013]

91M
WORK DAYS ARE LOST
IN THE UK TO MENTAL
HEALTH PROBLEMS
EVERY YEAR.
[CENTRE FOR MENTAL HEALTH, 2011]

1.23BN
PEOPLE WORLDWIDE
USE FACEBOOK.
[SHE MARKETING]

\$19TN
PROFIT FROM THE
INTERNET OF THINGS.
[ZDNET]

19%
OF PEOPLE TRUST
BUSINESS LEADERS
TO SOLVE SOCIAL OR
SOCIAL ISSUES.
[EDELMAN TRUST BARMETER, 2013]



THE CONSUMER

£28.5K
AVERAGE UK
ADULT DEBT.
[BANK OF ENGLAND]

45%
OF WOMEN IN WORK
GLOBALLY BY 2050.
[COPENHAGEN CONSENSUS
CENTRE, 2013]

22M
CASES OF CANCER
WITHIN 20 YEARS.
[WORLD HEALTH ORGANISATION]

14M
CITIZENS NOW
SAY THEY HAVE
NO RELIGION.
[2011 CENSUS]

70M
DIGITAL PERSONAL
HEALTH PRODUCTS
EXPECTED TO SELL
IN 2018.
[CONSUMER ELECTRONICS ASSOCIATION]

2 IN 3
OF THE UK PUBLIC
TRUST NGOs.
[EDELMAN TRUST BARMETER, 2013]

*HOW ON
EARTH CAN
BUSINESS ACT
TO ACHIEVE
**LONG-TERM
SUCCESS?***

HOW ON EARTH CAN BUSINESS ACT TO *ACHIEVE LONG-TERM SUCCESS?*
CONTINUED

YOUR BURNING PLATFORM

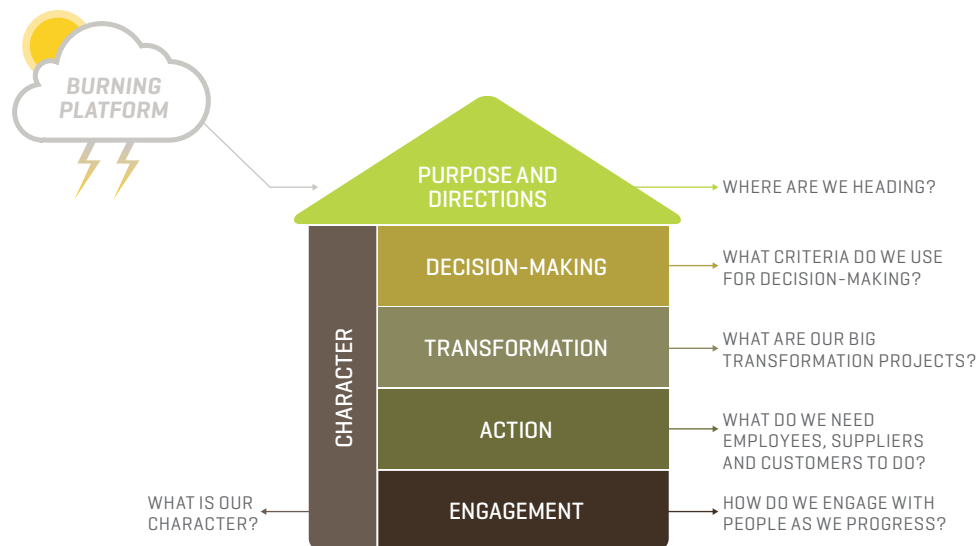
No one organisation is the same as another. You can identify the contextual issues that are key to you and your own priorities by creating a Burning Platform report. Here is an indicative example of how this might look visually – based on an imaginary supplier to food retailers.

■ IMPORTANCE
 ■ CURRENT PERFORMANCE

TYPICALLY YOU WOULD CONSIDER BOTH STAKEHOLDER OPINION AND COMPANY OPINION



YOUR SUSTAINABLE BUSINESS MODEL



“The current financial crisis is the result of short-term and unsustainable business models.”

Samuel A. DiPiazza, Jr, CEO,
PricewaterhouseCoopers

The World Business Council
for Sustainable Development’s
annual meeting of business
leaders – Nov 2008

Our research suggests that there is an emerging consensus around the steps businesses can take to achieve long-term success. Acting on this we have developed the seven-step “How on Earth” Sustainable Business Model:

- ▶ **Purpose:** a clear articulation of your purpose and your preferred future
- ▶ **A decision-making framework:** the criteria that guides your daily actions
- ▶ **Transformation:** a small number of transformational priorities
- ▶ **Action:** a focus on behavioural actions you need employees, customers, suppliers and others to take
- ▶ **Engagement:** a fresh approach to engaging and co-creating with others
- ▶ **Character:** a clear character that is unique to your organisation
- ▶ **Evidence:** all of this built on a strong evidence-base.

More detail around transformational change will appear in a follow-up report.

We can help you identify the priority issues that are key for your organisation, develop your sustainable business strategy and bring it to life through sustainable behaviour change programmes.

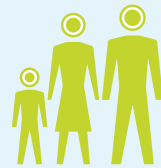
Proof point: An analysis of the relationships between 43,000 transnational corporations identified that just 3% (1,318) of the companies represented 20% of global operating revenues. In other words, a small number of key leaders have the power to achieve real collective change. Source: New Scientist October 2011: Swiss Federal Institute of Technology, Zurich.

GLOBAL AND UK ISSUES

ON THE NEXT
PAGES YOU
WILL FIND THE
IMPORTANT
FACTS AROUND
THE FOLLOWING
13 KEY ISSUES:

POPULATION

PAGE 12 →



ENERGY

PAGE 14 →



WATER

PAGE 16 →



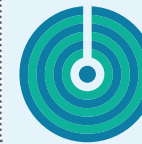
FOOD

PAGE 18 →



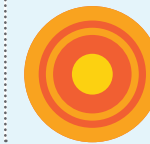
RESOURCES

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CLIMATE CHANGE

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**POVERTY
AND WEALTH**
PAGE 24 →



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EMPLOYMENT

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HEALTH

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PARTICIPATION

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TECHNOLOGY

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TRUST

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POPULATION

MORE PEOPLE, LIVING LONGER, SAME EARTH

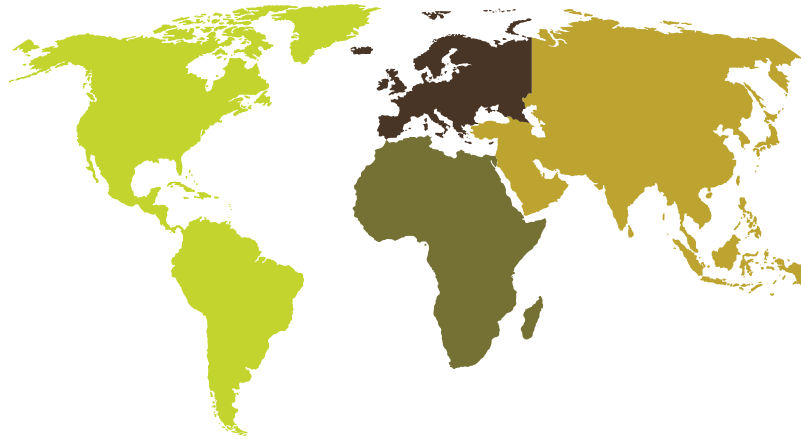




POPULATION

MORE PEOPLE, LIVING LONGER, SAME EARTH

11 BILLION PEOPLE IN THE WORLD BY 2100



AMERICAS POPULATION, BN		EUROPE POPULATION, BN		AFRICA POPULATION, BN		ASIA POPULATION, BN	
2013	2100	2013	2100	2013	2100	2013	2100
1	1	1	1	1	4	4	5

The UN projects that there will be **11 billion of us by 2100**, with just eight countries expected to account for half of all population growth. Although birth rates are falling, people are living longer. Average life expectancy is expected to increase from 69 (2005–2010) to 82 (by 2100).²

Globally, the number of older persons aged 60 years or over is set to increase from 810 million now, to more than two billion in 2050. At the same time, demographic changes have led to the largest generation of youth in the world today, with 1.2 billion young people aged 15–24.³

Today, more than half of the world's population live in cities, a figure expected to rise to 70% by 2050.⁴ By the same year, 64% of the developing world and 86% of the developed world will be urbanised.⁵ The total investment in cities in the next three decades is expected to be \$350 trillion.⁶

Construction creates opportunity and risk. In China up to 500,000 people die each year from air pollution, partly caused by construction.⁷

The business opportunity lies with the fact that the new middle classes are expected to grow from 1.8 billion to 4.9 billion by 2030,⁸ while there is also an increasing ethnic audience. In the UK, minorities will make up a third of the population by the middle of this century.⁹

1. Hans Rosling Gapminder
 2. UN, 2012 revision of official population estimates and projections
 3. UN Task Team on the post-2015 UN Development agenda

4. World Economic Forum, Outlook on the Global Agenda, 2014
 5. UN, 2012 revision of official population estimates and projections
 6. OECD – Booz Allen Hamilton, Strategy & Business, no. 46, 2007

7. The Daily Telegraph
 8. The Brookings Institution
 9. Policy Exchange, May 2014

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UNITED NATIONS
WORLD POPULATION
PROSPECTS, ECONOMIC
AND SOCIAL AFFAIRS,
THE 2012 REVISION,
HIGHLIGHTS AND
ADVANCE TABLES



UN TASK TEAM
ON THE POST-2015
UN DEVELOPMENT
AGENDA



BROOKINGS
INSTITUTION, THE
EMERGING MIDDLE
CLASS IN DEVELOPING
COUNTRIES



WEBSITE LINKS

COPENHAGEN CONSENSUS CENTRE

CIA WORLD FACTBOOK

HANS ROSLING GAPMINDER



ENERGY

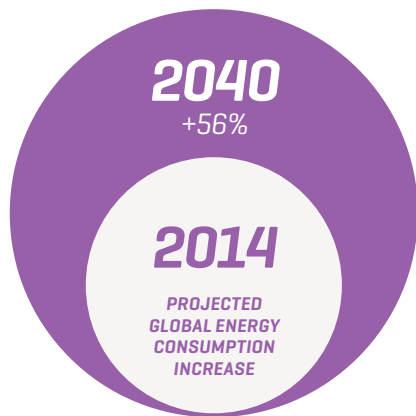
GROWING ENERGY DEMAND



ENERGY

GROWING ENERGY DEMAND FUELS SUPPLY CHALLENGE

GLOBAL ENERGY CONSUMPTION IN 2014 IS PROJECTED TO INCREASE SHARPLY



There is a global challenge to supply the energy needed to provide heat and light. Today's global energy consumption is projected to have increased by 56% by 2040. Half of the projected increase is attributed to China and India.¹⁰ In the UK electricity use is likely to increase by at least 30% and potentially by 100% over the same period.¹¹

Globally, 1.3 billion people currently lack access to the electricity they need to raise their standard of living.¹² Even in the developed economy of the UK, it is estimated that £200 billion will need to be invested up to 2020 to retain electricity security.¹³ The energy regulator Ofgem said this year that the risk of blackouts will increase from a one in 47 chance to a one in 12 chance by the winter of 2014/15.¹⁴

In terms of sources, fossil fuels are projected to continue to supply almost 80% of world energy use through to 2040.¹⁵ Renewables and nuclear energy are the fastest growing sources; renewables are expected to provide up to 12% of the energy we consume by 2050.¹⁶ EU gas imports will rise from 66% to 84% by 2035, while the proportion coming to Europe via pipeline, mostly from Russia, will rise from 37% to 51%.¹⁷ Social unrest, as we have seen recently in Ukraine, adds to uncertainty.

10. US Energy Information Administration, July 2013

11. DECC

12. UN quoted in The Sunday Times

13. Chris Huhne, quoted in the Guardian

14. The Times, January 2014

15. EIA, July 2013

16. DECC

17. BP annual energy outlook, 2014

KEY SOURCES



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INTERNATIONAL ENERGY OUTLOOK 2013, US ENERGY INFORMATION ADMINISTRATION



DECC ENERGY SECURITY STRATEGY, 2012



BP ANNUAL ENERGY OUTLOOK 2014



NEW LENS SCENARIOS, SHELL, 2013



WEBSITE LINKS

OFGEM



WATER

DEMAND UP, SCARCITY UP



WATER

WATER DEMAND UP, POSSIBILITY OF SCARCITY UP

3.5 BILLION PEOPLE COULD EXPERIENCE WATER SCARCITY BY 2025



In the 20th Century, population tripled and water use increased six-fold.¹⁸ A similar trend in the 21st Century could challenge the continuity of supply for millions. By 2030, global water supplies will satisfy only 60% of demand.¹⁹

Today, around 884 million people have no access to a safe supply of clean drinking water (some sources say twice as many).²⁰ Projections indicate that 3.5 billion will experience water scarcity by 2025.²¹ In addition, more than 2.5 billion – or one in three of the world’s population – lack adequate sanitation facilities.²²

There are implications for business resilience. Around 73% of the world’s 100 largest companies report having water risks.²³ It is consistently rated as a top three global risk by leaders in the World Economic Forum Global Risks report. Industrial sector water demands represent between 5% and 40% of withdrawals. Around 75% of all industrial water withdrawals are used for energy production. By 2035, global water withdrawals for energy are predicted to have increased by 20% over current levels, while water consumption for energy is expected to have increased by 85%.²⁴ Around 70% of water supply is currently used for agriculture.²⁵

18. World Bank International Development Association
19. International Food Policy Research Institute (IFPRI)
McKinsey analysis

20. World Water Day Report
21. World Resources Institute
22. WHO, UN

23. CERES & Pacific Institute
24. World Water Development Report, 2013
25. World Resources Institute

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MANAGING WATER UNDER UNCERTAINTY AND RISK, THE UNITED NATIONS WORLD WATER DEVELOPMENT REPORT 4



WATER TODAY, WATER TOMORROW, OF WATER AND SUSTAINABILITY



UN MILLENNIUM DEVELOPMENT GOALS REPORT, 2013



WORLD ECONOMIC FORUM GLOBAL RISKS REPORT



WEBSITE LINKS

AQUAFED

WORLD RESOURCES INSTITUTE

CERES & PACIFIC INSTITUTE

WATER AID



FOOD

DEMAND HIGH, FOOD WASTE HIGH

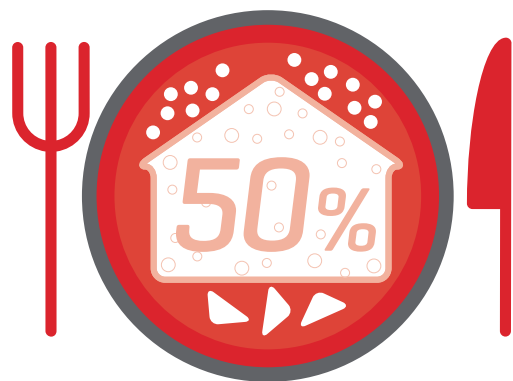




FOOD

DEMAND FOR FOOD INCREASES THE HUNGER TO REDUCE WASTE

DEMAND FOR FOOD IS PROJECTED TO INCREASE SIGNIFICANTLY BY 2030



A growing and increasingly well-off population is expected to increase the demand for food by at least 50% by 2030.²⁶ The World Resources Institute projects a 69% increase in food calories needed by 2050, with major gaps between supply and demand.²⁷

The impact of food production is massive. Around 28% of the world's population is directly or indirectly employed in agriculture – that's around two billion people.²⁸ About 70% of annual global freshwater resources are currently used for agriculture, a figure that rises to 90% in some parts of Asia.²⁹ Around 24% of global greenhouse gas emissions are from agriculture.³⁰

Today, 800 million people are periodically hungry.³¹ Research by the Centre for Economic and Business Research, commissioned by Kellogg's, shows almost five million people are in food poverty in the UK.³² And yet 32% of all food produced in the world was lost or wasted in 2009. Cutting this rate in half could close the food gap by about 20% by 2050.³³

26. UNEP/FAO/Think Eat Save
27. World Resources Institute
28. Ibid
29. UN

30. World Resources Institute
31. Ibid
32. Manchester Food Poverty
33. UNEP/FAO Reducing Food Loss and Waste

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CREATING A SUSTAINABLE WORLD FUTURE, WORLD RESOURCES INSTITUTE



UN MILLENNIUM DEVELOPMENT GOALS REPORT, 2013



WORLD RESOURCES INSTITUTE, REDUCING FOOD LOSS AND WASTE



WRAP HOUSEHOLD FOOD AND DRINK WASTE IN THE UK, 2012



WEBSITE LINKS

2030 WRG

ELLEN MACARTHUR FOUNDATION



RESOURCES

LIMITED RESOURCES CHANGE MARKETS



RESOURCES

LIMITED RESOURCE AVAILABILITY WILL CHANGE MARKETS

PROJECTIONS INDICATE THAT 82 BILLION TONNES OF RESOURCES WILL BE EXTRACTED BY 2020



More people consuming more products is likely to increase resource extraction to an annual 82 billion tonnes by 2020.³⁴ The estimated value of consumption in emerging markets is \$30 trillion by 2025.³⁵

The more wealth, the greater demand for products. The richest 20% of the population use 90% of the goods produced.³⁶ And the more products we use, the bigger the risk to the availability of key resources. We are consuming 50 football fields worth of forest each minute.³⁷ In China, 363 new coal plants are proposed, 51% of them in high water-stressed areas.³⁸

There is a global crunch on metals. Indium, used to make flatscreen displays, may have only 13 years of supply left. Tantalum, used to make compact electronic devices like mobile phones, may only have 116 years left, based on just half of current US consumption rates.³⁹ The gap between resource availability and resource consumption is leading to growth in the idea of the circular economy. The Ellen MacArthur Foundation estimates that \$2.6 trillion is lost each year in materials not re-used, recycled or composted.

The average Briton hangs on to £514 worth of clutter they no longer need, adding up to £32.7 billion.⁴⁰ Globally, 30% of the worldwide demand for resources in 2030 could be met through available resource improvements. Defra evidence shows UK businesses can save up to £23 billion through low cost or no cost improvements in the efficient use of resources.⁴¹

34. Ellen MacArthur Foundation – Towards the Circular Economy volume 1
35. McKinsey

36. UN Human Development Report, 1998 [original source]
37. World Resources Institute
38. Ibid
39. The Human Quest, Rockstrom and Klum

40. British Heart Foundation report quoted in the Express
41. WRAP Closing the loop: WRAP's contribution to economic growth

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UN MILLENNIUM DEVELOPMENT GOALS REPORT, 2013



WRAP CIRCULAR ECONOMY 2020 VISION



THE HUMAN QUEST



ELLEN MACARTHUR FOUNDATION TOWARDS THE CIRCULAR ECONOMY



FORTUNE FAVOURS THE BRAVE REPORT, ACCENTURE, M&S, 2013



SUSTAINABLE CONSUMPTION, WORLD ECONOMIC FORUM 2014



WEBSITE LINKS

WORLD RESOURCES INSTITUTE

STOCKHOLM RESILIENCE CENTRE



CLIMATE CHANGE

TEMPERATURES AND COSTS RISE



CLIMATE CHANGE

CLIMATE CHANGE SEES TEMPERATURES AND COSTS RISE

BY 2050, THE
NUMBER OF PEOPLE
VULNERABLE TO
FLOOD DISASTER IS
LIKELY TO RISE



The Intergovernmental Panel on Climate Change concluded that the global mean surface temperature increase is likely to be between 0.3% and 0.7% for 2016–2035, relative to 1986–2005 [with medium confidence].⁴² Global emissions of carbon dioxide today are more than 46% higher than their 1990 levels,⁴³ while atmospheric concentrations of carbon dioxide and other greenhouse gases are now at levels “unprecedented in at least the last 800,000 years.”⁴⁴

There is expected to be continued warming in the atmosphere beyond 2100, but it will vary annually and regionally. Arctic sea ice will continue to shrink and thin. Extreme rainfall events will increase. Sea levels will continue to rise. There will be an increase in ocean acidification and ocean circulation will be affected. It is estimated that between 15% and 37% of species will be “committed to extinction” by 2050.⁴⁵

The impact on people, businesses and lifestyles is likely to increase. By 2050, the number of people vulnerable to flood disaster is likely to rise to two billion.⁴⁶ The World Bank estimates the cost of climate change adaption for developing countries at \$70–100 billion per year through to 2050.⁴⁷ The UN forecasts that the numbers of people in large cities exposed to cyclonic winds, earthquakes and flooding will more than double during the first half of this century.⁴⁸

42. IPCC Fifth Assessment Report, 2013

43. UN Millennium Development Goals Progress Report, 2013

44. IPCC Fifth Assessment Report, 2013

45. Nature, vol 427, p145

46. United Nations University, World Water Development Report, 2012

47. World Economic Forum – Global Risks Report, 2014

48. Ibid

KEY SOURCES



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CLIMATE CHANGE 2013, THE PHYSICAL SCIENCE BASIS, IPCC, SUMMARY FOR POLICYMAKERS



UN MILLENNIUM DEVELOPMENT GOALS PROGRESS REPORT, 2013



THE 3% SOLUTION, DRIVING PROFITS THROUGH CARBON REDUCTION, WWF AND CDP



SECTOR INSIGHTS, WHAT IS DRIVING CLIMATE CHANGE ACTION IN THE WORLD'S LARGEST COMPANIES?, CDC (GLOBAL 500 CLIMATE CHANGE REPORT, 2013)





POVERTY AND WEALTH

POVERTY DOWN, WEALTH UP

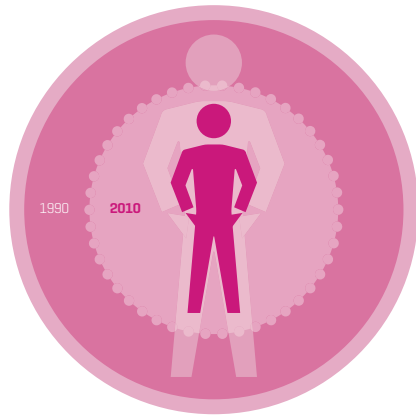




POVERTY AND WEALTH

POVERTY DECLINES BUT THE GAP IN WEALTH GROWS

GLOBAL POVERTY HALVED FROM 1990 TO 2010, FROM 47% LIVING ON LESS THAN \$1.25 A DAY TO 22%



The good news on global poverty is that it has halved from 1990 to 2010, from 47% in developing regions living on less than \$1.25 a day to 22%. China leads the way, with those living in extreme poverty dropping from 60% in 1990 to 12% in 2010.⁴⁹ However, according to the World Bank, 970 million people will still be living in extreme poverty in 2015,⁵⁰ with around one billion people, one third of the world's urban population, living in slums.⁵¹ More than 60% of workers in the developing world still live on less than \$4 a day.⁵² In the UK 23%, or around 13 million, live in or at risk of poverty.⁵³

The impact of the recession on each of us has been profound. Weekly family spending has been falling each year since 2006.⁵⁴ Food prices have risen 12% in real terms since 2007, while median income after housing costs fell 12% between 2002-03 and 2010-11 for low income households.⁵⁵ The cost of raising a child is £227,000, up 5% in the last year alone, accounting for 28% of parents' annual income.⁵⁶ Citizens advice services in the UK have seen a 20% increase in the past five years in the number of mortgage and secured-loan debt problems being reported.⁵⁷ At the same time, the number of people defined as high net worth increased by 9.2% from 2011 to 2012 to reach 12 million. These are people with \$1 million in investable assets.⁵⁸ The combined wealth of the world's richest 1,000 people is almost twice that of the poorest 2.5 billion.⁵⁹ The average CEO of major US companies gets paid 531 times more than the average worker in the same organisation. In 1980, the CEO earned, on average, 42 times more.⁶⁰

49. UN, Millennium Development Goals Report, 2013
 50. World Bank
 51. World Economic Forum, 2014
 52. UN, Millennium Development Goals Report, 2013
 53. Joseph Rowntree Foundation and New Policy Institute

54. ONS Family Spending, 2013
 55. The Food Statistics Pocket Book 2013, published in 2014 by Defra
 56. Cost of a Child report, Centre for Economics and Business Research, 2014

57. The Guardian
 58. CapGemini World Wealth Report, 2013
 59. Zygmunt Bauman, University of Leeds, Does the richness of the few benefit us all?
 60. Business Week "Spreading the Yankee way of pay - 2001"

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ONS POVERTY AND SOCIAL EXCLUSION IN THE UK AND EU, 2005-2011



MONITORING POVERTY AND SOCIAL EXCLUSION 2012, JOSEPH ROWNTREE FOUNDATION REPORT



WORLD WEALTH REPORT 2013, CAPGEMINI



WEBSITE LINKS

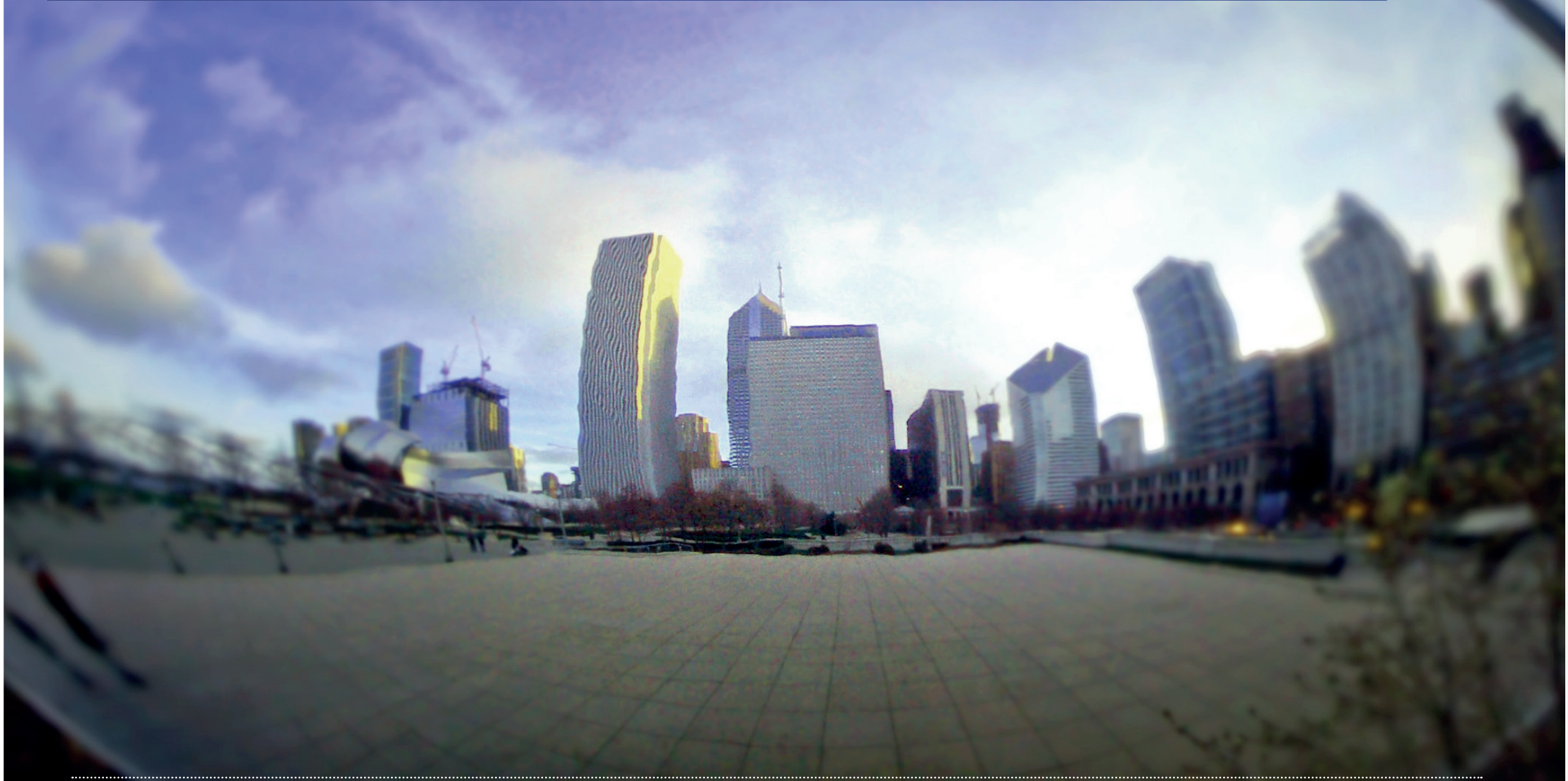
WORLD ECONOMIC FORUM 2014

WORLD INSTITUTE FOR DEVELOPMENT ECONOMICS RESEARCH



THE ECONOMY

THE ECONOMY RECOVERS





THE ECONOMY

THE ECONOMY RECOVERS BUT WHO CAN TELL THE PROBABLE FUTURE?

UK GROWTH IS
PREDICTED TO BE
2.8% THIS YEAR
AND 2.5% IN 2015
AND 2016



UK growth is predicted to be 2.8% this year and 2.5% in 2015 and 2016.⁶¹ The Great Recession is over in the UK. With GDP having shrunk 7.2% from peak to trough, it has taken six years to recover, two years longer than the Great Depression.⁶² The FTSE 100 index of leading British companies rose 14% in 2013.⁶³ The number of SMEs has increased 4.2% in the last two years, to a six-year high of 2.16 million.⁶⁴ On the other hand, SMEs are being paid 41 days late on average, creating the cash flow issues that the EU estimates cause 25% of company bankruptcies.⁶⁵

Household debt is at record levels. Individuals owe a total of £1.43 trillion, including mortgage debt, or an average of £28,489 per person.⁶⁶ Average house prices could quadruple to more than £900,000 in England by 2034.⁶⁷ Almost a third of young men are still living with their parents.⁶⁸ In 2012 the world's biggest pension funds grew by 9.8% to be worth \$14 trillion, almost equivalent to the entire GDP of the US.⁶⁹ The news is not so good for individuals, with less than half of us in the UK saving enough for the future.⁷⁰ The number of people in the UK with no savings at all has risen to over nine million, or one in five of the UK adult population.⁷¹ Meanwhile, the average retiree savings pot of £38,000 minus pensions is expected to last just six years.⁷²

61. British Chambers of Commerce
62. National Institute of Economic and Social Research
63. Citywire
64. National Association of Commercial Finance Brokers

65. Angel News
66. Bank of England, October 2013
67. KPMG/Shelter report, May 2014
68. DNS, January, 2014

69. The Times, September, 2013
70. YouGov, Scottish Widows, 2013
71. 2014 Scottish Widows Savings Report
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ONS POVERTY AND
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2014



WEBSITE LINKS

WORLD BANK

NATIONAL ASSOCIATION OF
COMMERCIAL FINANCE BROKERS

NATIONAL INSTITUTE FOR
ECONOMIC AND SOCIAL RESEARCH

THE INSOLVENCY SERVICE

BANK OF ENGLAND



EMPLOYMENT

WOMEN, YOUNG PEOPLE AND SKILLS

YOUNG GIRLS
For
Pickling & Bottling



EMPLOYMENT

THERE ARE OPPORTUNITIES TO SIGNIFICANTLY INCREASE PRODUCTIVITY

60% OF THE WORKING-AGE POPULATION IS IN EMPLOYMENT



Globally, 60% of the working-age population is in employment.⁷³ Gender equality continues to be an issue. The percentage of women in work globally has increased from 15% in 1900 to 40% in 2010 and is expected to reach 45% in 2050. The economic cost of gender inequality (i.e. the cost of not benefitting from women in employment) is estimated at 7% of Global World Production.⁷⁴

There is also a very real challenge for young people. The World Bank estimates about 300 million young people are not in productive work. That is over 25% of the world's youth population. At the same time, an unprecedented demographic "youth bulge" is bringing more than 120 million new young people on to the job market each year, mostly in the developing world.⁷⁵ The unemployment rate for young people aged 16–24 in the UK is 18.5%.⁷⁶ One in three long-term unemployed young people has contemplated suicide and one in four has self-harmed, according to the Prince's Trust Macquarie Youth Index, reported in The Times in January 2014.

The skills needed by employers remains an issue. Globally, 57 million children do not receive primary education.⁷⁷ In England and Wales, 8.5 million adults have the numeracy levels of a 10-year-old.⁷⁸ According to the CBI, better education could add £8 trillion to UK GDP over the lifetime of a child born today – equivalent to 1% of GDP each year.⁷⁹

73. UN MDG report, 2013

74. Copenhagen Consensus Center, 2013

75. WEF Global Risks, 2014

76. Parliament UK

77. UN MDG Report, 2013

78. OECD, 2013

79. CBI, Changing the Pace report, 2013

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OECD SKILLS OUTLOOK, 2013



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COPENHAGEN CONSENSUS CENTER

JOSEPH ROWNTREE FOUNDATION

OFFICE OF NATIONAL STATISTICS



HEALTH

HEALTH COSTS REMAIN HIGH

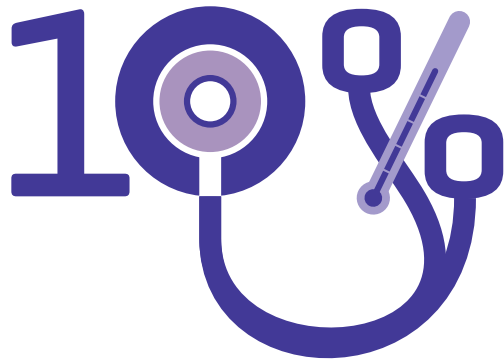




HEALTH

OUR HEALTH IS IMPROVING BUT THE COST REMAINS HIGH

THE COST OF
POOR HEALTH IS
ESTIMATED AT 10%
OF GLOBAL GDP



If we look at the bigger picture on health, we see that the cost of poor human health is high. Poor health is estimated to have cost 10% of global GDP in 2013, down from 32% in 1900, but is still projected to be 5% by 2050.⁸⁰ The number of cancer cases will grow by 57% from 14 million in 2012 to 22 million within 20 years, with the World Health Organisation claiming that about half of cancer cases could be prevented.⁸¹ Obesity nearly doubled between 1980 and 2008 and 65% of the world's population live in a country where excess weight and obesity kill more people than lack of weight.⁸²

In the UK, heart disease was the biggest cause of death in 2012, killing over 64,000 people, followed by dementia and Alzheimer's disease which caused more than 43,000 deaths.⁸³

The hidden sibling of physical health is mental health. Mental illness costs the UK £70 billion a year.⁸⁴ Over 370,000 people in the UK move into disability each year and mental illness accounts for 40% of all new claims.⁸⁵ The UK spends 4.5% of GDP on mental illness in lost productivity, benefit payments and healthcare costs.⁸⁶ Estimates suggest that 91 million days are lost each year in the UK to mental health problems.⁸⁷ Loneliness in old age may be twice as bad for health than obesity⁸⁸ and, worryingly, loneliness in the UK is up from 13% in 1948 to 32%.⁸⁹

80. Copenhagen Consensus Center

81. WHO – World Cancer Report, 2014

82. WHO

83. ONS – causes of death by gender

84. OECD, Mental Health and Work: The United Kingdom, February 2014

85. Ibid

86. Ibid

87. The Mental Health Foundation – Mental Health in the Workplace

88. John Cacioppo, neuroscientist, University of Chicago

89. The Times, February 17th, 2014

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UN MDG REPORT



PROMOTING MENTAL HEALTH AT WORK, ACAS



WEBSITE LINKS

OECD

COPENHAGEN CONSENSUS CENTER

CENTRE FOR MENTAL HEALTH

DEPARTMENT OF HEALTH



PARTICIPATION

BIG CHANGES IN PEOPLE POWER

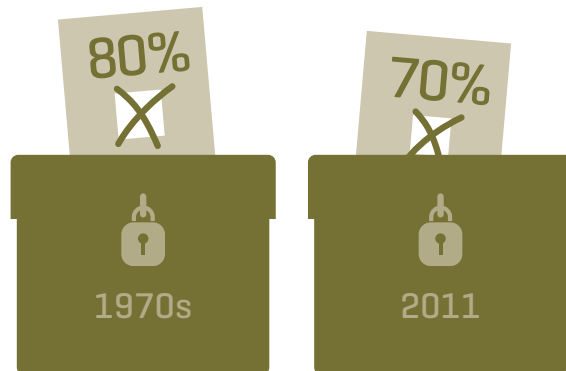




PARTICIPATION

HOW PEOPLE CHOOSE TO PARTICIPATE IS CHANGING

THERE HAS BEEN A REDUCTION IN VOTER TURNOUT IN RICH COUNTRIES



There has been a reduction in voter turnout in rich countries and a change in forms of participation. Voter turnout in rich countries fell from 80% in the 1970s to less than 70% by 2011.⁹⁰ Voter turnout in the UK has remained at around six in 10 for the last two General Elections (61.1% in 2010). Party membership is falling too. In the UK only 1% are members of political parties, compared with 20% in 1950.⁹¹

Trust in democratic institutions is low. Around one third of Europeans trust the European Union. In the UK the figure is one fifth. Only a quarter of Europeans trust their national governments, compared to 22% in the UK.⁹² In 2012, 63% in the UK felt a sense of belonging to their neighbourhood, down from 66% in 2009-10.⁹³ In the UK, 14 million citizens now say they have no religion. This is highest among younger age groups.⁹⁴ In England the proportion engaging with the arts or cultural activities at least three times a year remained at 83% in 2012-13 and around a third [36%] participated in 30 minutes of moderate intensity sport once a week.⁹⁵ On the other hand, informal methods of participation are increasing. Social networking is ubiquitous. Since launching publicly in 2006, 1.23 billion people worldwide use Facebook (Feb 2014). If Facebook were a country, its population would be the second largest in the world.⁹⁶ Connectivity has driven people-powered change. Change.org is the world's largest online petition platform, with over 50 million users in 196 countries, while groups like 38 Degrees in the UK, MoveOn in the United States, GetUp in Australia and Avaaz around the world have mobilised nearly nine million people to campaign on issues that their members care about.

90. The Economist

91. Parliament UK

92. Eurobarometer

93. ONS, national wellbeing indicators

94. 2011 Census

95. ONS, national wellbeing indicators

96. She Marketing

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2011 CENSUS

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CENSUS BUREAU



TECHNOLOGY

A WORLD OF TECHNOLOGICAL INTIMACY



TECHNOLOGY

TECHNOLOGY CONTINUES TO BECOME MORE PERVASIVE

THE INTERNET OF THINGS IS GOING TO BE A \$19 TRILLION PROFIT MARKET IN THE NEXT FEW YEARS.⁹⁷



Over 2.5 billion people use the internet worldwide.⁹⁸ Almost half the global population – 3.2 billion people – use mobile phones. A billion mobile subscribers were added in the last four years and current growth rates suggest that the four billion users mark will be passed in 2018.⁹⁹

In the UK, 94% of adults own a mobile phone, 97% have digital televisions, 44.3% have access to a DAB digital radio. In 1972 total British television was capped by law at 9,900 hours a year across three channels. In 2013 Ofcom licensed 2000 broadcast services, many of which broadcast 24 hours a day.¹⁰⁰

By 2020 there will be nearly 26 billion devices connected to the Internet of Things.¹⁰¹ Estimates suggest that the Internet of Things will be a \$19 trillion profit market in the next few years. How people use technology is changing too. In 2013 in the UK, 72% of all adults bought goods or services online, up from 53% in 2008. Half use the internet to access bank accounts, 43% to seek health information and 21% to buy groceries.¹⁰²

More than 40 million personal health and wellness products were expected to sell in 2013, a figure that will rise to more than 70 million by 2018.¹⁰³ Our use of technology to augment the real world is set to grow to a market of \$5.2 billion by 2017.¹⁰⁴ It is estimated that by 2020 there could be four times more digital data than all the grains of sand on earth.¹⁰⁵

97. ZDNet

98. Internet World Stats

99. GSMA Mobile Economy, 2013

100. Ofcom – Communications Market Report, 2013

101. Gartner

102. ONS and Ofcom – Internet Access, Households and Individuals, 2013

103. The Consumer Electronics Association [CEA]® report, The Connected Health and Wellness Market, February 2014

104. Juniper Research

105. IBM Smarter Planet website

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OFFICE OF NATIONAL STATISTICS

OFCOM

IBM SMARTER PLANET



TRUST

LOW TRUST IN OUR LEADERS

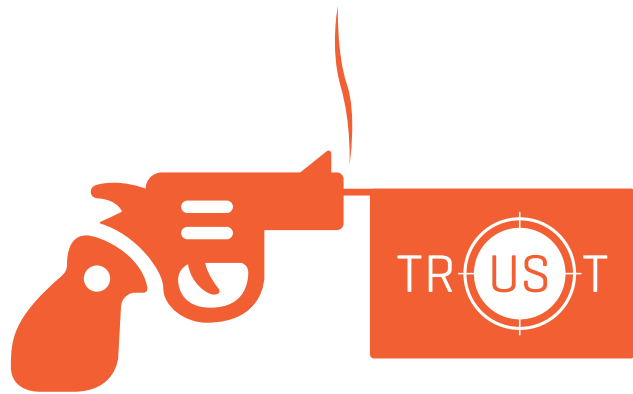




TRUST

PEOPLE DON'T TRUST GOVERNMENT OR BUSINESS LEADERS

PEOPLE TRUST BUSINESS MORE THAN GOVERNMENT AND THE MEDIA



Edelman's Annual Trust Barometer for 2014, which covers 27 countries, shows that trust in business has stabilised at 58% globally, creating the largest ever gap in trust between business and government – especially in Brazil [36 points], India [26 points] and the US [21 points].¹⁰⁶

In the UK, trust in government has dropped to 42%, whereas trust in business has held up at 56% [14 point gap]. Notably, trust in leaders is lower. Only 19% trust business leaders and 16% trust government leaders to solve social or societal issues. Trust in UK business sectors ranged from 79% for technology to 32% for energy, which is now the least-trusted sector, beneath media and banking.¹⁰⁷ NGOs continue to be the most trusted – two thirds of the UK public trust NGOs while just one in four trust the media – always the least trusted.¹⁰⁸

106. Edelman Trust Barometer, 2014

107. Ibid

108. Ibid

KEY SOURCES



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.....
[EDELMAN TRUST BAROMETER 2014](#)
.....

.....
[EUROBAROMETER](#)
.....



*NEW MODELS
ARE EMERGING
AROUND
**LONG-TERM
SUCCESS***

“Look for stock that has a durable competitive advantage.” **Warren Buffet**

SUCCESSFUL COUNTRIES

Currently, Gross Domestic Product is the principle measure of national progress. But it doesn't take account of most of the factors mentioned in this report: water, energy or food security, health, global warming, economic risk, economic opportunity, skill availability, inequality or trust in business and government.

If these issues are of value to long-term business success, it may be that a more accurate measure is required than GDP alone. New models are being explored like the **Genuine Progress Indicator (GPI)** which uses 26 indicators to produce a different model of national progress.¹⁰⁹

SUCCESSFUL BUSINESSES

The global financial crisis challenged the prevailing business model that commercial success should be judged on quarter-by-quarter financial growth alone. New business models are beginning to emerge. One new way of thinking is being progressed by the **Accounting for Sustainability** initiative in the UK. Another is the UK's **A Blueprint for Better Business** initiative which includes the idea of defining a flexible decision-making framework that boards and executives might use to help make decisions that are more effective in the short, medium and long-term. Yet another is the concept of **Shared Value** developed by Michael Porter and Mark Kramer. Many companies are developing their own sustainable business models. In practice this is about defining the criteria required to achieve success in the short, medium and long-term.

SUCCESSFUL LIVES

How we define personal success is also changing. The European Union conducts regular research into personal health and well-being. The UK's Office of National Statistics (ONS) also captures measures of national well-being annually.¹¹⁰ **The three major issues most associated with personal well-being are health, employment status and relationships.** There was a very strong correlation between people being in the job they wanted and life satisfaction and feeling they were doing something worthwhile. The ONS report also concluded by saying that “increased **earnings** of employees are associated with higher levels of life satisfaction, but not with the sense that their activities are worthwhile, nor with their day-to-day emotions. Employees with higher earnings... do not appear to have a sense that their activities are more worthwhile any more than those employees with lower earnings, nor do they report significantly higher levels of happiness or lower levels of anxiety.”¹¹¹

109. Genuine Progress Indicator

110. ONS, Measuring National Well-being – Domains and Measures

111. ONS, Measuring National Well-being – What matters most to Personal Well-being, May 2013

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ONS MEASURING
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WHAT MATTERS
MOST TO PERSONAL
WELL-BEING



WEBSITE LINKS

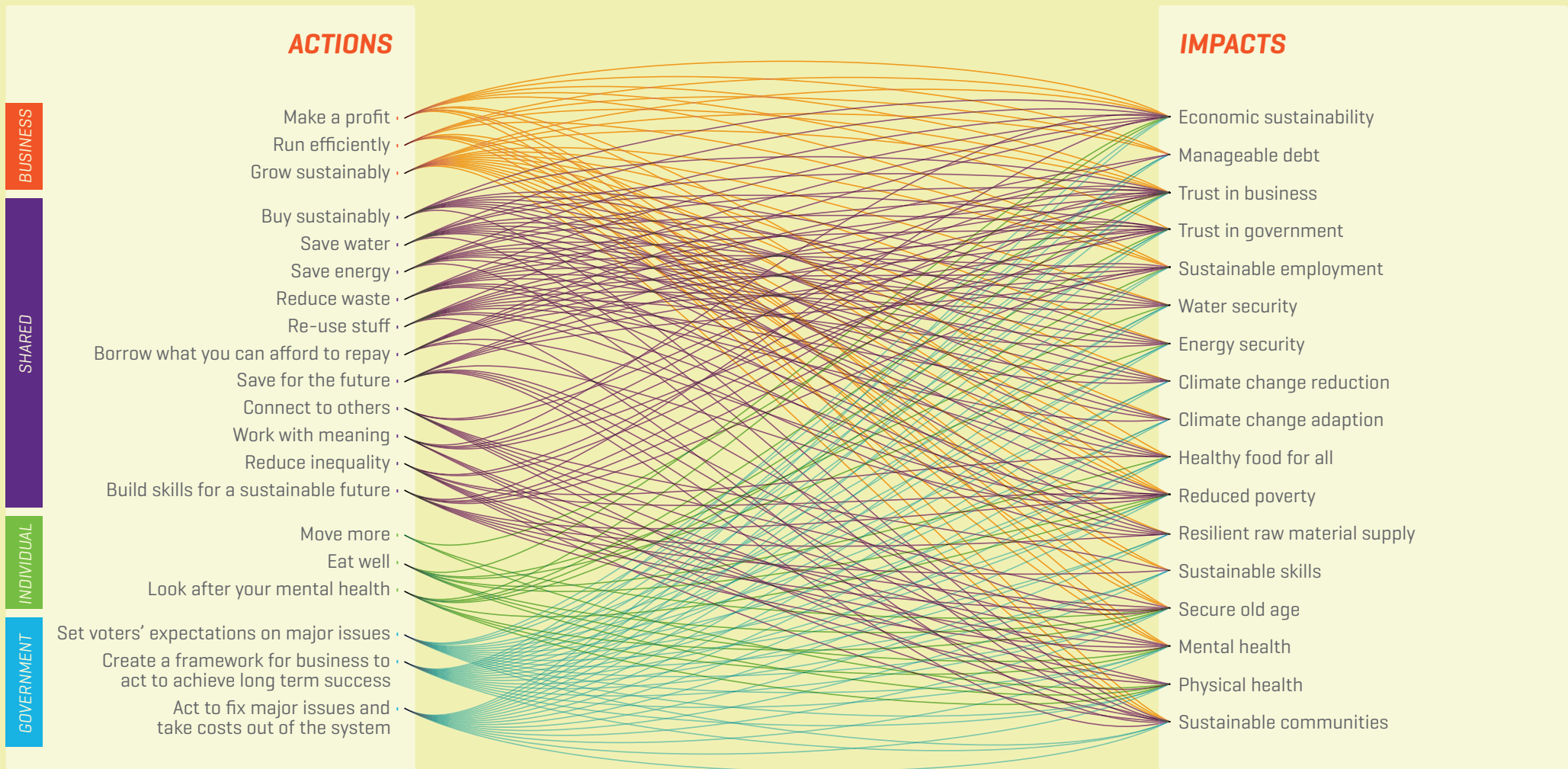
ACCOUNTING FOR SUSTAINABILITY

A BLUEPRINT FOR BETTER BUSINESS

SHARED VALUE

THE *PREFERRED FUTURE*

In the preferred future there is sustainable economic growth, a resilient supply of energy, resources, water and the skills people need for employment. In fact, it's possible to identify just 20 actions individuals, governments and business can take to achieve just 17 outcomes or impacts that would help executives achieve sustainable success.



THE FOUR KEY QUESTIONS ARE:

1

What is your burning platform?

[Every company will have its own version of a burning platform]

2

What is your preferred future?

[This relates very closely to organisational purpose]

3

What, for your organisation, are the key transformational programmes that will help you achieve your preferred future?

[No more than three a year]

4

What actions do you need employees, customers, suppliers and others to take?

HOW TO MOTIVATE MILLIONS

Our Motivating Millions research in 2013 identified priorities for action, ownership within business and key strategies to achieve change.

IS IT IMPORTANT FOR MY ORGANISATION TO ACT?

To what extent, if at all, is it important for your organisation to change the behaviour of each of the following groups?

INTERNAL AUDIENCES (E.G. EMPLOYEES / SENIOR MANAGEMENT TEAM)



EXTERNAL AUDIENCES (E.G. PUBLIC / CUSTOMERS)



SUPPLIERS

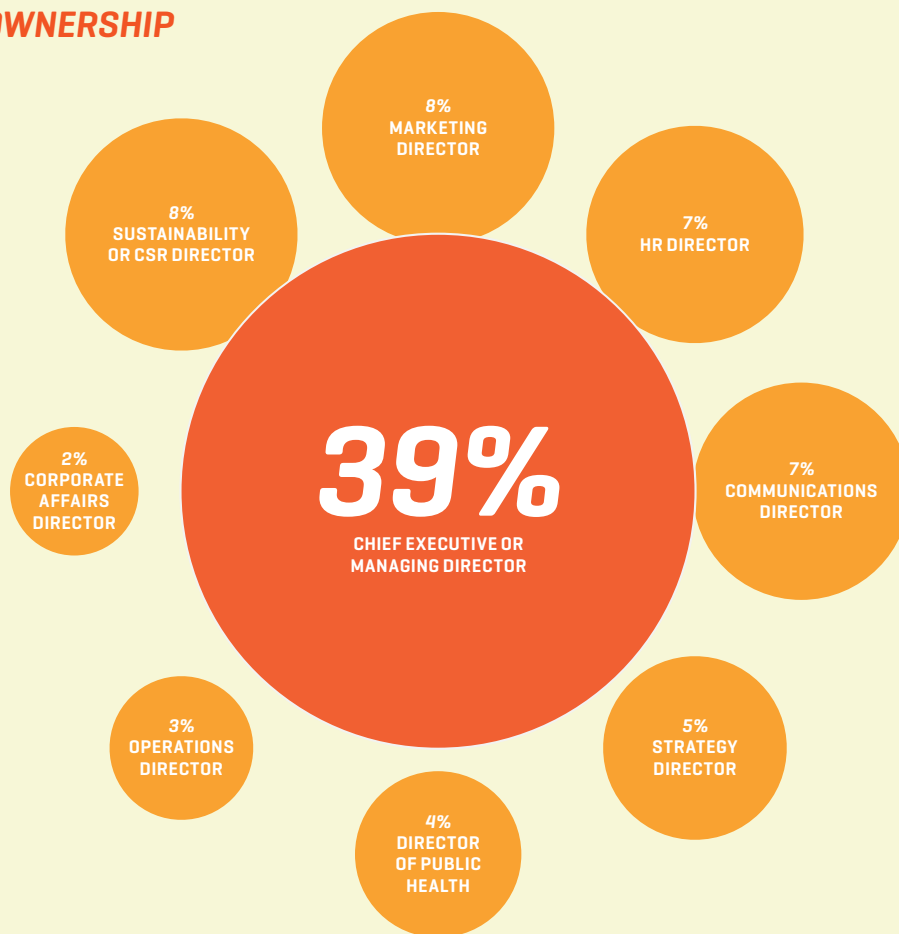


■ VERY IMPORTANT ■ FAIRLY IMPORTANT ■ NOT VERY IMPORTANT

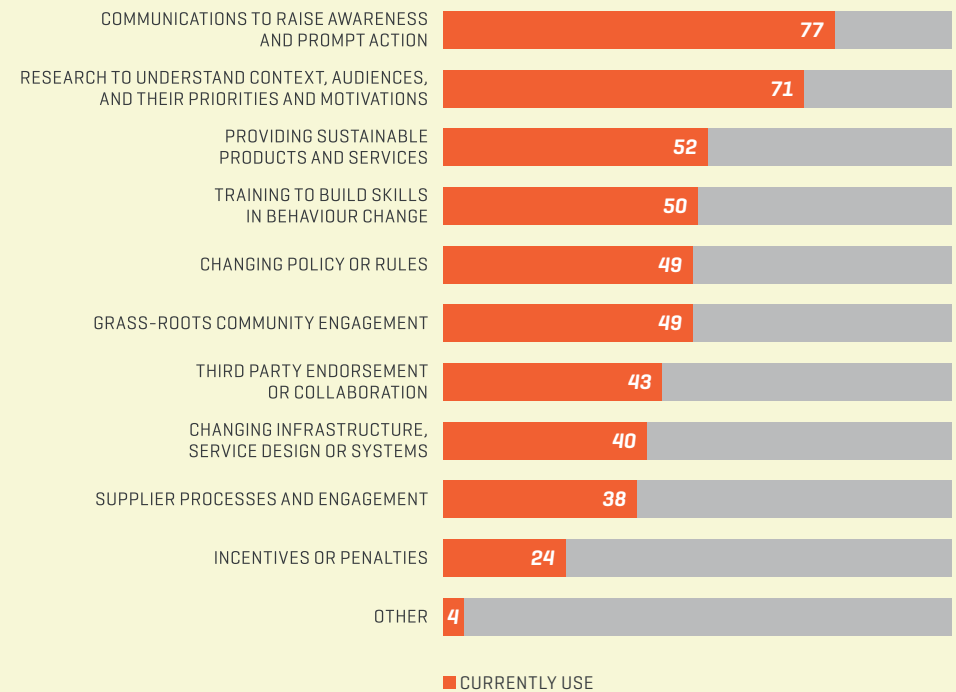
PRIORITIES FOR CHANGE FOR EACH AUDIENCE

	Employees	Customers/public	Suppliers
Top three important behaviours	Waste reduction and recycling [84%]	Waste reduction and recycling [70%]	Waste reduction and recycling [71%]
	Saving energy [84%]	Saving energy [70%]	Saving energy [71%]
	Encouraging them to act to stay healthy [83%]	Encouraging them to act to buy sustainable products and services [61%]	Encouraging them to save water [61%]
Three least important behaviours	Save for the future [39%]	Encouraging them to give more time or money to charity [30%]	Save for the future [14%]
	Improving ability to manage finances [44%]	Save for the future [32%]	Improving ability to manage finances [20%]
	Encouraging them to give more time or money to charity [46%]	Improving ability to manage finances [39%]	Encouraging them to give more time or money to charity [23%]

OWNERSHIP



WHAT STRATEGIES ARE CURRENTLY USED?



A future report will present leading-edge thinking and practice on sustainable behaviour change. To register your interest in receiving a copy please contact me at john.drummond@corporateculture.co.uk

IT'S NOT ALL BAD NEWS

TOP 10 REASONS TO BE CHEERFUL

1

Around 700 million fewer people lived in conditions of **extreme poverty** in 2010 than in 1990.

2

Over two billion people have gained access to improved sources of **drinking water** over the last 21 years.

3

Over 200 million slum dwellers benefitted from improved **water sources, sanitation, durable housing** or **sufficient living space** in the last 10 years.

4

The proportion of **undernourished** people in developing countries decreased from 23.2% [1990–1992] to 14.9% [2010–2012].

5

The **mortality rate** for children under five has dropped by 41%, from 87 deaths per 1,000 live births in 1990 to 51 in 2011.

6

The **maternal mortality** rate declined by 47% between 1990 and 2010, from 400 maternal deaths per 100,000 live births to 210.

7

From 1990 to 2011, 1.9 billion people gained access to a **latrine, flush toilet** or other improved sanitation facility.

8

Between 2000 and 2011 the number of **children out of school** worldwide declined by almost a half from 102 million to 57 million.

9

Overall participation in **higher education** in the UK increased from 3.4% in 1950 to 8.4% in 1970, 19.3% in 1990 and 33% in 2000.

10

Adults in the UK are **living longer**. Male life expectancy is up from 66 years in the 1950s to 78 today and female life expectancy is up from 70 years to 82.

OPTIMISM

The Copenhagen Consensus Center, in consultation with economists, estimates that the cost of global problems can be quantified and that it has declined from 100% of Global World Production [GWP] to 40% today. It estimates that this will decline further to 27% of GWP by 2050.

Source for statistics: UN MDG Report 2013 except for point 9, House of Commons Library, and point 10, ONS.

CONCLUSIONS: SUSTAINABLE ACTION AS AN OPPORTUNITY

In the view of Corporate Culture Group Chairman, John Drummond, a clear 10-step narrative emerges from this review into the probable future.

1

There are a small number of massive global issues that are significant threats to long-term commercial success.

2

These issues are heavily interconnected.

3

Addressing them can reduce risk and save money.

4

It can also open up new commercial opportunities.

5

Governments seem unlikely to act collaboratively on these major issues.

6

Businesses have the incentives and the leverage to act.

7

The challenge is that change depends on a move away from our understanding of people as 'homo economicus' to a deeper understanding of what motivates people to act. This also means a move from the idea of nudging an "unconscious us" to a more public collaborative "conscious us" world where governments are open and direct with people and co-create solutions for sustainable success.

8

This thinking will, in turn, influence a change in business thinking and business models.

9

One early step is for an organisation to understand its own Burning Platform [see page 7].

10

It can then use this to help define its preferred future and take actions towards achieving it through a transformational sustainable business model, fit for purpose for their organisation. [see page 8].

SO HERE IS THE SUMMARY.
SENIOR EXECUTIVES FACE REAL CHALLENGES
TO ACHIEVE LONG-TERM AND SUSTAINABLE SUCCESS.
THE BIG QUESTIONS THEY SHOULD BE ASKING ARE:

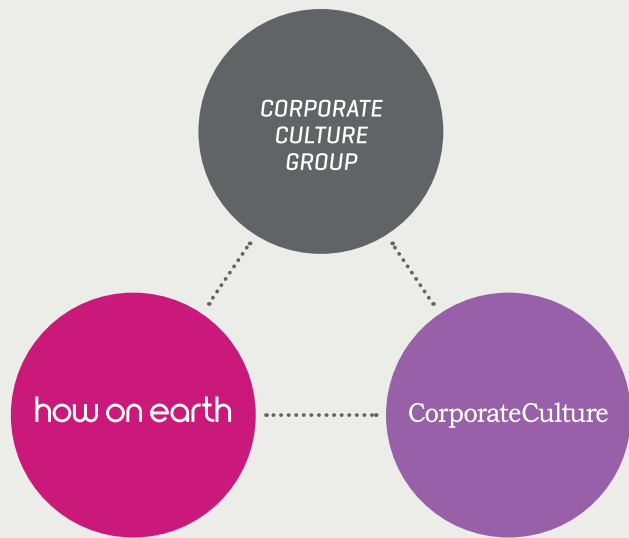
*How do we
review and analyse
relevant long-term
context?*

*How do we align
our strategy to
identify long-term risk
and opportunity?*

*And how do we
agree priorities and
turn this into an
action agenda?*

ABOUT CORPORATE CULTURE GROUP

CORPORATE CULTURE GROUP CONSISTS OF TWO BRANDS.

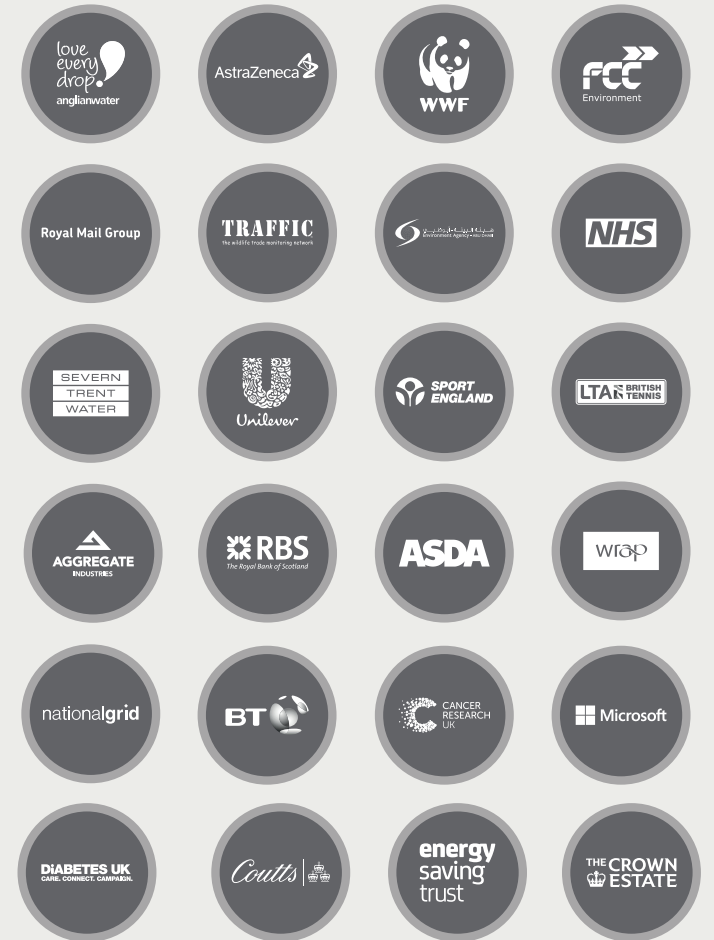


Our **Corporate Culture** brand which focuses on employee engagement and our **How on Earth** brand which focuses on sustainable behaviour change.

We've helped to change the behaviours of millions of people, through campaigns like Recycle Now, Love Food Hate Waste, and Keep it Clear.

To learn more about our work, and how we might help future-proof your organisation, please contact our Chairman, John Drummond:

john.drummond@corporateculture.co.uk
0845 607 0000



PROLOGUE: AND YET IT MOVES

JOHN DRUMMOND, JUNE 2014



IN 1663, THE ESTABLISHED
BELIEF WAS THAT
THE SUN CIRCLED THE EARTH.

Galileo, on his liberty from an inquisition by the Church, was reported to have stamped his foot on the earth and said: “*Eppur si muove*” – “*and yet it moves*”. The revolution required to see our Earth today in a different light begins with **the current best understanding of the evidence...** and then the journey begins.

NOTES



how on earth CorporateCulture

The author John Drummond, who also supplied the photography, would like to thank Belinda Miller for research, and the Corporate Culture Group creative team for design and production.

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