

The 2015 Global 100: Overview of Methodology

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Global 100 fast facts

 Overview Annual ranking of corporate sustainability performance Released each January at the World Economic Forum in Davos; published in leading media including Forbes.com 	 Eligibility Size: Global mid, large and mega-cap companies Industry and geography: All industries and geographies are automatically considered 	
 Approach Ranking is based on publicly-disclosed data (e.g., financial filings, sustainability reports). All required datapoints are pre-populated. Submissions from companies are <u>not</u> required. Companies on the Global 100 Shortlist will be contacted for data verification prior to project completion. Methodology is based on 12 key performance indicators (KPIs) covering resource, employee and financial management 	 Contact info and to learn more Email <u>research@corporateknights.com</u> if you would like to confirm the correct contacts for your organization Sign up for email updates on future rankings and research from Corporate Knights and the Global 100 Visit <u>www.global100.org</u> for more details 	



Ranking is conducted by Corporate Knights, a specialized media and investment research firm

Corporate Knights is a Toronto-based, employee-owned B Corp that operates in three segments:

- Corporate Knights Magazine
 - World's largest circulating magazine focused on sustainability and responsible business.
 - Reaches 380,000 of the world's most influential business and political decision-makers.
- CK Capital
 - CK Capital helps investors generate financial out-performance implementing alpha-linked sustainability and financial indicators into portfolio construction.
 - CK Capital offers a range of investment products and services, including the Clean Cap and Integrated Cap suite of equity indices and customized portfolio solutions.
 - CK Capital also manages several external research projects (e.g. The Global 100).
- Council for Clean Capitalism
 - CEO-supported group catalyzing smart and efficient public policy.
 - Engages with leading public policy-makers.



Key features of the Global 100

- **Approach**: driven by data, not judgment
- Transparent: clear approach for getting from the project's starting universe (n =~ 4,000 companies) to the 2015 Global 100
- **Scoring**: Companies are only scored on 'relevant' KPIs for their respective industry
- **Data gaps**: the project incentivizes more disclosure, not less disclosure
- Scope: the Global 100 sticks to indicators that can be objectively measured it does not purport to gauge companies' exposure to qualitative sustainability risks
- The approach and methodology are reviewed annually through stakeholder consultations and input from the <u>Council of Experts</u>.



Overview of Global 100 ranking process

	Description	Details		
Starting Universe	 Mid, large, and mega-cap public companies 	 All companies that had a market capitalization in excess of \$US 2 billion 		
	 Companies screened for : 	 Screening criteria outlined on Slide 5 		
	 – Sustainability disclosure practices – Financial health 	 Companies that pass all four screens constitute the 2015 Global 100 Shortlist 		
Screening	 Product categories Financial Sanctions 	 Any company that was on the 2014 Global 100 is automatically included in the 2015 Global 100 shortlist if it is not in the bottom quartile of the Financial Sanctions screen in both 2013 and 2014 		
Selection	 Companies in the 2015 Global 100 Shortlist are scored on up to 12 KPIs, covering resource, employee, and financial management 	 Selection criteria outlined on Slide 6 Companies only scored on the 'priority KPIs' for their respective industry group (see Slide 7) 		
The Global 100	 The 2015 Global 100 is populated Consists of the top performing companies within each industry group 	 Each GICS sector is assigned a fixed number of slots in the final Global 100 list, (based on each sector's contribution to the total market capitalization of the Global 100's financial benchmark, the MSCI ACWI). 		



Screening criteria

	Description	Details
Sustainability Disclosure Practices	 Companies that did not disclose at least 75% of the 'priority KPIs' in their respective industry group are eliminated 	 A 'priority KPI' is any of the 12 KPIs that is disclosed by at least 10% of all companies in a given industry group (see slide 7) KPIs 6, 8, 11 and 12 (from slide 6) are not considered since the required data points are part of mandatory disclosure and are therefore applicable to all
Financial	 Companies with an F score below 5 are 	 The F-Score (the Piotroski F-score) is a measure of the financial strength of a company.
Health	eliminated	 The F-score is the sum of the scores for each of nine tests. See Appendix I for details.
Product	 Companies with a GICS code that relates to 	 The sub-industries are i) "Aerospace & Defence" and ii) "Tobacco".
Categories	tobacco products or armaments are eliminated	 In the case of Aerospace & Defense, the company will only be eliminated if it derives a majority of its revenue from its Defense business group
Sanctions	 Companies that are bottom quartile performers in the CK Financial 	 The screen measures the amount of money that companies paid out in qualifying fines, penalties or settlements over the October 1, 2013 to September 30, 2014 period
	Sanctions screen are eliminated	 See Appendix II for details.
GLOBAL100		

Companies can be scored on up to 12 KPIs

	KPI	Methodology	
	Energy Productivity	Revenue / energy use	 Companies are scored on KPIs that
Resource	Carbon Productivity	Revenue / GHG emissions	are disclosed by at least 10% of
management	Water Productivity	Revenue / water withdrawal	companies in their
	Waste Productivity	Revenue / non-recycled/reused waste generated	industry group
	Innovation Capacity	R&D expenses / revenue	Scoring methodology is
Financial	Percentage Tax Paid	Cash tax / EBITDA	based on a
management	CEO-Average Employee Pay	CEO compensation / average employee compensation	company's performance against its industry
	Pension Fund Status	Unfunded liabilities / total assets	group peers
	Safety Performance	Fatalities and lost time incidents	 Scoring is based on data for
Employee management	Employee Turnover	Number of departures / average total employees performan	
	Leadership Diversity	Female representation on board of directors and executive management team	2013See Appendix III for
	Clean Capitalism Pay Link	Mechanisms that link senior executive pay to clean capitalism targets	details



Priority indicators are different for each industry group

GICS Industry Group	Energy Productivity	GHG Productivity	Water Productivity	Waste Productivity	Safety Performance	Employee Turnover	CEO – Average Employee Pay	Innovation Capacity	
Automobiles & Components	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Companies are
Banks	Yes	Yes	Yes	Yes	No	Yes	Yes	No	scored on KPIs that
Capital Goods	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	are disclosed by at
Commercial & Professional Services	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	least 10% of companies in their
Consumer Durables & Apparel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	industry group
Consumer Services	Yes	Yes	Yes	Yes	No	No	Yes	No	
Diversified Financials	Yes	Yes	Yes	Yes	No	No	Yes	No	All companies are
Energy	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	scored on
Food & Staples Retailing	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Leadership Diversity, Clean
Food Beverage & Tobacco	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Capitalism Pay
Health Care Equipment & Services	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Link, Pension Fund
Household & Personal Products	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Status and Percentage Tax
Insurance	Yes	Yes	Yes	Yes	No	Yes	No	No	Paid since the
Materials	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	required data points
Media	Yes	Yes	Yes	Yes	No	No	Yes	No	are part of
Pharmaceuticals & Biotechnology	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	mandatory disclosure
Real Estate	Yes	Yes	Yes	Yes	No	No	Yes	No	
Retailing	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
Semiconductors & Semiconductor Equipment	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	
Software & Services	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
Technology Hardware & Equipment	Yes	Yes	Yes	Yes	No	No	Yes	Yes	
Telecommunication Services	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Transportation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	
Utilities	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	



Appendix I: The F-Score

- The F-Score (the Piotroski F-score) is a measure of the financial strength of a company.
- The F-Score is the sum of the scores for each of nine tests. Each test scores one for a pass and zero for a fail.
- The tests are:
 - i) net profit is positive;
 - ii) operating cash flow is positive;

iii) net profit \div total assets at beginning of year, minus the same number for the previous year is positive;

- iv) operating cash flow is greater than net profit;
- v) long term debt \div by average assets has not increased;

vi) the current ratio has increased (the change is more than zero, so even a negligible increase passes the test);

vii) no raising of ordinary (common) equity over the previous year: this test is passed if the company did not issue any ordinary shares (excluding shares from dividend reinvestment plans and employee share plans);

viii) gross margin has improved over the previous year; and

ix) asset turnover has increased.



Appendix II: The CK Financial Sanctions Screen

- The CK Financial Sanctions screen measures the amount of money that companies have paid out in qualifying fines, penalties or settlements on a trailing one-year (October 1, 2013 – September 30, 2014) basis.
- Approach
 - 1. A keyword search for "fines, penalties or settlements" is run for each company. Payouts may relate to legal repercussions from environmental accidents, generalized environmental pollution, infringement of labor standards, human rights-related abuses, child exploitation or violation of collective bargaining arrangements.
 - 2. Payouts that occurred from October 1, 2013 to September 30, 2014 are totaled and converted to USD (using the prevailing exchange rate at the time of the payout) and then divided by total revenue reported over the same period.
 - 3. The resulting ratio is then percent-ranked on an industry group-specific basis, such that companies are only compared against their industry group peers.
 - 4. Those companies that receive a bottom quartile percent score (e.g. 25% or below) are eliminated.
 - 5. Constituents of the 2014 Global 100 that receive bottom quartile percent score (e.g. 25% or below) for the periods from October 1, 2012 to September 30, 2013 and October 1, 2013 to September 30, 2014 are eliminated.



Appendix III: Detailed scoring methodology

#	Name of KPI	Measurement
1	Energy Productivity	In the first step, each company's Energy Productivity is calculated. Energy Productivity is defined as Revenue (\$US) / Total Energy Use (GJ). It is then percent-ranked against that of all same-industry group peers within the CK coverage universe, and multiplied by 0.75. In the second step, the change in each company's Energy Productivity over a two-year period is calculated and percent-ranked against that of all same-industry group peers within the CK coverage universe. If the company's percent-rank is top quartile, the percent-rank is multiplied by 0.75 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.75 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is bottom quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the value from the first and second steps are totaled.
2	Carbon Productivity	In the first step, each company's Carbon Productivity is calculated. Carbon Productivity is defined as Revenue (\$US) / Total Greenhouse gas (GHG) Emissions (CO2e). Only Scope 1 and Scope 2 emissions are included according to the GHG Protocol. It is then percent-ranked against that of all same-industry group peers within the CK coverage universe, and multiplied by 0.75. In the second step, the change in each company's Carbon Productivity over a two-year period is calculated and percent-ranked against that of all same-industry group peers within the CK coverage universe. If the company's percent-rank is top quartile, the percent-rank is multiplied by 0.75 and then by 0.25. If the company's percent-rank is second quartile, the percent-rank is multiplied by 0.75 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.5 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.5 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is bottom quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the value from the first and second steps are totaled.



Appendix III: Detailed scoring methodology (continued)

3	Water Productivity	In the first step, each company's Water Productivity is calculated. Water Productivity is defined as Revenue (\$US) / Total water (m3). It is then percent-ranked against that of all same-industry group peers within the CK coverage universe, and multiplied by 0.75. In the second step, the change in each company's Water Productivity over a two-year period is calculated and percent-ranked against that of all same-industry group peers within the CK coverage universe. If the company's percent-rank is top quartile, the percent-rank is multiplied by 0.75 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.75 and then by 0.25. If the company's percent-rank is bottom quartile, the percent-rank is multiplied by 0.5 and then by 0.25. If the company's percent-rank is bottom quartile, the percent-rank is multiplied by 0.5 and then by 0.25. If the company's percent-rank is bottom quartile, the percent-rank is multiplied by 0.5 and then by 0.25. If the company's percent-rank is bottom quartile, the percent-rank is multiplied by 0.5 and then by 0.25. If the company's percent-rank is bottom quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is bottom quartile, the percent-rank is multiplied by 0.25 and then by 0.25. If the company's percent-rank is bottom quartile, the percent-rank is multiplied by 0.25 and then by 0.25. In the third step, the value from the first and second steps are totaled.
4	Waste Productivity	In the first step, each company's Waste Productivity is calculated Waste Productivity is defined as Revenue (\$US) / [Total waste generated (metric tonnes) – waste recycled (metric tonnes)]. It is then percent-ranked against that of all same-industry group peers within the CK coverage universe, and multiplied by 0.75. In the second step, the change in each company's Waste Productivity over a two-year period is calculated and percent-ranked against that of all same-industry group peers within the CK coverage universe. If the company's percent-rank is top quartile, the percent-rank is multiplied by 1 and then by 0.25. If the company's percent-rank is second quartile, the percent-rank is multiplied by 0.75 and then by 0.25. If the company's percent-rank is third quartile, the percent-rank is multiplied by 0.5 and then by 0.25. If the company's percent-rank is bottom quartile, the percent-rank is multiplied by 0.25 and then by 0.25. In the third step, the value from the first and second steps are totaled.
5	Innovation Capacity	In the first step, each company's Innovation Capacity score is determined by measuring the ratio of research and development (R&D) expenditures to total revenue averaged over a trailing three-year period. In the second step, each company's Innovation Capacity score is percent-ranked against that of all same-industry group peers within the CK coverage universe.



Appendix III: Detailed scoring methodology (continued)

6	Percentage Tax Paid	In the first step, each company's Percentage Tax Paid is calculated as the amount of taxes paid in cash over a trailing five year period divided by their total EBITDA over the same period. Companies score a 0% in the event that their total EBITDA or taxes paid in cash is zero or lower over the five year period. In the second step, each company's Percentage Tax Paid is percent-ranked against that of all same-industry group peers within the CK coverage universe.
7	CEO-Average Employee Pay	In the first step, each company's CEO to Average Employee Pay ratio is calculated as total CEO compensation divided by average employee compensation. Average employee compensation is calculated by dividing the company's total wage bill by the total number of employees. In the second step, each company's CEO to Average Employee Pay ratio is percent-ranked against that of all same-industry group peers within the CK coverage universe. The lower the ratio, the higher the rank.
8	Pension Fund Status	In the first step, all companies are segmented into three categories: those with a defined benefit (DB) pension, those with a defined contribution (DC) pension and those with no pension. For companies in the DB category, a test is first performed to determine relevance: if the total assets of a company's DB pension plan divided by the total number of employees is greater than \$US 50,000, companies are scored on this metric. If this ratio is less than \$US 50,000, companies are assigned to the DC category. Qualifying companies in the DB category are scored as follows: the unfunded liability of their DB plan is divided by their total assets at year-end. This ratio is then percent ranked against that of all same-industry group peers within the CK coverage universe. For companies in the DC category, performance is based on the ratio between their DC expense and their total assets at year-end. This ratio is then percent ranked against that of all same-industry group peers within the CK coverage universe. For companies in the DC category, performance is based on the ratio between their DC expense and their total assets at year-end. This ratio is then percent ranked against that of all same-industry group peers within the CK coverage universe.



Appendix III: Detailed scoring methodology (continued)

9	Safety Performance	Each company's Safety Performance is comprised of the Lost Time Injury Score (50% weight) and the Fatality Score (50% weight). The Lost Time Injury Score is determined by calculating the company's lost time injury rate (defined as the number of lost time incidents per 200,000 employee hours) and percent-ranking it against that of all same-industry group peers within the CK coverage universe. The Fatality Score is determined by calculating the company's fatality rate (defined as the number of fatalities divided by the total number of employees) and percent-ranking it against that of all same-industry group peers within the CK coverage universe. The Fatality Score is determined by calculating the company's fatality rate (defined as the number of fatalities divided by the total number of employees) and percent-ranking it against that of all same-industry group peers within the CK coverage universe. The 'priority KPI' test described above will be performed on both lost time incidents and fatalities. Accordingly, companies in industry groups that do not prevalently disclose fatalities will only be scored on their Lost Time Injury Score.
10	Employee Turnover	In the first step, each company's Employee Turnover is calculated as (1 -its retention rate). In the second step, each company's Employee Turnover is percent-ranked against that of all same industry group peers within the CK coverage universe. The lower the ratio, the higher the rank.
11	Leadership Diversity	Each company's Leadership Diversity is comprised of the Board Diversity Score (50% weight) and Leadership Diversity Score (50% weight). The Board Diversity Score is calculated by determining the proportion of the Board of Directors that is comprised of female directors and percent-ranking it against that of all same-industry group peers within the CK coverage universe. The Leadership Diversity Score is calculated by determining the proportion of the senior executive team that is comprised of female executives and percent-ranking it against that of all same-industry different team that is comprised of female executives and percent-ranking it against that of all same-industry different team that is comprised of female executives and percent-ranking it against that of all same-industry group peers within the CK coverage universe.
12	Clean Capitalism Pay Link	The Clean Capitalism Pay Link indicator is designed to reward companies that have set up mechanisms to link the remuneration of senior executives with the achievement of clean capitalism goals or targets. A score of 100% is given to companies that describe such a mechanism in detail (e.g. the company specifies the proportion of a particular named executive's compensation that is linked to the achievement of a corporate clean capitalism target, such as reducing emissions, improving energy efficiency, or reducing health & safety accidents). A score of 50% is given to companies that provide a high level description of such a mechanism (e.g. the company mentions the existence of a link between executive compensation and corporate clean capitalism targets but does not specify the proportion that is linked, the nature of the link, etc.). A score of 0% is given to companies that do not report any linking mechanisms. Unlike all other indicators, Clean Capitalism Pay Link does not use any percent-ranking.

