

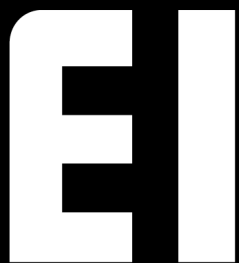


REPORT: ET EUROPE 300 2011 CARBON RANKINGS

Environmental Investment Organisation

Where the needs of the future meet the practicalities of the present





WHO WE ARE

ENVIRONMENTAL INVESTMENT ORGANISATION

An independent non-profit research organisation
promoting ecological investment systems

WHAT WE DO

ENVIRONMENTAL TRACKING

ET Carbon Rankings

creating public pressure through the “spotlight effect”

ET Index Series

creating share price incentive through supply & demand pressure

ET Engagement

engaging with companies to improve standards of disclosure & lower emissions

WHY WE DO IT

designed specifically to **reduce**
global corporate **Greenhouse Gas emissions**



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The Environmental Investment Organisation (EIO) is an independent non-profit body that seeks to improve the environmental 'output' of the financial system. In recent years this mandate has been focused almost entirely on the need to tackle the climate crisis.



ET Europe 300 Carbon Rankings 2011 Report

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Foreword

Dear Reader,

Welcome to the new ET Europe 300 Report, one in a series of Regional Carbon Ranking Reports being released this week and complimenting the release of the ET Global 800 on the 1.11.11.

I think we can all agree that our rapidly changing and interconnected world is full of complex ecological, economic, social and health problems amongst many others. 'Progress' is clearly a very uneven and unequal process, but such has been the fate of humanity since the beginning of documented history.

The EIO does not claim to have a solution to any of the aforementioned problems. Instead, its sole focus is to prevent a problem that we have hardly seen the beginning of, but which, if allowed to spiral out of control, is almost guaranteed to make every other problem worse.

No less an authority than the US Department of Defense has described the likely consequences of severe climate change as a "threat multiplier". In plain language, whatever problems we already have, and no-one could overstate them, a climate calamity could prove one complex problem too many.

Some may confidently predict our ability to adapt, but that theory has never been applied in practice to a planet made up of nearly 200 independent nation states and 7 billion people, and rising.

Perhaps the greatest risk we face in dealing with this situation is the delusion that our current global political system is guaranteed to solve this problem. It is not.

So, is it possible to turn this impending disaster on its head and galvanise the entire global business and financial system in a new direction? Many individuals are already 'doing their bit' on multiple fronts all around the world. Progressive corporations and organisations are already making great efforts to address not only carbon emissions but broader environmental and human priorities.

But against this giant problem of climate change, surely we need an extra push. Something so in tune with the existing system that it can get right inside, like the famous "Trojan Horse" of ancient history, and put a stop to the madness of human induced climate change before it is too late. For surely the issue here is the time line. If the conclusions of our scientists are to be shown any respect, then there is no more time to emit and massive action is required now.

But what kind of action? Skillful action, if we are to carry people with us. For example, we do not need to decimate beautiful countryside with giant wind turbines when there are hundreds of square miles of empty ocean just waiting to be exploited by offshore wind farms benefiting from economies of scale which can hardly be imagined.



We need to think big and act fast, but not in haste. Every action has trade-offs and we certainly do not want to solve one problem by creating new ones.

Problem solving is as much an Art as a Science and so is the case with the subject matter of this report. In an ideal world every company would be reporting accurate and comprehensive Scope 1, 2 and 3 carbon emissions data. With such information available the ET Carbon Ranking would be able to very effectively reward emission reduction and penalise polluters. However, despite the very serious risks we are taking with our climate system, this information does not exist.

The EIO does not pretend that its system is perfect, or that a perfect system is even possible. It is a pragmatic and practical system working with the latest available data. It is our best effort to order this information in a logical manner. If the ranking and the indexes they are designed for can create incentives for higher universal standards of reporting followed by radical emission reduction strategies, it will have served its purpose. Whatever controversies are encountered in the process will be more than justified by such a result.

On the 4th October 2011 the Greenhouse Gas Protocol's new Scope 3 Corporate Accounting Standard was released. The EIO has always stated that Scope 3 is an essential component of the GHG Reporting process and that once the standard was released our Rankings would be adjusted to incentivise full Scope 3 disclosure.

We have fulfilled this pledge and wasted no time in doing so. The intensity metric now used to compile the Ranking includes a weighting for Scope 3 based on the worst case benchmark company for its broad sector. Additionally, we have rewarded companies over and above their emission intensity according to the number of Scope 3 categories reported.

As stated in my foreword to our first Reports on the ET Europe 300 and ET UK 100 Carbon Rankings, the chasm between public policy, public understanding, corporate behaviour and scientific reality is extraordinary and profound. The need for a practical mechanism to work quickly, circumventing the aforementioned log jam, is immense.

It may be true that “not everything that can be counted, counts, or that everything that counts, can be counted” but we can at least put the numbers we do have to good use.

Michael Gill,

Strategic Director & Founder, The Environmental Investment Organisation

October 2011

CONTENTS 3

FOREWORD	TO REPORT
	2
EXECUTIVE	SUMMARY
	4
CARBON RANKING	METHODOLOGY
	7
SPOTLIGHT ON	SCOPE 3
	10
SPOTLIGHT ON	INFERENCE
	12
RANKING	ANALYSIS
	14
GEOGRAPHICAL	ANALYSIS
	17
EMISSIONS	LANDSCAPE
	22
SECTORAL	ANALYSIS
	28
VERIFICATION	ANALYSIS
	31
KEY	DISCUSSION POINTS
	32
REPORTING	LANDSCAPE
	33
EXEMPLARY REPORT	& GRI TEMPLATE
	35
REPORTING	EXAMPLES
	37
REPORTING	GUIDANCE
	40
ET INDEX	SERIES
	42
GLOSSARY	& BIBLIOGRAPHY
	43

EXECUTIVE 4

SUMMARY

The ET Carbon Rankings serve the twin purpose of encouraging transparency through making emissions data more publicly accessible, while also laying the foundations for the ET Index Series, a market mechanism designed to tackle emissions within a rapid time-frame.

With the introduction of the long awaited [New Scope 3 Standard](#) from the Greenhouse Gas (GHG) Protocol on the 4th October, the EIO has taken a proactive approach to incentivising companies to adopt this important new standard in GHG Reporting. The finalised standard has been the result of a three year global multi-stakeholders process that included more than 2,300 participants and road-tested by 60 companies in 17 countries.

It has long been the EIO's stated view that Scope 1 & 2 emissions do not in themselves provide an accurate picture of a company's carbon impact and therefore a bold approach needs to be taken in distinguishing between those companies reporting Scope 3 and those that are not.

This latest set of Carbon Rankings build on the methodology established previously for the ET UK 100 and ET Europe 300, launched in April 2011, where companies were placed into one of four Disclosure and Verification categories based on their Scope 1 & 2 emissions, and then ranked by carbon intensity (tonnes of CO₂ equivalent per million US dollars of turnover: tCO₂e/\$M turnover).

Where data is incomplete or not reported, companies are benchmarked against their sectoral competitors using the highest reported emissions intensity for that sector. Companies in each category are then ranked according to their emissions intensity across the three Scopes. Additionally, within their respective Disclosure Categories, companies are advantaged according to the number of Scope 3 categories disclosed, over and above their intensity.

Please see the methodology section for a fuller explanation.

THE RANKINGS ARE BASED ON THE FOLLOWING CORE PRINCIPLES:

- ▶ DATA USED IN THE RANKINGS MUST BE PUBLICLY AVAILABLE AND THEREFORE FULLY TRANSPARENT.
- ▶ IN ORDER TO ADDRESS THE ISSUE OF CLIMATE CHANGE, THE RANKINGS' PRIMARY OBJECTIVE MUST BE TO ENCOURAGE DISCLOSURE.
- ▶ DATA WHICH HAS BEEN VERIFIED BY AN INDEPENDENT THIRD PARTY WILL ALWAYS BE RANKED ABOVE DATA WHICH HAS NOT.
- ▶ COMPANIES HONEST ENOUGH TO DISCLOSE THEIR TOTAL EMISSIONS MUST NOT BE PENALISED FOR DOING SO RELATIVE TO THOSE WHO FAIL TO DISCLOSE.
- ▶ IN ORDER TO BE FULLY EFFECTIVE, THE RANKINGS MUST TAKE INTO ACCOUNT THE FULL SCOPE OF A COMPANY'S CARBON EMISSIONS, INCLUDING SCOPE 3.

EXECUTIVE 5

SUMMARY

Key Findings

- ▶ **42% of companies publicly disclose complete and independently verified Scope 1 and 2 emissions data**
- ▶ **68% of companies report complete Scope 1 and 2 emissions data**
- ▶ **13% of companies do not publicly disclose their emissions data**
- ▶ **41% of companies in Europe report Scope 3 categories, within a range of one to fifteen categories**
- ▶ **6 companies have reported five or more Scope 3 categories.**
- ▶ **BASF tops the ET Europe 300 Carbon Ranking, followed by Anglo American**
- ▶ **The biggest Scope 1 & 2 absolute emitter, for which information was available was ArcelorMittal followed by RWE, emissions of 199,000,000 and 170,200,000 (tCO₂e), respectively**

To the surprise of some, topping the 2011 ET Europe 300 Carbon Ranking is BASF, one of the world's leading chemical companies. This is explained by them being **the only company** in the ET Europe 300 **to disclose all fifteen Scope 3 Categories**, within the ET Carbon Rankings' first Disclosure Category: **Public, Complete and Verified**. It therefore earns them the top spot under the ET Carbon Ranking methodology, which rewards companies for their Scope 3 Disclosure.

BASF is followed by Anglo American, who disclose eight Scope 3 Categories and Alcatel-Lucent, disclosing seven Scope 3 Categories. In all, 81 companies within the **Public, Complete and Verified** Disclosure Category, comprising household names throughout Europe, report Scope 3 Categories. An additional 41 companies from the **Public, Complete and Unverified** disclosure category also report some Scope 3, ranging from one to six categories. Kone, for example, ranked 127 and disclosing six separate Scope 3 categories, would have ranked number 4 had its emissions been verified. In all, 122 companies in the ET Europe 300 reported between one and fifteen Scope 3 categories, representing over 40% of the total universe. This by far exceeds any other region. For example, for North America the corresponding figure is 23%. For Asia Pacific, it is 13%.

Among the top 10 are six UK based companies, two German, two Finnish and one French.

Among those companies that do not report on Scope 3 emissions but do have their data independently verified, the top performers are Swisscom, Credit Agricole and Deutsche Boerse, with respective emissions intensities of 34.24, 103.69 and 113.35 tCO₂e/\$M turnover, based on the ET Ranking Methodology across the three scopes.

There is no clear trend in terms of complete data disclosure by European countries. The Netherlands comes top (91%), followed by Denmark (83%), Sweden (80%) and Italy (78%). Economic powerhouses Germany and Switzerland rank 8th and 11th out of 12 spotlighted European countries, with only 66% and 60% of companies disclosing complete data.

EXECUTIVE 6

SUMMARY

These rankings highlight that carbon reporting in Europe remains highly inconsistent. Although 203 out of 300 companies report complete data according to GHG protocol and 126 companies take the extra step by having their data independently verified, 97 companies are not reporting any data at all. A Polish utility company suffers the fate of coming last under the ET Carbon Ranking Methodology. There is clearly significant room for improvement in the European emission reporting landscape.

The ET Carbon Rankings make up the first phase of the Environmental Tracking concept. The EIO would like to use the Rankings to create a series of tradeable ET Indexes, providing the investment community with a mainstream tool to encourage transparency and emission reductions on a global scale. It has already demonstrated the ability of these ET Indexes to track their conventional equivalents, through the launch of its two pilot indexes, the ET Europe 300 and the ET UK 100 earlier this year, based on its previously published rankings. These indexes can be described as a market mechanism designed to lower corporate emissions by influencing a company's share price.

Key Reporting Recommendations

- ▶ **Report Scope 1, 2 & 3 emissions following GHG Protocol guidelines**
- ▶ **Ensure emissions data is publicly available in CSR/Sustainability reports/Integrated Annual report and online**
- ▶ **Have emissions data verified by an independent third party**
- ▶ **Ensure verification statements are easily available to the public**

Know your Scopes!

- ▶ **Scope 1 emissions:** All direct emissions
- ▶ **Scope 2 emissions:** Indirect emissions generated from the purchase of electricity
- ▶ **Scope 3 emissions:** All other indirect emissions, such as distribution of goods, transportation of purchased goods, transportation of waste, disposal of waste, employee commuting, business travel or investments.

CARBON RANKING 7

METHODOLOGY

The ET Carbon Rankings have been designed specifically to encourage disclosure and verification, paving the way for absolute emissions reductions.

In essence, the ET Carbon Ranking methodology follows a three step process based on four information categories, as detailed below.

Step 1: Categorisation

Companies are placed into one of **four data categories**:

-  **1) Public, Complete, Verified**
-  **2) Public, Complete, Unverified**
-  **3) Public, Incomplete**
-  **4) No Public Data**

Step 2: Inference

Wherever data is not complete, which means Scope 1 and 2 have not been reported for the company's entire operations or they have not been expressed in a sufficiently clear manner or there is simply no public data available, a worst case figure is inferred; based on the highest reported emissions intensity by any company within the same sector across the full universe of companies within the ET Carbon Rankings. This is designed specifically to encourage disclosure and to avoid penalising companies honest enough to report their emissions figures.

The same principle is applied but in a slightly different manner to Scope 3 emissions. Because of the controversial nature of Scope 3 emissions - by definition they are not under the ownership or direct control of a company, nor do they always lend themselves to easy calculation or identification, it does not appear logical to the EIO for these emissions to be given equal weight to Scope 1 and 2 emissions, which clearly are the responsibility of the company.

THE CARBON RANKINGS HAVE BEEN
DESIGNED SPECIFICALLY TO ENCOURAGE
DISCLOSURE AND VERIFICATION

COMPANIES WITH EXTERNALLY VERIFIED
DATA WILL ALWAYS FIND THEMSELVES
RANKED ABOVE THOSE WITH
UNVERIFIED DATA

COMPANIES THAT DO NOT HAVE ANY
PUBLICLY AVAILABLE DATA ARE
BENCHMARKED AGAINST THE HIGHEST
INTENSITY FROM THE WORST PERFORMING
COMPANY WITHIN THEIR SECTOR

CARBON RANKING 8

METHODOLOGY

Scope 3 Categories:

Upstream

1. Purchased goods and services
2. Capital goods
3. Fuel- and energy-related activities (not included in scope 1 or scope 2)
4. Upstream transportation and distribution
5. Waste generated in operations
6. Business travel
7. Employee commuting
8. Upstream leased asset

Downstream

9. Downstream transportation and distribution
10. Processing of sold products
11. Use of sold products
12. End-of-life treatment of sold products
13. Downstream leased assets
14. Franchises
15. Investment

The EIO's current approach is to give a **50% weighting** to any **fully reported and verified Scope 3 emission total reported according to the 15 categories of the new Scope 3 standard**. This is then added to the Scope 1 and 2 total that has already been reported. Whenever a company does not report a complete and verified Scope 3 total, exactly the same inference method described for Scope 1 and 2 is employed for Scope 3 emissions.

The company in the relevant sector **across the full universe of ET Rankings** with the highest reported Scope 3 figure is identified and used to infer a figure for the remaining companies, thus avoiding penalising a company for being honest enough to report a high figure. The only route by which a company can avoid having an inferred figure allocated to them is to report its own complete and verified figure, and if that happens to be lower than the existing benchmark, then it gains the advantage of a higher ranking position by virtue of its lower emission total. If it is higher, then all the remaining non disclosing companies are benchmarked against it.

In summary, combined emissions intensity across the three Scopes is calculated according to the following formula: 100% of Scope 1 & 2 emissions intensity (disclosed or inferred) + 50% of Scope 3 emissions intensity (disclosed or inferred).

Step 3: Ranking

Once companies have been categorised according to the completeness and verification of their Scope 1 & 2 data, they are firstly ranked according to the number of Scope 3 categories disclosed.

Secondly, companies are ranked within the Disclosure Categories, according to their combined emissions intensity across the three Scopes. Please refer to the inference method as described in the previous section for detail on how companies not providing complete data are treated.

IT IS KEY THAT SCOPE 3 EMISSIONS ARE IDENTIFIED, REPORTED AND ULTIMATELY REDUCED

CARBON RANKING 9

METHODOLOGY

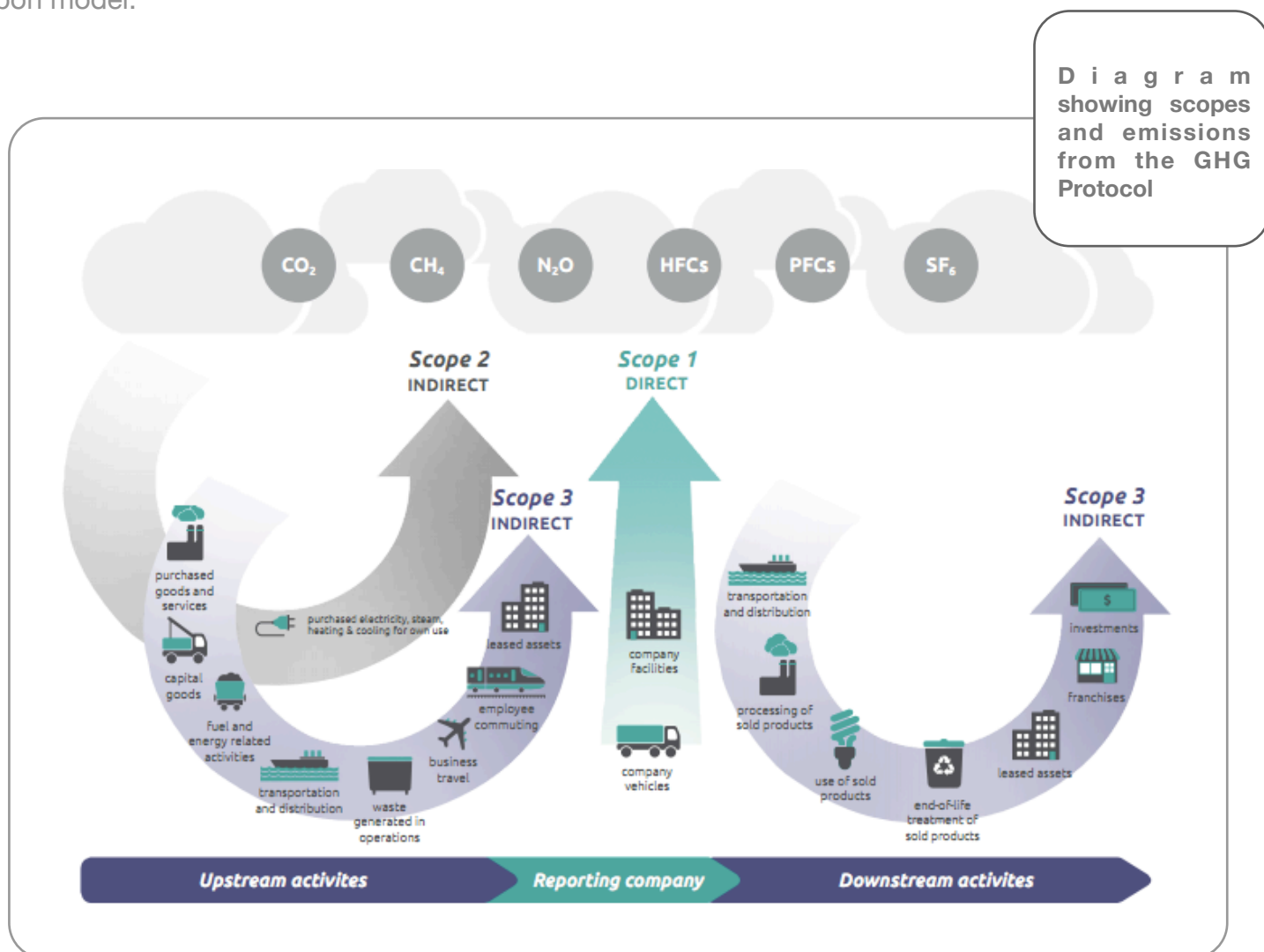
Accounting for size

Emissions intensity is calculated using turnover figures from the same financial year as their latest publicly available (at time of publication) reported emissions.

Whilst there is no universally accepted system of establishing relative company size, turnover is generally accepted within the field of carbon accounting as a reasonable metric to determine company size.

Where one or more companies have the same emissions intensity within the Rankings, smaller market capitalisation is given an advantage. The justification for this is simple: larger companies have greater resources to both improve their reporting and realign their business towards a low carbon model.

FOR A COMPLETE EXPLANATION OF THE METHODOLOGY BEHIND THE ET CARBON RANKINGS PLEASE VISIT EIO.ORG.UK

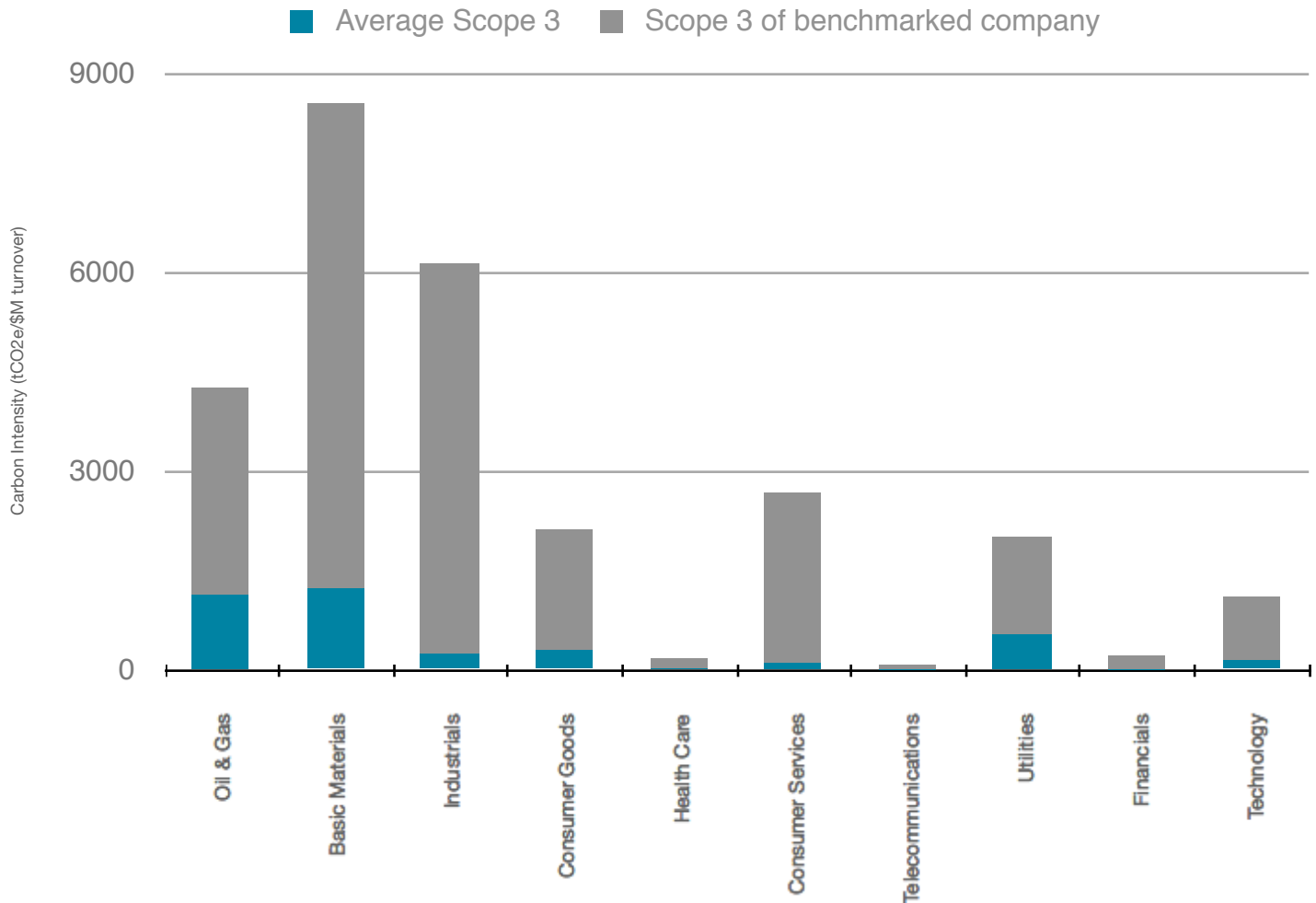


SPOTLIGHT ON 10

SCOPE 3

Global Scope 3 Analysis

Figure 1.



Global Scope 3 Benchmark companies

Figure 2.

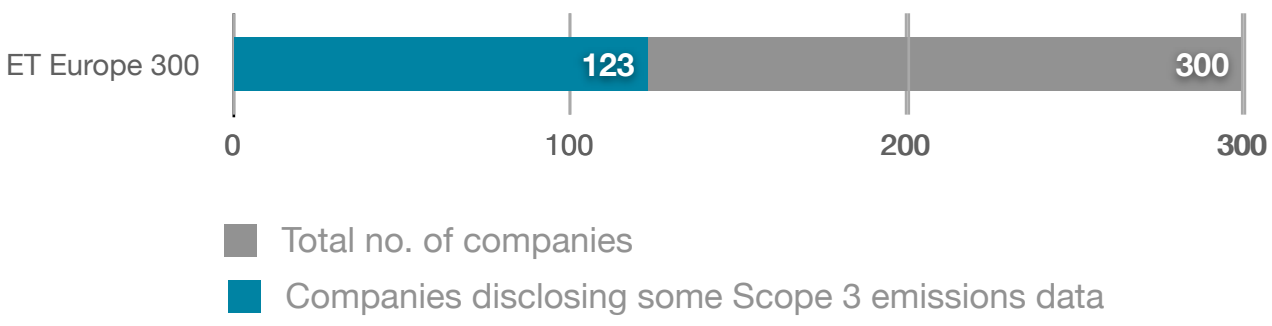
Sector	Benchmark Company Name	No. of Scope 3 Categories Disclosed	Scope 3 Intensity	Sector Scope 3 Intensity Average
Oil & Gas	OMV	1	4,246.31	1,133.87
Basic Materials	Rio Tinto	3	8,547.13	1,222.48
Industrials	Delta Electronics	1	6,130.53	238.84
Consumer Goods	Reckitt Benckiser Group	4	2,115.76	289.92
Health Care	Baxter Int.	6	166.90	19.50
Consumer Services	IC Hotels Group	4	2,665.29	101.85
Telecommunications	Sprint Nextel	2	64.51	6.02
Utilities	RWE	3	1,998.50	536.19
Financials	British Land	4	206.53	7.76
Technology	Motorola Mobility	4	1,103.38	141.30

SPOTLIGHT ON 11

SCOPE 3

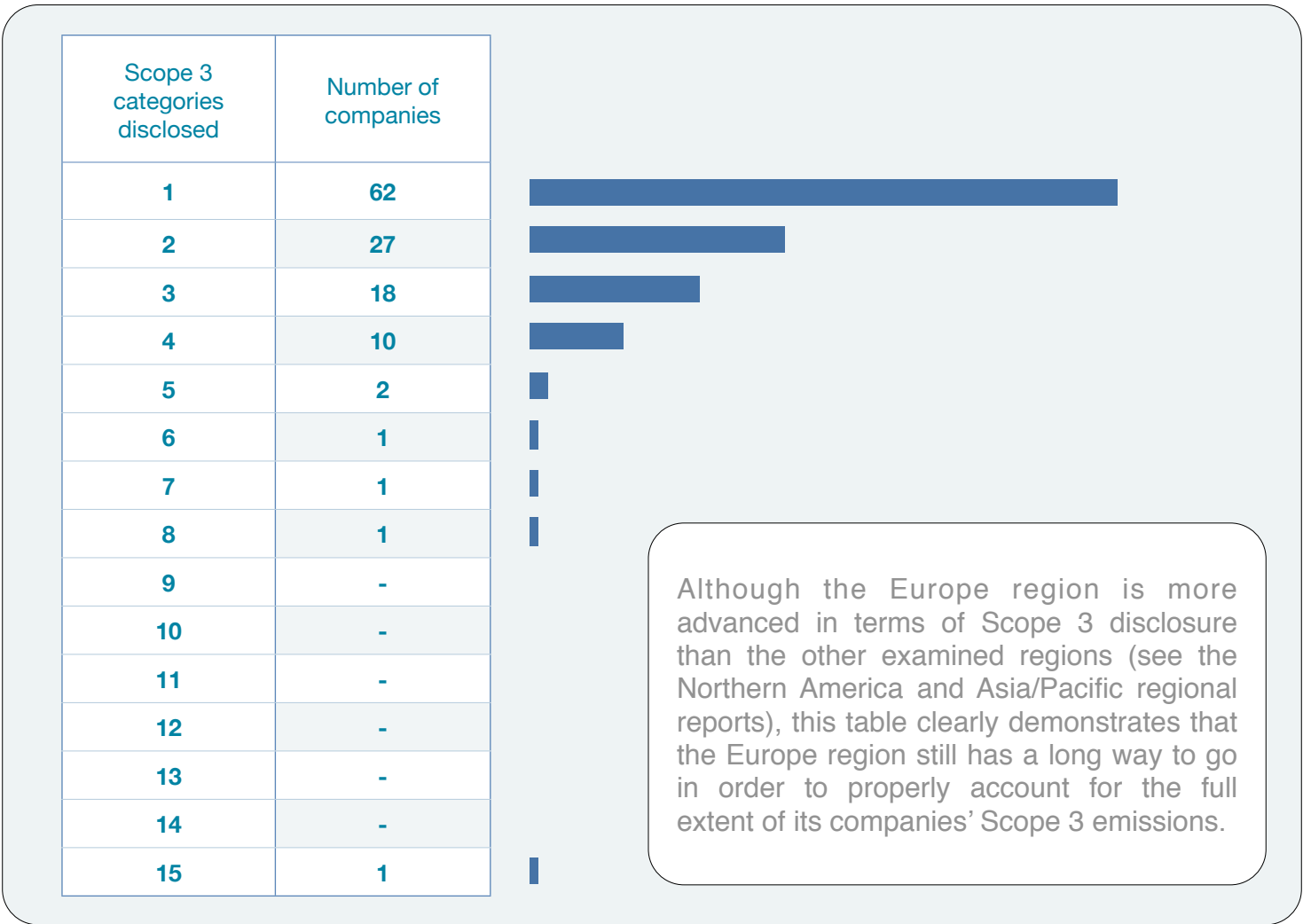
Europe 300 Scope 3 Analysis

Figure 3.



Europe 300 Extent of Scope 3 Disclosure

Figure 4.



SPOTLIGHT ON 12

INFERENCE: SCOPE 3

Figure 6.

As these three companies from the **Basic Materials** sector fail to disclose all 15 Scope 3 categories as defined by the GHG Protocol Corporate Value Chain (Scope 3) Standard, their disclosed Scope 3 figures are considered to be incomplete, and therefore they are **given an inferred Scope 3 figure**.

Disclosure & Verification status	Carbon Rank	Company Name	No. of S3 Categories Disclosed	Total Scope 3 Emissions	Disclosed Scope 3 Intensity	Inferred Scope 3 Intensity
Incomplete	257	Solvay	-	No Public Data	-	8,547.13
No Public Data	297	KGHM	-	No Public Data	-	8,547.13
No Public Data	298	JSW	-	No Public Data	-	8,547.13

Rio Tinto is one of the Scope 3 benchmark companies for the **ET Global Universe**, which means it is the company with the highest disclosed Scope 3 intensity within the **Basic Materials** sector.

Sector	Benchmark Company Name	Scope 3 Intensity
Oil & Gas	OMV	4,246.31
Basic Materials	Rio Tinto	8,547.13
Industrials	Delta Electronics	6,130.53
Consumer Goods	Reckitt Benckiser Group	2,115.76
Health Care	Baxter Int.	166.90
Consumer Services	IC Hotels Group	2,665.29
Telecommunications	Sprint Nextel	64.51
Utilities	RWE	1,998.50
Financials	British Land	206.53
Technology	Motorola Mobility	1,103.38

INFERENCE: SCOPE 1 & 2

Figure 6.

American Electric Power is the company with the highest emissions intensity disclosing complete data within the Electricity Industry across the entire **ET Global Universe**.

Disclosure & Verification status	Carbon Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Emissions Intensity (tCO ₂ e/\$M turnover)	No. of S3 Categories Disclosed
Complete & Unverified	126	Potash Corporation	10,315,000.00	1,518.86	-
Complete & Unverified	127	Xcel Energy	80,500,000.00	7,815.68	-
Complete & Unverified	128	American Electric Power	134,000,000.00	9,288.14	-

Disclosure & Verification status	Carbon Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Emissions Intensity (tCO ₂ e/\$M turnover)	No. of S3 Categories Disclosed
Complete & Unverified	261	CEZ	No Public Data	9,288.14	-
No Public Data	300	PKS Grupa Energetyczna	No Public Data	9,288.14	-

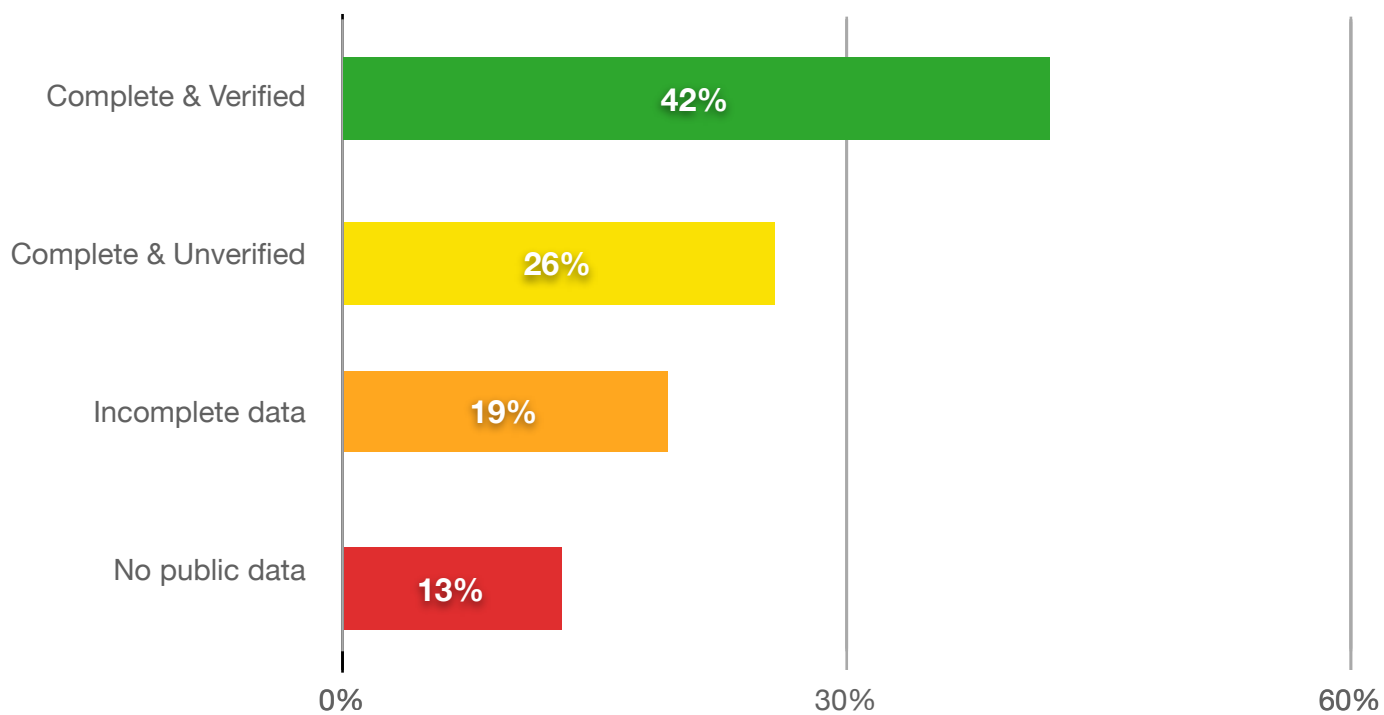
Here, CEZ and PKS Grupa Energetyczna have been benchmarked against the highest disclosing company with complete data from the Electricity industry. This means they have been given an *inferred* intensity of 9,288.14 tCO₂e/\$M turnover. This is not an approximation of their emissions but a means of making sure that the highest *disclosing* company in the sector is not penalised for being honest enough to report a large figure.

RANKING 14

ANALYSIS

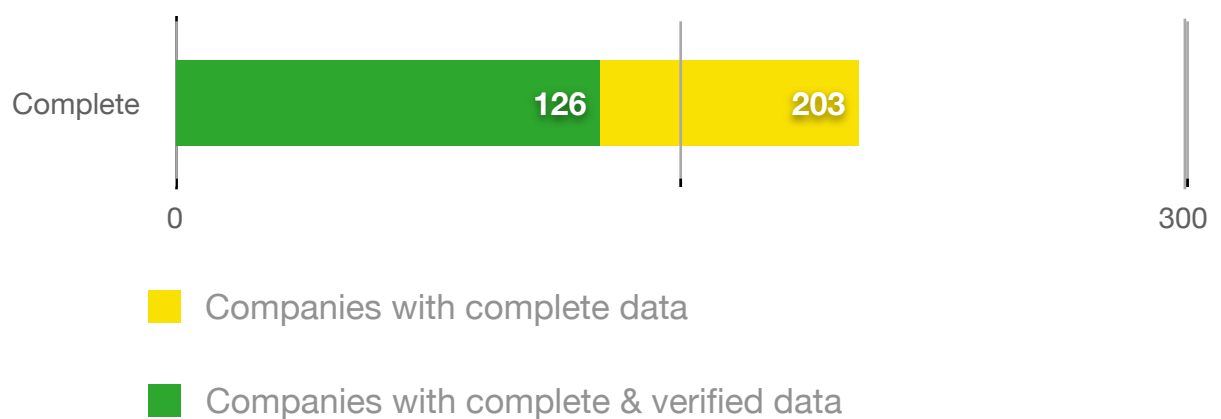
The disclosure and verification landscape of the ET Europe 300

Figure 7.



Complete data versus verified data

Figure 8.



RANKING 15

ANALYSIS

ET Europe 300 Top 5

Figure 9.

ET Rank	Company Name	S1+2 emissions (tCO ₂ e)	S1+2 Intensity	S3 Categories disclosed	S1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	BASF	25,000,000	292.38	15	1,077.70	Complete & Verified
2	Anglo American	2,000,000	70.54	8	4,344.11	Complete & Verified
3	Alcatel-Lucent	719,955	33.62	7	585.31	Complete & Verified
4	Commerzbank	207,238	5.59	5	108.86	Complete & Verified
5	Xstrata	24,693,875	800.68	5	5,074.25	Complete & Verified

Topping the 2011 ET Europe 300 Carbon Ranking are German based chemical leader BASF, which is worldwide the only company reporting on the total 15 Scope 3 categories. Second place is occupied by UK mining corporation Anglo American, with respective combined carbon intensities of 1,077.7 and 4,344.11. French based technology company Alcatel-Lucent ranks third with an intensity of 585.31. They report seven Scope 3 categories.

Alcatel-Lucent is followed by Commerzbank who disclose 5 Scope 3 categories, but is advantaged over mining company Xstrata who have a higher combined intensity.

Despite Xstrata's high intensity, they deservedly rank 5th under the ET Carbon Ranking methodology which rewards companies for high levels of Scope 3 disclosure.

(Emissions Intensity is measured in tCO₂e/\$M turnover)

ET Europe 300 Bottom 5

Figure 10.

ET Rank	Company Name	S1+2 emissions (tCO ₂ e)	S1+2 Intensity	S3 Categories disclosed	S1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
296	Aggreko	no public data	2,007.01	-	5,072.28	No public data
297	KGHM	no public data	2,514.91	-	6,788.48	No public data
298	JSW	no public data	2,993.71	-	7,267.28	No public data
299	Bouygues	no public data	4,735.84	-	7,801.11	No public data
300	Pkagrupa Energetycna	no public data	9,288.14	-	10,287.39	No public data

Last amongst Europe's largest 300 companies is Polish Utilities company Pkagrupa Energetycna. In second to last place ranks French based Bouygues, the diversified industrial conglomerate. 3rd from bottom is JSW, one of Europe's largest coking coal producers. Another mining company, KGHM, also finishes in the bottom 5; followed by Aggreko, the British based industrial group.

Each of these companies is amongst the 13% of European companies that fail to put data in the public domain. As a result all of these companies have been benchmarked against the highest disclosing company from within their sectors across the three Scopes.

(Emissions Intensity is measured in tCO₂e/\$M turnover)

ANALYSIS

Highest and Lowest Absolute Emitters:

Scope 1 & 2

Taken from the 203 Companies reporting complete data

Lowest Absolute Emitters (Scope 1 & 2 Only)

Figure 11.

Absolute Rank	ET Rank	Company Name	Scope 1+2 emissions (tCO ₂ e)	Scope 1+2 Intensity	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	26	Banco Popular Espanol	2,168	0.30	103.56	Complete & Verified
2	187	Edenred	3,089	2.39	3,067.66	Complete & Unverified
3	54	MAN Group	6,379	4.99	108.26	Complete & Verified
4	172	Admiral Group	6,953	6.96	110.22	Complete & Unverified
5	13	DNB Nor	11,892	0.74	104.00	Complete & Verified

Figure 11 lists the five lowest absolute emitters from those disclosing complete Scope 1 & 2 information. Verification status is included on the right but does not affect their position in the absolute ranking. Despite their low absolute emissions, they don't appear in the top 10 of the

ET Europe Carbon Ranking because all fail to report more than 3 categories of Scope 3 emissions; furthermore both Edenred and Admiral Group fail to have their emissions data externally verified.

Highest Absolute Emitters (Scope 1 & 2 Only)

Figure 12.

Absolute Rank	ET Rank	Company Name	Scope 1+2 emissions (tCO ₂ e)	Scope 1+2 Intensity	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
199	101	GDF Suez	109,324,454	966.70	1,965.95	Complete & Verified
200	35	ENEL	116,645,000	1,211.15	2,210.40	Complete & Verified
201	184	E ON	116,700,000	938.75	1,938.00	Complete & Unverified
202	20	RWE	170,200,000	2,506.59	3,505.84	Complete & Verified
203	124	ArcelorMittal	199,000,000	2,514.91	6,788.47	Complete & Verified

Figure 12 lists the five largest absolute emitters from those disclosing complete Scope 1 & 2 information, ignoring verification status.

All companies except ArcelorMittal, one of the world's largest steel companies, are from the carbon-intensive energy sector. Of note: despite all of the bottom five having large Scope 1 & 2 totals, all report Complete or Complete & Verified

emissions data and thereby gain an advantage in the Ranking.

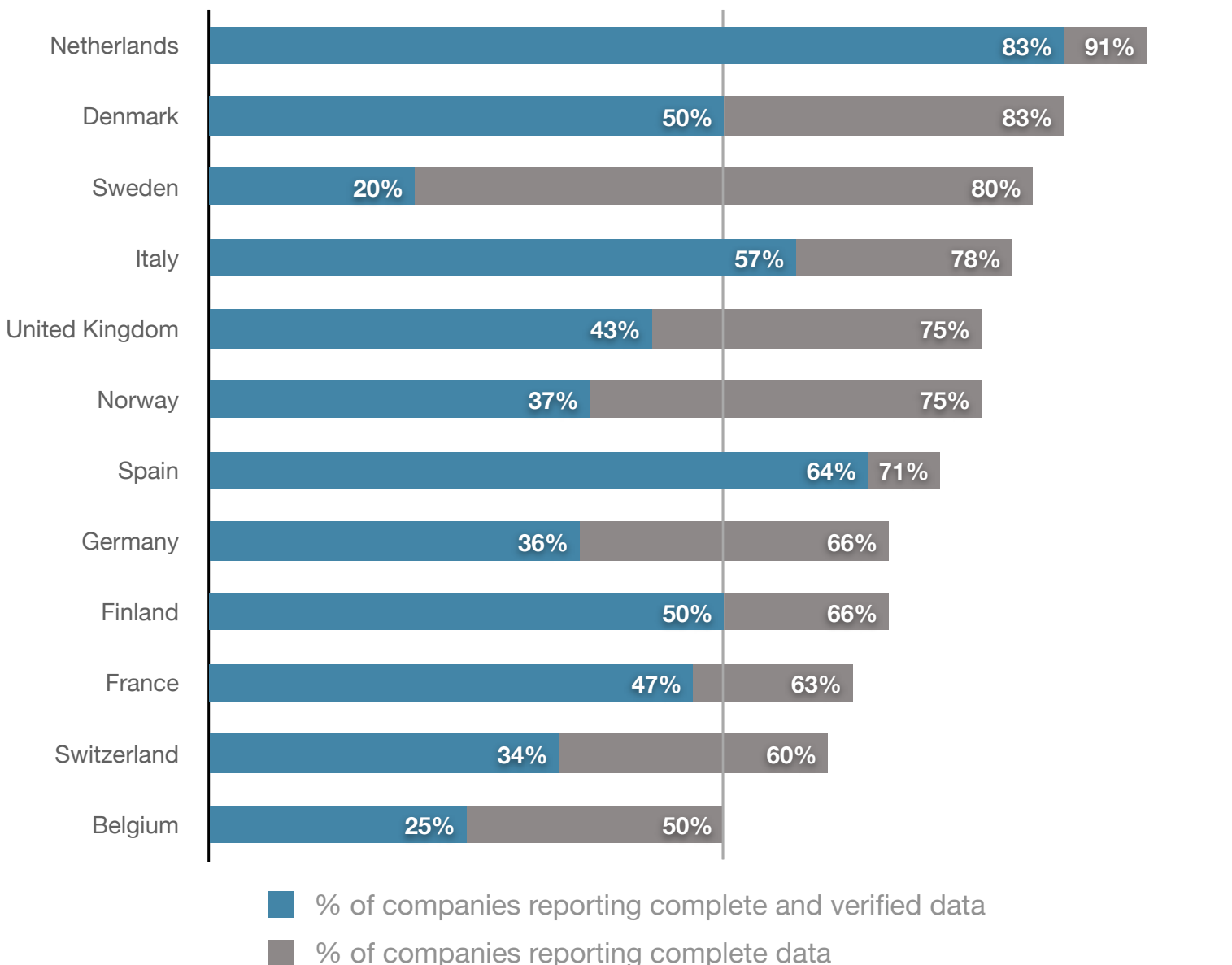
The relative position of ENEL and RWE in the ET Carbon Ranking is a result of their disclosing two and three Scope 3 categories, respectively.

GEOGRAPHICAL ANALYSIS 17

Summary

Countries leading the field of disclosure

Figure 13.



Europe is the region with the highest percentage of companies reporting complete data, yet shows important differences between countries. This is also true for very closely interrelated countries like the Scandinavian or Benelux states. It is an important milestone that now between 50% (Belgium) and up to 91% (Netherlands) of companies in the major European economies report complete Scope 1 & 2 emission data. Yet it

is also clear that there is still a long way to go. The Netherlands emerge as a clear European leader both in terms of companies reporting complete data and companies with verified data. While Dutch companies are approaching near complete disclosure for Scope 1 & 2, all other countries and particularly economic powerhouses like Germany and Switzerland still show significant room for improvement.

GEOGRAPHICAL 18 ANALYSIS

Spotlight on: United Kingdom

Please note that only countries with 10 or more companies in the ET Europe 300 Ranking have been included in this analysis

Top 5

Figure 14.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO2e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(2)	Anglo American	2,000,000	70.54	8	4,344.11	Complete & Verified
2	(5)	Xstrata	24,693,875	800.68	5	5,074.25	Complete & Verified
3	(6)	British Land	34,317	55.56	4	158.83	Complete & Verified
4	(8)	Reckitt Benckiser	250,000	19.96	4	1,077.84	Complete & Verified
5	(9)	Centrica	10,714,959	306.31	4	1,305.56	Complete & Verified

Bottom 5

Figure 15.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO2e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
77	(289)	ENSCO	No Public Data	1,533.52	-	3,656.68	No Public Data
78	(291)	Intl Cons Airl Group	No Public Data	2,786.43	-	4,119.08	No Public Data
79	(294)	Genting Singapore	No Public Data	2,786.43	-	4,119.08	No Public Data
80	(295)	Intertek Group	No Public Data	2,007.01	-	5,072.28	No Public Data
81	(296)	Aggreko	No Public Data	2,007.01	-	5,072.28	No Public Data

Spotlight on: France

Top 5

Figure 16.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO2e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(11)	Alcatel-Lucent	719,955	33.62	7	585.31	Complete & Verified
2	(12)	Vallourec	1,375,568	229.84	4	3,295.10	Complete & Verified
3	(14)	LVMH	304,382	11.19	2	1,069.07	Complete & Verified
4	(23)	PPR	197,792	10.12	2	1,342.76	Complete & Verified
5	(24)	Lafarge	95,000,000	4,388.95	2	7,454.21	Complete & Verified

Bottom 5

Figure 17.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO2e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
44	(282)	Hermes INTL	No Public Data	269.30	-	1,327.18	No Public Data
45	(284)	Eutelsat Communications	No Public Data	38.51	-	1,371.16	No Public Data
46	(286)	Safran	No Public Data	64.31	-	3,129.58	No Public Data
47	(293)	Sodexo	No Public Data	2,786.43	-	4,119.08	No Public Data
48	(299)	Bouygues	No Public Data	4,735.84	-	7,801.11	No Public Data

GEOGRAPHICAL 19

ANALYSIS

Spotlight on: Germany

Top 5

Figure 18.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(1)	BASF	25,000,000	292.38	15	1,077.70	Complete & Verified
2	(4)	Commerzbank	207,238	5.59	5	108.86	Complete & Verified
3	(16)	SAP	202,700	12.15	3	563.84	Complete & Verified
4	(20)	RWE	170,200,000	2,506.59	3	3,505.84	Complete & Verified
5	(38)	Deutsche Post	5,000,000	72.55	2	3,137.82	Complete & Verified

Bottom 5

Figure 19.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
32	(262)	Fresenius	No Public Data	66.25	-	149.70	No Public Data
33	(263)	Fresenius Medcare	No Public Data	66.25	-	149.70	No Public Data
34	(279)	Infineon Technologies	No Public Data	415.28	-	966.97	No Public Data
35	(283)	Kabel Deutschland	No Public Data	38.51	-	1,371.16	No Public Data
36	(287)	GEA Group	No Public Data	229.84	-	3,295.11	No Public Data

Spotlight on: Switzerland

Top 5

Figure 20.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(14)	UBS	218,820	4.41	3	107.68	Complete & Verified
2	(39)	Syngenta	985,000	76.34	2	4,349.91	Complete & Verified
3	(44)	Roche Holding	899,533	17.70	1	101.15	Complete & Verified
4	(61)	Richemont	61,000	8.27	1	1,066.15	Complete & Verified
5	(75)	ABB	1,469,000	41.96	1	3,107.22	Complete & Verified

Bottom 5

Figure 21.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
19	(249)	Adecco	Incomplete Data	2,007.01	-	5,072.28	Incomplete Data
20	(264)	Synthes	No Public Data	66.25	-	149.70	No Public Data
21	(265)	Actelion	No Public Data	237.23	-	320.68	No Public Data
22	(267)	Swiss Prime Site	No Public Data	366.30	-	469.57	No Public Data
23	(281)	The Swatch Group	No Public Data	269.30	-	1,327.18	No Public Data

GEOGRAPHICAL 20 ANALYSIS

Spotlight on: Sweden

Top 5

Figure 22.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(15)	Ericsson	200,000	6.60	3	558.29	Complete & Verified
2	(37)	SKF	508,300	55.93	2	3,121.19	Complete & Verified
3	(95)	SCA	4,377,000	269.30	0	1,327.18	Complete & Verified
4	(114)	Sandvik	559,000	45.41	0	3,110.68	Complete & Verified
5	(132)	Teliasonera	218,968	13.80	3	46.05	Complete & Unverified

Bottom 5

Figure 23.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
16	(196)	Assa Abloy	212,000	38.66	-	3,103.93	Complete & Unverified
17	(206)	Getinge	Incomplete Data	66.25	-	149.70	Incomplete Data
18	(216)	Swedbank	Incomplete Data	366.30	-	469.57	Incomplete Data
19	(219)	Svenska Handbkna	Incomplete Data	366.30	-	469.57	Incomplete Data
20	(269)	Investor	No Public Data	366.30	-	469.57	No Public Data

Spotlight on: Italy

Top 5

Figure 24.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(19)	Fiat	1,097,949	22.86	3	3,088.12	Complete & Verified
2	(27)	Unicredit	469,550	8.34	2	111.61	Complete & Verified
3	(29)	Terna	152,297	74.21	2	1,073.46	Complete & Verified
4	(35)	ENEL	116,645,000	1,211.15	2	2,210.40	Complete & Verified
5	(36)	ENI	62,570,000	472.77	2	2,595.92	Complete & Verified

Bottom 5

Figure 25.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
10	(194)	Atlantia	194,199	32.09	-	3,097.35	Complete & Unverified
11	(198)	Fiat Industrial	1,565,696	54.80	-	3,120.07	Complete & Unverified
12	(243)	Saipem	Incomplete Data	1,533.52	-	3,656.68	Incomplete Data
13	(268)	Mediobanca	Incomplete Data	366.30	-	469.57	No Public Data
14	(280)	Luxottica	No Public Data	269.30	-	1,327.18	No Public Data

GEOGRAPHICAL 21

ANALYSIS

Spotlight on: Spain

Top 5

Figure 26.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO2e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(26)	Banco Popular Español	2,168	0.30	2	103.56	Complete & Verified
2	(34)	Iberdrola	39,369,161	966.41	2	1,965.66	Complete & Verified
3	(41)	Telefonica	1,681,467	20.68	1	52.94	Complete & Verified
4	(64)	Inditex	332,472	21.78	1	1,354.42	Complete & Verified
5	(68)	Gas Natural SDG	20,455,274	778.40	1	1,777.65	Complete & Verified

Bottom 5

Figure 27.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO2e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
10	(151)	Banco de Sabadell	17,746	3.80	1	107.07	Complete & Unverified
11	(223)	Bbvargentaria	Incomplete Data	366.30	-	469.57	Incomplete Data
12	(224)	Banco Santander	Incomplete Data	366.30	-	469.57	Incomplete Data
13	(250)	Amadeus IT Holding	Incomplete Data	2,007.01	-	5,072.28	Incomplete Data
14	(260)	Red Electrica Corpn	Incomplete Data	9,288.14	-	10,287.39	Incomplete Data

Spotlight on: Netherlands

Top 5

Figure 28.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO2e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	(23)	KPN Kon	263,700	14.78	2	47.04	Complete & Verified
2	(30)	Philips Eltnkoninklijke	897,000	26.36	2	1,084.24	Complete & Verified
3	(47)	Aegon	86,425	2.00	1	105.26	Complete & Verified
4	(70)	Royal Dutch Shell	85,000,000	228.38	1	2,351.54	Complete & Verified
5	(79)	Akzo Nobel	5,200,000	265.33	1	4,538.89	Complete & Verified

Bottom 5

Figure 29.

Country Rank	ET Rank	Company Name	Absolute Emissions tCO2e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
8	(96)	Ahold Kon	2,690,000	68.05	-	1,400.69	Complete & Verified
9	(122)	DSM Koninklijke	5,200,000	475.10	-	4,748.66	Complete & Verified
10	(124)	ArcelorMittal	199,000,000	2,514.91	-	6,788.47	Complete & Verified
11	(150)	ING Groep	178,200	2.49	1	105.75	Complete & Unverified
12	(230)	Wolters Kluwer	Incomplete Data	38.51	-	1,371.16	Incomplete Data

EMISSIONS 22

LANDSCAPE

Europe Background

Over the course of the last two decades, sustainability in Europe has evolved from a concept to an integrated business practice. The ET Europe 300 Carbon Rankings puts the spotlight on the major European economies. While Europe is the world's largest integrated economic zone, its economies feature very different characteristics, strengths and weaknesses. Interestingly economic performance and the level of GHG data disclosure do not necessarily correlate, Italy and Spain significantly out-report Germany and France, for example. However, despite important internal differences, Europe as a region is substantially more advanced in terms of disclosure of carbon emissions than the other regions analysed. Belgium at the bottom of all showcased European countries (see figure 13) is comparable to Canada as the top North American country in terms of accompanying reporting complete GHG information and even significantly better when it comes to complete and verified emission data. This stems partially from higher environmental consciousness and clearer political signals to tackle CO2 emissions.

WHILST EUROPE LEADS THE WORLD IN
TERMS OF OVERALL DISCLOSURE AND
VERIFICATION LEVELS THERE IS STILL
LARGE DISCREPANCIES BETWEEN
COUNTRIES WITHIN THE REGION

EMISSIONS 23

LANDSCAPE

CURRENTLY, THE EU IS COMMITTED TO REDUCING GHG EMISSIONS BY 20% BY 2020 COMPARED TO 1990 LEVELS

THE EFFOR SHARING DECISION IS INTENDED TO BRING ABOUT EMISSIONS REDUCTIONS IN SECTORS NOT COVERED BY THE EU-ETS

EU Initiatives

In 2009, the EU launched the Climate and Energy Package. This aims to reduce GHG emissions by 20% compared to 1990 levels, to deliver 20% energy consumption from renewable sources, and to reduce primary energy use by 20% compared with projected levels. To achieve this, the EU is reforming its Emissions Trading System (ETS), producing new, binding targets for renewable energy in Member States, providing a legal framework to promote the development of carbon capture and storage (CCS), and bringing in the new Effort Sharing Decision. This supplements existing legislation under the EU ETS, Renewables Directive, and various efficiency and quality standards across a range of industries. The implementation of these is left to individual EU Member States (European Commission 2010).

The Effort Sharing Decision

The EU Effort Sharing Decision aims to bring 10% reduction in GHG emissions from non-ETS sectors across the EU. Each Member State is set a target under this scheme according to its relative wealth. Announced in 2009, it sets binding annual targets for EU Member States to limit their GHG emissions in sectors not covered by the EU ETS, and excluding the land use, land change, and forestry (LULCF) and international shipping sectors. Under this scheme, Member States must draw up plans to reduce their emissions accordingly, and be adaptable to higher targets in the event of a binding international agreement on emissions reductions (European Commission 2010). As a result, it is anticipated that emissions will become more strictly regulated across the EU, providing incentives for better disclosure and emissions reductions across the board.

EMISSIONS 24

LANDSCAPE

European Union Emissions Trading Scheme (EU ETS)

The story so far...

The EU's most prominent initiative to reduce Greenhouse Gas emissions is the European Union Emissions Trading Scheme (EU ETS).

This EU-wide cap and trade scheme covers the most carbon intensive industries in the 27 EU Member States, as well as Iceland, Liechtenstein, and Norway. It covers carbon dioxide (CO₂) emissions, plus nitrous oxide (N₂O) emissions from certain processes. The c.11,000 installations covered by the scheme account for 40% the EU's Greenhouse Gas emissions. The number of allowances is gradually being reduced, with the aim that emissions covered by the scheme in 2020 will be 21% lower than in 2005. Together with a 10% 2020 emissions reduction target over 2005 levels in sectors not covered by the EU ETS this is aimed at reducing overall EU emissions by 14% compared to 2005, or 20% compared to 1990 levels, in line with Kyoto Protocol targets. The EU as a whole is on track to meet its targets, with a GHG emissions reduction of 8% on 1990 levels by 2008-2012, and Austria and Italy are the only two Member States likely to face difficulties meeting their individual targets (European Commission 2008).

Phase I of the EU ETS, from 2005 to 2007, is estimated to have reduced emissions by 120-300MtCO₂ over the three years, meaning up to 5% emissions reduction (European Commission 2008). This is despite the over-allocation of permits and a lenient cap leading the carbon price to reach a low of just €0.03/tCO₂ in December 2007. Phase II of the scheme, which started in 2008 and lasts until the end of 2012, is currently in progress. It has been criticised for not adjusting its targets to account for the economic downturn.

THE INSTALLATIONS COVERED BY THE EU-ETS ACCOUNT FOR 40% OF EU GREENHOUSE GAS EMISSIONS

RESEARCH FROM WATCHDOG GROUPS SUCH AS SANDBAG SUGGESTS THAT THE EU-ETS HAS SO FAR FAILED TO DO ITS JOB IN ACHIEVING THE NECESSARY EMISSIONS REDUCTIONS

EMISSIONS 25

LANDSCAPE

Carbon trading pressure group Sandbag claims that these problems mean that companies in the scheme can meet their targets simply by following a Business as Usual (BAU) trajectory until 2016, deterring action and hindering green investment. In analysing data released by the EU Community Independent Transaction Log (CITL), Sandbag points out that “emissions covered by the EU Emissions Trading Scheme have grown to 1.76 billion tonnes in 2010, up 3.6% on last year [2010]. This leaves 2010 emissions 126 below the cap designed to limit them, making the 5th year of of the six years the scheme has been set running in which the cap has been set to high.” (Sandbag 2011).

Accordingly some Member State governments, such as that of the UK, support a stricter cap, raising the 20% target to 30% (Denny Ellerman, Frank J. Convery, Christian de Perthuis, et al. 2010).

On the horizon...

Airlines will join the scheme in 2012. Phase III of the EU ETS is set for 2013-2020, inclusive. This entails several changes to the way the system operates (DECC 2010). The most salient of these are:

- ▶ Expansion to cover the petrochemical, ammonia, and aluminum industries;
- ▶ Increased Greenhouse Gas coverage, adding N₂O from certain industrial sources and perfluorocarbons from aluminum production;
- ▶ Longer trading period and possibility of carrying over allowances between trading phases to improve market efficiency;
- ▶ Annually declining emissions caps;
- ▶ Increased proportion of allowances auctioned: over half, compared to under 4% at present under Phase II. This should reduce the problems of over-allocation encountered in the current and previous systems. This is intended to reach 70% by 2020 and 100% by 2027;

AFTER MUCH DEBATE SURROUNDING THE CURRENT EXCLUSION OF AIRLINES FROM THE SCHEME, THEY WILL BE INCLUDED IN THE EU-ETS FROM 2012

EMISSIONS 26

LANDSCAPE

- ▶ Emissions caps and rules governing allocation of allowances not auctioned will be set at the EU level rather than by national governments to reduce complexity and remove incentives for each national government to favour its domestic industries; and,
- ▶ Some allowances will be set aside to finance carbon capture and storage demonstration projects and innovative renewable energy technologies.

Looking further ahead...

There are longer term provisions proposed to link the EU ETS tightly with emerging emissions trading frameworks beyond the EU, from 2013 onwards (European Commission 2008):

- ▶ Possibility of increasing EU-wide emissions reductions to 30% below 1990 levels by 2020 if other major developed and developing country emitters agree to a binding international policy.
- ▶ Provision to increase links with CDM/JI carbon credits and any new emissions trading systems, to allow global emissions trading.

Whilst the ET Europe 300 Carbon Rankings covers companies registered in Europe, most operate on an international scale and will be affected by a range of national, regional and global emissions policies.

ALL COMPANIES OPERATING IN THE EU
SHOULD THEREFORE BE AWARE OF
POSSIBLE TIGHTENING OF DOMESTIC
ENVIRONMENTAL POLICIES
AND INCREASES IN THE
PRICE OF CARBON

EMISSIONS 27

LANDSCAPE

International Outlook

The Kyoto Protocol will remain in force until 2012, but so far there is no legally binding emissions treaty to replace it. The Copenhagen (2009) and Cancun (2010) climate conferences both produced accords, but lacked binding commitments. Negotiation continues in the build up to Durban later this year, with UNFCCC Executive Secretary Christian Figueres urging countries to push ahead with their work to aim for another significant step in addressing global climate change in 2011 at Bangkok's summit (UNFCCC 2011). In the meantime, market-based schemes are beginning to occur at the national level in spite - or perhaps because - of a lack of concrete agreement at the international level. A US cap-and-trade scheme has to date failed to be passed into law, but inter-state and intra-state schemes are becoming more prevalent in progressive states in the North-West and Mid- Atlantic. However, states such as Texas which are still heavily reliant on fossil fuels and energy- intensive industries are resisting local and national initiatives. China is also planning a national cap- and-trade scheme with the help of the Asian Development Bank.

This follows the relative success of two city-wide voluntary schemes but it also prompted by growing concerns around national energy security and the international competitiveness of China's biggest businesses through energy efficiency (Zhi and Bo, 2010). Other regional actors are waiting to see the outcome before committing to similar plans. A move towards trading should greatly increase transparency in reporting and allow greater scrutiny of emissions data. However, emissions are likely to continue rising among the emerging economies of Brazil, China, India and Russia, although moves towards energy efficiency can lower overall intensity.

THERE IS CURRENTLY NO LEGALLY BINDING EMISSIONS TREATY TO REPLACE KYOTO WHEN IT EXPIRES IN 2012. IF THIS REMAINS THE CASE THEN WE NEED TO BE PREPARED TO LOOK BEYOND GOVERNMENT TO BRING ABOUT THE NECESSARY EMISSIONS REDUCTIONS

SECTORAL 28

ANALYSIS

Figure 31.

Sector: Oil & Gas

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	ENI	IT	62,570,000	472.77	2	2,595.92	Complete & Verified
2	Amec	GB	33,920	7.37	1	2,130.52	Complete & Verified
3	Royal Dutch Shell	NL	85,000,000	228.38	1	2,351.54	Complete & Verified

Sector: Basic Materials

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	BASF	DE	25,000,000	292.38	15	1,077.70	Complete & Verified
2	Anglo American	GB	2,000,000	70.54	8	4,344.11	Complete & Verified
3	XSTRATA	GB	24,693,875	800.68	5	5,074.25	Complete & Verified

Sector: Industrials

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Vallourec	FR	1,375,568	229.84	4	3,295.10	Complete & Verified
2	Fiat	IT	1,097,949	22.86	3	3,088.12	Complete & Verified
3	SKF	SE	508,300	55.93	2	3,121.19	Complete & Verified

Sector: Consumer Goods

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Reckitt Benckiser Group	GB	250,000	19.96	4	1,077.84	Complete & Verified
2	LVMH	FR	304,382	11.19	2	1,069.07	Complete & Verified
3	Philips Eltnkoninklijke	NL	897,000	26.36	2	1,084.24	Complete & Verified

Sector: Health Care

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Astrazeneca	GB	630,000	19.24	2	102.69	Complete & Verified
2	Roche Holding	CH	899,533	17.70	1	101.15	Complete & Verified
3	Sanofi	FR	1,040,566	25.58	1	109.03	Complete & Verified

Intensity is measured as tCO₂e/\$Million turnover

SECTORAL 29

ANALYSIS

Figure 31. (continued)

Sector: Consumer Services

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Next	GB	195,492	35.87	4	1,368.51	Complete & Verified
2	Kingfisher	GB	472,000	28.09	3	1,360.73	Complete & Verified
3	British Sky Bcastgroup	GB	61,139	6.92	2	1,339.56	Complete & Verified

Sector: Telecommunications

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Belgacom	BE	62,000	7.07	3	39.32	Complete & Verified
2	KPN Kon	NL	263,700	14.78	2	47.04	Complete & Verified
3	BT Group	GB	710,000	22.07	2	54.32	Complete & Verified

Sector: Utilities

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Centrica	GB	10,714,959	306.31	4	1,305.56	Complete & Verified
2	EDP	PT	21,313,670	1,123.54	3	1,208.69	Complete & Verified
3	RWE	DE	170,200,000	2,506.59	3	3,505.84	Complete & Verified

Sector: Financials

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Commerzbank	DE	207,238	5.59	5	108.86	Complete & Verified
2	British Land	GB	34,317	55.56	4	158.83	Complete & Verified
3	DNB Nor	NO	11,892	0.74	3	104.00	Complete & Verified

Sector: Technology

Sector Rank	Company Name	Cntry	Absolute Emissions tCO ₂ e (Scope 1+2)	Scope 1+2 Intensity	Scope 3 Categories Disclosed	Scope 1+2 + 50% Inferred S3 Intensity	Disclosure & Verification status
1	Alcatel-Lucent	FR	719,955	33.62	7	585.31	Complete & Verified
2	Nokia	FI	246,400	4.34	5	556.03	Complete & Verified
3	Ericsson	SE	200,000	6.60	3	558.29	Complete & Verified

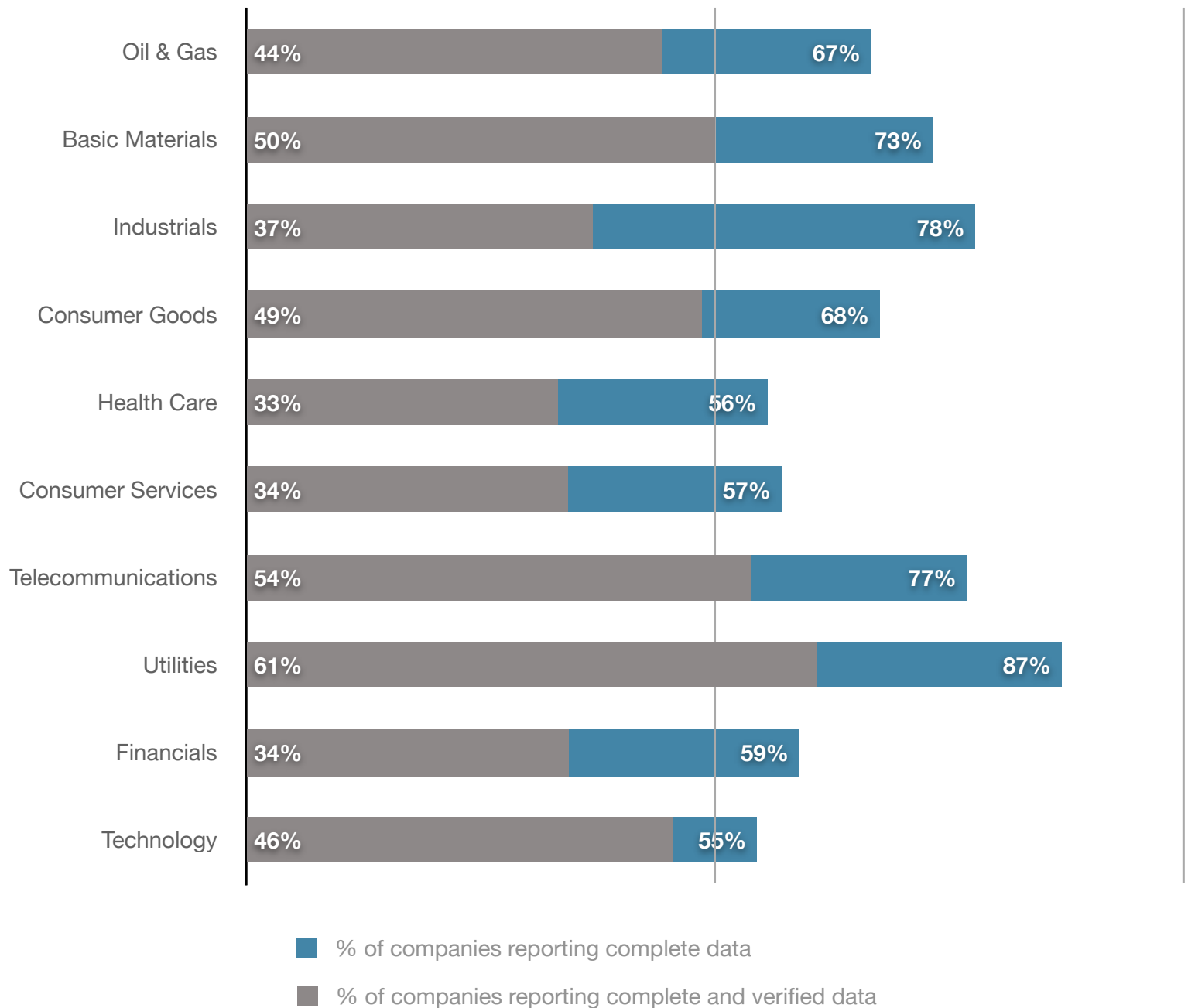
Intensity is measured as tCO₂e/\$Million turnover

SECTORAL 30 ANALYSIS

Summary

Sectors leading the field of disclosure

Figure 32.



The Rankings show that there is vast room for improving GHG emissions reporting and verification throughout Europe and its dominant industry sectors. Utilities, with one of the highest carbon intensities, has the largest percentage reporting both Complete data and Complete and Verified data.

The two sectors with the lowest percentage of companies reporting Complete and Complete and Verified data were Consumer Services and Health Care.

VERIFICATION 31

ANALYSIS

Verifier Analysis

The breakdown of the top 7 verifiers shown in figure 33 is taken from companies which have been categorised as having their emissions verified by the ET Carbon Ranking methodology.

With around 44% of the European reports being verified, the verification level in this region is relatively high. Compared to North America, the verification market is much more concentrated, with the Big Four audit firms being responsible for close to two thirds of the verifications performed. PwC and KPMG are the biggest players in the region, with market shares of 22% and 20%, respectively.

In total 20 different verifiers were identified across the region.

Figure 33.



DISCUSSION 32

KEY POINTS

WITHOUT COMPLETE AND VERIFIED DATA
WE CANNOT ACCURATELY PAINT A PICTURE
OF THE EMISSIONS LANDSCAPE

CONSIDERING BUSINESS' MOTIVATION TO
PROVIDE SHAREHOLDER RETURN, WE CAN
INCENTIVISE CHANGE THROUGH AFFECTING
A COMPANY'S SHARE PRICE

Non-Sectoral approach

The ET Carbon Ranking methodology is based on a non-sectoral approach as it is intended to create incentives for disclosure and emissions reduction across the board. Under this wider Environmental Tracking system, companies with higher intensities will experience greater downward pressure than those with low intensities, reflecting the science behind climate change mitigation dictating that absolute emissions have to be reduced.

Disclosure & Verification before intensity

It could be argued that the present Ranking does not accurately reflect the emissions landscape as the key determinant of positioning is disclosure and verification before intensity. However, without complete and verified data we cannot accurately paint a picture of the emissions landscape.

High intensity by definition

By definition some companies pollute more than others, moreover, many of these companies provide valuable and vital services to society. Yet without strong incentives to change, they will continue to carry out their activities in a way which is detrimental to the environment. Virtually all the technological advances needed to tackle climate change are already in existence, or are only a few years away with the necessary investment.

The only way we can expect these companies to invest in new technologies and employ new environmentally friendly policies is to provide them with an incentive to do so. The EIO argues that within the framework of the existing system this incentive must accord with a company's *raison d'être*: to maximise share price return. This can only be achieved by creating a system which influences share price according to the environmental costs of a company's actions.

REPORTING 33

LANDSCAPE

Sustainability reporting has grown rapidly over the past two decades as companies supplement their annual reports with issues pertaining to corporate social responsibility.

However, the lack of a universally accepted or mandatory standard concerning corporate responsibility disclosure means both reporting formats and content vary widely.

A large number of Europe's top companies follow the framework set out by the Global Reporting Initiative. This clearly defines the disclosure of environmental, social and governance indicators, including Greenhouse Gas emissions expressed as metric tonnes of CO₂ equivalent (tCO₂e). (See page 27 for more details). However, following GRI guidelines does not specifically require clear Scope 1 and 2 reporting.

The internationally recognised and accepted standard for Greenhouse Gas (GHG) reporting has been established by the Greenhouse Gas Protocol, and defines Greenhouse Gas emissions reporting by Scope 1, 2 and 3 emissions. However, as this report highlights companies do not always apply the standard correctly. Important issues of coverage and key calculation and reporting requirements are often not clearly stated or are hidden within the main document.

In 2000 the Carbon Disclosure Project launched an initiative to encourage corporate GHG disclosure. However, this information is not always included in sustainability reports or placed in the public domain.

► **Scope 1 emissions:**

All direct emissions

► **Scope 2 emissions:**

Indirect emissions generated from the purchase of electricity

► **Scope 3 emissions:**

All other indirect emissions, such as distribution of goods, transportation of purchased goods, transportation of waste, disposal of waste, employee commuting, business travel

AS THE ET EUROPE 300 CARBON RANKING HIGHLIGHTS, THERE ARE MAJOR DISCREPANCIES BETWEEN COMPANIES IN REGARD TO THE QUALITY OF REPORTING

THERE ARE CURRENTLY WIDE VARIATIONS IN INTERPRETATION OF METHODS FOR THE MAJORITY OF VOLUNTARY SCHEMES

ERM (2010) NOTES THAT THERE ARE FEW INITIATIVES PROVIDING INCENTIVES SUCH AS LEAGUE TABLES OR FINANCIAL PENALTIES/REWARDS - A GAP THE EIO SEEKS TO ADDRESS DIRECTLY THROUGH ITS ET CARBON RANKINGS AND INDEX SERIES

Variations

As pointed out by the ERM (2010) study on GHG reporting methods and initiatives, “Voluntary methods are open to varying degrees of interpretation by the user whilst mandatory methods tend to be much more prescriptive. An example of this can be seen on the issue of boundary setting. Voluntary methods such as the WBCSD/WRI GHG Protocol, and voluntary reporting schemes such as CDP, allow the user to select the boundary based on a number of options (e.g. operational or financial control; equity share), to ensure maximum flexibility. By way of contrast, mandatory schemes and their associated calculation methods, such as those for the UK Carbon Reduction Commitment and the schemes linked to trading of emissions allowances or permits (e.g. EU ETS; JVETS), define quite precisely the boundary, to ensure consistency in reporting between organisations covered by the scheme.”

Gaps

Interestingly, the report notes that “few methods or initiatives provide incentives such as benchmarks, league tables and financial penalties/rewards”. This is a gap the EIO seeks to address through its Environmental Tracking (ET) Carbon Rankings and Index Series.

The report also draws attention to the “lack of clear statement of a ‘mandatory minimum’ GHG reporting requirements in most of the voluntary methods and initiatives”, suggesting that “most voluntary methods have shied away from being prescriptive on key issues or have put complex arrangements in place to ensure adaptability” in order to encourage maximum uptake (ERM 2010).

Please see the Reporting guidance section (pages 39-40) for suggestions on the EIO’s recommendations for how companies can report their GHG emissions more clearly.

EXEMPLARY 35

REPORT

IBM

Direct, Indirect Greenhouse Gas GRI EN16

Total direct and indirect greenhouse gas emissions by weight.

Direct and Indirect Greenhouse Gas (GHG) Emissions (in metric tonnes CO2 equivalent)	2010	2009	2008	2007	Company has targets for year:	C1
CO2 Direct	276,721	235,656	296,768	301,993		
CO2 Indirect Scope 2	2,125,986	2,380,946	2,381,447	2,445,791		
CH4 Direct						
N2O Direct	17,441	11,235	5,386	6,685		
HFCs Direct	42,289	14,566	13,060	10,570		C6
PFCs Direct	232,290	181,907	256,667	251,617		
CF6 Direct	9,549	13,291	8,452	9,066		
Subtotal Direct (Scope 1)	546,245	456,655	580,343	579,931		
Scope 1 data coverage (e.g. owned and as % of revenues, employees, etc...): leased operations	100					
Scope 1 estimated total (for 100% data coverage)						
Scope 1 emissions intensity per 100K revenue						
Total direct GHG emissions factored against base figure (please specify base figure here, e.g., revenue, volume or production, floor space area, etc):						
Subtotal Indirect (Scope 2)	2,125,986	2,380,946	2,381,447	2,445,791		
Scope 2 data coverage (e.g. owned and as % of revenues, employees, etc...): leased operations	100					
Scope 2 estimated total (for 100% data coverage)						
Scope 2 emissions intensity per 100K revenue						
Total Direct and Indirect GHG Emissions	2,672,231	2,837,601	2,961,790	3,006,271		
Subtotal Scope 3 (from GRI EN17 "GHG Scope 3 Emission")						
Total GHG Emissions	2,672,231	2,837,601	2,961,790	3,006,271		

Taken from IBM's website, this template clearly shows Scope 1 & 2 emissions and is easily accessible from the company's online GRI index (see next page), under the EN16 link.

IBM also provides its Scope 3 emissions information which is clearly referenced under EN17.

IBM ranks 35 in the ET North America 300 and discloses 4 Scope 3 categories.

TEMPLATE

- ☐ 3.12 Table identifying the location of the Standard Disclosures in the report. Identify the page numbers or web links where the following can be found: * Strategy and Analysis 1.1 - 1.2; * Organizational Profile 2.1 - 2.10; * Report Parameters 3.1 - 3.13; * Governance, Commitments, and Engagement 4.1 - 4.17; * Disclosure of Management Approach, per category; * Core Performance Indicators; * Any GRI Additional Indicators that were included; and * Any GRI Sector Supplement Indicators included in the report.



- ☐ 3.13 Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s).

- ☐ 3.2 Date of most recent previous report (if any).

Using a GRI index helps anyone reading a report to navigate it quickly and easily.

It is strongly advised to clearly label where any verification statement can be found within the report.

- ☐ EN14 Strategies, current actions, and future plans for managing impacts on biodiversity. (Additional)
- ☐ EN15 Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk. (Additional)
- ☐ EN16 Total direct and indirect greenhouse gas emissions by weight. (Core)
- ☐ EN17 Other relevant indirect greenhouse gas emissions by weight. (Core)
- ☐ EN18 Initiatives to reduce greenhouse gas emissions and reductions achieved. (Additional)
- ☐ EN19 Emissions of ozone-depleting substances by weight. (Core)
- ☐ EN20 NO_x, SO_x, and other significant air emissions by type and weight. (Core)



Clear labeling of where GHG emissions totals, calculated as tCO₂e (metric tonnes of CO₂ equivalent) is extremely important for a member of the general public to be able to find the data easily.

REPORTING 37

EXAMPLES

   = Fully reported
   = Partly reported
   = Not reported

Emissions, effluents & waste

EN16 Direct and indirect greenhouse gas emissions		Key indicators/Environment, page 56
EN17 Other relevant indirect greenhouse gas emissions		Key indicators/Environment, page 57
EN18 Initiatives to reduce greenhouse gas emissions		Environment, page 45 Environment, page 46
EN19 Emissions of ozone-depleting substances		Not reported.
EN20 NO, SO, and other significant air emissions		Not reported.
EN21 Total water discharge		Not reported.
EN22 Waste by type and disposal method		Key indicators/Environment, page 57
EN23 Number and volume of significant spills		Additional facts, page 64

This is an example of a company making good use of an online GRI index which provides quick links to the relevant indicators. This example also provides a clear key to indicate whether or not the information is fully reported.

Greenhouse Gas Emissions

Greenhouse gas emissions (tonnes CO₂e) from assets under control

	2009	2008 ^(a)	2007 ^(a)	2006 ^(a)
Scope 1	8 644 396	8 833 610	9 055 848	6 199 526
Scope 2	29 198			
Total gross controlled emissions	8 673 594			

Note: Scope 2 emissions in CO₂e are presented here for the first time. Scope 2 emissions have been calculated by converting electricity used to GHG emissions using standard grid factors, by country.

This emissions statement clearly displays total Scope 1 and 2 emissions in tonnes of CO₂e. Additionally, emissions of previous years have been made available to allow for year on year comparisons. However, Scope 3 emissions have not been disclosed.

REPORTING 38

EXAMPLES

CO₂ emission scope 1 (on site)

CHART

TABLE

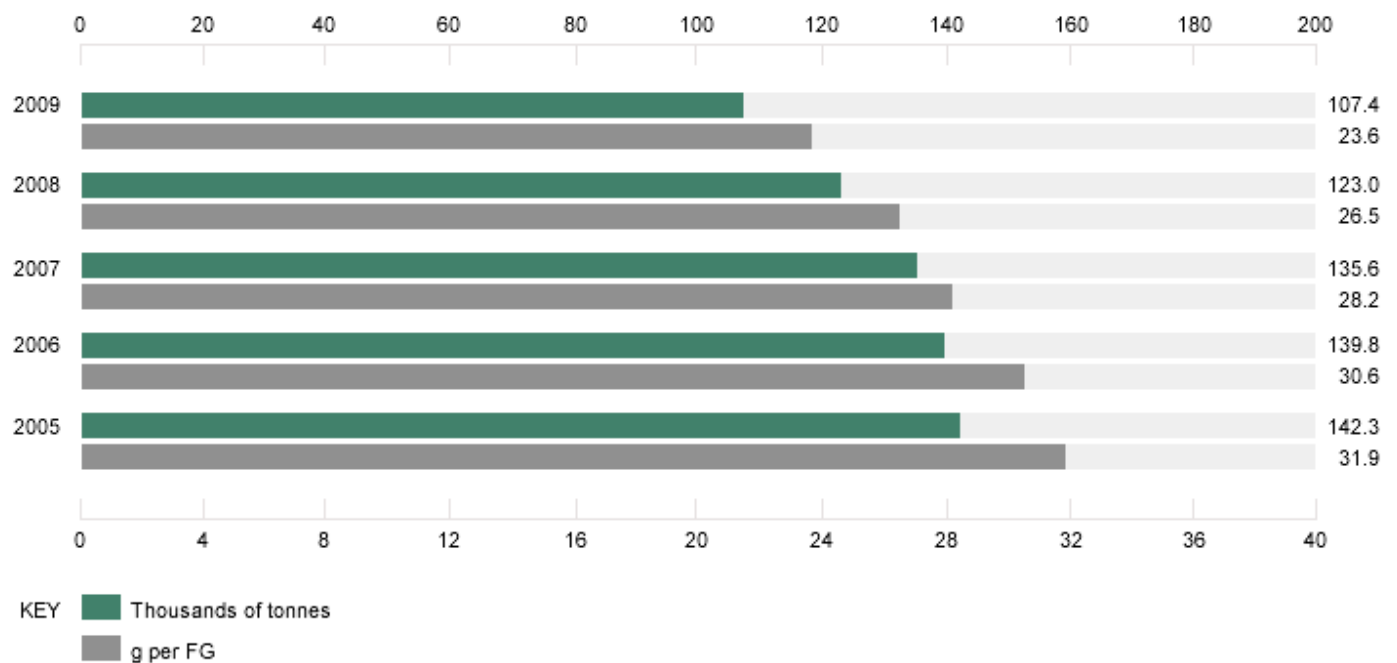
	2005	2006	2007	2008	2009
Thousands of tonnes	88.0	84.0	82.7	80.8	78.2
g per FG	19.8	18.4	17.2	17.4	17.2

↑ Back to top

CO₂ emission scope 2 (off site)

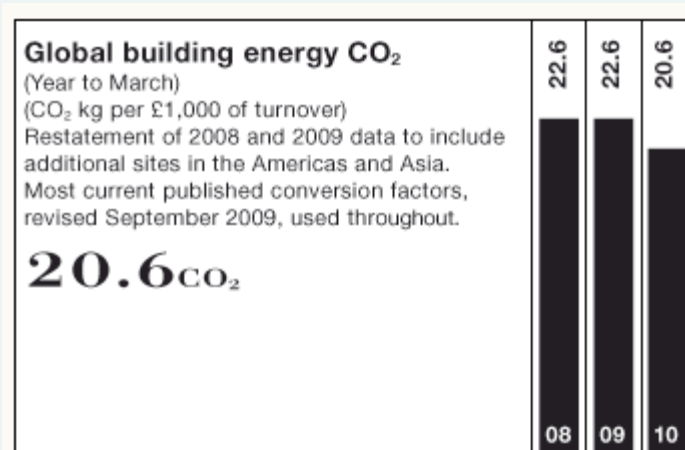
CHART

TABLE



Here CO₂ emissions are clearly displayed in tabular and graph format. Scope 1 and 2 categories are clearly defined and previous years emissions are displayed. This example, however, fails to disclose Scope 3 emissions.

EXAMPLE



This is an example of a company not reporting to the GHG protocol standard which asks for emissions to be expressed in tonnes of CO₂e.

Like many reports, this one has chosen its own metric. Whilst this is preferable to no disclosure at all, it does not allow for cross comparisons between companies.

	2005	2006	2007	2008	2009
Energy consumption from operations and transport (million gigajoules) ¹	19.4	26.4	26.4	26.2	25.3
Climate change impacts (thousand tonnes):					
– From operations	1966	2223	2226	2234	2166
– Inhaler use by patients ¹		4685	5200	4747	4243
– Total climate change impacts		7411	7796	7275	6676

In this example the terminology used is not clear, referring to emissions as “climate change impacts” rather than stating that it represents metric tonnes of CO₂e.

REPORTING 40

GUIDANCE

- ▶ **Report Scope 1, 2 & 3 emissions following GHG protocol guidelines**
- ▶ **Ensure emissions data is publicly available in CSR/Sustainability reports/Integrated Annual report and online**
- ▶ **Have emissions data verified by an independent third party to a recognised standard**
- ▶ **Ensure verification certificates are easily available to the publicly**

Companies can easily improve their standings within the ET Carbon Rankings by following several simple steps:

1. Publishing emissions data for Scopes 1, 2 and 3 in the public domain, in a clear and accessible manner, either on the company website or in a Sustainability Report, Annual report, Integrated Annual report or ideally, all of those that apply.
2. Ensuring this information has been externally verified to a reasonable standard of assurance, ideally against a specific GHG standard such as ISO 14064-3, but at least in accordance with a general assurance standard, such as ISAE 3000 (the International Standard on Assurance Engagement).
3. Calculate Scope 3 emissions comprehensively according to the new GHG protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The latest information on verification of Scope 3 can be found at the GHG Protocol and ISO websites.
4. Ensure that any verification statement is publicly available and included in the relevant Sustainability Report or Annual Report, as well as ensuring it can be easily found on your company's website.

One of the primary aims of the EIO's series of Rankings is to ensure that reliable GHG emissions data is publicly available and we applaud all companies making a serious effort to reach this standard.

Encouraging clearer reporting

The key areas which are identified by the various bodies of research carried out in the field of GHG emissions reporting, including by the EIO, suggest that there is an urgent need for:

- ▶ Standardised reporting
- ▶ More emphasis on the verification of GHG emissions data reported by companies

The following page outlines the EIO's suggestions for how companies could and should report their emissions going forward.

ET REPORTING 41

TEMPLATE



ENVIRONMENTAL TRACKING REPORTING TEMPLATE

Reporting Period:

1 January 2009 to 31 December 2010: Yes/No? _____

If other please specify _____

The reporting template below provides guidance on how companies can report their Greenhouse Gas emissions in a **simple, clear** and **cross comparable** format. It is intended to integrate with the existing and widely used GHG Protocol standard of reporting emissions in terms of Scope 1, 2 & 3. Crucially, it seeks to provide a framework by which companies can report their key GHG information in one place covering three core areas: **total GHG emissions**; **scope of reporting**; and, **verification**. The EIO is currently exploring how it might be able to link the reporting of such data directly to the ET Carbon Rankings.

	Metric tonnes of CO2e (tCO2e)	
	2010	2009
Scope 1	25,000	23,000
Scope 2	350,000	370,000
Scope 3	11,000,000	9,600,000
Total gross emissions	11,375,000	9,993,000
Green tariff Energy Purchased	(28,000)	-
Total net emissions	11,347,000	9,993,000

Boundary setting:

What reporting boundary method have you adopted under the terms of the GHG Protocol? _____

Scope of Reporting: Scope 1 & 2

Do the gross emissions reported for Scope 1 & 2 as defined by the GHG Protocol represent 100% of your company's emissions for these Scopes? Yes/No? _____

If you have answered no to the previous question, what percentage of your company's operations do they represent? _____

Scope of Reporting: Scope 3

How many of the 15 Scope 3 categories, as defined by the GHG Protocol, does your company disclose data for? Please attach a full breakdown with the percentage coverage for each _____

Verifications/Assurance (to be completed by an independent third party)

Name of Verifier: _____

Which standard has been used to assure the data? (E.g. ISO14064, AA1000AS etc) _____

Which Scopes have been verified? _____

If the company is reporting Scope 3 emissions, has it covered all of the Scopes accurately (for Scope 3 please refer to the GHG Protocol new Corporate Value Chain (Scope 3) Accounting and Reporting Standard), including any GHGs not covered by the GHG Protocol which may be material? Yes/No? _____

Are there any material issues with the numbers represented for the company under Scope 1, 2 or 3? Yes/No? _____

Is the data presented by the company representative of the company's entire scope of operations? Yes/No? If no approximately what % does it cover? _____

Please state any other further comments or qualifications _____

Please attach the verification full statement.

ET INDEX 42

SERIES

Moving forward: The ET Index Series

The ET Carbon Rankings represent the first phase of the Environmental Tracking concept, paving the way for the ET Index Series, which will follow soon after.

The ET Index Series has been designed to provide the investment community with a tool to encourage transparency and emission reductions on a global scale. Through the creation of a mainstream financial product, in the form of a series of broad market indexes, the world's largest companies can be incentivised to cut their emissions. This is done by re-weighting companies in the index series, either positively or negatively, on a sliding scale, according to their position in the ET Carbon Ranking.

As pointed out by the recent Mercer report on Climate Change Scenarios and the Implications for Asset Allocation (Mercer 2011), the use of sustainability themed indices in passive portfolios is identified as one way investors can take action to improve their portfolio resilience to climate-related risks.

However, the key question, which the EIO seeks to address through its Index series, is how to create an investable index which can have sufficient appeal to investors, evidently concerned with the bottom line. This is why the ET Index Series has been created to mirror the risk/reward profile of their non weight-adjusted counterparts, whilst still applying pressure to companies across the board to reduce their emissions.

The potential of ET Index Series to tackle GHG emissions rests on the logic that if a significantly large pool of investors track the indexes, it will alter the supply and demand for these companies' shares based on their position in our Ranking. This effectively increases the cost of emitting Greenhouse Gases, incentivising companies to take action.



NATIONAL INDEXES:

ET UK 100

REGIONAL INDEXES:

ET EUROPE 300

ET EUROPE 300

ET ASIA-PACIFIC 300

ET BRICS 300

GLOBAL INDEXES:

ET GLOBAL 800

ET GLOBAL 1200

THROUGH APPLYING PRESSURE TO A
COMPANY'S SHARE PRICE, THE ET
INDEX SERIES AIMS TO RAISE THE
COST OF CARBON FOR COMPANIES

GLOSSARY 43

OF TERMS

BAU: Business As Usual

CCC: Committee on Climate Change

CCX: Chicago Climate Exchange

CDM: Clean Development Mechanism

CED: Clean Energy Dialogue

CRC: Carbon Reduction Commitment

C(S)R: Corporate (Social) Responsibility

CO₂e: Greenhouse Gas emissions expressed as Carbon Dioxide (CO₂) Equivalents, meaning calculated to express their global warming potential in terms of CO₂.

DECC: Department of Energy and Climate Change

EIO: Environmental Investment Organisation

EPA: Environmental Protection Agency (US)

ET: Environmental Tracking

EU ETS: EU Emissions Trading Scheme

GDP: Gross Domestic Product

GHG: Greenhouse Gas

GRI: Global Reporting Initiative

GWP: Global Warming Potential

IMF: International Monetary Fund

ISAE: International Standard on Assurance Engagements

ISO: International Organization for Standardization

JVETS: Japanese Voluntary Emissions Trading Scheme

kWh: kilowatt hours

Mt: Mega tonnes

OECD: Organisation for Economic Co-operation and Development

RGGI: Regional Greenhouse Gas Initiative

Jl: Joint Implementation

tCO₂e: Metric Tonnes Carbon Dioxide Equivalent

ROC: Renewable Obligation Certificates

Scope 1 (or S1): All direct GHG emissions.

Scope 2 (or S2): Indirect GHG emissions from consumption of purchased electricity, heat or steam.

Scope 3 (or S3): Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc.

UNFCCC: United Nations Framework Convention on Climate Change

WBCSD/WRI: World Business Council for Sustainable Development / World Resources Institute

WCI: Western Climate Initiative

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