

Category	Definition	Examples	Coding Rules
1. Strategic Carbon Management (M)	By using the term "Strategic Carbon Management", we refer to the organisation-wide implementation of a carbon-reduction plan by Senior Management, coordinating the effort of the different departments of the firm. Reports indicate (HEFCE, 2010) that carbon management strategies at organisational level are made up of at least two basic elements: - Define a plan to address GHG emissions (What measures? When? By whom?) - Define carbon reduction targets (What reduction as a share of total emissions? In how many months/years?)	"Nottingham's Carbon Management Plan (CMP) established a 2005-6 baseline of 62,036 tCO₂ and set a 34% reduction target by 2020, backed by a £17m programme to reduce usage and generate energy from renewables. A sustainability directorate was established in 2009 and it made carbon management a high priority." (The Guardian, 2013, p.50)	Drawing on our findings, we define the following categories for Strategic Carbon Management - "Carbon Reduction Programme" - "Carbon Reduction Targets"
2. Carbon Accounting (M)	" 'carbon accounting' can mean two very different things. - [...] activity of measuring carbon emissions and removals and retaining an ongoing inventory of operations-based emissions. - [...] financial statement impacts resulting from an entity's carbon regulatory environment and transacting strategies. Some of the more common financial statement implications include accounting for the obligation to surrender allowances created as an entity emits, accounting for allowances or offsets held by the entity, and accounting for transactions involving the future transfer of allowances." (Hespenheide et al., 2010, p. 57)	"The targets will be measured by the company's new Sustainable Innovation calculator, which assesses the product-level impacts of ingredients, packaging, carbon and water." (The Guardian, 2013, p.49) "company is placing an internal price on carbon and on every flight staff take, to encourage less flying" (The Guardian, 2015b)	- If the measure corresponds to the first part of the definition, it will be assigned to the "Physical carbon accounting" subcategory - If the measure corresponds to the first part of the definition, it will be assigned to the "Monetary carbon accounting" subcategory
3. Green Marketing Practices (M)	Investopedia (2010) defines Green Marketing as "[the] marketing [of] products and services based on environmental factors or awareness." According to Polonsky (1994, p.1) green marketing "[...] incorporates a broad range of activities, including product modification, changes to the production process, packaging changes, as well as modifying advertising."	"Under its One Planet Home strategy, B&Q is committed to helping customers tackle their carbon emissions, as well as dramatically reducing its own carbon footprint. The company has more than 4,000 eco products on its shelves, ranging from recycled paint to solar panels. It has also recently doubled its range of energy efficient light bulbs." (GSBA 2013, p. 47) "a switch to compressed gas technology for Glade® aerosol products has resulted in a 10 tonne reduction in liquid petroleum gas from the manufacturing process" (GSBA 2014, p. 49) "Tesco combined financial, product and carbon information to come up with a framework it could apply to the sausages, bottles of conditioner or bunches of bananas that fill up supermarket trolleys each week." (GSBA 2013, p. 52) "Among recent initiatives are: [...]"	Based on Polonsky's definition, the subcategories of Green Marketing are defined as: - "Product Design" - "Production Process improvement" - "Packaging Design" - "Advertising" Moreover, taking into account the elements of the 4 P's of the marketing mix (Product, Price, Promotion, Distribution [Place]), we add the "Distribution" subcategory, as we found that some companies (e.g. Coca-Cola) identified ways to reduce carbon emissions in their distribution network: - "Distribution"

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4. Green Human Resources Management (Green HRM) (M)	Based on Renwick et al. (2013), we have identified the following Green HRM practices: - Employee recruitment and selection: firms adopt a "green branding" to attract increasingly environmentally-concerned talented young graduates; companies also favour the recruitment of applicants whose values are compatible with their commitment to reduce the environmental impacts of the business (in the case of the work at hand, to reduce the carbon footprint of the business) - Training & Development: companies provide training to their employees to improve their awareness of environmental issues (in this case, climate change) and develop the necessary skills to achieve reductions in the environmental impacts of the business (here, reduce carbon emissions) - Performance management and appraisal: employees are assigned green (here again, GHG emissions-related) "targets, goals and responsibilities" - Pay and Reward systems: firms design compensation packages, employee benefits, financial incentives and reward schemes to foster environmentally friendly employee behaviour (in this	"Among recent initiatives are: [...] training on climate change for 1,200 company directors and online environmental training for Türk Telekom's 24,000 employees" (The Guardian, 2013, p.51) "Members of the R&D team [...] were incentivised with carbon-related performance objectives [...]" (The Guardian, 2013, p.48) "When it began promoting cycling and public transport, the university started charging for car parking on its five campuses, based on salary and vehicle emissions." (The Guardian, 2013, p.49) "An energy and climate change steering group oversees the task of cutting emissions in factories, transport and refrigeration, another group focuses on packaging and a third on ingredients." (The Guardian, 2013, p.52)	The identified measures will be assigned to subcategories based on the Green HRM practices identified in the definition: - "Employee recruitment and selection" - "Training & Development" - "Performance management and appraisal" - "Pay and Reward systems" - "Employee involvement/engagement"
5.1 Green Procurement (M)	Ninlawan et al. (2010) define Green Procurement as "[...] a concept of acquiring a selection of products and services that minimizes environmental impact"	"Élan works with suppliers who share its passion to source recyclable products – including Aveda bottles and packaging made from post-consumer waste." (The Guardian, 2015g) "The pharmaceuticals multinational has begun giving awards to suppliers that have managed to reduce their energy levels – among other initiatives" (The Guardian, 2015f)	Following Ninlawan's definition, we derived the following subcategories for Green Procurement practices: - "Green Suppliers Selection" - "Emissions Reduction Partnership with Suppliers"
5.2a Green Logistics (M)	Thiell et al. (2011) describe Green Logistics as "logistics systems that employ advanced technology and equipment to minimize environmental damage during operations, while increasing the utilization of resources within the systems". According to the authors, Green Logistics practices include: - Transportation: "e.g.: clean vehicles, reuse of pallets and containers, freight consolidation and load optimization, standardization of trucks' sizes, reduction of CO2 emissions, and sustainable carrier selection." - Warehousing: "e.g.: clean material handling equipment, reconditioning and reuse of pallets and containers, process optimization, automation of warehousing systems, minimization of inventories, facility design, on-site recycling, and optimal disposition of products" - Value added services: "e.g.: pallet and container pooling, tracking and tracing, and using green packaging technologies." - Reverse logistics: "collection, product inspection, dismantling and separation [of end-of-life products and residuals], reprocessing of secondary materials and products, and distribution into productive processes"	"Working with its logistics partner DHL, Jaguar Land Rover cut carbon emissions from the vehicles transporting its cars and components by 26% in four years. The companies' joint Mission Emissions project included driver training, new ways of filling trailers, introducing speed limiters and reducing the number of journeys made." "Meanwhile, products are being stored in northern and southern warehouses, reducing road miles by avoiding the need to make multiple journeys to and from a central warehouse." (The Guardian, 2013, p.46)	Drawing on Thiel et al.'s definition and characterisation, we defined the following subcategories for Green Logistics: - "Transportation" - "Warehousing" - "Value Added Services" - "Reverse Logistics"

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5.2b Green Logistics (T)	This category was created to distinguish techno-economic measures from management measures in the field of Green Logistics. It mainly consists of transportation practices.	The company has invested a total of £5.1m in double-deck trailers and dual fuel trucks since 2011. With 125 additional double-deckers in its fleet, B&Q now operates a total of 500 double-deck vehicles, each with space to carry 35% more volume than a standard trailer. Consolidating more deliveries allows B&Q to significantly cut road miles. A high degree of consolidation is also taking place with imported containers, with 27% of these containers now being transported by rail. 50 new dual-fuel trucks have also joined the B&Q fleet, running on 60% landfill-derived methane. (The Guardian, 2013, p.46)	
5.3 Green Productions and Operations Management (POM) (T)	Ninlawan et al. (2010) define Green Manufacturing as "production processes which use inputs with relatively low environmental impacts, which are highly efficient, and which generate little or no waste or pollution."	"The new pre-coat line makes more efficient use of hot air through ultra-efficient ovens, cutting gas consumption and dramatically reducing the company's dependence on fossil fuels" (The Guardian, 2014, p.43) "The university stopped sending waste to landfill in 2011 and spent £42,000 on new recycling bins." (The Guardian, 2013, p.49)	Following Ninlawan's definition, we derived the following subcategories for Green POM practices: - "Inputs/Energy Use Reduction" (by improving production processes) - "Waste Management" (reuse, resource recovery or recycling of residual waste)
6. Energy Supply (T)	The use of fossil fuel energy to power one's operations is highly carbon intensive. Switching to renewable energy sources is therefore an effective way to reduce carbon emissions, especially for heavy industries. Companies basically have two options to increase the share of renewables in their energy mix, they can either: - generate renewable energy for their operations by investing in sustainable energy capacity (i.e. wind, solar, geothermal, hydroelectric or biomass), or - choose external suppliers of renewable energy (e.g. Ecopower in Belgium).	"The company has installed an 80-metre wind turbine that supplies 50% of the site's annual electricity needs [...]" (The Guardian, 2014, p.49) "The salon switched energy suppliers to get the business 100% renewable electricity" (The Guardian, 2014, p.46)	Following our definition, the subcategories of "Green Energy usage" will be: - "Renewable Energy Generation" - "Renewable Energy Sourcing"
7. Workplace Energy Efficiency (T)	Buildings consume a substantial share of the total primary energy produced in the world (around 40%). As most of this energy still originates from fossil fuel sources, cutting energy consumption in buildings represents a big opportunity to reduce businesses's GHG emissions. Measures to improve buildings' energy efficiency include improving: - Insulation - Heating, ventilation, and air-conditioning (HVAC) - Lighting Source: Howe (2010)	"The many other carbon-cutting projects include installing and upgrading roof, pipework and cavity wall insulation [...]" (The Guardian, 2013, p.49) "With the installation of bio-mass heating in offices and workspaces, it claims a substantial reduction in emissions." (The Guardian, 2015e) "The new-look salon has [...] LED lighting that consumes 80% less electricity than before and will last for a decade." "Energy-saving motion detectors [...] have been installed" (The Guardian, 2014, p.46)	The following categories for Workplace Energy Efficiency are derived from Howe (2010): - Insulation - Heating, ventilation, and air-conditioning (HVAC) - Lighting
8. Carbon Offsetting (O)	"a compensatory measure made by an individual or company for carbon emissions, usually through sponsoring activities or projects which increase carbon dioxide absorption, such as tree planting" (Collins English Dictionary, n.d.) "Carbon offsetting delivers finance to essential renewable energy, forestry and resource conservation projects which generate reductions in greenhouse gas emissions." (The Carbon Neutral Company, n.d.)	"Employees at SC Johnson's Mijdrecht manufacturing plant in the Netherlands have planted a hectare of trees around the site each year for the past seven years" (The Guardian, 2014, p.49)	The subcategories will be derived from Carbon Neutral's examples of Carbon Offsetting, namely: - "Renewable Energy", - "Forestry" or - "Resource Conservation".

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9. Commercial Technology Development (O)	In this particular category, companies' efforts are not immediately targeted at reducing their own GHG emissions. Instead, they develop new technologies enabling their clients (businesses or end-customers) to reduce their carbon footprint.	"B&Q has brought a new LED technology to market and is working with parent company Kingfisher to develop an international LED specification." (The Guardian, 2013, p.47) "making clean engines a reality with a piston engine powered by the expansion of liquid air (nitrogen). The engine could significantly reduce the emissions of refrigerated transport, buses and commercial vehicles, and help companies to make substantial fuel savings" (The Guardian, 2014, p.45) "[...] discovered a microbe that ferments gas so that it can be converted into ethanol – a pure alcohol used as fuel" (The Guardian, 2014, p.41)	Depending on the type of innovation, the subcategory will refer to the field of the technology in question.

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Arup	Consultancy	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"Arup has put the UK Green Construction Board (GCB) on course to tackle climate change. It has identified where the industry's carbon originates and who is responsible for cutting it. The company has produced a "Routemap" demonstrating to sectors and industries involved in construction how they can respond to the 2008 Climate Change Act, which commits the UK to cutting 80% of greenhouse gas emissions by 2050."	The Guardian (2014)	44
Bernard Matthews	Farming	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"Bernard Matthews' ambitions for the future are to be [...] carbon neutral, all by 2020."	The Guardian (2015a)	N/A
Citi	Banking	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"The company aims to achieve a 25% absolute cut in CO2 and a 20% absolute reduction in energy use by 2015 against a 2005 baseline"	The Guardian (2014)	45
Coca-Cola	Beverages	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"Coca-Cola Enterprises (CCE) has developed a neat way to express its ambitious carbon reduction goals. By 2020, it wants to cut 'the carbon footprint of the drink in your hand by a third'."	The Guardian (2012)	33
Coca-Cola	Beverages	1. Strategic Carbon Management (M)	Carbon Reduction Programme	"CCE's carbon-cutting programme is detailed, far-reaching and innovative. [...] and forms part of a new overarching Sustainability Plan which will involve action across its plants and right down its value chain."	The Guardian (2012)	33
Danone	Food and beverages	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"Danone [...] has left few stones unturned in an ambitious bid to cut its carbon footprint by 30% in the four years to 2012"	The Guardian (2012)	34
GSK	Pharmaceuticals	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"set a target to reduce its carbon footprint by 25% by 2020"	The Guardian (2015f)	N/A
Interface	Textile	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"set a target for his business to have zero impact on the environment by 2020"	The Guardian (2014)	43
npower	Energy	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"[...] target to achieve a 40% a year reduction in carbon intensity"	The Guardian (2014)	47
Reckitt Benckiser	Consumer goods	1. Strategic Carbon Management (M)	Carbon Reduction Programme	"Reckitt Benckiser was one of the first Fast Moving Consumer Goods (FMCG) companies to use a full lifecycle carbon reduction programme."	The Guardian (2013)	48
Reckitt Benckiser	Consumer goods	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"Launched in 2007, its target was to reduce its products' total carbon footprint by 20% per dose by 2020. Instead it achieved it in 2012. [...] It has also set a goal of generating a third of its net revenue from more sustainable products."	The Guardian (2013)	48
Sainsbury's	Retail	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"company aimed to reduce its carbon emissions by 30% by 2020"	The Guardian (2014)	48
Sainsbury's	Retail	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"[...] part of its 20 by 20 plan – an agenda of 20 ambitious sustainability targets Sainsbury's wants to achieve by 2020 [...]"	The Guardian (2012)	31
SC Johnson	Consumer chemicals	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"company's plan to reduce greenhouse gas emissions from worldwide manufacturing by 48% by 2016, against a 2000 baseline"	The Guardian (2014)	49
UK Environment Agency	Public Agency	1. Strategic Carbon Management (M)	Carbon Reduction Targets	"has been tackling its carbon emissions by setting a five-year target to make a 33% cut in by March 2015"	The Guardian (2015e)	N/A
University of Nottingham	Education	1. Strategic Carbon Management (M)	Carbon Reduction Programme	"Nottingham's Carbon Management Plan (CMP) established a 2005-6 baseline of 62,036 tCO2 and set a 34% reduction target by 2020, backed by a £17m programme to reduce usage and generate energy from renewables. A sustainability directorate was established in 2009 and it made carbon management a high priority."	The Guardian (2013)	50
Bupa	Healthcare	2. Carbon Accounting (M)	Monetary carbon accounting	"company is placing an internal price on carbon and on every flight staff take, to encourage less flying"	The Guardian (2015b)	N/A

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Coca-Cola	Beverages	2. Carbon Accounting (M)	Monetary carbon accounting	"[...] it believes is the relatively rare use of carbon allowances for each of its business units. These effectively give each unit a maximum emissions target. If the target is overshot, the unit is held to account."	The Guardian (2012)	33
Coca-Cola	Beverages	2. Carbon Accounting (M)	Physical carbon accounting	"Measuring scope 1, 2 and 3 carbon emissions began in earnest in 2009, and at the same time CCE worked with the Carbon Trust to do its first ever footprinting of a sparkling drink."	The Guardian (2012)	33
Jaguar Land Rover	Automobiles	2. Carbon Accounting (M)	Physical carbon accounting	"In developing its products, Jaguar Land Rover scrutinises the environmental impact of every component, from its beginning as a raw material to the end of its life."	The Guardian (2013)	50
Reckitt Benckiser	Consumer goods	2. Carbon Accounting (M)	Physical carbon accounting	"The targets will be measured by the company's new Sustainable Innovation calculator, which assesses the product-level impacts of ingredients, packaging, carbon and water."	The Guardian (2013)	49
Sainsbury's	Retail	2. Carbon Accounting (M)	Physical carbon accounting	"Working in partnership with AB Sustain, the carbon measurement consultancy, Sainsbury's has developed on-farm carbon assessment tool that it believes is second to none in the world, in terms of scale and quality. It is the only such tool to achieve the exacting PA2050 standard, the highest tier of accreditation given by the Carbon Trust."	The Guardian (2012)	32
Tesco	Retail	2. Carbon Accounting (M)	Physical carbon accounting	"The team used BFF's Footprinter tool and tailored it to generate a portfolio footprint, which uses sales and product specifications alongside carbon data from suppliers. The framework produces rigorous results so Tesco can understand each product's carbon impact."	The Guardian (2013)	52
University of Nottingham	Education	2. Carbon Accounting (M)	Physical carbon accounting	"The university is now also insisting carbon measurement is included in business travel reporting."	The Guardian (2013)	49
Veolia Environment	Waste management	2. Carbon Accounting (M)	Physical carbon accounting	"The company's greenhouse gas tracker tool helps it – and customers – measure and reduce their carbon emissions."	The Guardian (2013)	51
B&Q	Retail	3. Green Marketing Practices (M)	Product Design	"Under its One Planet Home strategy, B&Q is committed to helping customers tackle their carbon emissions, as well as dramatically reducing its own carbon footprint. The company has more than 4,000 eco products on its shelves, ranging from recycled paint to solar panels. It has also recently doubled its range of energy efficient light bulbs."	The Guardian (2013)	47
Coca-Cola	Beverages	3. Green Marketing Practices (M)	Distribution	"Coca-Cola Enterprises (CCE) is making coolers more efficient, [...] it is refusing to buy fridges that use hydrofluorocarbons, the super greenhouse gases."	The Guardian (2013)	52
Danone	Food and beverages	3. Green Marketing Practices (M)	Packaging Design	"[...] it is working on a comprehensive and diverse agenda of initiatives across its value chain. These range from [...] to [...] packaging initiatives [...]"	The Guardian (2012)	34
Interface	Textile	3. Green Marketing Practices (M)	Product Design	"It is just one of a wide range of energy-saving measures introduced by the carpet tile manufacturer. Others include the use of alternative, more sustainable materials [...]"	The Guardian (2014)	44
Jaguar Land Rover	Automobiles	3. Green Marketing Practices (M)	Product Design	"The company invests heavily in designing cars with lower tailpipe emissions, developing fuel saving technologies and researching more efficient, sustainable components. Some 85% of the new Range Rover is made from recyclable materials."	The Guardian (2013)	50
Reckitt Benckiser	Consumer goods	3. Green Marketing Practices (M)	Product Design	"To reduce greenhouse gas emissions the company created the Carbon20 calculator to help product developers model the full lifecycle impacts and design them out."	The Guardian (2013)	48
SC Johnson	Consumer chemicals	3. Green Marketing Practices (M)	Production Process improvement	"a switch to compressed gas technology for Glade® aerosol products has resulted in a 10 tonne reduction in liquid petroleum gas from the manufacturing process"	The Guardian (2014)	49

Company	Sector	Category	Subcategory	Details	Source	Page
Tesco	Retail	3. Green Marketing Practices (M)	Packaging Design	"Tesco combined financial, product and carbon information to come up with a framework it could apply to the sausages, bottles of conditioner or bunches of bananas that fill up supermarket trolleys each week."	The Guardian (2013)	52
Türk Telekom	Telecommunications	3. Green Marketing Practices (M)	Advertising	"Among recent initiatives are: [...] striking messages about sustainability directed at the public [...]"	The Guardian (2013)	51
Türk Telekom	Telecommunications	3. Green Marketing Practices (M)	Product Design	"Among recent initiatives are: new lower-carbon products and services; [...]"	The Guardian (2013)	51
B&Q	Retail	4. Green HRM (M)	Employee involvement/en gagement	"With the company's leaders fully committed to using innovative technologies to generate carbon savings, B&Q's core sustainability team has made serious in-roads into tackling store and fleet carbon."	The Guardian (2013)	46
Citi	Banking	4. Green HRM (M)	Employee involvement/en gagement	"[...] workplace Expo event where over 1,400 employees took the chance to learn more about Citi's projects, and how they can help"	The Guardian (2014)	45
Coca-Cola	Beverages	4. Green HRM (M)	Employee involvement/en gagement	"An energy and climate change steering group oversees the task of cutting emissions in factories, transport and refrigeration, another group focuses on packaging and a third on ingredients."	The Guardian (2013)	52
Danone	Food and beverages	4. Green HRM (M)	Employee involvement/en gagement	"As well as a board nature sponsor, it has [...] created a community of 110 carbon masters across the world to push through reduction plans in every unit [...]"	The Guardian (2012)	34
Danone	Food and beverages	4. Green HRM (M)	Pay and Reward systems	"[...] general managers and directors have to meet carbon reduction targets as part of their annual bonus calculations."	The Guardian (2012)	35
Interface	Textile	4. Green HRM (M)	Employee involvement/en gagement	"[...] approach to sustainability that influences every aspect of the company's business, inspiring Interface and its people to continually push at the boundaries"	The Guardian (2014)	43
Jaguar Land Rover	Automobiles	4. Green HRM (M)	Employee involvement/en gagement	"A dedicated team identifies ways to improve energy efficiency and cut carbon emissions across the company's manufacturing sites."	The Guardian (2013)	50
PepsiCo	Food and beverages	4. Green HRM (M)	Employee involvement/en gagement	"Sustainability managers have been appointed to champion the company's internal "resource conservation" programme."	The Guardian (2014)	48
Reckitt Benckiser	Consumer goods	4. Green HRM (M)	Employee involvement/en gagement	"Members of the R&D team used the Carbon20 calculator to help them make key carbon decisions during the product development process. They were [...] supported by a network of Carbon20 champions from across the business, who ensured accuracy and timely progress."	The Guardian (2013)	48
Reckitt Benckiser	Consumer goods	4. Green HRM (M)	Performance management and appraisal	"Members of the R&D team [...] were incentivised with carbon-related performance objectives [...]"	The Guardian (2013)	48
Türk Telekom	Telecommunications	4. Green HRM (M)	Training & Development	"Among recent initiatives are: [...] training on climate change for 1,200 company directors and online environmental training for Türk Telekom's 24,000 employees"	The Guardian (2013)	51
University of Nottingham	Education	4. Green HRM (M)	Pay and Reward systems	"When it began promoting cycling and public transport, the university started charging for car parking on its five campuses, based on salary and vehicle emissions."	The Guardian (2013)	49
University of Nottingham	Education	4. Green HRM (M)	Employee involvement/en gagement	"There are now 4,400 bike parking spaces on Nottingham's five campuses, plus 240 bikes set aside for a bike to work scheme and 230 bikes for students to hire."	The Guardian (2013)	49
University of Nottingham	Education	4. Green HRM (M)	Employee involvement/en gagement	"More than 100 staff and student Environmental Champions promote carbon improvements across the university."	The Guardian (2013)	49
Coca-Cola	Beverages	5.1 Green Procurement (M)	Emissions Reduction Partnership with Suppliers	"[...] now attention is turning to key suppliers and in 2011 CCE launched a Carbon Challenge to evaluate their carbon impact and performance, which will be used to spread best practice."	The Guardian (2012)	33

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Danone	Food and beverages	5.1 Green Procurement (M)	Emissions Reduction Partnership with Suppliers	[...] it is working on a comprehensive and diverse agenda of initiatives across its value chain. These range from [...] to [...] testing a system that helps farmers boost the nutritional value of milk while also controlling the methane produced by their cows.	The Guardian (2012)	34
Élan Hair Design	Hairdressers	5.1 Green Procurement (M)	Green Suppliers Selection	"Élan works with suppliers who share its passion to source recyclable products – including Aveda bottles and packaging made from post-consumer waste."	The Guardian (2015g)	N/A
GSK	Pharmaceuticals	5.1 Green Procurement (M)	Emissions Reduction Partnership with Suppliers	"The pharmaceuticals multinational has begun giving awards to suppliers that have managed to reduce their energy levels – among other initiatives"	The Guardian (2015f)	N/A
PepsiCo	Food and beverages	5.1 Green Procurement (M)	Emissions Reduction Partnership with Suppliers	"It has introduced low carbon fertilisers [for the production of potatoes]"	The Guardian (2014)	48
Sainsbury's	Retail	5.1 Green Procurement (M)	Emissions Reduction Partnership with Suppliers	"Sainsbury's idea is that by helping its farmers cut both costs and carbon, it will help protect British farming for the long term and be able to meet one of its key 20 by 20 goals – securing a supply of quality British food at fair prices way into the future. The scheme is fully funded by the retailer."	The Guardian (2012)	31
SC Johnson	Consumer chemicals	5.1 Green Procurement (M)	Emissions Reduction Partnership with Suppliers	"[...] made room for a packaging supplier to operate at the Mijdrecht site so that packaging is made locally and transported to the warehouse via the electric train – reducing supply chain emissions"	The Guardian (2014)	49
Tesco	Retail	5.1 Green Procurement (M)	Emissions Reduction Partnership with Suppliers	"As a consequence, the company plans to make carbon-cutting initiatives with farmers [...] a priority."	The Guardian (2013)	52
B&Q	Retail	5.2a Green Logistics (M)	Warehousing	"Meanwhile, products are being stored in northern and southern warehouses, reducing road miles by avoiding the need to make multiple journeys to and from a central warehouse."	The Guardian (2013)	46
Jaguar Land Rover	Automobiles	5.2a Green Logistics (M)	Transportation	"Working with its logistics partner DHL, Jaguar Land Rover cut carbon emissions from the vehicles transporting its cars and components by 26% in four years. The companies' joint Mission Emissions project included driver training, new ways of filling trailers, introducing speed limiters and reducing the number of journeys made."	The Guardian (2013)	50
Türk Telekom	Telecommunications	5.2a Green Logistics (M)	Transportation	"Initiatives include the replacement of 45,296 business flights annually with teleconference meetings [...]"	The Guardian (2013)	51
B&Q	Retail	5.2b Green Logistics (T)	Transportation (T)	"The company has invested a total of £5.1m in double-deck trailers and dual fuel trucks since 2011. With 125 additional double-deckers in its fleet, B&Q now operates a total of 500 double-deck vehicles, each with space to carry 35% more volume than a standard trailer. Consolidating more deliveries allows B&Q to significantly cut road miles. A high degree of consolidation is also taking place with imported containers, with 27% of these containers now being transported by rail. 50 new dual-fuel trucks have also joined the B&Q fleet, running on 60% landfill-derived methane."	The Guardian (2013)	46
Citi	Banking	5.2b Green Logistics (T)	Transportation (T)	"Electric car charging points and video conferencing facilities on individual computers to reduce the need to travel"	The Guardian (2014)	45
Coca-Cola	Beverages	5.2b Green Logistics (T)	Transportation (T)	"A greener transport fleet [...] have lead to further reductions."	The Guardian (2012)	34
Danone	Food and beverages	5.2b Green Logistics (T)	Transportation (T)	[...] it is working on a comprehensive and diverse agenda of initiatives across its value chain. These range from [...] to [...] transferring freight from road to rail [...]	The Guardian (2012)	34
Élan Hair Design	Hairdressers	5.2b Green Logistics (T)	Transportation (T)	"Lately it has cut a further 4% carbon emissions thanks to the Energy Saving Trust's transport review, by replacing its company car with a plug-in hybrid vehicle."	The Guardian (2015g)	N/A

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PepsiCo	Food and beverages	5.2b Green Logistics (T)	Transportation (T)	"It has [...] modernised its transport fleet."	The Guardian (2014)	48
SC Johnson	Consumer chemicals	5.2b Green Logistics (T)	Transportation (T)	"has built an electric train and track [...] to transport goods and raw materials around the site"	The Guardian (2014)	49
UK Environment Agency	Public Agency	5.2b Green Logistics (T)	Transportation (T)	"Bradney has also benefited from installation of four electric vehicle charging points and a further six at the most used local satellite sites to support its eight plug-in Hybrid electric vehicles." "Measures include new and traditional technologies, [...] bio-diesel fuel tanks, ultra low emission vehicles, telematic route-planning and the use of web cams to remotely monitor flood risk without the need to deploy the workforce immediately."	The Guardian (2015e)	N/A
Veolia Environment	Waste management	5.2b Green Logistics (T)	Transportation (T)	"It also invested more than £3m in low-carbon hybrid and CNG vehicles designed to reduce fuel consumption, [...]"	The Guardian (2013)	51
Veolia Environment	Waste management	5.2b Green Logistics (T)	Transportation (T)	"[...] introduced a Driving Efficiently and Safely scheme to conserve fuel by 6%."	The Guardian (2013)	51
Wyke Farms	Farming	5.2b Green Logistics (T)	Transportation (T)	"The company uses electric cars [...]"	The Guardian (2015d)	N/A
Bernard Matthews	Farming	5.3 Green POM (T)	Inputs/Energy Use Reduction (T)	"£3.6m investment in energy efficient technologies in its factories" "Advanced heat exchangers recover heat from borehole water, refrigeration has been redesigned"	The Guardian (2015a)	N/A
Bernard Matthews	Farming	5.3 Green POM (T)	Waste Management (T)	"The UK's largest turkey farmer has built biomass boilers to heat its 248 sheds [...] On top of all that, it is developing a second 500m³/hour anaerobic plant to supply gas to the national grid."	The Guardian (2015a)	N/A
Citi	Banking	5.3 Green POM (T)	Inputs/Energy Use Reduction (T)	"turning off UPS power supply units in the data centre and a modified chiller system that uses the external air temperature to cool the building"	The Guardian (2014)	45
Coca-Cola	Beverages	5.3 Green POM (T)	Inputs/Energy Use Reduction (T)	"Energy meters are now fitted to production lines, bottle blowers, compressors and chillers"	The Guardian (2012)	34
Élan Hair Design	Hairdressers	5.3 Green POM (T)	Inputs/Energy Use Reduction (T)	"new basins cut water consumption by well over half; a specialist eco-cleaning system uses only cold water"	The Guardian (2015g)	N/A
Élan Hair Design	Hairdressers	5.3 Green POM (T)	Waste Management (T)	"Sends hair clipping and other biodegradable waste to local farms for composting" "partnership with One Stop Waste Solutions which sorts and recycles the salon's waste"	The Guardian (2015g)	N/A
Interface	Textile	5.3 Green POM (T)	Inputs/Energy Use Reduction (T)	"The new pre-coat line makes more efficient use of hot air through ultra-efficient ovens, cutting gas consumption and dramatically reducing the company's dependence on fossil fuels"	The Guardian (2014)	43
npower	Energy	5.3 Green POM (T)	Inputs/Energy Use Reduction (T)	"It used an "m3 strategy" (measure, monitor, minimise) to embark on an energysaving programme in 2010. It measured where and when energy was being used at its premises every half hour using metering, identified opportunities to lower energy use and created dedicated plans for individual sites"	The Guardian (2014)	47
PepsiCo	Food and beverages	5.3 Green POM (T)	Inputs/Energy Use Reduction (T)	"PepsiCo built a diagnostic tool to identify opportunities to boost efficiency."	The Guardian (2014)	48
Sainsbury's	Retail	5.3 Green POM (T)	Inputs/Energy Use Reduction (T)	"More than 3,000 changes, affecting refrigeration, lighting controls – including daylight-sensitive dimming – and voltage optimisation"	The Guardian (2014)	48
Türk Telekom	Telecommunications	5.3 Green POM (T)	Waste Management (T)	"Initiatives include [...] the recycling of 480 tonnes of paper a year, saving 7,680 trees."	The Guardian (2013)	51
University of Nottingham	Education	5.3 Green POM (T)	Inputs/Energy Use Reduction (T)	"The many other carbon-cutting projects include [...] hibernating 10,012 computers at 8pm every day"	The Guardian (2013)	49
University of Nottingham	Education	5.3 Green POM (T)	Waste Management (T)	"The university stopped sending waste to landfill in 2011 and spent £42,000 on new recycling bins."	The Guardian (2013)	49
University of Nottingham	Education	5.3 Green POM (T)	Waste Management (T)	"Waste is now taken to a local recovery and reuse centre."	The Guardian (2013)	49

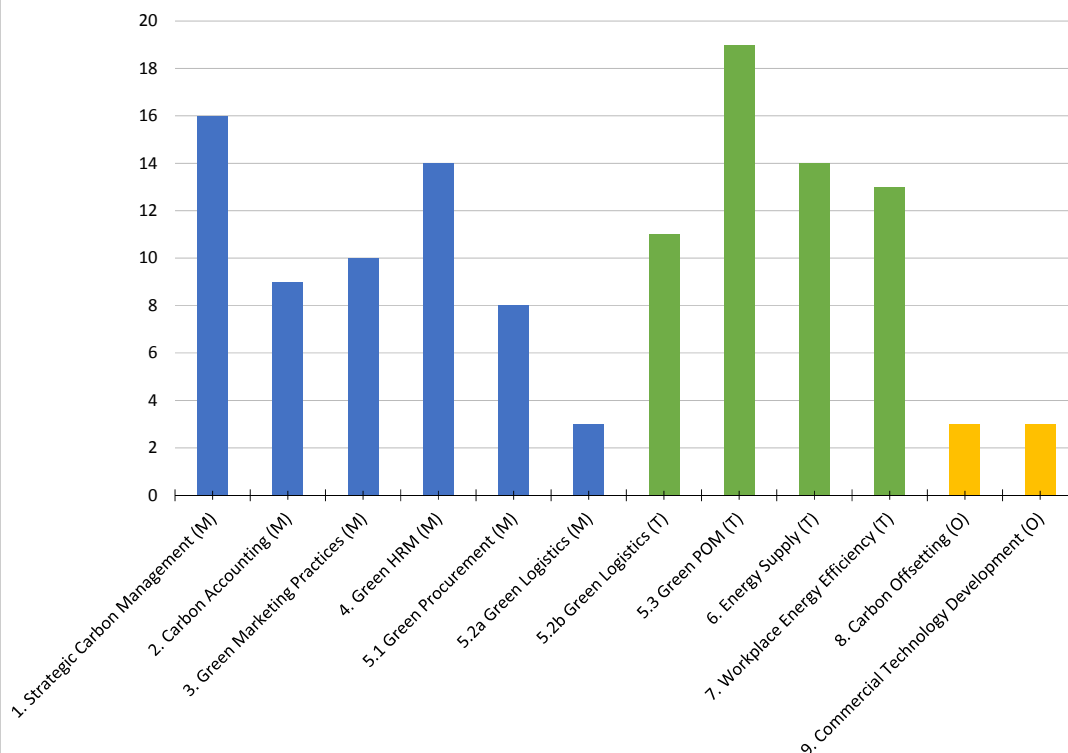
Company	Sector	Category	Subcategory	Details	Source	Page
Veolia Environment	Waste management	5.3 Green POM (T)	Waste Management (T)	"[...] it is also investing over £1bn in recycling and recovery infrastructure. This includes building London's first district heating network, transforming waste into energy for 10,000 Southwark residents"	The Guardian (2014)	49
Veolia Environment	Waste management	5.3 Green POM (T)	Waste Management (T)	"To turn the [road] sweepings into a valuable resource, the company has introduced an advanced treatment that involves wet and dry separation via, in effect, a giant vibrating sieve"	The Guardian (2014)	50
Veolia Environment	Waste management	5.3 Green POM (T)	Waste Management (T)	"These facilities treat around 250,000 tonnes of biowaste a year, transforming it into more than 100,000 tonnes of Soil Association certified sustainable organic fertilisers."	The Guardian (2014)	50
Wyke Farms	Farming	5.3 Green POM (T)	Inputs/Energy Use Reduction (T)	"[...] the whole production process is geared to minimising waste. New wrap-around carton machines and the fine-tuning of production processes have cut packaging waste by 70%. Product waste has also been minimised by a £1m investment in new cutting equipment."	The Guardian (2015d)	N/A
Wyke Farms	Farming	5.3 Green POM (T)	Waste Management (T)	"The biogas plant took five years to plan and build. It converts 75,000 tonnes of farm and dairy waste each year – most of it cow manure and leftover whey – into energy to run the dairy."	The Guardian (2015d)	N/A
B&Q	Retail	6. Energy Supply (T)	Renewable Energy Generation	"Renewable energy is also high on the agenda at B&Q HQ. A 500kW biomass boiler, fuelled by locally sourced, certified pellets, provides heating and water for the building, while 10kW PV panels are helping to meet its energy demand."	The Guardian (2013)	47
Bernard Matthews	Farming	6. Energy Supply (T)	Renewable Energy Generation	"But in the mean time Bernard Matthews has been rolling out solar panels, wind turbines and biomass plants to its farms and factories."	The Guardian (2015a)	N/A
Bupa	Healthcare	6. Energy Supply (T)	Renewable Energy Generation	"The projects include putting solar panels in more than 90% of its Australian care homes [...]"	The Guardian (2015b)	N/A
Danone	Food and beverages	6. Energy Supply (T)	Renewable Energy Generation	"[...] it is working on a comprehensive and diverse agenda of initiatives across its value chain. These range from [...] renewable energy [...] initiatives [...]"	The Guardian (2012)	34
Élan Hair Design	Hairdressers	6. Energy Supply (T)	Renewable Energy Generation	"Photovoltaic panels to generate electricity; solar-thermal panels to provide hot water; an air-source heat pump that saves 80% on heating costs"	The Guardian (2014)	46
Élan Hair Design	Hairdressers	6. Energy Supply (T)	Renewable Energy Sourcing	"The salon switched energy suppliers to get the business 100% renewable electricity"	The Guardian (2014)	46
Interface	Textile	6. Energy Supply (T)	Renewable Energy Sourcing	"Across Europe, 95% of Interface's energy consumption comes from renewable sources"	The Guardian (2014)	43
npower	Energy	6. Energy Supply (T)	Renewable Energy Generation	"It has also harnessed the power of renewable energy, installing two wind turbines and 50kW solar panels at its Sunderland office."	The Guardian (2014)	47
Sainsbury's	Retail	6. Energy Supply (T)	Renewable Energy Generation	"Installing 112,000 photovoltaic panels, 89 biomass boilers and 14 ground-source heat pumps"	The Guardian (2014)	48
SC Johnson	Consumer chemicals	6. Energy Supply (T)	Renewable Energy Generation	"The company has installed an 80-metre wind turbine that supplies 50% of the site's annual electricity needs [...]"	The Guardian (2014)	49
Türk Telekom	Telecommunications	6. Energy Supply (T)	Renewable Energy Generation	"The company has also pioneered renewable energy use with the installation of more than 1,000 solar energy panels in 52 cities, generating 2,190 MWh of electricity a year."	The Guardian (2013)	51
UK Environment Agency	Public Agency	6. Energy Supply (T)	Renewable Energy Generation	"Measures include [...] renewable energy (photovoltaic and bio-mass) [...]"	The Guardian (2015e)	N/A
University of Nottingham	Education	6. Energy Supply (T)	Renewable Energy Generation	"The many other carbon-cutting projects include [...] installing photovoltaic systems on student halls."	The Guardian (2013)	49
Wyke Farms	Farming	6. Energy Supply (T)	Renewable Energy Generation	"The company has seen off the country's largest brands for this coveted green credential by converting farm and dairy waste and harvesting solar energy [...]"	The Guardian (2015d)	N/A
B&Q	Retail	7. Workplace Energy Efficiency (T)	Lighting	"LED lighting will be installed at B&Q's 300 stores over eight years, saving a 60,000 tonnes of carbon emissions."	The Guardian (2013)	47

Company	Sector	Category	Subcategory	Details	Source	Page
B&Q	Retail	7. Workplace Energy Efficiency (T)	HVAC	"In a bid to improve energy efficiency, B&Q consolidated five offices into one and employed a wide range of measures to cut energy use, including heat recovery, solar shading, evaporative cooling and airtight construction."	The Guardian (2013)	47
Bernard Matthews	Farming	7. Workplace Energy Efficiency (T)	Lighting	"[...] fluorescent lights were replaced with LED."	The Guardian (2015a)	N/A
Bupa	Healthcare	7. Workplace Energy Efficiency (T)	Lighting	"The projects include [...] switching to LED lighting systems."	The Guardian (2015b)	N/A
Citi	Banking	7. Workplace Energy Efficiency (T)	HVAC	"upgraded hot water heaters in Canary Wharf washrooms with air source heat pumps, which work by absorbing the heat generated by employees and IT equipment"	The Guardian (2014)	45
Coca-Cola	Beverages	7. Workplace Energy Efficiency (T)	Lighting	[...] more efficient lighting have lead to further reductions.	The Guardian (2012)	34
Élan Hair Design	Hairdressers	7. Workplace Energy Efficiency (T)	Lighting	"The new-look salon has [...] LED lighting that consumes 80% less electricity than before and will last for a decade." "Energy-saving motion detectors [...] have been installed"	The Guardian (2014)	46
Élan Hair Design	Hairdressers	7. Workplace Energy Efficiency (T)	HVAC	"low-temperature radiators have been installed"	The Guardian (2014)	46
Interface	Textile	7. Workplace Energy Efficiency (T)	Lighting	"It is just one of a wide range of energy-saving measures introduced by the carpet tile manufacturer. Others include [...] the installation of LED lighting."	The Guardian (2014)	44
UK Environment Agency	Public Agency	7. Workplace Energy Efficiency (T)	Insulation	"Measures include new and traditional technologies, including improved insulation, [...]"	The Guardian (2015e)	N/A
UK Environment Agency	Public Agency	7. Workplace Energy Efficiency (T)	HVAC	"With the installation of bio-mass heating in offices and workspaces, it claims a substantial reduction in emissions."	The Guardian (2015e)	N/A
UK Environment Agency	Public Agency	7. Workplace Energy Efficiency (T)	Lighting	"In addition, the agency has invested in low energy lighting at several sites [...]"	The Guardian (2015e)	N/A
University of Nottingham	Education	7. Workplace Energy Efficiency (T)	Insulation	"The many other carbon-cutting projects include installing and upgrading roof, pipework and cavity wall insulation [...]" [...] it is working on a comprehensive and diverse agenda of initiatives across its value chain. These range from [...] to [...] planting 70m trees across Africa and Asia through offset schemes [...]"	The Guardian (2013)	49
Danone	Food and beverages	8. Carbon Offsetting (O)	Forestry	"[...] the company is using a far-reaching carbon-offsetting programme to balance the emissions being produced by its production lines and by customers on the road. In all, 5m tonnes of CO2 emissions have been cut in five years."	The Guardian (2012)	34
Jaguar Land Rover	Automobiles	8. Carbon Offsetting (O)	Unspecified	"Employees at SC Johnson's Mijdrecht manufacturing plant in the Netherlands have lanted a hectare of trees around the site each year for the past seven years"	The Guardian (2013)	50
SC Johnson	Consumer chemicals	8. Carbon Offsetting (O)	Forestry	"B&Q has brought a new LED technology to market and is working with parent company Kingfisher to develop an international LED specification."	The Guardian (2014)	49
B&Q	Retail	9. Commercial Technology Development (O)	Lighting (Technology)	"making clean engines a reality with a piston engine powered by the expansion of liquid air (nitrogen). The engine could significantly reduce the emissions of refrigerated transport, buses and commercial vehicles, and help companies to make substantial fuel savings"	The Guardian (2013)	47
Dearman	Refrigeration solutions	9. Commercial Technology Development (O)	Engineering	"[...] discovered a microbe that ferments gas so that it can be converted into ethanol – a pure alcohol used as fuel"	The Guardian (2014)	45
LanzaTech	Chemistry	9. Commercial Technology Development (O)	Chemistry		The Guardian (2014)	41

Category	Subcategory	Number of measures identified	Total per category
1. Strategic Carbon Management (M)	Carbon Reduction Programme	3	16
	Carbon Reduction Targets	13	
2. Carbon Accounting (M)	Physical carbon accounting	7	9
	Monetary carbon accounting	2	
3. Green Marketing Practices (M)	Product Design	5	10
	Production Process improvement	1	
	Packaging Design	2	
	Advertising	1	
4. Green Human Resources Management (Green HRM) (M)	Distribution	1	14
	Employee recruitment and selection	0	
	Training & Development	1	
	Performance management and appraisal	1	
	Pay and Reward systems	2	
5.1 Green Procurement (M)	Employee involvement/engagement	10	8
	Green Suppliers Selection	1	
	Emissions Reduction Partnership with Suppliers	7	
5.2a Green Logistics (M)	Transportation	2	3
	Warehousing	1	
	Value Added Services	0	
	Reverse Logistics	0	
5.2b Green Logistics (T)	Transportation (T)	11	11
5.3 Green Productions and Operations Management (Green POM) (T)	Inputs/Energy Use Reduction (T)	10	19
	Waste Management (T)	9	
6. Energy Supply (T)	Renewable Energy Generation	12	14
	Renewable Energy Sourcing	2	
7. Workplace Energy Efficiency (T)	Insulation	2	13
	Heating, ventilation, and air-conditioning (HVAC)	4	
	Lighting	7	
8. Carbon Offsetting (O)	Renewable Energy	0	3
	Forestry	2	
	Resource Conservation	0	
	Unspecified	1	
9. Commercial Technology Development (O)	Lighting (Technology)	1	3
	Engineering	1	
	Chemistry	1	
		123	123

Category	Total per category	Percentage
1. Strategic Carbon Management (M)	16	13%
2. Carbon Accounting (M)	9	7%
3. Green Marketing Practices (M)	10	8%
4. Green HRM (M)	14	11%
5.1 Green Procurement (M)	8	7%
5.2a Green Logistics (M)	3	2%
5.2b Green Logistics (T)	11	9%
5.3 Green POM (T)	19	15%
6. Energy Supply (T)	14	11%
7. Workplace Energy Efficiency (T)	13	11%
8. Carbon Offsetting (O)	3	2%
9. Commercial Technology Development (O)	3	2%

Number of occurrences for each category of carbon reduction measures identified



Types of measures	Percentage	Total per category
Management measures	49%	60
Techno-economic measures	46%	57
Others	5%	6
		123

Share of the three main types of measures identified

