

This report summarizes the key data we hold in our database and exposes it in the form of facts&figures.

SECTOR DEFINITION

GlaxoSmithKline is classified in the sector “Manufacture of basic pharmaceutical products and pharmaceutical preparations”. This division includes the manufacture of basic pharmaceutical products and pharmaceutical preparations. This includes also the manufacture of medicinal chemical and botanical products.

BENCHMARKING

For the purpose of this report, the benchmark was generated from 31 companies in that sector who are disclosing emissions and for which we hold data in our database. If you are interested in benchmarking only a select few companies in that sector or if you want to only consider a sub-sector for your analysis, than we invite you to contact us.

KEY PERFORMANCE DATA

KEY DATA PUBLISHED

		Change vs. 2007
Turnover [M\$]	45,093	+14.2%
Employees	99,000	-2.8%
Total Emissions [TCO2 or TCO2-e]	7,031,300	-7.9%
Total Energy Consumption [Million GJ]	24.3	-0.8%
Total ETS Credits Verified in 2008 [TCO2]	240,127	-6.8%
<u>Breakdown of emissions:</u>		
Emissions from direct combustion [TCO2]	592,700	-0.8%
Indirect emissions from electricity use [TCO2]	1,129,600	+2.3%
Electricity Consumption [MWh]	2,341,666	+0.8%
Electricity sourced from renewable [MWh]	72,222	
<u>Other indirect emissions [TCO2]:</u>		
• Employee Commute		
• Employee Travel	238,300	-1.2%
• Waste		
• Logistics	122,500	+0.7%
• Other	4,948,200	-11.1%

DATA SOURCE & ACCURACY

We collect data from public sources (e.g. company’s CSR report, website)
We rely on the company to publish accurate accounts of their carbon footprints and to take responsibility for the data they have published.

NOTES ABOUT DISCLOSURES:

- The large amount of “Scope 3 - Other Emissions” come from the use of inhalers by patients with respiratory disease. This impacts dramatically the total emissions figures for this company compared to its peers, which do not include this as part of their Scope 3 boundaries.
- Data was verified by SGS

CARBON EXPOSURE AT \$20 PER TON CARBON:

	% of <u>Turnover</u>
Total Emissions	0.312%
EU ETS Credits	0.011%
Emissions from direct combustion	0.026%
Indirect emissions from electricity use	0.05%
Other indirect emissions:	
• Employee Commute	
• Employee Travel	0.011%
• Waste	
• Logistics	0.005%
• Other	0.219%

NOTES

Carbon emissions bear balance sheet risks in light of future regulations that could impose cap&trade schemes or carbon taxation.

BENCHMARK ON A PER M\$ TURNOVER BASIS

	<u>Company</u>	<u>Change vs. last year</u>	<u>Sector Average</u>
Total Emissions	156	-19%	50.5
Emissions from direct combustion	13.1	-13%	16.2
Indirect emissions from electricity MWH/M\$	25	-10%	17.7
Other indirect emissions:			
• Employee Commute			
• Employee Travel	5.3	-13%	
• Waste			
• Logistics	2.7	-12%	
• Other	110	-22%	

NOTES

Benchmarking emissions performance on a turnover basis bears some of the following risks:

- In the recent economic downturn, turnover has fluctuated dramatically for some sectors
- Currency exchange rates have fluctuated extensively in the last 3 years. For the purpose of this analysis, we have used the average exchange rate over the reporting period.

Sector Averages were calculated from published data of 31 companies.

BENCHMARK ON A PER EMPLOYEE BASIS

	<u>Company</u>	<u>Change vs. last year</u>	<u>Sector Average</u>
Total Emissions	71	-5%	20.6
Emissions from direct combustion	6	+2%	9.3
Indirect emissions from electricity MWH/Employee	11.4	+5%	7
Other indirect emissions:			
• Employee Commute			
• Employee Travel	2.4	+2%	
• Waste			
• Logistics	1.2	+4%	
• Other	50	-9%	

NOTES

Benchmarking emissions performance on a per employee basis yields a less volatile view in our opinion:

- For comparable businesses in mature industries, output per employee are fairly comparable
- Employees tend to fluctuate less than revenue and earnings
- Employee numbers are disclosed and audited

Sector Averages were calculated from published data of 31 companies.

EU ETS ALLOCATIONS AND VERIFIED EMISSIONS

Number of facilities analysed	14
Average change of allocations between Period 1 and Period 2	+0.85%
Average % difference between allocations and verified emissions in Period 1	-30%
Average % difference between allocations and verified emissions in Period 2	-33%

NOTES

We have mapped 7,000 facilities to their parent companies and classified these per sector. The statistics shown here provide the following insights:

- Has this company been impacted more heavily by the second trading period than its peers?
- How has it been able to meet its allocations in the past?

A negative difference between allocations and verified emissions denotes that the company had a surplus in credits.

FURTHER BENCHMARKING APPROACHES

Each industry has its preferred metrics to express the activity level: production output in volume, surface in square meters, passenger-miles etc...

The challenge in the above approaches lies in the very definition of the common denominators: how do you determine the granularity with which you account for products? How do you account for highly fluctuating currency exchange rates? There is also a practical element to defining common denominators: are they publicly disclosed, are they audited, do definitions stay consistent year over year?

We provide further benchmarking services to analyse other dimensions; please contact us to communicate your needs.

EMISSIONS DATA

CO2Benchmark uses the GHG Protocol from the WRI (UN) as the guiding framework to classify emissions data. All details about the protocol can be read in the WRI website, but for the purpose of clarity, we summarize the key emissions categories below:

Scope 1	Direct GHG emissions are emissions from sources that are owned or controlled by the company. For example, emissions from combustion in owned or controlled boilers, furnaces and company vehicles.
Scope 2	Accounts for GHG emissions from the generation of purchased electricity by the company.
Scope 3	Optional reporting category that allows for the treatment of all other indirect emissions. They are a consequence of the activities of the company, but occur from sources not owned or controlled by the company. Some examples include third party deliveries, business travel activities and use of sold products and services. Note that today there is a very broad interpretation range of what should or should not be included in Scope 3. This explains some of the large variations we find in the reports.

ABOUT CO2BENCHMARK

We all know how difficult it has been to come by reliable, comprehensive and up-to-date information about carbon emissions. Without factual data, carbon-related choices have had to rely on theoretical models and estimates. This is unsatisfactory, especially as the importance and weight of carbon-related decisions grows exponentially. The wait is over.

Whether you're an investment manager, an emissions trader, a corporate leader in charge of carbon emissions, a regulator, or a carbon consultant, CO2Benchmark can give you what you've been looking for - hard data.

Today we hold Carbon Data from 3,000 companies and organisations around the world, providing you the intelligence you've lacked to support your key decisions.



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