

The 2018 Future 40 Ranking:

Overview of Methodology

Future 40 fast facts

Overview

- **Annual ranking** of corporate sustainability performance
- Showcases Canada's **emerging** sustainability leaders

Eligibility

- *Size:* Private or publicly-listed companies headquartered in Canada with a revenue of under CDN\$ 1 billion (or where revenue cannot be verified) with evidence of ESG reporting*
- *Industry:* Companies engaged in tobacco manufacturing or deriving a majority of revenue from weapons manufacturing are excluded.
- Members of the last Future 40 ranking

Approach

- Ranking is based on **publicly-disclosed data** (e.g., financial filings, sustainability reports). All required datapoints are pre-populated. Submissions from companies are **not** required.
- Eligible companies **will be contacted for data verification** prior to project completion.
- Methodology is based on up to **16 key performance indicators** (KPIs) covering resource, employee and financial management

Contact info and to learn more

- Email research@corporateknights.com if you would like to confirm the correct contacts for your organization
- Visit www.corporateknights.com for more details

* Determined primarily through inclusion in the list of CSR reporters according to the GRI (www.globalreporting.org)

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 Research**

- CK Research offers a range investment product sustainability ratings and tools
- CK Research also manages several external research projects (e.g. Newsweek Green Rankings, Carbon Clean 200, Sustainable Stock Exchange Ranking).

- **Council for Clean Capitalism**

- CEO-supported group catalyzing smart and efficient public policy.
- Engages with leading public policy-makers.

Philosophical perspective of the Future 40

- **Relevance:** The ranking is meant to be representative of business sustainability in the current socio-economic context.
- **Transparency:** The precise methodology of the ranking and the results of the process are fully disclosed.
- **Objectivity:** Eligible companies will only be assessed using quantitative data and performance indicators.
- **Public data:** Only data-points that are part of the public domain are used
- **Comparability:** Companies are compared against their industry group peers based on performance indicators for which the underlying data are reasonably well disclosed by their industry group globally.
- **Engagement:** Companies eligible for the ranking are informed prior to the ranking, so as to have an opportunity to ensure the necessary data is made available publicly.
- **Stakeholders:** Stakeholder feedback is actively solicited throughout the project. A Panel of Experts, consisting of several sustainability practitioners, review and comment on all aspects of the methodology.

Updated rating methodology

Resource management KPIs

KPI	Methodology
Energy Intensity	Revenue (converted to USD using PPP exchange rate) / (Energy use – renewable energy use)
Carbon Intensity	Revenue (converted to USD using PPP exchange rate) / GHG emissions: scope 1 & 2
Water Intensity	Revenue (converted to USD using PPP exchange rate) / Water use
Waste Intensity	Revenue (converted to USD using PPP exchange rate) / Non-recycled or reused waste generated
Clean Air Productivity score	<ul style="list-style-type: none">▪ Revenue (converted to USD using PPP exchange rate) / VOC emissions (25%)▪ Revenue (converted to USD using PPP exchange rate) / Nox emissions (25%)▪ Revenue (converted to USD using PPP exchange rate) / Sox emissions (25%)▪ Revenue (converted to USD using PPP exchange rate) / Particulate matter emissions (25%)

Companies will only be scored on the KPIs that are deemed “priority KPIs” for their respective GICS industry + the four universal KPIs (see slide 8)

Financial management KPIs

KPI	Methodology
Innovation Capacity	R&D expenses / revenue – three year trailing
Percentage Tax Paid	Cash tax amount paid / EBITDA – four year trailing
CEO-Average Employee Pay	CEO compensation / average employee compensation
Pension Fund Status	75% (total DB and DC employer contributions/ FTE employees percentile-ranked against peers) + 1/4(fair value of DB plan assets/FTE employees percentile-ranked - (1-(fair value of DB plan assets/liability percentile-ranked)))
Supplier score	<ul style="list-style-type: none">▪ The company's largest supplier as determined by Bloomberg▪ Largest supplier scored using this same rating methodology for the 2018 Global 100 excluding the "Supplier score" KPI.▪ Primary data source: Bloomberg, FactSet, Thomson Reuters Eikon and CDP

Companies will only be scored on the KPIs that are deemed “priority KPIs” for their respective GICS industry + the four universal KPIs (see slide 8)

Employee management KPIs

KPI	Methodology
Safety Performance	(1) Fatalities, and (2) lost time incidents rate
Employee Turnover	Number of departures / average total employees
Leadership Diversity	(1) Female representation on board of directors, and (2) Female representation in executive management team (compared against same industry peers only, but against all companies in the universe)
Sustainability Pay Link	Mechanisms that link senior executive pay to sustainability targets

Companies will only be scored on the KPIs that are deemed “priority KPIs” for their respective GICS industry + the four universal KPIs (see slide 8)

The Four Universal KPIs

All companies, irrespective of GICS Industry will still be assessed on all four universal KPIs:

- Leadership Diversity,
- Sustainability Pay Link,
- Pension Fund Status,
- Percentage Tax Paid, and

Priority KPIs and weighting scheme for each GICS Industry under the new methodology

Impact-weighted KPIs

Philosophy: We take the view that in each industry, its impact on each individual KPIs is different – greater or smaller compared to another industry. The bigger the impact or of a given performance metric is in relation to other GICS Industry groups, the more impactful that metric is and therefore the higher the weight of that KPI.

Impact calculation example - Energy use by the Utilities industry as an example:

The sum of Energy Use (in GJ) for all publicly-listed companies globally (n=5,994) is grouped by GICS Industry Group, then is calculated as a percentage of the total Energy Use for all 5831 companies. For instance, the GICS Industry Utilities accounts for 23.7% of all Energy Use of all 5,994 companies; that industry’s impact on Energy Use is 23.7%. The above principle is applied to all remaining KPIs (except Supplier Score and Sustainability pay link which have fixed weights of 2.5% and 5% respectively for all industries) for each of the 24 GICS Industry Groups.

Exceptions: *Due to the ongoing economic transition towards clean energy sources, the Automotive, Energy and Utilities industries are given a fixed weight of 50% for the Clean Revenue KPI.*

Weighing KPIs according to impact – Utilities GICS Industry Group as an example:

The GICS Utilities Industry Group has 17 priority KPIs. Of these, Supplier Score and Sustainability Pay Link have fixed weights (2.5% and 5% respectively). The remaining 14 KPIs (42.5% of the weights) are assigned ranks based on their calculated impact: for instance, Utilities use more water than any other industry (77.2% of total water withdrawals); this KPIs receives the highest weight (17.8%) according to its relative share of global impact across the 14 KPIs.

	Energy	GHG	Water	Waste	Employee Turnover	Injuries	Fatalities	Clean Air productivity	CEO – Average Employee Pay	Percentage tax paid	Pension Fund Status	Innovation capacity	Women in executive management	Women on board	Clean revenue
Impact	23.7%	35.3%	77.2%	1.4%	2.8%	3.3%	10.5%	7.9%	2.6%	6.4%	6.8%	0.7%	2.6%	3.6%	22.7%
Final Weight	5.5%	8.1%	17.8%	0.3%	0.6%	0.8%	2.4%	1.8%	0.6%	1.5%	1.6%	0.2%	0.6%	0.8%	50.0%

Priority indicators and weights per GICS industry

Please **double-click** on the icon below to open the list of priority indicators and weights for each GICS Industry in a new Excel window



Microsoft Excel
Worksheet

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 PPP-converted) / Total Energy Use (GJ) – Renewable 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 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.
2	Carbon Productivity	In the first step, each company's Carbon Productivity is calculated. Carbon Productivity is defined as Revenue (\$US PPP-converted) / 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 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.

Appendix III: Detailed scoring methodology (continued)

3	Water Productivity	<p>In the first step, each company's Water Productivity is calculated. Water Productivity is defined as Revenue (\$US PPP-converted) / 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 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.</p>
4	Waste Productivity	<p>In the first step, each company's Waste Productivity is calculated. Waste Productivity is defined as Revenue (\$US PPP-converted) / [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.</p>
5	Innovation Capacity	<p>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.</p>

Appendix III: Detailed scoring methodology (continued)

6	Percentage Tax Paid	<p>In the first step, each company's Percentage Tax Paid is calculated as the amount of taxes paid in cash over a trailing four 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 four 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.</p>
7	CEO-Average Employee Pay	<p>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.</p>
8	Pension Fund Status	<p>In the first step, the sum of the company's contribution to the defined benefit and defined contribution pension plans are added up, then divided by the total number of full-time equivalent employees. This ratio is then percent-ranked against that of all same-industry group peers within the CK coverage universe. This is labelled as "A"</p> <p>In the second step, the fair value of the defined benefit plan assets is divided by the total number of full-time equivalent employees; this ratio is then percent-ranked against that of all same-industry group peers within the CK coverage universe. This is labelled as "B",</p> <p>In the third step, the fair value of the defined benefit plan assets is divided by the projected defined benefit plan obligations, then percent-ranked against that of all same-industry group peers within the CK coverage universe. This is labelled as "C".</p> <p>The Pension Fund Status Score is arrived at by the following formula: $(0.75 \times A) + 0.25(B - (1 - C))$</p>

Appendix III: Detailed scoring methodology (continued)

9 - 10	Safety Performance	Each company's Safety Performance is comprised of the Lost Time Injury Score and the Fatality Score. 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 full-time equivalent employees) and percent-ranking it against that of all same-industry group peers within the CK coverage universe.
11	Employee Turnover	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.
12 - 13	Leadership Diversity	Each company's Leadership Diversity is comprised of the Board Diversity Score and Executive Diversity Score. 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 companies within the CK coverage universe. The Executive Diversity Score is calculated by determining the proportion of the senior executive team that is comprised of female executives and percent-ranking it against all companies within the CK coverage universe. The Leadership Diversity Score is then the sum of the Board Diversity Score and the Executive Diversity Score.
14	Sustainability Pay Link	The Sustainability Pay Link indicator is designed to reward companies that have set up mechanisms to link the remuneration of senior executives with the achievement of sustainability goals or targets. A score of 100% is given to companies that describe such a mechanism (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 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.

Appendix III: Detailed scoring methodology (continued)

15	Supplier Score	Each company's largest supplier is identified based on Bloomberg data. That supplier is then scored using the Global 100 methodology, excluding the Supplier Score KPI.
16	Clean Air Productivity	<p>The Clean Air Productivity consists of four sub-indicators, each worth 25% of the Clean Air Productivity indicator:</p> <ul style="list-style-type: none"> a) VOC Productivity b) Nox Productivity c) Sox Productivity d) Particulate Matter Productivity. <p>Each of the above four sub-indicators are calculated in the same way, as follows:</p> <p>In the first step, each company's sub-indicator Productivity is calculated by dividing Revenue (\$US PPP-converted) by the air pollutant. 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 sub-indicator 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.</p>

Appendix IV: Corporate Knights Notice and Disclaimer

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the “Information”) is the property of Corporate Knights Inc. known herein as “Corporate Knights” and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or redisseminated in whole or in part without prior written permission from Corporate Knights.

The Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other Corporate Knights data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. CORPORATE KNIGHTS DOES NOT MAKE ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF).

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of Corporate Knights equity indexes or stock lists are listed companies, which are included in or excluded from the indexes or lists according to the application of the relevant methodologies. Accordingly, constituents in Corporate Knights equity indexes or lists may include Corporate Knights, clients of Corporate Knights or suppliers to Corporate Knights. Inclusion of a security within a Corporate Knights index or list is not a recommendation by Corporate Knights to buy, sell, or hold such security, nor is it considered to be investment advice.

Corporate Knights receives compensation in connection with licensing its indexes to third parties. Corporate Knights Inc.’s revenue includes fees based on assets in Index Linked Investments.

Any use of or access to products, services or information of Corporate Knights requires a license from Corporate Knights. Corporate Knights brands and product names are the trademarks, service marks, or registered trademarks of Corporate Knights and its subsidiaries in Canada, United States and other jurisdictions.