## Greenhouse Gas Emissions Report

An illustration for business climate change and greenhouse gas emissions reporting



## Introduction to the document

Many companies and other corporate bodies already publicly report their greenhouse gas emissions, normally quantified in the form of carbon dioxide equivalent emissions. Usually this reporting is voluntary, although there is an increasing move in some countries towards mandatory reporting. Sometimes the information is included in Annual Reports or in annual Sustainability and Corporate Responsibility reports. Many submit information to the global Carbon Disclosure Project which is usually then available publicly. The format and composition of the information varies widely.

The UK Climate Change Act 2008 will potentially lead to mandatory reporting of greenhouse gas emissions by a large number of companies. Guidelines are currently being developed by DEFRA with input by a number of interested bodies including the CBI and the international Climate Disclosure Standards Board. PricewaterhouseCoopers has been fully involved in these deliberations.

But what would a Greenhouse Gas Emissions Report look like? In response to a need for a "typical" format to help companies develop their own reports, PricewaterhouseCoopers has produced the attached example for a fictitious company – Typico plc. We would not advocate a completely prescriptive or "one-size-fits-all" approach, but the Typico illustration can help companies in their own thinking and help with the development of good practices.

The extent of disclosure, particularly in the management commentary, will vary according to the nature and size of the company. PricewaterhouseCoopers has suggested what it believes will be regarded as good practice for larger companies wanting to explain clearly their company's position and performance in emissions and climate change. It is not intended to be a comprehensive list of all disclosures a company may wish to include. It is up to each company to determine what is material for inclusion to appropriately convey the impacts of climate change on the business and what is being done to respond to these. In producing this example Greenhouse Gas Emissions Report PricewaterhouseCoopers has anticipated many of the potential requirements being considered for guidelines by various bodies such as the CBI, DEFRA and the Climate Disclosure Standards Board.

Where would a Greenhouse Gas Emissions Report appear? PricewaterhouseCoopers envisage that most companies will publish their reports in full on their websites and expect most companies will not reproduce the detail in the Annual Report as these are often already too voluminous. Rather, extracts or summaries from the full Greenhouse Gas Emissions Report might be included within a company's Annual Report (e.g. within the Business Review) or within the Sustainability or Corporate Responsibility Report, cross-referred to the full report. An example of this is included in the appendix.

Clearly, in order to produce reliable information for the Greenhouse Gas Emissions Report, and to monitor emissions performance and management actions to achieve reductions during the year, all companies will need to consider carefully processes, systems, controls and internal reporting requirements.

Greenhouse gas emissions reporting is an important and developing topic. If you would like to discuss your company's needs or contribute to the continuing evolution please contact either of us.

Paul Rew

Partner, Sustainability & Climate Change Assurance

+44 (0) 207 804 4071 paul.rew@uk.pwc.com

Paul Rew

Alan McGill

Partner, Sustainability & Climate Change Advisory

+44 (0) 207 212 4348 alan.d.mcgill@uk.pwc.com

Alan M'Gill

## Contents

1.	Mar	agement commentary	1
	1.1	Purpose of the report and background to Typico plc	1
	1.2	Climate change strategy	1
	1.3	Impacts of climate change on the business	2
	1.4	Governance	7
	1.5	Performance overview	9
	1.6	Future outlook	11
	1.7	Regulatory schemes	12
	1.8	Statement of Directors' responsibility and approval	13
2.	Prin	nary statement of greenhouse gas emissions for the Group	14
3.	Note	es e	15
	3.1	Note 1: Greenhouse gas reporting policies	15
	3.2	Note 2: Emissions source	17
	3.3	Note 3: Emissions by greenhouse gas	18
	3.4	Note 4: Group segmental reporting	18
	3.5	Note 5: Acquisitions and divestments	19
4.	Inde	pendent Assurance Report	20
	4.1	Independent Assurance Report on the Primary Statement of Greenhouse Gas Emissions to the Directors of Typico plc	
	Ann	endix - Evample Summary Benort	22

## 1. Management commentary

#### 1.1 Purpose of the report and background to Typico plc

The Directors of Typico plc present the Greenhouse gas emissions report for the Typico plc group (the 'Group') for the year ended 31 December 2009. The Group's greenhouse gas emissions reporting set out below is intended to comply with the voluntary reporting requirements of the United Kingdom Climate Change Act 2008.

Typico is a UK listed technology company which produces a wide range of consumer durables as well as IT products for businesses. The Group has operations in 8 countries including substantial manufacturing facilities in Asia and the UK and R&D facilities in the UK and US. Typico's main sales markets are in Europe (44%) and the US (38%) although in recent years much of its sales growth has come from the emerging Asian economies of India and China (10%). More information on the Group can be found in our Annual Report, our Sustainability Report and on our website at www.Typico-group.com.

#### 1.2 Climate change strategy

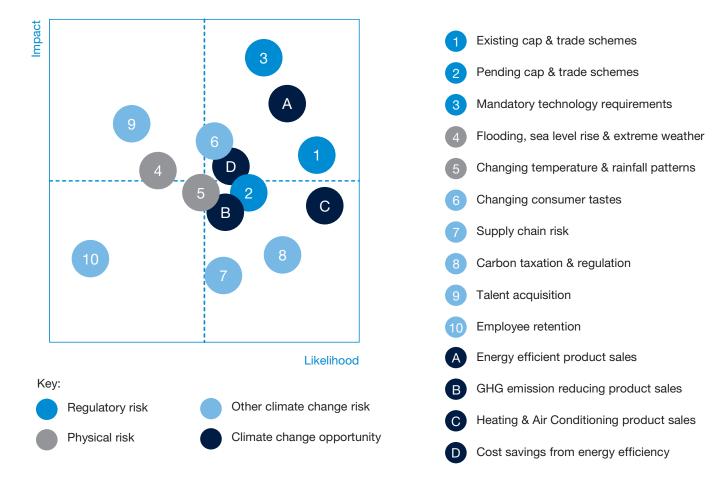
Our business strategy is shaped to respond to the risks and opportunities we face and climate change related risks and opportunities are built into this overarching strategy.

Our mission is to be the leading provider of products and services which improve the quality of people's lives without harming the environment. To deliver this we believe that we must significantly reduce Typico's own impact on climate change and at the same time adapt our business to the consequences of climate change, including taking full advantage of the opportunities presented.

#### Strategic aim Strategic response Significantly reduce Typico's own In light of the UK Climate Change Act 2008 and consequent regulatory impact on climate change. backdrop Typico has made a bold commitment on climate change mitigation: We aim to reduce our absolute GHG emissions by 26% by 2012 from a 2006 baseline year. We aim to demonstrate a net financial benefit to the business from emissions reductions activities by 2012. Progress against our long term targets is monitored on an annual basis and our 2009 GHG emissions statement has been assured by PricewaterhouseCoopers LLP. Increase the share of 'eco products'\* in our portfolio from 17% to 30% Adapt our business to the consequences of climate change and increase the share of eco products in sales from 20% to 40% by including taking full advantage of the 2012. opportunities presented. Roll out our current resource optimisation pilot project to the rest of the Group by 2012. \* 'Eco products' are Typico products which we have identified as being highly rated for energy efficiency in their market segment or products which have specific carbon mitigation potential (for example video conferencing equipment).

#### 1.3 Impacts of climate change on the business

The diagram and table below summarise the output of our group wide enterprise risk management and opportunity appraisal process for risks and opportunities with specific relevance to climate change.



Those risks and opportunities discussed over the page are only the ones most material to our business. For a fuller analysis of business risks including those illustrated here but not discussed see our Annual Report on our website.

The most immediate climate change risks are perceived to be existing cap and trade schemes, mandatory technology requirements and changing consumer tastes. Set out over the page is an overview of some of the risks identified and our response to their mitigation and the opportunities identified.

#### Regulatory risk

## 1. Existing cap and trade schemes

A number of our manufacturing installations are currently subject to the European Emissions Trading Scheme (EU ETS) and therefore this is the main source of short term regulatory risk.

We are required to surrender sufficient allowances each year to cover GHG emissions from our installations in scope of EU ETS. If we have insufficient allowances we must either purchase allowances on the open market or pay a financial penalty equal to €100 per tonne of excess emissions.

We have adopted a conservative stance towards EU ETS by holding sufficient allowances to cover our highest potential exposure until we have more certainty over our future emissions. We do not engage in speculative allowance trading or aggressive arbitrage.

Response

## 2. Pending cap and trade schemes

The UK Climate Change Act includes details of the Carbon Reduction Commitment (CRC) a mandatory cap and trade scheme for business emissions not captured by EU ETS.

The UK government has made a commitment to reduce the UK's GHG emissions by 80% by 2050 which provides a backdrop for this and other measures.

The proposed Carbon Reduction Commitment will require us to participate in a mandatory 'cap and trade' emissions trading scheme from 2010 onwards. This will impose an administrative cost and an up front cash requirement. Furthermore, our level of performance in the scheme will determine whether a bonus or penalty payment is imposed. In 2011 our initial calculations indicate an administrative cost of approximately £0.1m, and an up front cash requirement of £20.4m. Adding the opportunity cost of the capital, the administrative cost and the impact of recycling payment, the maximum cost to Typico is estimated to be £3.3m, and the maximum potential benefit £0.7m.

We believe that our early action on climate change will position us well for the CRC. Through further targeted initiatives we aim to achieve a high position in CRC league tables which will result in both financial and reputational benefit. Our spending on initiatives will not exceed the potential financial benefit.

## 3. Mandatory technology requirements

Government led proposals arising from the EU Energy Using Products Directive call for the introduction of energy efficiency standards and labelling on energy using products.

As electrical products form a significant part of our product range this could have a major impact on our business including potential penalties for non-compliance and potential loss of competitiveness for our less energy efficient products.

We anticipate that our adoption of the current European voluntary code of practice for energy consumption in electrical equipment should largely fulfil future requirements; however, we are also actively developing our range of eco products to improve our competitiveness.

#### Physical risk

## 4. Flooding, sea level rise and extreme weather events

Rising sea levels, flooding and extreme weather events already impact our business. While it appears inevitable that these effects will increase in coming years it is difficult to estimate the precise extent of the likely impacts.

In particular, rising sea levels and an increase in extreme weather events will increase the risk of flooding for sites located in low lying areas. For example, the storms and floods that the UK experienced over the summer 2007 had an impact on one of Typico's R&D sites. The site suffered a major flood and incurred losses of around £3 million in destruction of property and lost working time. Over the long-term more extreme weather events may also lead to an increase in insurance costs and therefore require us to make costly adaptations to our buildings to deal with the increased risk. We anticipate that our total insurance costs could rise by 8% (£1.2m) by 2020.

Typico continues to maintain robust insurance programmes to cover such exposure.

In anticipation of increasing insurance costs and to address the longer term risk we have also built consideration of climate change into our planning process for major infrastructure investments such that any investment over £50m with a time horizon in excess of 10 years is subject to a specific climate change risk assessment.

## 5. Changing temperature and rainfall patterns

Changes in temperature and rainfall as a result of climate change present a risk to our established operations in a number of ways, the most direct of which is the risk of increased operating cost due to heating and cooling requirements in our facilities.

We have been able to track through our Group Environmental Survey how changes in weather conditions can have both negative and positive effects on our energy consumption and costs. For example, our manufacturing site in Wenzhou. China, saw a 10% increase in 2009 energy usage partly due to the increased cooling needed (295+ cooling degree days - 25% more than 2008), whereas a milder winter and summer in the UK helped achieve a 14% reduction at our offices in Birmingham, UK, as less warming and cooling was required. Our analysis indicates a negative net effect that could increase annual operating costs by 9% (£185m) by 2020.

In the short term we are responding by reviewing and upgrading thermal insulation at our cold climate sites. We are also instigating space heating and cooling approaches where applicable.

To address the longer term risk we have also built consideration of climate change into our planning process for major infrastructure investments as noted above.

Risk Implication Response

#### Other climate change risk

#### 6. Changing consumer tastes

Our customers are showing increased awareness of environmental issues and such shifts in consumer attitudes can pose a risk to the competitiveness of some of our products.

While we strive to ensure that our products are best in class from an energy efficiency perspective, some of the older products in our portfolio are beginning to suffer against more efficient competitor products. This is particularly evident for products where energy efficiency is already highly visible. Sales of our older kettle range declined by 13% year on year. We expect that up to 30% of our product portfolio may be impacted to some extent by this trend. An additional risk arises if our competitors are more effective at communicating their efficiency credentials.

We will focus much of our future R&D investment on our eco products range with the aim to increase the share of eco products in our portfolio from 17% to 30% and increase the share of eco products in sales from 20% to 40% by 2012.

We will also aim to communicate the environmental credentials through product labelling whenever appropriate.

portunity area	Implication	Response
Increased demand for the most energy efficient products in market segments.	We have observed sales growth of 4% year on year in our eco products; sales of other products in general have been flat year on year.	We will focus much of our future R&D investment on our eco products range with the aim of increasing the share of eco products in our portfolio from 17% to 30% and increase the share of eco products in sales from 20% to 40% by 2012.
Increased demand for products that facilitate GHG avoidance.	As yet these products have not outperformed other segments of our portfolio however we anticipate that future regulatory changes and increased customer awareness may significantly increase demand.	We will continue to invest in these products and re-adjust our promotion techniques to emphasise the potential of this product class.
Increased demand for products that help companies and individuals adapt to climate change (e.g. air conditioning and space heating).	These products form a limited part of our portfolio at present. If adaptation becomes the focus and temperature change progresses rapidly then this may be a significant growth area.	We will continue to monitor the market to assess the growth potential of this segment and respond as appropriate.
Cost savings as a result of emissions reduction initiatives.	The majority of emissions reduction measures we have taken to date have resulted in cost reductions and we anticipate that future measures should be equally cost effective.	We will continue to pursue all emissions reduction measures which have positive cost implications.
	Increased demand for products that facilitate GHG avoidance.  Increased demand for products that facilitate GHG avoidance.  Increased demand for products that help companies and individuals adapt to climate change (e.g. air conditioning and space heating).  Cost savings as a result of	Increased demand for the most energy efficient products in market segments.  Increased demand for products that facilitate GHG avoidance.  As yet these products have not outperformed other segments of our portfolio however we anticipate that future regulatory changes and increased customer awareness may significantly increase demand.  Increased demand for products that help companies and individuals adapt to climate change (e.g. air conditioning and space heating).  Cost savings as a result of emissions reduction initiatives.  We have observed sales growth of 4% year on year in our eco products in general have been flat year on year.  As yet these products have not outperformed other segments of our portfolio however we anticipate that future regulatory changes and increased customer awareness may significantly increase demand.  These products form a limited part of our portfolio at present. If adaptation becomes the focus and temperature change progresses rapidly then this may be a significant growth area.  Cost savings as a result of emissions reduction measures we have taken to date have resulted in cost reductions and we anticipate that future measures

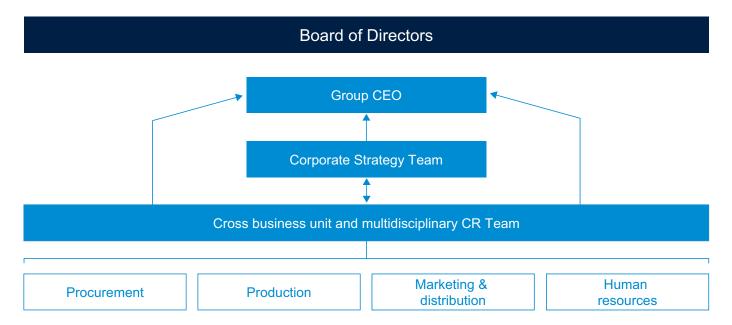
#### 1.4 Governance

Sustainability and climate change issues are integrated into our core corporate strategy, and our CEO Peter Wise is ultimately responsible for overseeing the integration into our business operations.

Reporting to our CEO is our cross business unit Corporate Responsibility (CR) Team which includes representatives from each of the Group's major business units to ensure that climate change issues are integrated throughout our Group. The CR Team are responsible for i) advising the Corporate Strategy Team on emerging developments and issues which may affect the carbon and sustainability aspects of our strategy, and ii) monitoring and advising business units on implementation of the related corporate strategy.

It should be noted that climate change is just one of a range of sustainability issues covered by this multi-disciplinary team, others include: procurement and supply chain management, waste, employee relations and stakeholder engagement.

The Group's governance structure is illustrated in the diagram below.



The CEO, as the Board member responsible for sustainability and climate change, holds quarterly meetings with the key members of the Corporate Strategy and Corporate Responsibility Teams to discuss the Group's performance against key performance indicators (KPIs). On an annual basis these meetings also review the relevance of our KPIs and the effectiveness of existing monitoring/measurement systems to provide accurate, complete and timely information sets to management. The CEO regularly reports to the Board on progress against targets and the Board annually reviews the Group's overall risk management assessment. For further information on Group governance please see our Annual Report on our website.

Our policy is to only reward behaviours that are aligned to our strategy and targets. Climate change and sustainability are significant parts of our strategy and are included in the Executive level remuneration performance assessment alongside financial and operational performance measures. The following table provides a breakdown of Board and Executive level incentives.

#### Analysis of Board level remuneration related to sustainable development objectives

#### Performance related pay for Executive Directors

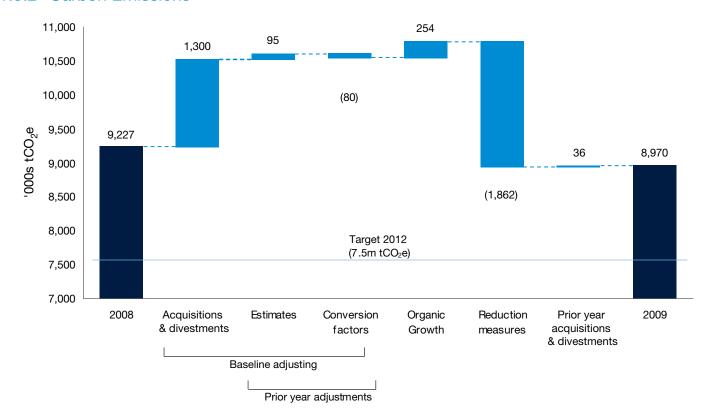
	Executive Directors			
Sustainable Development (15%)	Percentage of bonus opportunity on offer for target performance	Actual payment for the year (% of bonus opportunity)		
Safety	2.50%	1.19%		
Climate change	5.00%	2.54%		
Environment	5.00%	3.42%		
Community – score in annual baseline survey	2.50%	1.33%		
	15.00%	8.48%		

#### 1.5 Performance overview

#### 1.5.1 Performance Summary

Key indicators	Direct comp	Direct company imapacts						
Climat indicators	Financial pe	rformance		Carbon emissions (total scope 1, 2 & 3 for group)				
Emissions	2007	2008	2009					
EIIIISSIOIIS	£m	£m	£m	9.83 9.23 8.97 4.0 g				
Net costs / (savings) from GHD reduction activities	10.2	15.1	(3.5)					
Net costs / (savings) from 'eco products'	2.3	0.7	(2.4)	) tueleviup 4 2.00 2.07 2.07 2.00 2.00 2.00 2.00 2.00				
Carbon offset expenditure	6.5	7.8	9.8	3 2006 2007 2008 2009 2012 Target				
Net costs	19.0	23.6	3.9	Scope 1 & 2 emissions				

#### 1.5.2 Carbon Emissions



Group GHG emissions are down for the third consecutive year, to 9.0 million  $tCO_2e$ , a 2.8% reduction on 2008 levels, and our carbon intensity has also decreased from 2.8 to 2.1  $tCO_2e$ /£m revenue, a 25% reduction on 2008 levels.

#### 1.5.3 Carbon Emission Reductions

The acquisition of Poplar Products at the start of 2009 added a total of 1.3m tCO<sub>2</sub>e of emission. Specific conversion factors are now available for our transport fleet of plug-in hybrid vans operating across France and Germany reducing reported emissions by 80,000 tCO<sub>2</sub>e during the year.

Following discussions with our transportation partner, estimates in the calculation of transport miles for purchased goods led to an increase in reported emissions by 95,000 tonnes. Through engagement with this partner we have been able to share streamlining distribution systems and anticipate significant carbon savings in the future.

Although organic growth would have usually led to an increase in emissions of 254,000 tCO<sub>2</sub>e this year, our carbon reduction projects have delivered both absolute and relative carbon emissions reductions of 1.9m tCO<sub>2</sub>e. These emissions reductions have mainly been due to the energy efficiency investments we have made to our manufacturing facilities over the past year, and the ongoing streamlining of our distribution to a central-hub system.

2009	Net cost saving (£m)	Carbon emissions reduction (million tCO <sub>2</sub> e/annum)
Improved energy efficiency of manufacturing facilities	1.2	1.3
Streamlining distribution system	1.9	0.5
Other	0.4	0.1
Total	3.5	1.9

#### 1.5.4 Financial Performance

Our performance against our financial KPIs for 2009 has shown good progress; with both our reduction activities and GHG efficient products generating positive cash flows to the business for the first time. The net cost effect from emission reduction activities, 'eco products', and the expenditure on carbon offsets results in a net cost to the business of £3.9m (2008: £23.6m).

Further cost savings, from current and planned emission reduction activities, combined with close management of future exposure to volatility in the voluntary carbon markets, will help deliver our aim to achieve a net financial benefit to the business by 2012.

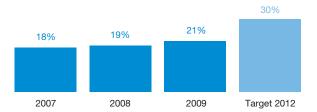
#### 1.5.5 Eco products

Our range of 'eco products' that deliver significantly improved energy efficiency to our customers, launched in 2008, has seen strong sales growth and at the end of 2009 had delivered a net benefit of £2.4m in profits before tax to the Group.

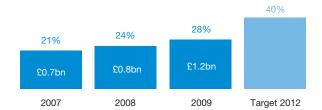
We expect strong consumer demand to drive annual growth of 8 – 10% per annum in this new market for the next 3 years; we would expect our strong consumer offering and brand to ensure that Typico plc maintains a significant market share

Eco Products now constitute 21% of our product portfolio, and 28% of sales – on track to meet our targets of 30% and 40% respectively by 2012.

#### Eco products as volume of portfolio



#### Eco products as volume of sales



#### 1.5.6 GHG reduction activities

The capital expenditure invested in our first energy efficiency projects at our Toulouse, Reading and Nanjing manufacturing facilities (12% of total manufacturing facilities) delivered 0.4 mtCO<sub>2</sub>e and £1.2m savings in 2009. In addition the streamlining of our distribution system delivered net cost savings for the first time this year of £1.9m. Other reduction activities delivered net cost savings of £0.4m in the year.

#### 1.5.7 Offset expenditure

In-line with our policy, we continue to purchase and retire the same level of offsets in a financial year as our total scope 1 and 2 emissions. For 2009 this resulted in offsets equal to 1.7 million tCO<sub>2</sub>e being purchased at a cost of £9.8m. Despite a reduction in total emissions for 2009, our offset expenditure rose due to the increased market price for offsets.

As of 1 January 2010 our treasury function manages our future exposure to volatility in the voluntary carbon market through to 2012: we expect this to minimise the cost volatility in the offsets we procure.

#### 1.6 Future outlook

We have reviewed our future targets and have found that they remain appropriate for our business and industry, and these will therefore continue to drive our KPIs and associated management reward. Although our targets for 2012 are still a significant challenge, we remain fully committed to meeting them.

We are now seeing net financial gains being delivered to the business through our action on climate change, and we feel that there are still substantial areas of our business which can deliver significant value whilst responding to climate change.

Whilst we will continue to look for opportunities to improve the efficiency of our manufacturing facilities and to further streamline our distribution system, we have identified the following as key additional focus areas up to 2012 to help us deliver on our carbon footprint target whilst delivering financial benefit to the company:

- We will be undertaking energy audits in our key warehousing facilities services to identify cost efficient opportunities to lower their carbon footprint; and
- We will be working with our transportation partners to explore the use of alternative fuels.

The target information is based on estimates and assumptions that are subject to significant inherent uncertainties, which may be difficult to predict and may be beyond control of the Group. As with most forward looking information, there can be no assurance that targets will be realised.

#### 1.7 Regulatory schemes

Typico has two manufacturing facilities that fall under the EU ETS, and as a UK-based company of sufficient size, is required to comply with the requirements of the CRC for our UK emissions outside of the EU ETS. Our obligations in respect of these regulations are outlined below.

EU ETS ('000 tCO <sub>2</sub> )	2009	2008	2007
Total allowances per annum	400	400	500
Actual emissions	406	389	401
Net positions	(6)	11	99

For Phase II of the EU ETS (2008–2012), Typico has an allocation of 400,000 tonnes of  $CO_2$  emissions allowances per annum under the UK National Allocation Plan (NAP), compared to 500,000 tonnes per annum for Phase I (2005–2007).

Our CO<sub>2</sub> emissions allowances requirement for the year ended 31 December 2009, in excess of those allocated under the UK NAP, was approximately 6,000 tonnes compared to a surplus in 2008 of approximately 11,000 tonnes.

The price for EU-ETS Phase II  $CO_2$  emissions allowances began in 2009 at approximately epsilon15.50 per tonne. As commodity prices fell back and industrial demand reduced in response to the economic climate, carbon prices fell significantly over the first quarter reaching lows of around epsilon8.50 per tonne. As the European economies started to show signs of stabilisation, and then modest growth in parts, through the rest of 2009, power and coal price rises were reflected in the carbon price that steadily rose to close the year at epsilon22.40 per tonne at 31 December 2009.

As a result, the average price expensed for purchased CO₂ emissions allowances during the year ended 31 December 2009 was €17.40 per tonne, compared to €19.50 per tonne in 2008.

#### The CRC and Carbon reporting

Comment: The CRC is a future requirement (starts in 2010) that is aimed at all large UK companies. DEFRA has not outlined any formal reporting requirement for the CRC further than annual reporting of emissions included in the scheme (as at 1 March 2009). The example below is for illustrative purposes only.

CRC (starts 2010)	2012	2011	2010
Emissions (MtCO <sub>2</sub> e)*	0.7	0.8	0.9
Net cash position (£m)	0.6	(2.8)	-
Position in sector league table	3rd	6th	7th

<sup>\*</sup> UK-based CO<sub>2</sub>e emissions from all their fixed point energy sources.

As a result of our continued investment in low-carbon technologies within our business and supply-chain, our emissions under the CRC have steadily decreased. This has been reflected in our improved CRC league table position where this year we are the third highest placed in our sector, and our net cash position (i.e. after the recycle payment has been made) is positive for the first time since the CRC commenced.

### 1.8 Statement of Directors' responsibility and approval

The Directors are responsible for preparing the Greenhouse Gas Emissions Report, for selecting appropriate reporting policies, for making appropriate judgements and estimates, for presenting the information fairly and in accordance with the UK Climate Change Act 2008 regulation, and for maintaining records from which to prepare the report. This Greenhouse Gas Emissions Report was approved by the Board on 20 April 2010.

Peter Simmons		
Company secretary		

## 2. Primary statement of greenhouse gas emissions for the Group

Summary of GHG emissions for the year ended 31 December 2009

CO <sub>2</sub> e emissions ('000 tonnes)	Note	Perf	ormance	Adjusted Baseline	Target	Percentage	e Change
		2009 Assured*	2008	2006	2012	2008 /2009	2006 /2009
Scope 1	2,3,4	432	521	645	364	-17%	-33%
Scope 2	2,3,4	1,293	1,386	1,494	1,038	-7%	-13%
Total gross controlled emissions	2,3,4	1,725	1,907	2,139	1,402	-10%	-19%
Scope 3	2,3,4	7,245	7,320	8,001	6,101	-1%	-9%
Total gross emissions	2,3,4	8,970	9,227	10,140	7,503	-3%	-12%
Renewable electricity purchased in the UK	1.9	(12)	(89)	-	-		
Renewable electricity sold to grid		(946)	(500)	-	(1,038)		
Voluntary carbon offsets		(1,725)	(1,907)	-	(1,402)		
Net emissions		6,287	6,731	10,140	5,063	-7%	-38%

#### Greenhouse gas emission intensity

CO <sub>2</sub> e '000 tonnes / £m turnover	Industry benchmark#	2009	2008	Baseline 2006	Target 2012
Scope 1	0.150	0.100	0.157	0.229	0.057
Scope 2	0.400	0.299	0.418	0.531	0.162
Scope 3	1.500	1.675	2.208	2.841	0.953
Total	2.050	2.074	2.783	3.601	1.172

<sup># [</sup>Description of industry benchmark used]

<sup>\*</sup> The assurance report on page 20 covers only 2009 performance information in this statement and the accompanying notes.

## 3. Notes

#### 3.1 Note 1: Greenhouse gas reporting policies

This Greenhouse gas emissions report has been prepared based on a reporting year of 1 January to 31 December, unless otherwise stated. This is the same at the Group's financial reporting period.

The greenhouse gas emissions data have been prepared with reference to the WRI/WBCSD Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition and in accordance with the guidance for corporate reporting issued by DEFRA.

A summary of the key reporting policies is set out below, together with an explanation of where changes have been made from policies in the previous year. The complete GHG reporting policies can be found at www.typico-group.com.

#### 1. Greenhouse gases

All Greenhouse Gas (GHG) emissions figures are in tonnes of carbon dioxide equivalents ( $CO_2e$ ) and include three of the six greenhouse gases covered by the Kyoto Protocol – carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ), and Nitrous oxide ( $N_2O$ ). Perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and sulphur hexafluoride ( $SF_6$ ) emissions have been omitted from our reporting as they are not a material source of greenhouse gases for the business.

#### 2. Organisational boundary

Direct GHG emissions and indirect GHG emissions from electricity have been reported from companies where the Group has financial control (as defined by the GHG Protocol). 100% of emissions for entities within the organisational boundary have been reported. For joint ventures, Typico's share of the joint ventures' emissions is included based upon its equity share of the joint venture for financial reporting purposes.

Specifically excluded from the organisational boundary are fixed asset investments and associates. Where material, emissions from these operations have been included within Scope 3 emissions reporting.

#### 3. Operational boundary

All Scope 1 (direct GHG emissions) and Scope 2 (indirect GHG emissions) have been reported for operations within the organisational boundary.

Where appropriate, emissions from shared offices or warehouse space are determined on the basis of the leased floor area.

A list of Scope 3 emissions is set out in Note 2, along with a description of other significant Scope 3 emissions currently excluded from the Group's reporting and material assumptions made.

Emissions from entities acquired during the year are included from the date of acquisition and emissions from entities disposed of during the year are included up to the date of disposal.

#### 4. Geographic scope

GHG emissions that fall within the organisational and operational boundaries have been reported for all global operations.

#### 5. Conversion factors

The carbon dioxide emissions associated with the activities noted above have been determined on the basis of measured or estimated energy and fuel use, multiplied by relevant carbon conversion factors.

Where possible fuel or energy use is based on direct measurement, purchase invoices or actual mileage data, in other cases it has been necessary to make estimations. Specific estimations have been made including in relation to public transport and taxis based on expenditure and using standard tariff information.

Published national conversion factors were used to calculate emissions from operations. In the absence of any such national data DEFRA's 'Greenhouse Gas Conversion Factors for Company Reporting' have been used for the calculation of GHG emissions.

Emissions source	Conversion factor employed
UK	DEFRA, 2008
US	US EPA, 2008
China	China's Regional Grid Baseline Emission Factors 2007
Other	DEFRA, 2008

#### 6. Baseline GHG emissions

The GHG baseline applies to Scope 1, Scope 2, and Scope 3 emissions as set out above and has been prepared in accordance with the GHG reporting policies set out here. The baseline is adjusted when new sources of Scope 3 emissions are reported.

The base year was set as 2006 as this was the first year the organisation reported detailed greenhouse gas emissions. The appropriateness of the base year is reviewed on an annual basis.

The baseline is adjusted to reflect acquisitions and divestments that result in a change to the baseline of more than 5% and for any significant changes in reporting policy.

#### 7. Prior year restatements

Where information is available, prior year figures have been restated to comply with the reporting policies set for the current year. Where information is not available estimates are made. The estimates and basis for the estimates are provided as a footnote to the relevant notes. Where significant adjustments have been made a note detailing the adjustments is provided.

#### 8. Materiality

Emissions from the following sources have not been reported as they contribute, in aggregate, less than 5% to overall Scope 1 and Scope 2 emissions:

- · Refrigeration gas losses, and
- Fuel use from back-up generators.

#### 9. Renewable electricity

GHG emissions associated with renewable electricity purchased in the UK is included within the reported Scope 2 emissions by converting the electricity used to GHG emissions using standard grid factors, in line with current DEFRA requirements. These emissions are then deducted when reporting net emissions.

For renewable electricity purchased outside the UK and produced and used by the Group, no emissions are reported.

#### 10. Carbon offsetting

The Group has chosen to offset all reported Scope 1 and Scope 2 emissions for each financial year.

The group purchases and retires Voluntary Carbon Standard (VCS) verified Voluntary Carbon Units (VCUs) from emission reduction projects in India and Brazil that cover a range of technologies, including renewable energy and energy efficiency measures. Our policy precludes the purchase of large-scale hyrdo and industrial gas abatement projects.

The VCUs are purchased and retired on our own account within the VCS registry within 60 days of the 31 December of the applicable financial year.

#### 3.2 Note 2: Emissions source

	Perfo	rmance	Baseline	Target
Emission Source (CO <sub>2</sub> e '000 tonnes)	2009	2008	2006	2012
Scope 1				
Gas consumption – manufacturing	146	187	243	128
Gas consumption – other	98	145	190	98
Logistical transport	188	189	212	138
Total Scope 1 Emissions	432	521	645	364
Scope 2				
Purchased electricity*	1,293	1,386	1,494	1,038
Total Scope 2 Emissions	1,293	1,386	1,494	1,038
Scope 3				
Distribution of finished goods	987	1,159	656	999
Transportation of purchased goods	3,795	3,978	4,221	3,071
Transportation of waste	84	93	140	72
Disposal of waste generated in operations	245	264	336	274
Employee commuting	645	698	1,001	687
Business travel	1,489	1,128	1,647	998
Total Scope 3 Emissions	7,245	7,320	8,001	6,101
Total Group Emissions	8,970	9,227	10,140	7,503

<sup>\*</sup> UK government guidelines are that emissions from UK renewable electricity purchased should be accounted for as if from grid. This figure includes 12,000 tCO<sub>2</sub>e (2008: 89,000 tCO<sub>2</sub>e) related to electricity purchased in the UK from renewable sources.

Scope 3 emissions associated with embodied carbon in purchased goods, use of products and the outsourced production of packaging are currently excluded from the Group's reporting. This activity is likely to contribute significant Scope 3 emissions. The Group is currently working with its suppliers and customer representatives to collect the information necessary to report these emissions in the future.

Within the calculation of the Scope 3 emissions source, the following key assumptions about boundary setting have been applied: from factory door to store where our goods are sold for distribution of finished goods; from tier one supplier to factory door for transportation of purchased goods; from our operations to site of disposal for transportation of waste, while disposal of waste incorporates the biodegrading of the materials sent to land site only; distance travelled by each employee to their place of work within the group for employee commuting. Business travel includes air travel, rail travel and road travel not in the Group's cars. The appropriate conversion factor for the method of transportation is applied to the distance travelled. For further information see our detailed GHG reporting policies on our website.

## 3.3 Note 3: Emissions by greenhouse gas

	2009				2008			
(CO <sub>2</sub> e '000 tonnes)	Scope 1	Scope 2	Scope 3	Total	Scope 1	Scope 2	Scope 3	Total
Carbon dioxide	328	1,293	5,799	7,420	372	1,386	5,756	7,514
Methane	45	-	821	866	56	-	924	980
Nitrous Oxide	59	-	625	684	93	-	640	733
<b>Total Emissions</b>	432	1,293	7,245	8,970	521	1,386	7,320	9,227

## 3.4 Note 4: Group segmental reporting

Geographical analysis	2009			2008				
(CO <sub>2</sub> e '000 tonnes)	Scope 1	Scope 2	Scope 3	Total	Scope 1	Scope 2	Scope 3	Total
UK	382	896	5,468	6,746	423	957	5,455	6,835
China	22	170	1,106	1,298	60	175	1,022	1,257
US	21	193	543	757	35	198	641	874
Other	7	34	128	169	3	56	202	261
<b>Total Emissions</b>	432	1,293	7,245	8,970	521	1,386	7,320	9,227
Business analysis	2009			2008				
(CO <sub>2</sub> e '000 tonnes)	Scope 1	Scope 2	Scope 3	Total	Scope 1	Scope 2	Scope 3	Total
Industrial manufacturing products	284	546	5,422	6,252	301	599	5,445	6,345
Consumer Products	43	543	1,198	1,784	74	601	1,104	1,779
Distribution services								
- Group	61	80	124	265	80	99	111	290
- Franchise	44	124	501	669	66	87	660	813
Total Emissions	432	1,293	7,245	8,970	521	1,386	7,320	9,227

## 3.5 Note 5: Acquisitions and divestments

		Continuing operation	S	Discontinued	Total
(CO <sub>2</sub> e '000 tonnes)	Existing*	Acquired	Sub total	Divestment	
2009 emissions					
Scope 1	332	50	382	50	432
Scope 2	843	350	1,193	100	1,293
Sub total	1,175	400	1,575	150	1,725
Scope 3	5,845	900	6,745	500	7,245
Total	7,020	1,300	8,320	650	8,970
2006 Baseline emissions	3				
Scope 1	433	207	640	5	645
Scope 2	1,094	300	1,394	100	1,494
Sub total	1,527	507	2,034	105	2,139
Scope 3	5,701	1,500	7,201	800	8,001
Total	7,228	2,007	9,235	905	10,140
2012 Target emissions					
Scope 1	264	85	349	15	364
Scope 2	738	100	838	200	1,038
Sub total	1,002	185	1,187	215	1,402
Scope 3	4,101	1,500	5,601	500	6,101
Total	5,103	1,685	6,788	715	7,503

<sup>\*</sup>Existing operations includes a net prior year adjustment on scope 3 emissions of 15,000 tCO $_2$ e. This is a combination of more accurate conversion factors for our transport fleet (-80,000 tCO $_2$ e) and revised estimates of transport miles (+95,000 tCO $_2$ e).)

## 4. Independent Assurance Report

#### Comment:

A growing number of companies are voluntarily obtaining independent assurance over their emissions reporting. The illustrative assurance report presented below reflects a reasonable assurance conclusion. The International Standard on Assurance Engagements 3000 (Revised) – 'Assurance Engagements other than Audits and Reviews of Historical Financial Information' also allows limited assurance conclusions. As its title implies, a limited assurance assignment provides less assurance and the assurance work performed is more limited than for a reasonable assurance assignment. It is expected that many companies will go through an "assurance readiness" process in the first instance to establish whether the appropriate systems and controls are in place within the company to facilitate carbon reporting. The example report below shows what a reasonable assurance statement might look like.

The International Auditing and Assurance Standards Board (IAASB) are currently developing an assurance standard on greenhouse gas emissions information. This illustrative assurance report will be updated following the release of the IAASB standard.

## Independent Assurance Report on the Primary Statement of Greenhouse Gas Emissions to the Directors of Typico plc

We have been engaged by the directors of Typico plc (the "Company") to perform an independent reasonable assurance engagement in respect of the Primary Statement of Greenhouse Gas Emissions for the Group for the year ended 31 December 2009 and accompanying notes 1 to 5, contained within Typico's 2009 Greenhouse Gas Emissions Report. Information in respect of the year ended 31 December 2008, 2012 targets, 2006 baseline and percentage change information has not been included within the scope of work.

#### Respective responsibilities of the directors and PricewaterhouseCoopers LLP

The directors' responsibilities for preparing the Primary Statement of Greenhouse Gas Emissions in accordance with the criteria set out in the Company's Reporting Policies and for the development of the Reporting Policies are set out in the Statement of Directors' Responsibilities on page 16.

Our responsibility is to form an independent opinion, based on our assurance procedures, on whether the Primary Statement of Greenhouse Gas Emissions for the Group and accompanying notes are fairly stated, in all material respects, in accordance with the Greenhouse Gas Reporting Policies.

This report, including the opinion, has been prepared for the directors of the Company as a body, to assist the directors in reporting on the Company's greenhouse gas emissions performance and activities. We permit the disclosure of this report within the Greenhouse Gas Emissions Report for the year ended 31 December 2009, to enable the directors to demonstrate they have discharged their governance responsibilities by commissioning an independent assurance report in connection with the Primary Statement of Greenhouse Gas Emissions. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the directors as a body and the Company for our work or this report save where terms are expressly agreed and with our prior consent in writing.

We read the other information included in the Greenhouse Gas Emissions Report, including the information in the management commentary for the Group, and considered whether it is consistent with the 2009 information in the Primary Statement of Greenhouse Gas Emissions. We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the Primary Statement of Greenhouse Gas Emissions. Our responsibilities do not extend to any other information.

#### Assurance work performed

We conducted our reasonable assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) – 'Assurance Engagements other than Audits or Reviews of Historical Financial Information' issued by the International Auditing and Assurance Standards Board ("ISAE 3000").

Our work included examination, on a test basis, of evidence relevant to the Primary Statement of Greenhouse Gas Emissions. It also included an assessment of the significant estimates and judgements made by the directors in the preparation of the Primary Statement of Greenhouse Gas Emissions. We planned and performed our work so as to obtain all the information and explanations that we considered necessary in order to provide us with sufficient evidence on which to base our opinion.

Our work included the following procedures:

Comment: Given the lack of detailed guidance for carbon assurance it could be useful to users to provide an outline of the reasonable assurance procedures.

#### Inherent limitations

Non-financial performance information is subject to more inherent limitations than financial information, given the characteristics of the subject matter and the methods used for determining such information. The absence of a significant body of established practice on which to draw allows for the selection of different but acceptable measurement techniques which can result in materially different measurements and can impact comparability. The precision of different measurement techniques may also vary. Furthermore, the nature and methods used to determine such information, as well as the measurement criteria and the precision thereof, may change over time. It is important to read the Primary Statement of Greenhouse Gas Emissions and the accompanying notes in the context of the Company's Greenhouse Gas Reporting Policies.

In particular, the conversion of fuel used to carbon emissions is based upon, inter alia, information and factors derived by independent third parties as explained in the Reporting Policies. Our assurance work has not included examination of the derivation of those factors and other third party information.

#### **Opinion**

Based on the results of our procedures, in our opinion, the Primary Statement of Greenhouse Gas Emissions and accompanying notes 1 to 5 for the Group for the year ended 31 December 2009 are fairly stated, in all material respects, in accordance with the Greenhouse Gas Reporting Policies of Typico Plc.

PricewaterhouseCoopers LLP
Chartered Accountants
London
20 April 2010

## **Appendix**

## **Example Summary Report**

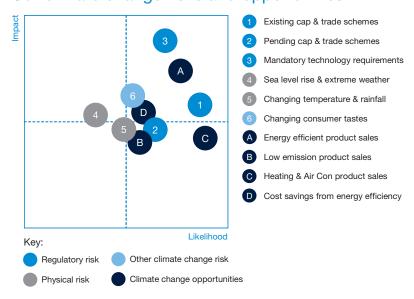
## Greenhouse gas emissions summary report 2009

## Strategy and performance

Our business strategy is shaped to respond to the risks and opportunities we face and climate change related risks and opportunities are built into this overarching strategy.

Our mission is to be the leading provider of products and services which improve the quality of people's lives without harming the environment. To deliver this we believe that we must significantly reduce Typico's own impact on climate change and at the same time adapt our business to the consequences of climate change, including taking full advantage of the opportunities presented.

#### Our climate change risks and opportunities



Our review of the key risks and opportunities set out above drive Typico's climate change strategy. The link between the risks and opportunities in the top right segment of our risk map and our four priority climate change strategies is set out in the table opposite.

#### Notes:

For details of our reporting policies please refer to our Greenhouse Gas Emissions Report.

These indicators have been developed as a means of benchmarking the group's performance against our strategic objectives. Additional indicators which are also used to measure our performance are discussed in our Greenhouse Gas Emissions Report.

#### Reduce Typico's own

Strategy

Performance, KPIs and targets

Reduce our absolute GHG emissions by 26% by 2012 from a 2006 baseline year

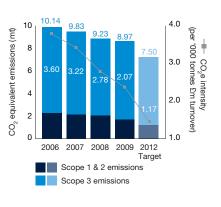
Risks and opportunities 1 2 3 D



We continue to reduce our gross emissions despite growth in sales. We have offset scope 1 and 2 emissions again this year at a cost of £9.8m

Direct company impacts

Carbon emissions (total scope 1, 2 & 3 for group)



ooking ahead

Continue to offset scope 1 and 2 emissions and deliver 0.5mtCO2e savings per year over the next 3 years

Benchmarking

2009 Scope 1 & 2 CO<sub>2</sub>e emissions:

Contribution to sector Total per CDP

Intensity/ £m turnover 0.05%

8%

#### impact on climate change

Adapt our business to the consequences of climate change

Demonstrate a net financial benefit to the business from emissions reductions activities by 2012

Risks and opportunities





Our emission reduction activities and ecoproducts both delivered net financial benefit in 2008. Increasing market value of carbon offsets resulted in a net cost of £3.9min 2009

£million	2008	2009
Net costs / (savings) from GHG reduction activites	15.1	(3.5)
Net costs / (savings) from 'eco products'	0.7	(2.4)
Offset expenditure	7.8	9.8
Net costs	23.6	3.9

Increase share of "ecoproducts" in our portfolio from 17% to 30% and increase the share of eco-product sales from 20% to 40% by 2012

Risks and opportunities





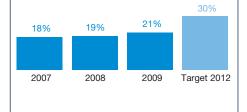




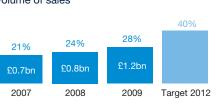
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Eco-product volumes continue to show strong growth and are on course to achieve the 2012 target. Eco-products also continue to achieve a premium price in the market

Volume of portfolio



Volume of sales



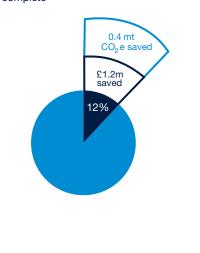
Our first energy efficiency projects at our Toulouse, Reading and Nanjing manufacturing facilities delivered 0.4 mtCO2e and £1.2m savings in 2009.

Roll out our current resource

rest of the group by 2012

optimisation pilot project to the

Percentage of manufacturing facilities complete



Increase net financial benefit from eco-products and GHG reduction activities to deliver a net financial benefit from climate change activities by 2012

Deliver 12% annual growth in eco-products portfolio share over the next 3 years and 15% growth in eco-products sales volumes over the same period

Complete energy efficiency projects at remaining 22 manufacturing facilities by 2012

No benchmark currently available Total global sales of eco-products

Typicos market share of eco-products

£1.2bn

4%

Average Typico manufacturing facility energy intensity

4.5 kWh/product tonne

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