

Environmental Reporting

Trends in FTSE 100
Sustainability Reports

November 2008



A White Paper
From Spada

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Executive summary

Environmental reporting is still in its infancy compared to financial reporting, but with more media and public scrutiny on corporates' green policies and credentials, it is essential that companies communicate – and are appraised on – these matters consistently and clearly.

Environmental Reporting: Trends in FTSE 100

Sustainability Reports investigates the terminology, thematic content and length of Britain's leading corporate reports on sustainability.

In the sample we analysed there are many excellent examples of good, evidence based reports but a number of key issues need to be addressed within CR reporting as a whole.

Longer corporate responsibility (CR) reports do increase the likelihood of winning 'sustainability' awards; corporations fail to define critical reference terms; and heavy polluters are not necessarily heavy communicators – these are the key findings of the report.

As regards FTSE 100 companies, some of the world's leading businesses, the stakes could not be higher. Now is the time to develop a more rigorous consensus on how these issues should be communicated and appraised in the public domain.

We hope that this research will provide the foundation for an informed and fruitful discussion about how the CR report needs to mature as a format.



Gavin Ingham Brooke
Managing Director



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Key findings

“Of the 79 organisations that use the term ‘sustainability’ in their CR reporting, only two define what they mean by it in the first instance”

> **The top five most popular environmental terms used in CR reports are:**

01. Corporate responsibility
02. Environment
03. Waste
04. Emissions
05. Sustainability

The prominent coverage given to these particular terms reflects current widespread concerns about the impacts of significant, man made changes to the environment.

> **The vast majority of organisations fail to define what they mean by environmental terms and concepts.** For example, there is substantial literature about the meaning and content of ‘sustainability’, a concept which is not easy to grasp and defies a standard, universal definition. Of the 79 organisations that use the term ‘sustainability’ in their CR reporting, only two define what they mean by it in the first instance.

> **There has been a shift from ‘corporate social responsibility’ (CSR) to ‘corporate responsibility’ (CR).** The term ‘corporate responsibility’ is used over ten times more often than ‘social responsibility’ and over thirteen times more often than ‘corporate social responsibility’. We hypothesise that this shift reflects the need for corporations to go beyond societal/stakeholder impacts and address the company’s total effect on society and the environment. This change may be intentional, as people who work in the field of corporate

responsibility attempt to distance modern practices from the ‘soft,’ ‘touchy feely’ connotations of the early usage of ‘social responsibility’ or CSR.

> **The quantity of reporting does not increase along a linear trajectory from low to high carbon sectors.**

Our research challenges the widespread assumption that the depth and breadth of environmental reporting increases along with the severity of an organisation’s impact on the environment. Instead, findings reveal that length of environmental reporting and carbon intensity do not increase along a straight line. For example, Financials, a low carbon sector, devote greater resources to reporting than Industrials, a medium to high carbon sector, with reports averaging 19 pages compared to 13 pages respectively. These results provide some evidence that complex sets of dynamics influence reporting decisions. In other words, not only industry sector and carbon intensity but also the level of maturity of a company, its long term vision, strategy, and leadership play a part.

> **Instead, the level of public scrutiny an organisation faces is a more likely predictor of the amount of reporting than carbon intensity or sector.** Related to the previous finding, our research shows that consumer facing sectors devote greater resources (in terms of writing, at least) to environmental reporting than those companies with low levels of public awareness. For example, the high carbon intensity sectors Oil and Gas and Utilities are leading the pack in terms of the spread and depth of their discussion of environmental issues; yet, another high intensity sector, Basic Materials, is clearly trailing. Why? Whilst recognised companies like

“complex sets of dynamics influence reporting decisions”

“For every one page increase in a sustainability report, the odds of a FTSE 100 company winning an award increase by 3%”

BP and National Grid must face up to increasing consumer scrutiny, the relatively unknown Kazakhmys is confronted with far less public pressure.

> Companies that write longer sustainability reports are more likely to win environmental awards. Whilst the average page count of a sustainability report is 21 pages, the sustainability reports of winners of the Business in the Community (BITC) Top 100 award are an average 25 pages in length, reports of Global 100 award winners are an average of 26 pages, and those of the Carbon Disclosure Project (CDP) Leaders are an average 30 pages in length. This correlation is statistically significant even when industry sector and carbon intensity are held at constant. For every one page increase in a sustainability report, the odds of a FTSE 100 company winning an award increase by 3%. For every five page increase, the odds increase by over 15%, and for every ten pages odds increase over 30%. While this finding does not prove causation, is there any truth in a cynical view that producing a hefty report may be more likely to impress those people doling out the awards than substance?

> Resource and supply chain are amongst the least discussed environmental issues, despite their growing prominence on the sustainability agenda. The least covered themes across industry sectors are concepts related to resource and supply chain, falling behind themes such as waste and recycling, sustainability, and renewable energy. Whilst energy efficiency has delivered significant carbon and cost savings for business, more fundamental changes are

necessary to mitigate climate change effectively. This issue is predicted to become even more crucial in the future. Accordingly, we predict that companies will be faced with the need to develop good quality reporting which addresses these aspects of sustainability.

“we predict that companies will be faced with the need to develop good quality reporting which addresses resource and supply chain”

Background to the research

This research was prompted by the long term growth and integration of environmental sustainability in the workplace, and the associated challenges posed to effective corporate accountability – particularly, environmental reporting. As a communications consultancy, Spada seeks to understand these challenges in order to help its clients incorporate this new form of communications. How can companies demonstrate environmental commitment without gimmicks? What are the best channels of dissemination? How should each organisation determine the right, strategic way of approaching sustainable development whilst also taking into account the existing fabric of the business?

Initial desk research in the field revealed that practical ('five steps') advice and case studies on 'green communications' and 'greenwashing' abound. Yet, to the best of our knowledge, no original research exists which analyses trends within corporate environmental communications and associated impacts. Our research has been developed in an attempt to fill this gap, focusing on FTSE 100 sustainability reports as a proxy for corporate environmental communications. **Environmental Reporting: Trends in FTSE 100 Sustainability Reports** sets forth a measured account of the content and potential impacts of formal sustainability reporting.

Our research investigates the nature of themes discussed within and across business sectors. It uncovers the most commonly used language and terminology, and tracks the impact of different ways of communicating. We are publishing our findings in order to share this knowledge with interested parties and to provide a public forum for further conversations about these issues.

We would like to take this opportunity to thank all those who have given generously of their time to furnish many of the insights that have gone into this report. We would especially like to thank Simon Pringle, Head of Sustainable Business Practice, PIPC, for graciously providing his expert advice and consultation.

“How can companies demonstrate environmental commitment without gimmicks?”

“Our research investigates the nature of themes discussed within and across business sectors”

01 Introduction

Sustainability means “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland Report 1987). By now, it should be a given that organisations behave responsibly and with integrity in their environmental and sustainability policies and operations. Companies that measure, manage and communicate their sustainability policies and performance are naturally well placed to improve processes, reduce costs, comply with regulatory requirements, increase attractiveness to the investment community and take advantage of new opportunities.

Corporate responsibility (CR) and sustainability communications first came into corporate use by a handful of organisations in the early 1990s. Two thirds of the world’s leading public companies now report formally on sustainability. Currently, standards of best practice vary across, and within, industries. Initiatives such as the Global Reporting Initiative (GRI), Dow Jones Sustainability Index, Business in the Community (BITC), and the World Business Council for Sustainable Development help to headline these standards. Whilst excellent guidance exists, there is no single, widely accepted standard to follow.

Environmental reporting is still very much in early stages of development compared to financial reporting, and the debate about which issues to address, how to address them and to whom (what CR people call ‘materiality’) continues. How can organisations communicate sustainability policies and behaviour successfully to a range of stakeholders given this fluid and often confusing state of affairs? What might we expect from the next wave of reporting, and how might we prepare for it?

Our research analyses the corporate responsibility, sustainability or equivalent reporting by FTSE 100 companies as one measure of corporate environmental communication. It develops an empirical methodology of measuring the quantity and content of information disclosed in formal reporting by industry sector and level of carbon intensity. The findings map out the ‘coverage’ of different themes across industry sectors. In addition, the research scrutinises how well companies convey information, for example by providing clear definitions for ambiguous terms, and how reporting may affect the likelihood of winning a CR or environmental award.

We hope that this research will provide the foundation for an informed and fruitful discussion on this core aspect of corporate responsibility communication.

01.1 Methods

In order to study ‘corporate environmental communication’, we first needed to identify ‘proxy’ (or substitute) variables capable of representing both British corporations and their environmental communications – in themselves broad and nebulous terms.

We selected the FTSE 100 as the best substitute for British corporations for the sake of this study. As the 100 most highly capitalised companies listed on the London Stock Exchange, the FTSE 100 stand as the most widely used indicator of the UK stock market, and more broadly the state of British business. There are certain limitations to using the FTSE 100 as an indicator of British business, notably the absence of small and medium sized companies

“Two thirds of the world’s leading public companies now report formally on sustainability”

“What might we expect from the next wave of reporting, and how might we prepare for it?”

“Every FTSE 100 organisation reports on corporate responsibility on a periodic basis save for one organisation”

from the study (please see section 01.2 for a detailed discussion of limitations). However, at the moment large organisations are also the most likely to report on sustainability.

We originally considered studying a range of environmental communications, including not only corporate responsibility reports, but also information posted on websites, brochures or pamphlets, company environmental or sustainability policies, press releases, blogs and podcasts. However, we decided that corporate responsibility, sustainability, environmental, citizenship or equivalent reports were the best proxy for environmental communications as a whole across the FTSE 100.¹

We focus on sustainability reports because they are the most official and easily sourced information available to the public. Most are available free on companies' corporate websites. They are also the most common, standardised form of environmental communications across industry sectors; indeed, they are mandatory for some.² Every FTSE 100 organisation reports on corporate responsibility on a periodic basis save for one organisation, the Kazakh Eurasian Natural Resources Corporation. Finally, because they are produced periodically (annually or biennially), sustainability reports may be analysed over time, enabling this inaugural study to be repeated in the future in order to discern historical trends.

Data collection

Data collection consisted of sourcing formal sustainability reporting from each FTSE 100 organisation. FTSE 100

constituents are determined quarterly, and the data for this report were collected as of 1st May 2008. Please view the full list of FTSE 100 constituents at this time in Appendix A.

Most (81) of the FTSE 100 publish separate sustainability reports, which were downloaded and used as primary documents in the analysis. Some thirteen companies report on environmental/sustainability issues only within their annual report and accounts.³ In these cases, only the relevant sections within the annual reports were included in the analysis. For a list of these companies which do not publish separate sustainability reports, please see Appendix B.

Some six companies have adopted web-only sustainability reports, which may be accessed online but are not downloadable. Web-only reporting poses a limitation to the study because we were unable to capture full reporting for these companies. Instead, we use the next best proxy for environmental communications, the company's environmental policy, sustainability or similar statement available on the website. For a list of the companies that publish web-only CR reports, please see Appendix C.

Appendix A includes each company's industry sector, as measured by the Industry Classification Benchmark (ICB). The Dow Jones Indexes and FTSE together offer the ICB classification system, adopted by stock exchanges representing over 65% of the world's market capitalisation, as a global standard for trading and investment decisions. Table 01, below, lists these sectors and the number of FTSE 100 constituents in each.

“Most (81) of the FTSE 100 publish separate sustainability reports”

³ All companies, other than small, are required to produce a business review. The directors of quoted companies are required, to the extent necessary for an understanding of the business, to report on environmental matters, the company's employees, and social/community issues (The Company Act 2006).

¹ For ease of reading, we refer to all such reports as 'sustainability reports' in the remainder of this paper.

² For the UK government reporting guidelines, please see: <http://www.defra.gov.uk/environment/business/envrp/pdf/envkpi-guidelines.pdf>

“Carbon intensity is the average level of emissions per unit of output”

Table 01: FTSE 100 constituent sectors

Sector	Number of FTSE 100 constituents
Oil and Gas	7
Basic Materials	10
Industrials	10
Consumer Goods	10
Consumer Services	23
Health Care	4
Telecommunications	3
Utilities	7
Financials	25
Technology	1
Total	100

As the table shows, the Health Care, Telecommunications, and Technology sectors were not well-represented in the FTSE 100 at the time our study. Accordingly, the findings related to these sectors should not be considered representative of their respective industries as a whole. Rather, the findings should be seen as a snapshot of environmental communications of the very top British firms in these particular industries.

Carbon intensity

Carbon intensity is the average level of emissions per unit of output. The level of carbon intensity may be important if high carbon organisations face comparatively higher reporting expectations. Many people assume that high carbon companies, as greater environmental ‘transgressors’, should have more to communicate about their environmental policies and behaviour. The most carbon intensive sectors

are electricity, industrial metals and other heavy industries. The least carbon intensive sectors are service industries such as banks and media. See Table 02, below, for a breakdown of the carbon intensity of FTSE 100 subsectors. To see a chart showing how the following subsectors map onto the 10 broader industry sectors as set out in Table 01, please see Appendix D.

Table 02: Carbon intensity of FTSE 100 sectors

Low Intensity	Medium Intensity	High Intensity
General Financial	Personal Goods	Electricity
Media	Beverages	Industrial Metals
Telecommunications	Household Goods	Industrial Transportation
Insurance	Tobacco	Oil and Gas
Banks	Aerospace and Defence	Mining
	Pharmaceuticals and Biotechnology	Food Producers
	Food and Drug Retailers	Support Services
	Healthcare Equipment and Services	Construction and Materials
	General Retailers	Chemicals
	Software and Computer Services	General Industrials
		Travel and Leisure

Source: Trucost Carbon Intensity metric showing tonnes of CO2e emitted per million US\$ turnover, for each FTSE All-Share company, which were then mapped to ICB subsector types.

All data were analysed using the qualitative analysis software NVivo v.8 and the statistical analysis programme Stata v.10. Content analysis consisted of conducting document text searches for particular words and sets of words, their frequency of use, and relational context. Statistical analysis determined average (mean) frequencies

“The most carbon intensive sectors are electricity, industrial metals and other heavy industries”

of words and themes (sets of related words) within and across industry sectors, and tested for correlations between sectors and themes.

01.2 Limitations to the research

We would like to point out certain limitations of the research and welcome comments and criticism. It is our hope that the study will spur follow up research and an open and honest discussion of the issues.

The research project was limited firstly by the lack of data available, and the consequent need to develop proxies in order to measure both 'corporatism' and 'environmental communications'. As a result, the findings do not represent a definitive analysis of 'corporate environmental communications', particularly because of the omission of small and medium sized businesses (on which less data is available). Indeed, we doubt that a definitive analysis would be possible even limiting the study, as we do, to the large corporations of the FTSE 100 because of the many ways that this term can be interpreted and measured.

Instead, the research offers a critical synthesis of content, trends and impacts across what is widely considered the most important index of UK plc (FTSE 100), at a single point in time (May 2008). The approach adopted favours an analysis of trends within sustainability reporting over a narrower study of one or two 'best practice' examples in depth. This method allows us to compare and contrast trends across industry sector and level of carbon intensity and to show correlation (if not causation). We fully acknowledge that this is only one way of looking at

corporate environmental communications, and would recommend that further research be undertaken using different variables, within and across industry and professional sectors, in order to chart trends with greater accuracy.

“the research offers a critical synthesis of content, trends and impacts across what is widely considered the most important index of UK plc”

02 Themes

We identified seven main themes in the course of content analysis in order to provide a logical structure to the terms studied. These themes address the fundamental issues in contemporary policies and behaviour, encompassing the core areas that stakeholders might expect to see addressed in reports. These themes are:

- 01. Corporate responsibility**
- 02. Environment**
- 03. Climate change**
- 04. Sustainability**
- 05. Renewable energy**
- 06. Waste and recycling**
- 07. Resource and supply chain**

The themes and terms analysed were selected deliberately to measure key trends. They are not intended to be a comprehensive glossary of the language of corporate responsibility (for example, themes related to ethics and diversity are not analysed). See Table 03, right, for a list of the themes and constituent terms used in our analysis.

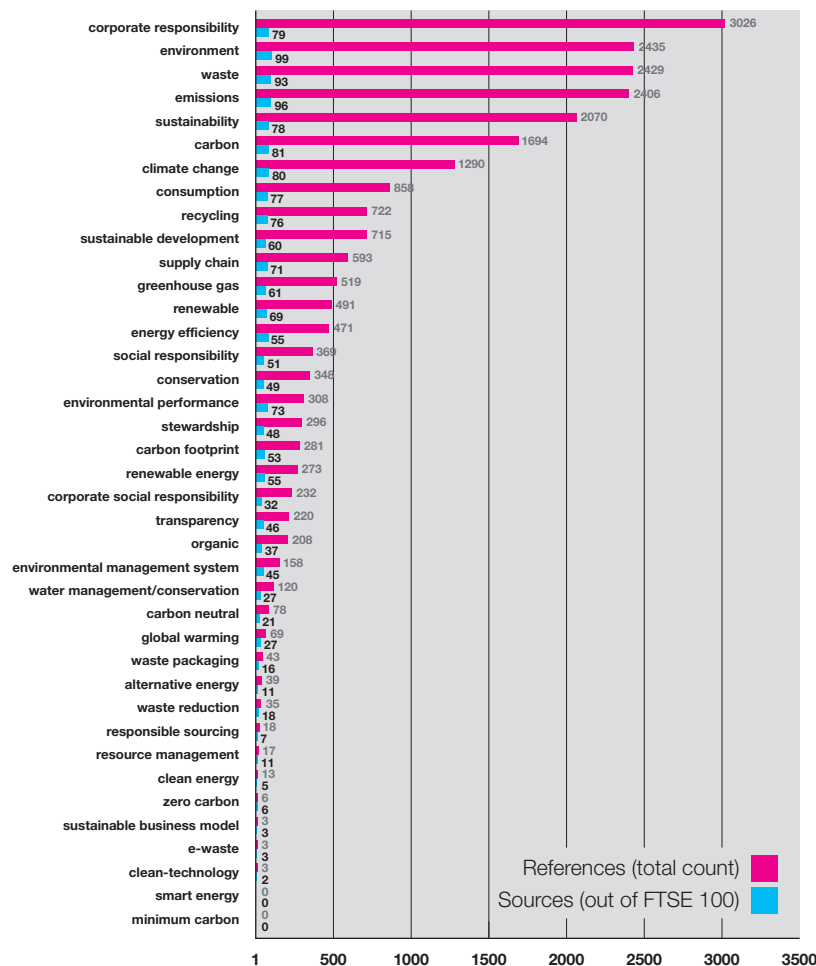
“The themes and terms analysed were selected deliberately to measure key trends”

Table 03: Themes and terms analysed

Theme	Constituent terms and phrases
01. Corporate responsibility	Corporate responsibility
	Corporate social responsibility
	Social responsibility
	Stewardship
	Transparency
02. Environment	Environment
	Environmental performance
	Environmental management system
03. Climate change	Climate change
	Emissions
	Global warming
	Greenhouse gas
	Carbon
	Carbon footprint
	Carbon neutral
	Zero carbon
	Minimum carbon
04. Sustainability	Sustainability
	Sustainable development
	Sustainable business model
05. Waste and recycling	Waste
	Waste reduction
	Waste packaging
	E-waste
	Consumption
	Recycling
	Conservation
06. Renewable energy	Renewable energy
	Renewable
	Energy efficiency
	Alternative energy
	Clean energy
	Smart energy
	Clean-technology
07. Resource and supply chain	Resource management
	Supply chain
	Responsible sourcing
	Water management
	Water conservation
	Organic

03 Findings

Chart 01: Frequently used terms in FTSE 100 sustainability reports



The findings reported in this chapter are the results of our first analysis in the field, and as such they are subject to change if and when different methods are employed, additional issues arise, and better sources become available. The discussion of results will benefit from the thoughtful consideration, feedback and collaboration of peers and colleagues.

03.1 Environmental terms

Chart 01, left, shows the total number of references of a series of environmental/sustainability terms, as well as the total number of reports which referenced the term (see Table 03 for a complete list of terms in the FTSE 100 reports analysed).

The most popular terms used are:

01. Corporate responsibility
02. Environment
03. Waste
04. Emissions
05. Sustainability

The findings suggest that the main focus points for FTSE 100 corporations are very much areas of voguish concern. After ‘sustainability’, the buzz-words ‘carbon’ and ‘climate change’ are the next most frequently used terms. Chart 01, left, shows the frequency of use of all environmental terms analysed.

Our research finds that the vast majority of organisations fail to define what they mean by environmental terms and concepts. Take, for example, the technical terms ‘zero

“the vast majority of organisations fail to define what they mean by environmental terms and concepts”

“even in the rare instances that companies define terms, the definitions are often vague and riddled with jargon”

carbon’ and ‘clean energy’. Of the six companies which mention ‘zero carbon’, none of them define the term, despite focusing on which strategies they will employ to reduce emissions. Similarly, five companies discuss ‘clean energy’ and their investments in technologies and products which promote the ‘clean energy’ project; yet not one actually explains or defines the concept.

Table 04: Sustainability defined

Company	Definition
BP	“In BP we define ‘sustainability’ as the capacity to endure as a group: by renewing assets; creating and delivering better products and services that meet the evolving needs of society; attracting successive generations of employees; contributing to a sustainable environment; and retaining the trust and support of our customers, shareholders and the communities in which we operate.”
British American Tobacco	“We have again been selected this year as the only tobacco company in the Dow Jones Sustainability Indexes. The Indexes define corporate sustainability as “an approach to business that creates shareholder value by embracing opportunities and managing risks deriving from global and industry-specific trends and challenges.”

However, the most striking example is the use of the term ‘sustainability’. There is a substantial literature about the meaning and content of ‘sustainability’ a concept which is not east to grasp and defies a standard, universal

definition. Yet of the 79 organisations that use the term ‘sustainability’ in their CR reporting, only two define what they mean by the term in the first instance, or less than 3%. (see Table 04, left). The table demonstrates that, even in the rare instances that companies define terms, the definitions are often vague and riddled with jargon.

The findings also indicate a shift from ‘corporate social responsibility’ (CSR) to ‘corporate responsibility’ (CR). The term ‘corporate responsibility’ is used over ten times more often than ‘social responsibility’ and over thirteen times more often than ‘corporate social responsibility’. This shift may reflect the need for corporations to go beyond social impacts and address the company’s total effect on society and the environment. The transition to corporate responsibility also may have occurred because the term ‘social’ has connotations of the ‘soft’, ‘touchy feely’, traditional practices of random philanthropy. CSR may hearken back to the days when the area was perceived to be an extension of HR. CR people today emphasise that their job is about businesses behaving responsibly in everything they do and should be fully integrated into the business – and they want to be taken seriously.

03.2 Industry sectors

We analysed the word count and pages of text (one measure of ‘resource’) that FTSE 100 companies devote to their reporting as a basic measure of commitment to environmental communications.

Given the complexity of environmental sustainability issues,

“The term ‘corporate responsibility’ is used over thirteen times more often than ‘corporate social responsibility’”

“Utilities and Oil and Gas make up two of the three sectors with the longest average page counts”

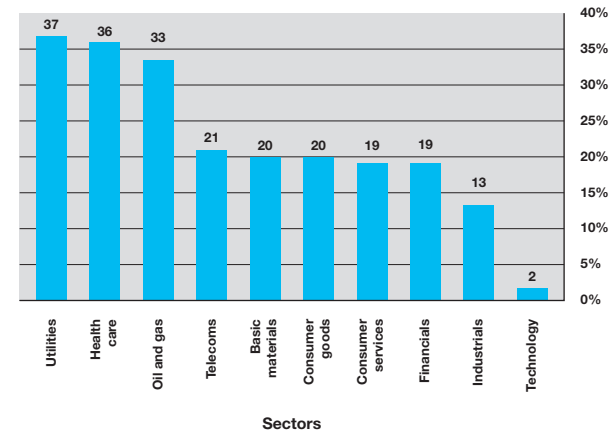
one might assume that those companies which devote greater resources (more pages of text) to their reporting are genuinely endeavouring to communicate their policies and performance effectively to various stakeholders. However, we recognise that this is only one, imperfect measure of sustainability reporting. After all, as with all writing, more is not necessarily better. It is possible that the companies with the shortest reports communicate complex issues more effectively than those with the longest reports. The growth of alternative formats, such as interactive, web-based reporting and multiple, issue-specific reports, also present serious limitations to this measure. However, as an empirical measure which can be tracked across multiple variables, quantity of reporting may reveal certain insights, particularly if we assume that most reports address material issues relevant to their stakeholders.

Because many sustainability reports contain pictures and other visual displays, and text size and format is not standardised, a derived page count was measured by dividing the total word count of each document by 815 (the average number of words per page using standardised 12-point font and formatting). The overall average page count for sustainability reports is 21.4 pages.

The results, given in Chart 02, right, provide some evidence that companies in carbon intensive industries are devoting greater resources to communicating their performance than other sectors. Utilities and Oil and Gas make up two of the three sectors with the longest average page counts. However, Basic Materials, one of the most carbon intensive sectors, has nearly the same average page count as Financials, a low carbon intensity sector. An exception is

BHP Billiton, which produced the longest sustainability report of all the FTSE 100 companies, at just over 149 pages of text.

Chart 02: Mean page count of FTSE 100 sustainability reports, by sector



The findings suggest that commitment to environmental communication does not follow a linear trajectory from low to high carbon sectors. For example, Financials, a low carbon sector, devote far greater resources (in terms of written text) than Industrials, a medium to high carbon sector, with reports averaging 19 and 13 pages respectively; while companies in the Industrials sector (which includes Metals, Transportation, Construction and Aerospace, and makes up 10% of the FTSE 100 listing) produce on average the second shortest reports, after the sole Technology company represented in the list.

“commitment to environmental communication does not follow a linear trajectory from low to high carbon sectors”

“Reporting decisions are likely to be governed by the maturity, self-awareness, and long term vision of the organisation”

It is also interesting to observe that Health Care, medium carbon intensity, and Telecommunications, low carbon intensity, publish relatively lengthy reports. Is this because pharmaceutical companies, for example, are under considerable public pressure, and likewise the level of public scrutiny of telecommunications companies is comparatively high?

The stakeholder is key

The metrics developed here provide some evidence against a widely-held assumption: that the depth and breadth of environmental reporting will or should increase along with the severity of an organisation’s impact on the environment. Rather, complex sets of dynamics drive reporting decisions within sectors and individual companies. The role of the stakeholder is just as important as – maybe even more than – the company’s relative impact on the environment.

Reporting decisions are likely to be governed by the maturity, self-awareness, and long term vision of the organisation, which is in turn highly impacted by the quality of leadership. The role of the stakeholder is crucial because the shape of a company’s report is largely driven by stakeholders’ demands. Further research in this area might develop a methodology to measure the impacts of good leadership, maturity, culture, different stakeholders and public image.

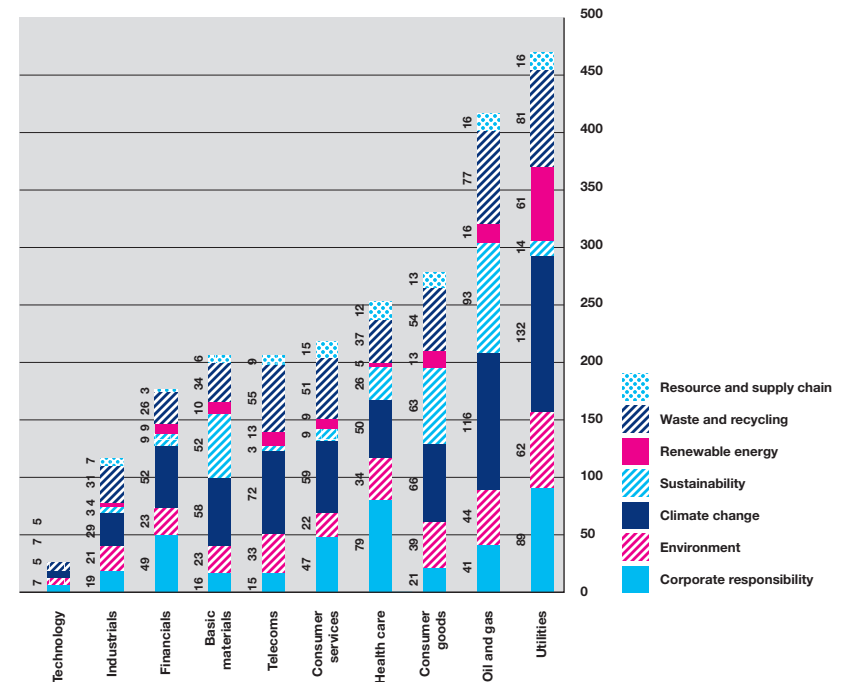
03.3 Themes by sector

Which issues are being addressed within each sector and across all industry sectors? We analysed the distribution of environmental themes by sector, measuring the average

number of times that companies within each industry sector reference different terms in their reporting. For example, to measure the use of waste and recycling terms in the utilities sector we counted all the occurrences of the constituent terms ‘waste’, ‘waste reduction’, ‘waste packaging’, ‘e-waste’, ‘consumption’, ‘recycling’, and ‘conservation’ across all companies in this sector, then divided by the number of companies (7) to produce an industry-wide theme average (81).

“Which issues are being addressed within each sector and across all industry sectors?”

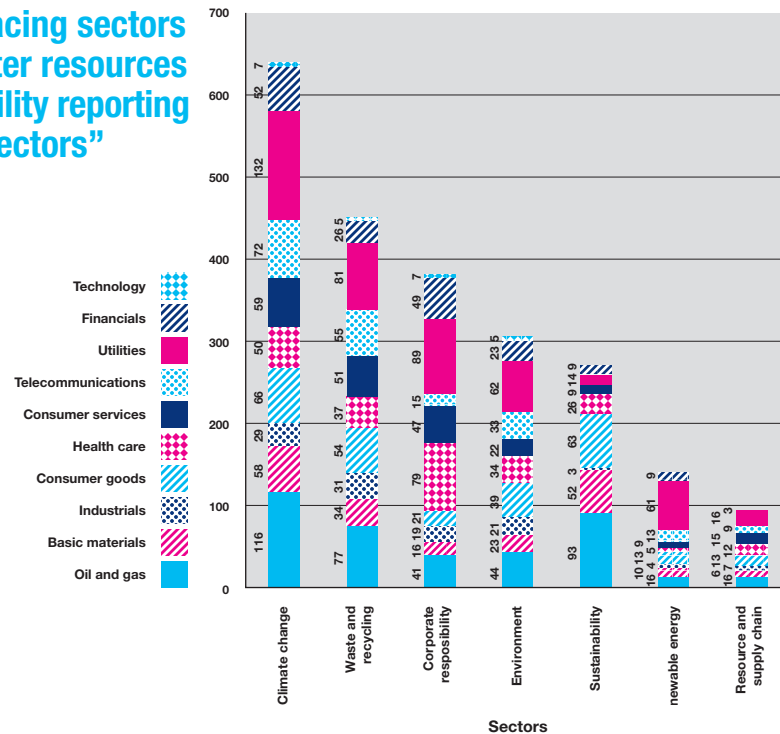
Chart 03: Average coverage of themes by sector



“Consumer facing sectors devote greater resources to sustainability reporting than other sectors”

Chart 04 shows the same data, average counts of environmental and sustainability terms, displayed by theme.

Chart 04: Industry sector coverage of themes



The level of public scrutiny an organisation faces is a more likely predictor of the breadth of coverage of different environmental or sustainability issues than carbon intensity or industry sector. This confirms our previous finding that

quantity of reporting is determined just as much by the stakeholders as industry categories and level of carbon intensity (see 03.2). Consumer facing sectors devote greater resources to sustainability reporting than other sectors. The broad theme of corporate responsibility is referenced most frequently by Utilities, Health Care and Financial companies, sectors which are regularly in the media spotlight. The heavy emphasis in the Health Care sector’s reporting on corporate responsibility themes at the expense (perhaps) of areas such as the environment and sustainability, further suggests that wider public scrutiny is a powerful determining factor in the shaping of reports.

The high carbon intensity sectors Oil and Gas and Utilities are leading the pack in terms of the spread and depth of their discussion of environmental issues; yet, another high intensity sector, Basic Materials, is clearly trailing. Whilst recognised companies like BP and National Grid must face up to increasing consumer scrutiny, the relatively unknown Kazakhmys is confronted with far less public pressure. These findings reiterate the complex set of considerations which go into mature and balanced reporting decisions, not least of which are differing levels of public scrutiny.

The various findings set forth in Charts 03 and 04 are interesting and merit further debate. Telecommunications companies, for example, collectively a low carbon sector, refer to climate change and waste and recycling and related terms more often than any other group after Utilities and Oil and Gas. While these themes are of understandable concern in the sustainability reporting of energy producers, suppliers and providers, the emphasis they receive in the reporting by Telecommunications

“Our findings show that, to date, little attention is being paid to resource and supply chain”

“Do sustainability reports reflect – or influence – performance?”

companies raises interesting questions about communications strategies and priorities – not least when we observe that Telecommunications companies give more mention to waste and recycling than the Consumer Goods, Consumer Services and Industrials sectors which we would naturally associate with increasing consumption and waste. The rapid expansion of mobile phone use in recent years has not only given rise to increased levels of waste (eg paper phone bills) and energy use but also thrust companies such as Vodafone firmly into the public and media arena.

These findings on content themes will hopefully take the debate further. For instance, is there a discernable difference between the reporting of production based industries and that of serviced based ones? (Financials on average produce shorter reports than most sectors other than Industrial and Technology, but rank just behind Utilities and Health Care in their mention of corporate responsibility). Are cultural and legal issues likely to be drivers of reporting differences between companies? Although a full analysis of what affects reporting choices lies outside the scope of this research, it is our hope that the data presented in this report will spur insightful discussions.

Resource and supply chain

One key finding shows that, to date, little attention is being paid to resource and supply chain. These are amongst the least discussed issues in formal reporting, despite their growing prominence in the sustainability agenda (and as a board level corporate responsibility). The category resource

and supply chain falls behind such themes as waste and recycling, sustainability, and renewable energy. For instance among Consumer Goods companies there are approximately five times as many mentions each of climate change and of sustainability and their related terms as of resourcing and supply chain; while among Consumer Services and Industrials there are approximately four times as many mentions of climate change and related term as of resourcing and supply chain – this in sectors where resourcing, supply and logistics are of fundamental concern to the running and development of business.

The relative lack of attention paid to these issues is important because, whilst energy efficiency has delivered significant carbon and cost savings for business, more fundamental changes are necessary to mitigate climate change effectively. Understanding and optimising emissions across full product supply chains is thought to be the next step in the drive to cut emissions in the UK economy as a whole.

Part of the lack of coverage of these issues may be due to the complexity of the issues and the ‘multiplier effect.’ In other words, resource management and supply chain are difficult to control (how many tiers of impact should companies look to down the chain?), and thus difficult to report. Yet, this is also an area in which companies like Diageo or Marks & Spencer can make their own strong contribution to the environmental agenda. Looking to the future, companies are likely to place more stress on these issues, and accordingly we expect new ways of measuring and discussing them to emerge.

“those companies which win awards also have more lengthy sustainability reports”

03.4 Environmental awards

Do sustainability reports reflect – or influence – performance? The question is difficult because of the seeming impossibility of measuring each company's unique policies and performance to an objective standard. Many standards of performance exist, but there is no one, widely agreed 'gold standard' across industries. However, there are several prestigious awards given to companies for good performance, such as the Business in the Community (BITC) Top 100, the Global 100 Most Sustainable Corporations in the World, and the Carbon Disclosure Project (CDP) Climate Leaders. These awards may be considered good, if imperfect, indicators of best practice.

Might award winning companies be more likely to devote greater resources (in terms of written text) to their reporting? Or vice versa, might those companies which devote greater resources to their reporting be more likely to win an award? After all, sustainability reports are likely to be the first port of call for researchers interested in finding out more about a company's sustainable policies and behaviour. Public image and brand recognition are crucial components of CR.

We hypothesised that sustainability reporting may be highly influential in boosting a company's chances of winning an environmental award. The production of a distinct sustainability report appears to be a sine qua non for a major environmental award – the FTSE 100 companies that report on sustainability issues only within their annual reports and accounts (13 are listed in Appendix B) have not won a single such award between them in the most recent rankings.

Our initial analysis of full reports confirmed that those

companies which win awards also produce longer sustainability reports. Whilst the average page count of sustainability reports is 21 pages, the reports of winners of the BITC Top 100 award are an average 25 pages in length, reports of Global 100 award winners are an average of 26 pages, and those of the CDP Climate Leaders are an average 30 pages in length. This finding is interesting, but other aspects of an organisation might also correlate with page length and/or winning an award, such as the industry sector and level of carbon intensity. If we account for these other factors, do sustainability reports still affect award winning potential?

We developed a regression model to test this hypothesis for statistical significance, controlling for other variables which may affect the likelihood of winning an award. In layman's terms, a regression model is a tool that uses statistical techniques to identify otherwise obscure or complex relationships between variables. It allows us to create identical observations (in this case, FTSE 100 companies), alike in every way except for one characteristic (in this case, length of sustainability report). Then, we can compare those companies that did and did not win an environmental award and arrive at a reasonable estimation of the impact of reporting length, holding other variables (in this case, industry sector and carbon intensity) at constant. Industry sector might affect award winning potential if certain sectors are, for example, more PR savvy (eg consumer facing sectors). Level of carbon intensity may affect award winning potential because carbon intensive industries may face more hurdles in proving their commitment to environmental sustainability. Finally, those

“For every five page increase, the odds of winning an environmental award increase by over 15%”

“the results show that companies which produce longer sustainability reports are, in fact, more likely to win environmental awards”

companies which produce lengthier sustainability reporting might be more likely to win an award for the reasons set out above. Please see section 03.4.1 for a full description of the model, variables, and regression output.

Results

Confirming initial hypotheses, the results show that companies which produce longer sustainability reports are, in fact, more likely to win environmental awards. This correlation is statistically significant even when industry sector and carbon intensity are held at constant ($p = 0.01$). For every one page increase in a sustainability report, the odds of a company winning an award increase by a factor of 1.03 (or an increased likelihood of 3% for each additional page). For every five page increase, the odds of winning an environmental award increase by over 15%, and for a ten page increase over 30%. Whilst we do not suggest a causal effect, the strong statistical correlation between quantity of communication and likelihood of winning an award may be worth further investigation. Might there be some truth in the cynical interpretation of the findings that producing a hefty report may impress the people handing out awards more than substance? Or, does the connection between sustainability reporting and awards merely indicate that the award winning companies deem devoting significant resource to wider communication of their sustainability policies and results important?

The other variable that shows a statistically significant effect on the likelihood of winning an environmental award is high carbon intensity (negative). Confirming initial

hypotheses, high carbon companies are less likely than others to win environmental awards ($p < 0.05$) with a decreased likelihood of 13% compared to medium and low carbon companies.

03.4.1 Statistical model

The dependent variable, winning an award, is operationalised as a binary, coded 1 if the company has won one or more major environmental awards in the most recent rankings and 0 if not⁴. Major environmental awards were identified to be, in the UK, the BITC Top 100 (Platinum, the highest ranking, only) 2008, the Global 100, and the Carbon Disclosure Project (CDP) Climate Leaders 2007. (See Appendix D for a complete list of FTSE 100 award winners).

The independent variables level of carbon intensity (high, medium, low), and industry sector (Utilities, Oil and Gas, Consumer Goods, Consumer Services, Health Care, Telecommunications, Basic Materials, Financials, Industrials and Technology) are also operationalised as binary variables, coded 1 if the company has the relevant level of carbon intensity or is categorised in the relevant sector and 0 if not. The key independent variable, sustainability reporting, is operationalised as a count of the number of pages of the company's sustainability report (as before, calculated by dividing the total word count of each document by 815).

The logistic regression model was chosen as the best method of analysing award winning potential. Stata v.10 was used for all analyses. The results are set out in Table 05.

⁴ By 'operationalise' we mean define so that the concept can be measured empirically.

The statistical model is given as:

$$\text{Award winning} = \hat{\alpha} + \hat{\beta}_1 \text{PageCountofSustainabilityReport} + \hat{\beta}_2 \text{HighCarbon} + \hat{\beta}_3 \text{LowCarbon} + \hat{\beta}_4 \text{Utilities} + \hat{\beta}_5 \text{OilandGas} + \hat{\beta}_6 \text{ConsumerGoods} + \hat{\beta}_7 \text{ConsumerServices} + \hat{\beta}_8 \text{Telecommunications} + \hat{\beta}_9 \text{BasicMaterials} + \hat{\beta}_{10} \text{Financials} + \hat{\beta}_{11} \text{Industrials} + \hat{\beta}_{12} \text{Technology} + \hat{\epsilon}$$

Table 05: Logistic regression of award winning companies

Variable	Coefficient	Odds ratios
Page count of sustainability report	0.03** (0.01)	1.03** (0.01)
Basic Materials	3.35 (1.78)	28.70 (51.36)
Consumer Goods	2.22 (1.57)	9.21 (14.5)
Consumer Services	1.49 (1.46)	4.46 (6.53)
Financials	1.09 (1.57)	2.99 (4.72)
Industrials	0.26 (1.78)	1.30 (2.32)
Oil and Gas	3.15 (1.88)	23.5 (44.3)
Telecommunications	0.52 (1.97)	1.69 (3.33)
Utilities	3.34 (1.74)	28.42 (49.69)
Low carbon sector	0.51 (0.80)	1.66 (1.35)
High carbon sector	-2.00* (0.91)	0.13* (0.12)

Notes: Dependent variable: Award winning company, coded 1 if company has won an award and 0 if not. Coefficients and incidence rate ratios are followed by standard errors, in parentheses. Variables Health Care and Medium carbon sector were taken out due to collinearity.

*p < 0.05

**p < 0.01

04 Conclusions

This report has identified and developed a set of key themes in sustainability reports and analysed their coverage and impacts. The findings are interesting, some unexpected, and doubtless will be interpreted in different ways. While we encourage informed readers to draw their own conclusions, in this section we set forth a few of our own interpretations – to shed light on how organisations can communicate green policies and behaviour successfully.

04.1 Summary of the findings

Our analysis of FTSE 100 reports identifies and examines seven main themes within corporate environmental communications: **corporate responsibility, environment, climate change, sustainability, renewable energy, waste and recycling, and resource and supply chain.** These themes encompass the core areas and key trends that stakeholders might expect to see covered in reporting. The most popular terms used are: **environment, waste, emissions, sustainability** and **carbon.** The prominent coverage given to these particular terms directly reflects current concerns about how our environment will react to significant, man made changes.

The findings reveal that the vast majority of organisations do not define what they mean by environmental terms, which are often complex, confusing, and can take on different meanings. Taking ‘sustainability’ as an example, only two of the 79 companies who used the term in their reporting defined what they meant by it in the first instance.

The theme of resource and supply chain received noticeably little coverage in most companies’

communications – strikingly among those companies for whom supply chain and logistics are integral parts of the business – despite its growing prominence in the field of sustainable development. This issue is predicted to become even more crucial in the future. Accordingly, companies will be faced with the need to develop good quality reporting which addresses those issues which are pertinent to their organisation and sector as a whole.

We also observe a clear preference for the term ‘corporate responsibility’ over ‘corporate social responsibility’. We hypothesise that this shift has occurred along with the growing integration of responsibility issues into the whole business structure and the need for companies to communicate to a wider a group of stakeholders, as they face increasing public and media scrutiny. Practitioners may have dropped the ‘social’ to emphasise this newfound status, as no longer just an extension of HR.

The research measures the effects of carbon intensity (low, medium and high) and industry sector (Utilities, Health Care, Financials, Consumer Services, Oil and Gas, Consumer Goods, Industrials, Basic Materials, Telecommunications and Technology) on sustainability reporting, using a simple page count. We find that there is no simple linear trajectory predicting sustainability reporting from low to high carbon industry sectors. Our metrics suggest that this common set of assumptions needs to be reassessed, perhaps focusing instead on the more likely predictor: the degree of public and stakeholder scrutiny. These results provide some evidence that complex sets of dynamics influence reporting decisions, not least the level of maturity of a company, its long term vision, strategy, and leadership.

“The most popular terms used are: **environment, waste, emissions, sustainability and carbon**”

“there is no simple linear trajectory predicting sustainability reporting”

“corporate environmental communications are influenced by and represent intricate and unique business dynamics and structures”

Finally, our study shows that the length of a company's environmental report has a strong and statistically significant correlation with the likelihood of that company winning an environmental award, holding other variables at constant. For every one page increase in CR report, the odds of a company winning a CR award increase by a factor of 1.03 (or an increased likelihood of 3% for each additional page). For every five page increase, the odds of winning an environmental award increase by over 15%, and for a ten page increase over 30%.

04.2 Discussion

The results of our research suggest that corporate environmental reporting is influenced by and represents intricate and unique business dynamics and structures. Our research analyses trends by theme, industry sector and carbon intensity. The results show that these variables, while important, are only some of the factors that impact upon reporting decisions. Each company must take into account the issues and challenges most relevant to its own industry and unique business practice when communicating policies and behaviours. The factors and issues most relevant to each industry sector, the individual company, and its stakeholders, take precedence in their reporting structures. Environmental communications should reflect the full integration of corporate responsibility in the organisation. As such, it makes little sense to talk about best practices of corporate environmental communications as a whole without considering the individual fabric of the organisation, how it functions on a day-to-day basis, and its long term goals.

The continuing growth and prominence of corporate

responsibility will surely lead to a parallel importance placed on the communication of sustainable development in the future. Whilst most FTSE 100 companies now publish separate sustainability reports, we imagine that long term trends might see new forms of reporting emerge, whereby relevant issues are communicated in tandem with standard financial reports, business practices, ethics and the like. Other issues, such as water and diversity, may soon come to take on more importance in these reports. Corporations should not assume that readers will know what they mean by environmental and sustainability terms and issues. We recommend that companies clarify all terms which might be confusing in the first instance and also explain the reasons for their reporting decisions. The right context and background gives readers the tools to understand environmental communications, from the individual issues to the 'big picture'.

This research is unique in developing an empirical methodology for analysing environmental communications. We would suggest that further research be undertaken to develop new qualitative and quantitative methods in order to shed light on this field. Different methods of studying corporate environmental communications would allow a fuller picture of trends and best practices to emerge, accounting for small and medium sized businesses, the professional, public and third sectors, across a greater range of issue areas. Further study might also establish correlations between environmental reporting and more concrete indicators of a company's environmental performance than the winning of an award. As more businesses are developing methods of measuring their

“new data may enable a richer analysis of sustainability reporting and engender a fuller understanding of its impacts”

Works consulted

environmental performance and these are becoming standardised across industries, new data may enable a richer analysis of sustainability reporting and engender a fuller understanding of its impacts.

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A. FTSE 100 Index Constituents

Data as at: 01/05/2008

Company Name	Sector
3i Group	Financials
Admiral Group	Financials
Alliance & Leicester	Financials
Alliance Trust (The)	Financials
Amec	Oil and Gas
Anglo American	Basic Materials
Antofagasta	Basic Materials
Associated British Foods	Consumer Goods
AstraZeneca	Health Care
Aviva	Financials
BAE Systems	Industrials
Barclays	Financials
BG Group	Oil and Gas
BHP Billiton	Basic Materials
BP	Oil and Gas
British Airways	Consumer Services
British American Tobacco	Consumer Goods
British Energy Group	Utilities
British Land Co	Financials
British Sky Broadcasting Group	Consumer Services
BT Group	Telecommunications
Bunzl	Industrials
Cable & Wireless	Telecommunications
Cadbury Schweppes	Consumer Goods
Cairn Energy	Oil and Gas
Capita Group	Industrials
Carnival	Consumer Services
Carphone Warehouse Group	Consumer Services
Centrica	Utilities
Cobham	Industrials
Compass Group	Consumer Services

Company name	Sector
Diageo	Consumer Goods
Enterprise Inns	Consumer Services
Eurasian Natural Resources Corp.	Basic Materials
Experian Group	Industrials
FirstGroup	Consumer Services
Friends Provident	Financials
G4S	Industrials
GlaxoSmithKline	Health Care
Hammerson	Financials
HBOS	Financials
Home Retail Group	Consumer Services
HSBC Hldgs	Financials
ICAP	Financials
Imperial Tobacco Group	Consumer Goods
InterContinental Hotels Group	Consumer Services
International Power	Utilities
ITV	Consumer Services
Johnson Matthey	Basic Materials
Kazakhmys	Basic Materials
Kingfisher	Consumer Services
Land Securities Group	Financials
Legal & General Group	Financials
Liberty International	Financials
Lloyds TSB Group	Financials
London Stock Exchange Group	Financials
Lonmin	Basic Materials
Man Group	Financials
Marks & Spencer Group	Consumer Services
Morrison (Wm) Supermarkets	Consumer Services
National Grid	Utilities
Next	Consumer Services
Old Mutual	Financials
Pearson	Consumer Services
Persimmon	Consumer Goods
Prudential	Financials

Company name	Sector
Reckitt Benckiser Group	Consumer Goods
Reed Elsevier	Consumer Services
Rexam	Industrials
Rio Tinto	Basic Materials
Rolls-Royce Group	Industrials
Royal & Sun Alliance Insurance Group	Financials
Royal Bank Of Scotland Group	Financials
Royal Dutch Shell	Oil and Gas
SABMiller	Consumer Goods
Sage Group	Technology
Sainsbury (J)	Consumer Services
Schroders	Financials
Scottish & Southern Energy	Utilities
Severn Trent	Utilities
Shire	Health Care
Smith & Nephew	Health Care
Smiths Group	Industrials
Standard Chartered	Financials
Standard Life	Financials
Tate & Lyle	Consumer Goods
Tesco	Consumer Services
Thomas Cook Group	Consumer Services
Thomson Reuters	Consumer Services
TUI Travel	Consumer Services
Tullow Oil	Oil and Gas
Unilever	Consumer Goods
United Utilities	Utilities
Vedanta Resources	Basic Materials
Vodafone Group	Telecommunications
Whitbread	Consumer Services
Wolseley	Industrials
Wood Group (John)	Oil and Gas
WPP Group	Consumer Services
Xstrata	Basic Materials

B. Companies reporting on sustainability issues within annual report and accounts

- 1 Admiral Group
- 2 The Alliance Trust
- 3 British Airways
- 4 Carphone Warehouse Group
- 5 Compass Group
- 6 Enterprise Inns
- 7 G4S
- 8 ICAP
- 9 International Power
- 10 Morrison Supermarkets
- 11 Royal & Sun Alliance Insurance Group
- 12 Sage Group
- 13 Wood Group

C. Companies using web-only CR reports

- 1 Johnson Matthey
- 2 Liberty International
- 3 London Stock Exchange Group
- 4 Thomas Cook Group
- 5 Thomson Reuters
- 6 Tullow Oil

D. Carbon intensity of FTSE 100 industry sectors and subsectors

Sector	Subsectors and carbon intensity
Oil and Gas	N/A (all high)
Basic Materials	Chemicals (high)
	Industrial Metals (high)
	Mining (high)
Industrials	Aerospace and Defence (medium)
	Construction and Materials (high)
	General Industrials (high)
	Industrial Transportation (high)
Consumer Goods	Support Services (high)
	Beverages (medium)
	Food Producers (high)
	Household Goods (medium)
	Personal Goods (medium)
Consumer Services	Tobacco (medium)
	Food and Drug Retailers (medium)
	General Retailers (medium)
	Media (low)
Health Care	Travel and Leisure (high)
	Healthcare Equipment and Services (medium)
	Pharmaceuticals and Biotechnology (medium)
Telecommunications	Telecommunications (low)
Utilities	Electricity (high)
Financials	General Financial (low)
	Banks (low)
	Insurance (low)
Technology	Software and Computer Services (medium)

E. Award winning FTSE 100 companies

Company name	CDP Leaders	Global 100	BITC Top 100 Platinum
3i Group		✓	
Aviva	✓		
Barclays	✓		✓
BHP Billiton	✓		
BP	✓		
British American Tobacco	✓		
British Land Co		✓	
British Sky Broadcasting Group		✓	
BT Group	✓		✓
Cadbury Schweppes	✓		
Capita Group		✓	
Centrica		✓	✓
Diageo	✓	✓	
HBOS	✓	✓	✓
HSBC Hldgs	✓		
Johnson Matthey		✓	
Kingfisher			✓
Land Securities Group	✓	✓	
Legal & General Group	✓		
Liberty International		✓	
Lloyds TSB Group			✓
Marks & Spencer Group	✓	✓	
National Grid			✓
Pearson			✓
Reckitt Benckiser Group			✓
Reed Elsevier			✓
Rio Tinto	✓		✓
Royal Bank Of Scotland Group	✓	✓	
Royal Dutch Shell		✓	

Company name	CDP Leaders	Global100	BITC Top 100 Platinum
Sainsbury (J)		✓	✓
Scottish & Southern Energy	✓		✓
Smith & Nephew		✓	
Standard Chartered	✓		
Tesco	✓		✓
Unilever	✓	✓	✓
Xstrata			✓

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