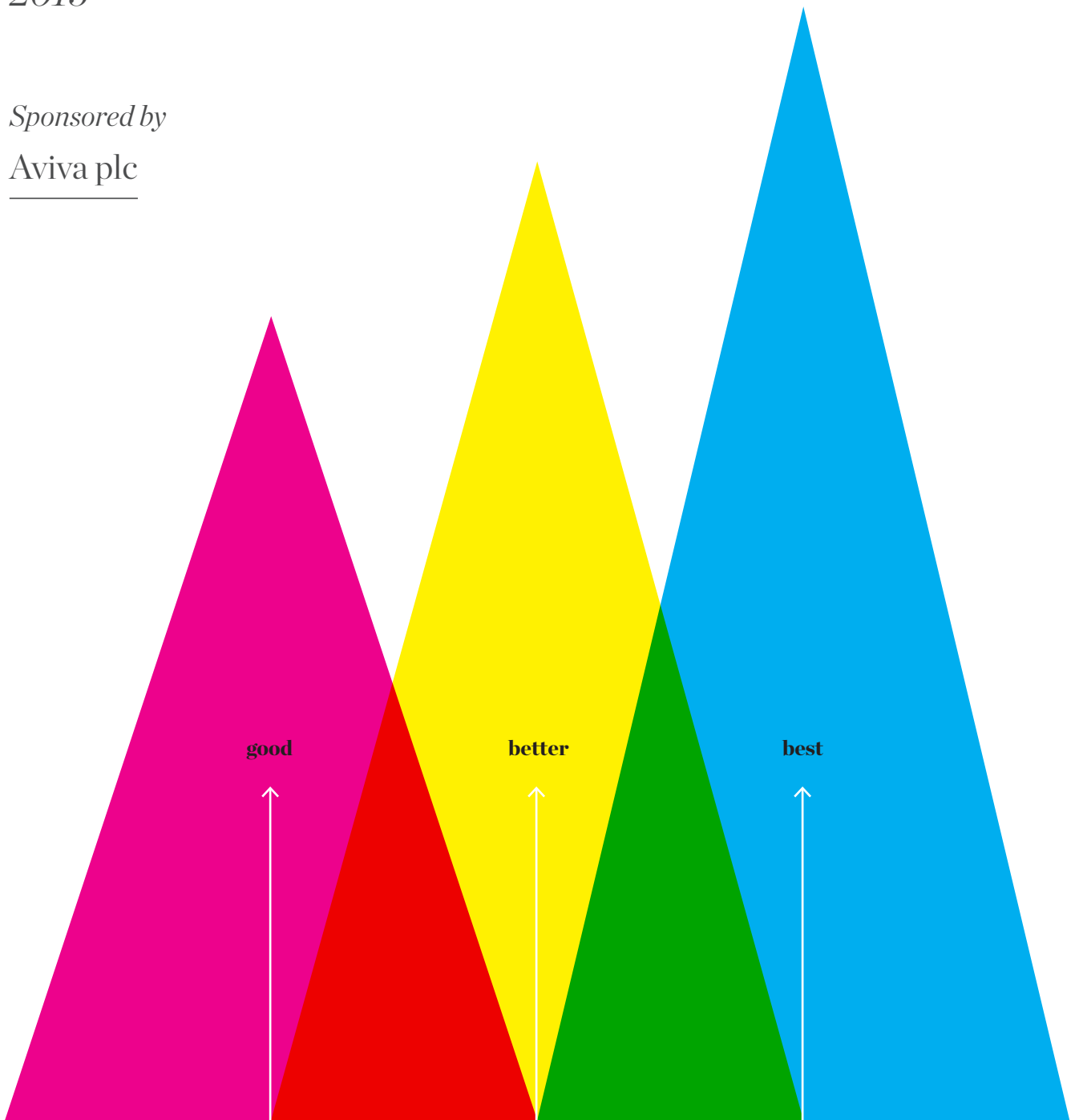


# Measuring Sustainability Disclosure

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*Ranking the  
World's Stock Exchanges  
2015*

*Sponsored by*  
Aviva plc



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## ABOUT THIS REPORT

This report is the fourth instalment of an annual series that tracks the extent to which the world's publicly traded companies are disclosing the seven basic or "first-generation" sustainability indicators, namely: employee turnover, energy, greenhouse gas emissions (GHGs), injury rate, payroll, waste and water. The analysis is conducted at the level of individual stock exchanges (45 in total) and is based on disclosure rates, according to Bloomberg, for the year 2013 (the most recent time period for which the majority of data has been disclosed), growth in disclosure rates on a trailing five-year basis (2009–2013) and disclosure timeliness.



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### Corporate Knights CAPITAL

Corporate Knights Capital (CKC) is an investment advisory and research firm based in Toronto, Canada. CKC's mission is to accelerate the transition to long-term sustainable capitalism helping investors to quantify and optimize by their sustainability impact. For more information about CKC, please visit [www.corporateknightscapital.com](http://www.corporateknightscapital.com).

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### Notes

The opinions expressed in this report are those of Corporate Knights Capital and do not necessarily reflect the views of Aviva plc.

Comments on this paper are invited and may be addressed to the authors at [capital@corporateknights.com](mailto:capital@corporateknights.com).

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## FOREWORD

# *COLLECTIVE RESPONSIBILITY*

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Over a number of years, Aviva has been closely involved in promoting sustainability in businesses listed on global exchanges. For example, we convened the Sustainable Stock Exchange investor coalition in 2009, with the support of the Principles of Responsible Investment. This has grown to over 40 investors in 14 countries with \$5.9 trillion of assets under management.

Working with our three UN partner agencies – UNCTAD, UNEP and the Global Compact – 23 stock exchanges have now joined the UN Sustainable Stock Exchange Initiative. These exchanges list over 20,000 companies, collectively worth more than \$40 trillion – a potential powerhouse in doing business responsibly and creating long term prosperity.

Since 2012 Aviva has partnered with Corporate Knights to produce regular reports, ranking how well exchanges – whether they are members of the Initiative or not – are encouraging listed companies to disclose basic data on corporate responsibility.

This is important work. We have a collective responsibility and a shared interest in seeing listed companies measure and disclose how sustainable their activities are. Investors need data on the long term sustainability performance of companies in order to make sustainable long term investment decisions. Companies need to track their own performance so that they can better manage it. As the Inclusive Capitalism movement puts it – we treasure what we measure. This is central to Aviva – one of our values is to create legacy, or as I call it, be a good ancestor.

This is the fourth of these reports – and it means we can begin to see which combinations of regulation and voluntary incentives effectively promote disclosure. Although I am a supporter of market forces and lean regulation, it is clear that regulation in this particular area leads to more disclosure than voluntary mechanisms.

This is not a surprise. But what is surprising is the lack of focus on this area amongst national governments. We have

guidance aplenty, but a general lack of action, especially outside the European Union. This is a missed opportunity – especially as governments are anxious to encourage business to look to the long term in its business and investment decisions.

But this year's report contains some notable results:

- The Helsinki Stock Exchange topped the rankings for the second year in a row;
- Amsterdam and Copenhagen were ranked 2nd and 3rd respectively;
- London has moved up to 5th – the largest exchange in the top ten, benefiting from the recent requirement on listed companies to disclose data on greenhouse gas emissions.

Ultimately, the only true measure of success will be achieving the Initiative's main objective: greater access to data on sustainability from listed companies.

So it is disappointing that the report also finds that progress is still flatlining. In part this may be caused by a proliferation of national approaches as well as overlapping and competing voluntary international standards and guidance. This has led to difficulties in interpretation and implementation for companies operating in different markets.

To deal with this problem, we have suggested that IOSCO (the International Organisation of Securities Commissions) considers its own role here. For our part, we have made it clear to IOSCO that we are not calling for another layer of standards and guidance. Far from it. We are simply suggesting that IOSCO should tackle the excessive complexity in this area and create a properly co-ordinated global approach.

My congratulations to everyone who has contributed to this important work, especially Corporate Knights for being such excellent research partners.

**Mark Wilson,**  
*Group Chief Executive Officer*  
Aviva



## FOREWORD

### *CREATING VALUE*

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I applaud the stock exchanges that are ranked highly in this report for their important work in ensuring there is more transparency about sustainability indicators for the broad range of stakeholders that are interested in businesses. However, this year I issue a challenge to them, and call on these stock exchanges to ensure that the companies listed with them are encouraged to weave a golden thread through this information, linking the information that is relevant to the providers of financial capital in capital markets into one clear, concise, integrated story that explains how the broad range of their resources are creating value over time.

Decision making and policy formulation are strengthened as a result of enhanced corporate transparency and reporting. The additional information that is fed into the market enables both providers of financial capital and the institutions themselves to take more informed actions with the long-term in mind. It is no surprise therefore that stock exchanges are recognizing the need for innovation in reporting, and they should continue the good work outlined in this report by actively creating the conditions by which reporting can become a force for financial stability and sustainable development in the market. I believe stock exchanges have a duty to exercise their influence and should act as catalysts in the evolution of corporate reporting, which is the information architecture for linking stewardship and corporate governance.

The exchanges listed at the top of this report come as no surprise to me as they have all been vocal in their

acknowledgement that value is created through a wide range of resources, playing their own roles in maintaining stability in our markets. It is widely understood that these factions are inextricably interconnected, and now reporting must evolve to reflect this connectivity. The evolution of reporting towards a more integrated and inclusive system will enable businesses to make these connections, and allow investors to understand how the businesses they invest in are dealing with this, by for example, factoring risks such as climate change into resource allocation decisions.

Through considering the interconnection between the resources and relationships a business uses, the dialogue between investors and businesses will naturally shift to focus on strategy for value creation over the short, medium and long term. Stock exchanges are in a prime position to facilitate this shift in focus by creating the conditions in which they flourish.

I note the recommendation in the report to the participants of the Corporate Reporting Dialogue, which has the world's leading reporting framework providers and standard setters as fellow participants. The Landscape Map issued by the Dialogue is the first output, which we hope will assist in starting to explain the jigsaw of corporate reporting frameworks and standards – [www.corporatereportingdialogue.com](http://www.corporatereportingdialogue.com).

**Paul Druckman**  
*Chief Executive Officer,*  
*International Integrated Reporting Council*



## FOREWORD

### *PERFORMANCE TRANSPARENCY*

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Stock exchanges play a pivotal role in bringing companies and investors together, creating a growing pool of capital to facilitate corporate and economic growth. Exchanges are market facilitators based on trust: trust in the regulator, trust in companies, and trust in the policies that govern all market actors. Trust is indispensable for the functioning of markets as it underpins all transactions.

Robust financial reporting enhances the chances of a positive return on investment, thus reducing the risk for the investor; but the company's risk around many non-financial aspects of their business is just as crucial. Transparency on sustainability performance, impacts and commitments of organizations is needed to build the trust that is critical to ensuring a well-functioning, stable and resilient capital market. Stock exchanges around the world are increasingly promoting sustainability reporting and issuing guidance and policies, with the aim of enhancing the trust investors have in their listed companies. Similarly, important policy developments in this space, such as the recent EU directive on the disclosure of non-financial information, and a number of other national legislative processes, are also aimed at increasing trust in companies, markets and policy.

Publications such as this Corporate Knights Capital series are crucial to help identify important trends, gaps and challenges in the market. This year's findings show that although reporting rates have risen over the last few years, the rate of increase has now slowed down and there is a substantial number of companies that still don't report, or don't disclose material information.

The recommendations put forward in this report represent an important step towards finding solutions to overcome these challenges. Stock exchanges and securities regulators play a critical role here as they can directly affect the behavior of companies by continuing to issue guidance or requirements on sustainability reporting. Policy makers also play a fundamental role in addressing the slowdown in the uptake of reporting, and related barriers, by adopting policies that encourage or reward companies, learning from the experience of the many countries that are already leading by example on this. Both policy makers and market actors, as well as others, are already very active and continue to develop important initiatives, and GRI is proud to support many of them in the process. However, there are clear indications that more work and initiatives are needed. It is key that these are carried out in a clear and collaborative environment, and, in this respect, GRI will continue to work with the key actors towards achieving this.

This report provides excellent insights into the trends and challenges in the field of sustainability reporting, particularly in relation to stock exchanges, but the findings also help to inform the work of GRI and other leading organizations in the field. I am confident that this publication will continue to help create the environment and solutions needed to realize the full potential of transparency and sustainability in the capital market and beyond.

**Michael Meehan**  
*Chief Executive,*  
*Global Reporting Initiative*



# Executive Summary

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Now is the time to close the corporate disclosure gap for the most salient sustainability factors, starting by requiring all major companies to report their greenhouse gas emissions.

Current business-as-usual projections put us on track for a world of deep climate disruption with grave economic implications for long-term investors. There is nothing inevitable about this future, especially if we can harness the \$225 trillion firepower of capital markets to finance new energy, industrial and transport systems to de-link carbon from prosperity. But capital markets are largely missing in action not only because of mispriced externalities but also because regulators have left investors in the dark with respect to information about corporate carbon emissions.

How can an investor – like the \$197 billion Dutch pension PFZW which has pledged to reduce its listed company carbon intensity by 50% by 2020 – decarbonize their portfolio when the majority of large companies in all sectors do not report their carbon emissions? The answer is they have to guess, filling in data gaps with estimates that are often less than reliable. Not only does this impede investor efforts to reduce their carbon risk exposure, but it also disrupts the investor-company feedback loop, which stalls progress on shifting corporate cap-ex and executive pay structures to be aligned with the low carbon future desired by most long-term investors.

Whether carbon emissions or earnings numbers, timely, comparable and reliable data does not grow on trees; it is the result of precise regulatory requirements. This year's report once again underlines this point. Each of the top-10 ranked stock exchanges has one thing in common: they are all located in jurisdictions with mandatory, prescriptive and broad

sustainability disclosure policies—what we refer to as “super policies.” The London Stock Exchange is a case in point. In 2012 at the Rio+20 conference at which the first version of this report was launched, the United Kingdom government announced it would be the first country in the world to make it compulsory for listed companies to include emissions data in annual reports. Today, fully 100% of the FTSE 100 disclose their carbon emissions.

Carbon disclosure is not the a-to-z of sustainability data, but it is the better part of the ABC's. It is the number one sustainability metric judged by clout of investors who want it disclosed (\$95 trillion-backed CDP), use it in portfolio wide footprinting (\$4.6 trillion-backed Montreal Carbon Pledge), or factor it into optimization strategies (\$45 billion-backed Portfolio Decarbonization Coalition).

The voluntary mechanisms have served their purpose. There is now broad market awareness around sustainability reporting while voluntary disclosure has flatlined. Regulators must now step in and require mandatory disclosure to close the gap. There is no better place to start than carbon emissions.

Capitalism has proven resilient because of its ability to adapt. This report is a clarion call to stock exchanges and finance ministers around the world to work swiftly with regulators to ensure that investors are no longer denied the information required to decarbonize their portfolios and the planet.

**Toby A.A. Heaps**  
*Chief Executive Officer*  
*Corporate Knights Capital*

# TOP 10

**Figure 1: Top 10 exchanges by Overall Score**

Rank 2015 <i>(2013 data)</i>	Rank 2014 <i>(2012 data)</i>	Rank 2013 <i>(2011 data)</i>	Exchange	Number of companies listed	Final score
1	1	2	Helsinki Stock Exchange	19	89.1%
2	2	10	Euronext Amsterdam	35	85.5%
3	5	7	Copenhagen Stock Exchange	22	75.6%
4	10	17	Australian Securities Exchange	90	73.6%
5	9	11	London Stock Exchange	206	73.2%
6	4	6	Euronext Paris	116	72.9%
7	20	15	Deutsche Börse	92	72.5%
8	3	5	Johannesburg Stock Exchange	55	72.0%
9	7	4	Oslo Stock Exchange	14	71.9%
10	8	1	BME Spanish Exchanges	45	71.0%

## KEY FINDINGS

- **Decrease in disclosure rates:** A general slowdown in the rate of uptake in the reporting of the seven first-generation indicators is noted, as observed in the prior-year reports. For example, the rate of increase in GHG reporting over the period 2009–2010 by the world’s large companies stood at 17%. The corresponding figure for the period 2012–2013 has slowed by two-thirds, down to only 6%.
- **Mandatory disclosure works:** All 10 top-ranked exchanges are located in countries with sustainability disclosure policies that are mandatory, prescriptive and broad. One notable example was the London Stock Exchange, which jumped four places to fifth overall on the back of strong

improvements on GHG disclosure, following the discussion to the 2013 update of the UK Companies Act 2006, requiring listed UK-incorporated companies to disclose GHGs.

- **Top-performing exchange:** The Helsinki Stock Exchange topped this year’s ranking for the second year in a row. Its 19 large listings impressed with high disclosure rates across all seven indicators for the year 2013; most notably, all 19 companies disclosed energy and GHGs for 2013. Furthermore, 12 of the 19 (63%) of the large listed companies on the Helsinki Stock Exchange had already disclosed their sustainability data within three months of their fiscal year-end (December 31, 2014).

- **Developed economies lead on transparency:** Companies listed on stock exchanges based in developed economies are about three times more likely to disclose the seven first-generation indicators than those from emerging economies. For instance, while 46% of the 3,493 large companies based in developed economies disclosed GHGs for 2013, only 15% of their 1,476 counterparts from emerging countries reported GHGs for the same year. The same pattern is observed for energy, water, waste, employee turnover and injury rate.
- **GHGs reporting takes the lead:** GHGs were the most highly reported environmental metric among the seven first-generation indicators in 2013, reported by 37% of the 4,969 large





# 100

The number of companies among the FTSE 100 Index to have disclosed GHGs.

# 37%

The proportion of the 4,969 large listed companies that publicly disclosed their GHGs for 2013.

listings included in this year's study. In contrast, only 10% disclosed injury rates in 2013, which was the most weakly reported indicator among the seven. The Telecommunications Services sector was the most transparent sector on four of the seven indicators: Energy (52%), GHGs (49%), Employee Turnover (25%) and Payroll (77%) for the year 2013. The Materials sector led on the reporting of Water (36%) and Injury Rate (26%) for the year 2013. As for Waste, the Utilities sector had the highest reporting rate for 2013 at 31%.

- **A need for greater transparency:** Only 129 (3%) of the world's 4,969 large companies disclosed all seven first-generation indicators for the year 2013.
- **More companies need to engage in GHG reporting:** A majority (63%) of the world's large listed companies are still not disclosing their GHG emissions; by market capitalization, that's US\$24 trillion (or 39% of total large company market capitalization) where investors must guess if they want an emissions figure. Remarkably, 44% of Energy companies by market capitalization do not report GHGs. The corresponding figure for Utilities and Materials are 38% and 33%, respectively.

- **Highest growth rate:** The Bangkok Stock Exchange experienced the highest average growth in the disclosure of the first-generation indicators. Of the exchange's 41 large listings, 15 of them disclosed energy for 2013, up from only four for the year 2009. Similarly, only five of these 41 large companies disclosed GHGs for 2009; this number grew to 13 for the year 2013.
- **Top performance from European exchanges:** European exchanges once again dominated the top 10 in the ranking, claiming a total of eight spots. The Johannesburg Stock Exchange, which placed eighth in this year's ranking, is the only stock exchange in the top 10 from an emerging economy.
- **Most improved:** The Irish Stock Exchange is the most improved stock exchange, climbing 24 spots to the 13th place in this year's ranking.
- **The developed world leads on the ranking:** Stock exchanges located in developed countries occupy most of the top half of the ranking, occupying 18 of the top 23 spots.
- **Weakest reporting rates by sector:** The Financials sector had the weakest reporting rates for Energy, GHGs, Water, Waste and Injury Rate for the year 2013, which is not surprising given the limited materiality of these

- factors in this sector. The Consumer Discretionary sector was the poorest discloser of Employee Turnover for 2013 (only 7%). The Energy sector has the weakest reporting for Payroll (41%). Close to 67% of the world's large Energy sector companies did not report on either of Energy or GHGs for the year 2013 despite their relatively large environmental footprint. As for Water and Waste, the reporting rate for 2013 was even lower at only 23% and 18%, respectively.
- **Worker safety:** Sectors such as Energy and Materials pose a greater risk to worker safety relative to other sectors, yet they have a relatively low reporting rate for worker injuries. For example, less than a quarter of the Energy sector companies disclosed their injury rates for 2013.
  - **Who is not reporting:** Over 25% of the world's "non-disclosers" – companies that disclosed neither of energy, GHGs, water, waste, employee turnover or injury rate for 2013 – are in the Financials sector, with over half of them being smaller companies in the US\$2–4 billion range in market capitalization. Companies within the US\$2–4 billion range in market capitalization represent 62.6% of the world's non-disclosers.

### RECOMMENDATIONS

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#### Policy-makers:

- Policy-makers both in developed and emerging economies are urged to address the slowdown in the uptake for reporting the seven first-generation sustainability indicators by adopting policies that require or reward companies that engage in such timely disclosures. Given investor interest, the advent of the Portfolio Decarbonization Coalition (PDC)<sup>1</sup> initiative and the implementation of the Intended Nationally Determined Contributions (INDC)<sup>2</sup> ahead of the Conference of Parties 21<sup>3</sup> in Paris later this year, disclosure of GHG emissions, especially by companies in high-carbon industries, is a good place to focus.
- Policy-makers are further encouraged to adopt policy initiatives specifically targeted at and tailored to the circumstances of non-reporting segments, primarily smaller companies in the US\$2–4 billion range in market capitalization, in order to address the specific barriers to sustainability reporting that exist in those segments.

#### Investors, stock exchanges and securities regulators:

- Stock exchanges and securities regulators, through their ability to direct the reporting behaviour of their listed entities, are encouraged to implement policies to require the timely disclosure of sustainability information, for instance, through listing requirements. Stock exchanges and securities regulators may be

inspired by successful case examples such as the London Stock Exchange, the Bangkok Stock Exchange and India's Bombay Stock Exchange and National Stock Exchange or existing implementation frameworks such as the UNCTAD's Best Practice Guidance for Policymakers and Stock Exchanges on Sustainability Reporting Initiatives to facilitate a consistent execution of corporate sustainability reporting requirements.

- For markets not yet ready to put in place mandatory reporting requirements, a first step can be the creation of guidance materials for reporting on environment, social and governance (ESG) considerations. All exchanges are encouraged to have their own guidance in place within a specified time frame.
- We encourage investors to join a Ceres-led coalition of investors representing over US\$9.3 trillion in assets under management (AUM) to convince IOSCO to work more closely with regulators, stock exchanges and other related parties to improve the disclosure of material and high-quality ESG information in the global marketplace.
- It is suggested that institutional investors demand more sustainability transparency by forming or joining initiatives that seek to apply a sustainability lens to investment strategies. The Montreal Carbon Pledge launched by the United Nations-backed Principles for Responsible Investment in September 2014 now has investors

representing over \$4.6 trillion who have pledged to publish their portfolio carbon footprints – which requires emissions data points for all companies – by December 2015, with an aim to reduce financed emissions over time. Similarly, the Sustainable Stock Exchanges Investor Working Group has nearly US\$7 trillion in investors supporting its objective for greater transparency across markets on ESG issues. Investors globally are encouraged to join this initiative to show the markets investors care about ESG information and to work with market players to improve transparency.

#### Sustainability leaders:

- We also call for a rapid and successful conclusion of the work among those participating in the Corporate Reporting Dialogue, which will bring about much-needed clarity and comparability in corporate sustainability reporting, which will likely encourage more investors and corporations to embrace sustainability reporting.

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1. <http://unepfi.org/pdc/>

2. [http://unfccc.int/focus/indc\\_portal/items/8766.php](http://unfccc.int/focus/indc_portal/items/8766.php)

3. <http://www.cop21paris.org/>

# Introduction

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In 2012, Corporate Knights Capital embarked on a mission to measure the extent of sustainability disclosure among the world's largest publicly listed corporations, and this culminated in the publication of "Trends in Sustainability Disclosure: Benchmarking the World's Stock Exchanges," which was released at the Sustainable Stock Exchanges side event to the United Nations Rio+20 conference in June 2012.

The aim was to inform policy-makers, exchanges, regulators, investors and various other stakeholder groups on the state of sustainability reporting by large companies trading on the world's major stock exchanges in an effort to spur concerted action to further popularize sustainability reporting.

This is the fourth instalment of an annual series, and the objective of this report is unchanged – to rank the world's stock exchanges based on the sustainability disclosure practices of their listed companies. Our approach also remains similar; we analyze the disclosure practices according to ESG data found on Bloomberg terminals, where customer use of ESG data grew 76% last year and now stands at over 17,200 users. Specifically, we focus on the world's large listed companies on seven specific numeric sustainability metrics – namely employee turnover energy, greenhouse gas emissions (GHGs), injury rate, payroll, water and waste – thereafter referred to as the "first generation indicators." These seven

numerical indicators are disclosed by more companies across industries than any other social or environmental indicator tracked by Bloomberg for the MSCI World companies, with the exception of community spending, which is subject to significant accounting confusion.<sup>4</sup> While the seven metrics used in this study are more relevant to some sectors than others, each one of these metrics is reported by at least some companies in every sector – even lost-time incidents of a physical nature within the Financials sector.

Of those seven indicators, GHGs or carbon is unquestionably the most heavily tracked, particularly with the upcoming UN Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP21) in Paris in December 2015. Ahead of this conference, countries have agreed to publicly disclose what post-2020 climate actions they intend to take under a new international agreement, known as their Intended Nationally Determined Contributions (INDCs).<sup>5</sup>

For the purposes of establishing the ranking, stock exchanges are assessed on the following three aspects:

- i) the proportion of their large listed companies that disclosed the seven first-generation indicators in the most recent completed reporting period (2013);
- ii) how the disclosure practices of their large listed companies have been trending on a 5-year trailing basis (2009–2013); and
- iii) how quickly their large listed companies publish sustainability data after their December 31, 2014, fiscal year-end.

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4. The 10 numerical social and environmental metrics most widely disclosed by MSCI World Companies according to Bloomberg as of January 2015 are: Total Greenhouse Gas Emissions (53%), Personnel Expense (45%), Energy Total Consumption (44%), Community Spending (40%), Total Water Use (40%), Total Waste (39%), Electricity Used (35%), Lost-Time Incident Rate (20%), Employee Turnover (18%) and Fatalities Total (18%). Please note that electricity overlaps with energy and that NOx and SOx are not disclosed at all by the majority of industries.

5. <http://www.wri.org/indc-definition>

# 24

**US\$24 trillion**

**Total market capitalization of the world's large listed companies which did not disclose their GHGs for 2013.**

By breaking down disclosure performance of the seven indicators at the stock exchange level, the findings of this report can be particularly insightful to several communities that are looking to create more efficient markets that facilitate the creation of long-term economic value.

- i) Stock exchange executives, securities regulators and government-level decision-makers may be able to understand how the large listings on the stock exchanges that they are responsible for are performing in terms of the disclosure of the seven first-generation indicators and to gauge the effectiveness of policies and initiatives meant to encourage reporting on relevant ESG factors among the large listed entities over time. Furthermore, it will be possible to benchmark disclosure performance by large companies listed on other stock exchanges with a view to identifying case studies, best practices and successful policy instruments that can then be adapted in their own stock exchanges.
- ii) Investors, particularly investors who are integrating sustainability performance into their investment strategies, may be able to identify markets where sustainability performance reporting is sufficiently robust to make informed investment decisions. Insights from this report may also help foster more investor-led initiatives to encourage more sustainability transparency by the world's public corporations, such as the investor communication to the IOSCO Secretariat and executive board to draw attention to investors' growing needs for timely, comparable and material disclosure of corporate sustainability information to inform their investment decisions.<sup>6</sup>

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6. This initiative is being facilitated by the United Nations-supported Principles for Responsible Investment (PRI) and Ceres' Investor Network on Climate Risk (INCR), in partnership with the UN Environment Programme Finance Initiative. <http://www.unpri.org/whatsnew/pri-supports-corporate-sustainability-reporting/>.

## BREAKOUT DISCUSSION

### Investors – What’s in it for them

The number of investors who are integrating sustainability performance into their investment strategies and decision-making is on the rise. The number of signatories to the United Nations-supported Principles for Responsible Investment, an international network of investors working together to put the six Principles for Responsible Investment into practice, rose from 100 in April 2006 to 1,380 in April 2015, representing US\$59 trillion in assets under management.<sup>7</sup>

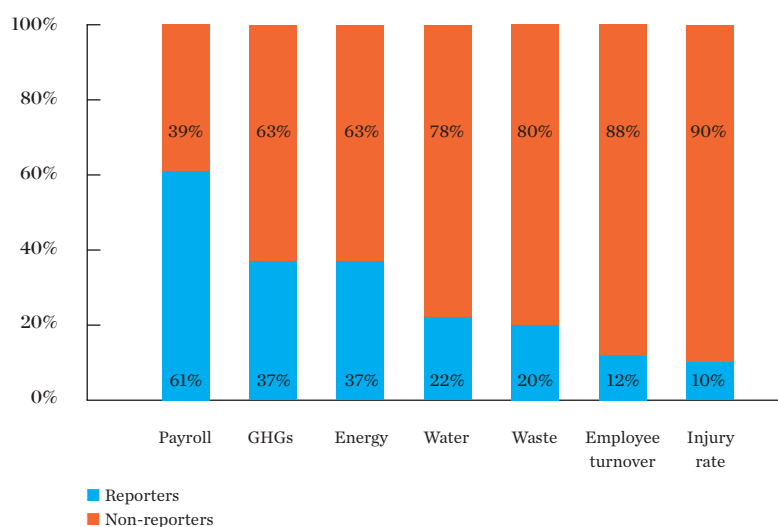
This spectacular rise is in part due to higher societal expectations of systemically important financial institutions, a broadening awareness of sound risk management and mounting

evidence that sustainability-focused investing not only is good for the planet but also leads to superior returns. A recent study at the Harvard Business School found that “firms with good performance on material sustainability issues significantly outperform firms with poor performance on these issues, suggesting that investments in sustainability issues are shareholder-value enhancing. Further, firms with good performance on sustainability issues not classified as material do not underperform firms with poor performance on these same issues, suggesting investments in sustainability issues are at a minimum not value-destroying. Finally, firms with good

performance on material issues and concurrently poor performance on immaterial issues perform the best. These results speak to the efficiency of firms’ sustainability investments, and also have implications for asset managers who have committed to the integration of sustainability factors in their capital allocation decisions.”<sup>8</sup>

Making such informed, value-enhancing investment decisions greatly depends on the availability of sustainability data. However, a majority of the world’s large listings are still not reporting their performance. In the case of GHGs, for instance, it was reported by only 37% or 1,847 of the world’s 4,969 large listings for the year 2013.

**Figure 2: Reporters versus non-reporters of the seven first-generation indicators, 2013**



7. Source: United Nations Principles for Responsible Investment. <http://www.unpri.org/whatsnew/signatory-base-aum-hits-59-trillion/>

8. Khan, Mozaffar N., George Serafeim, and Aaron Yoon. “Corporate Sustainability: First Evidence on Materiality.” Harvard Business School Working Paper, No. 15-073, March 2015.

## BREAKOUT DISCUSSION

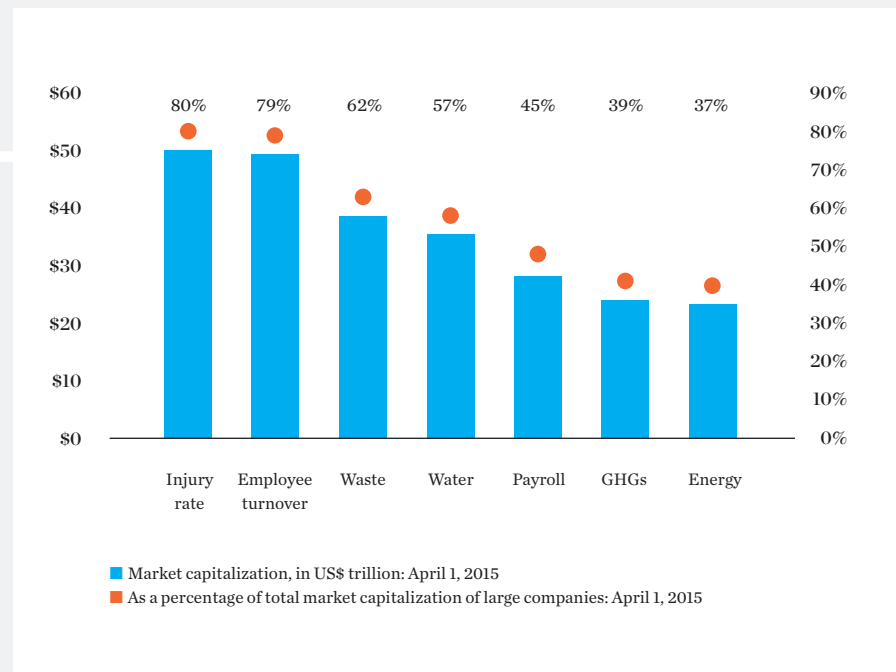
Investors – What’s in it for them

*THE MONTREAL CARBON PLEDGE (MCP) IS TARGETING INVESTORS WITH \$3 TRILLION TO BE PUBLICLY DISCLOSING THEIR PORTFOLIO CARBON EMISSIONS BY THE UN CLIMATE SUMMIT IN PARIS THIS DECEMBER, 2015, WHILE THE PORTFOLIO DECARBONIZATION COALITION IS AIMING TO DECARBONIZE \$100 BILLION OF INVESTMENTS BY THE SAME DATE.*

In terms of market capitalization, the picture is not much better. As of April 1, 2015, the market capitalization of all large listed companies amounted to US\$62.2 trillion; 39% of this amount or close to US\$24 trillion worth of

publicly-listed equities did not report on their GHGs for the year 2013. This figure climbs to US\$35.3 trillion or 57% in the case of Water. Figure 3 below shows the same statistics for the remaining five indicators.

**Figure 3: Non-reporters among large companies by market capitalization as of April 1, 2015**



**Figure 4: The case of GHGs: Market capitalization of reporters versus non-reporters by GICS sector among large companies as of April 1, 2015**

GICS sector	Market capitalization of the world's large companies that disclosed GHGs for 2013 (US\$ trillion)	Market capitalization of the world's large companies which did not disclose GHGs for 2013 (US\$ trillion)	Total market capitalization (US\$ trillion)	Non-reporters as a percentage of total market capitalization
Financials	7.4	7.3	14.7	50%
Energy	2.7	2.2	4.9	44%
Consumer Discretionary	4.5	3.3	7.8	42%
Utilities	1.3	0.8	2.2	38%
Industrials	4.4	2.7	7.1	38%
Information Technology	5.0	2.6	7.6	34%
Materials	2.5	1.3	3.8	33%
Health Care	4.1	1.7	5.8	30%
Telecommunication Services	1.9	0.7	2.6	27%
Consumer Staples	4.2	1.2	5.4	22%

GHGs or carbon is arguably the most widely tracked and broadly relevant sustainability indicator. It is significant to the point of being the focus of the investor-backed Montreal Carbon Pledge (MCP) and the Portfolio Decarbonization Coalition (PDC), whose primary purposes are, respectively, to publicly disclose portfolio GHG emissions and reduce portfolio GHG emissions. The MCP is targeting investors with \$3 trillion to publicly disclose their portfolio carbon emissions by the UN Climate Summit in Paris this December,<sup>9</sup> while the PDC is aiming to decarbonize \$100 billion of investments by the same date. As of June 22, the MCP is at \$4.6 trillion, and the PDC is at \$45 billion. Given the growing depth and pitch of investor interest in carbon metrics, this is clearly a case where policy-makers and

companies are not keeping up with investor demand. Some low-carbon indexes, such as the Solactive CK Low Carbon versions, now exclude any company who does not disclose carbon emissions if it is in a GHG-intensive sector. It is astonishing that so many companies in the three highest GHG-intensive sectors do not report: 44% of the world's market capitalization of Energy companies did not report on GHGs for 2013. The corresponding figures for Utilities and Materials are 38% and 33% respectively.

Reporting on sustainability factors has grown substantially, and this has helped propel an increasingly higher amount of investment capital toward sustainability investment strategies. However, a significant portion of the world's equity markets still lack the necessary transparency.

**44%**

of the world's market capitalization of Energy companies did not report on GHG for 2013. The corresponding figure for Utilities and Materials are 38% and 33% respectively.

9. Sources: <http://montrealpledge.org/>, <http://unepfi.org/pdc/>

# Methodology

Our ranking model has remained unchanged since our inaugural report in 2012. As such, it is possible to track the changes in a given stock exchange’s sustainability disclosure performance over time. The methodology is presented below:

Please refer to Appendix A for a more detailed review of the methodology.

Aspect	Explanation
<i>Unit of analysis</i>	“Large” publicly traded companies, defined as companies with a market capitalization in excess of US\$2 billion as of the close of trading on March 31, 2015. The total was 4,969 companies.
<i>Level of aggregation</i>	The 4,969 large companies were aggregated according to the stock exchange on which their shares are primarily traded. <sup>10</sup> Stock exchanges with less than 10 large companies are removed from this study in order to maintain statistical significance. A total of 45 stock exchanges remained after applying the above filter.
<i>Data source</i>	The data used in the analysis was obtained from Bloomberg’s ESG database on April 1, 2015.
<i>Key performance indicators</i>	The 45 stock exchanges included in this study were assessed using three measures of performance: <ol style="list-style-type: none"> <li>i) The Disclosure Score (50% weight). The Disclosure Score measures the proportion of an exchange’s large listings that disclosed the seven first-generation indicators in 2013. The indicators are equally weighted in terms of their contribution to the Disclosure Score.</li> <li>ii) The Disclosure Growth Score (20% weight). The Disclosure Growth Score measures the growth rate in the proportion of an exchange’s large listings that disclosed the seven first-generation indicators over the 2009–2013 period.</li> <li>iii) The Disclosure Timeliness Score (30% weight). The Disclosure Timeliness Score measures how quickly an exchange’s large listings report sustainability data to the market after the end of their fiscal year.</li> </ol>
<i>Historical data</i>	The Disclosure Score is based on data for the year 2013. The reason for this “gap” is data completeness. Companies’ fiscal year-ends vary, and many companies still take more than 12 months after their fiscal year-end to disclose their sustainability data. As of April 1, 2015, 2013 is the most recent time period for which the majority of companies engaged in sustainability reporting have disclosed their results.

10. Companies were aggregated on the basis of their “primary listing.” For example, Rio Tinto Plc trades on the London Stock Exchange (primary exchange) and on the New York Stock Exchange as an ADR. In our study, Rio Tinto Plc is grouped under the London Stock Exchange only.



# Sustainability Disclosure Trends

# 4.6

**US\$4.6 trillion**

Value of investment assets as at June 22, 2015 that have been pledged for carbon footprinting and public disclosure.

Governments, securities regulators, stock exchanges and private for-profit and non-profit organizations alike have been active over the last decade in producing numerous policies, pieces of legislation and frameworks<sup>11</sup> aimed at promoting corporate sustainability disclosure. However, corporate reporting on these issues remains largely a voluntary practice.

In 2014, one of the most notable developments was the European Union enacting the directive on disclosure of non-financial and diversity information; large public companies with more than 500 employees are required to disclose relevant and material environmental and social information in their annual reports. In addition, affected companies will also be required to provide information on their diversity policy and on the gender, geographical diversity, and educational and professional backgrounds of their employees.<sup>12</sup> among other things.

Another major development was the

creation of the Montreal Carbon Pledge and Portfolio Decarbonization Coalition, through which investors commit to respectively disclose and reduce the carbon footprint of their investment portfolio. The target is to have institutional investors with \$3 trillion in assets disclosing their carbon footprints and those with \$100 billion actively reducing their carbon footprints by December 2015.<sup>13</sup> As of June 22, 2015, investors representing over \$4.6 trillion<sup>14</sup> have pledged to publish their portfolio carbon footprint, while \$45 billion of portfolios have been decarbonized, generally by investing in low-carbon indices that exclude or underweight GHG-intensive companies.

Sustainability reporting, including that on GHGs, by large companies, however, remains low. As shown in figure 5, the disclosure of the seven first generation indicators by the world's large companies rose over the period 2009–2013 but at a slowing pace. For instance, the number of large companies

that disclosed GHGs in 2013 stood at 1,847, an increase of 6% compared to 2012. However, these 1,847 entities represent only 37% of the world's large listings; a majority of the world's large companies (63%) still did not report on their greenhouse gas emissions for 2013. The statistics are generally worse for the remaining six indicators. As shown in figure 6, while the reporting rate for energy for 2013 equalled that of GHGs at 37%, water was reported by only 22% of the world's large listings, waste by 20%, employee turnover by 12% and injury rate by only 10%.

11. For a complete inventory of existing policy instruments designed to promote corporate sustainability reporting, a number of online resources exist: (i) <https://www.globalreporting.org/information/policy/Pages/default.aspx>, (ii) <http://www.sseinitiative.org/dr-summary/>

12. <http://www.iasplus.com/en/news/2014/11/eu-esg>

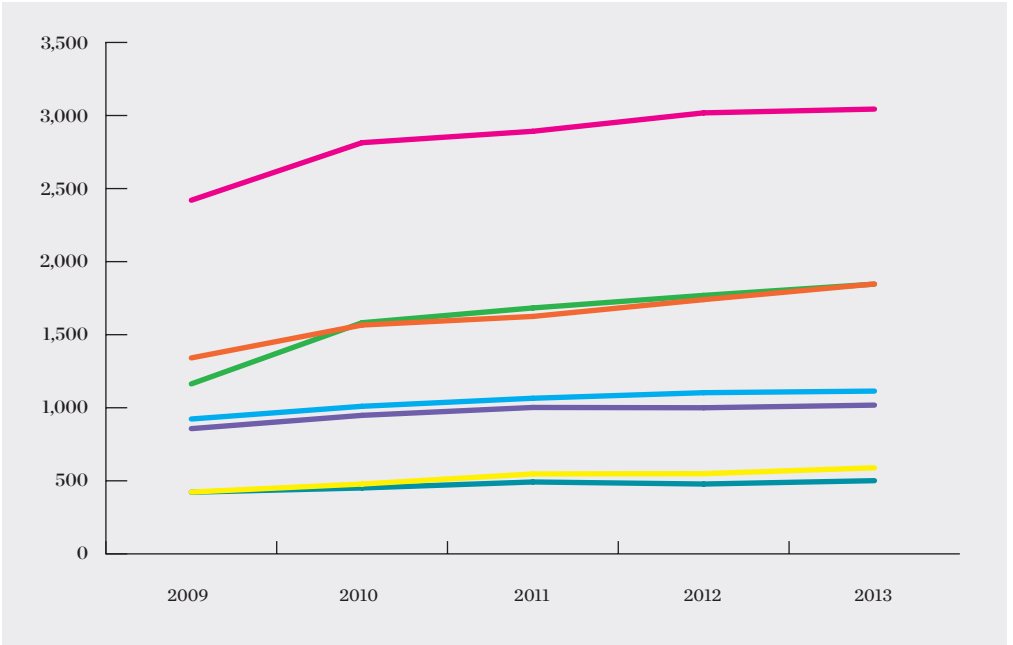
13. Sources: <http://montrealpledge.org/>, <http://unepfi.org/pdc/>, <http://www.unep.org/newscentre/Default.aspx?DocumentID=2796&ArticleID=10991>

14. Source: Corporate Knights Inc.

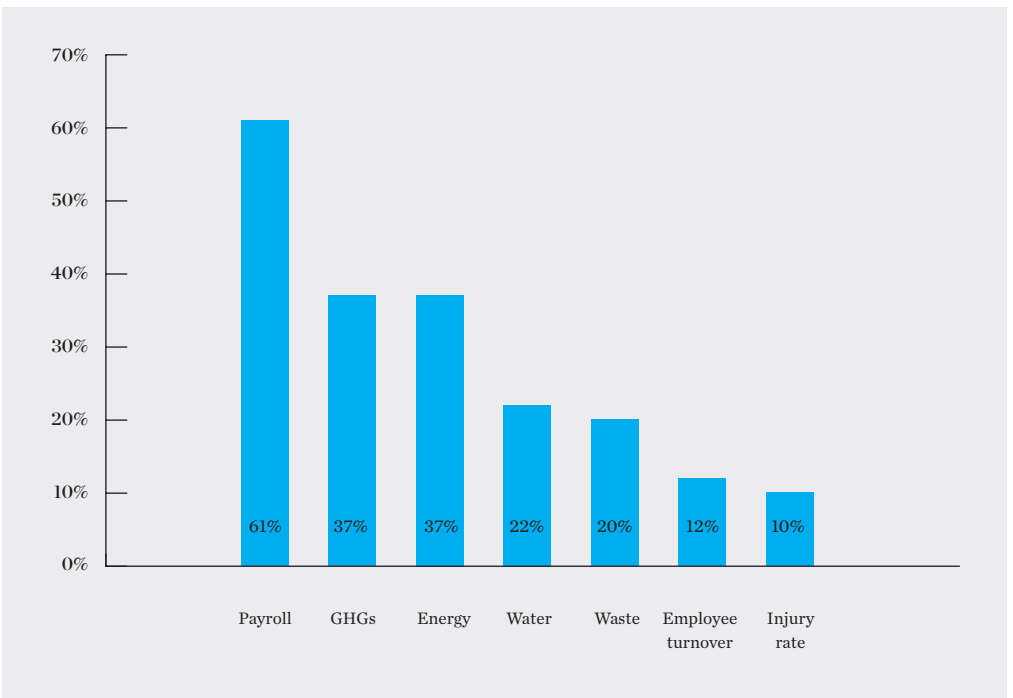
## Sustainability Disclosure Trends

**Figure 5:**  
**Number of large companies which disclose the first-generation sustainability indicators, 2009-2013.**

- Payroll
- GHGs
- Energy
- Water
- Waste
- Employee turnover
- Injury rate



**Figure 6:**  
**First-generation sustainability indicators disclosure by large companies as a percentage of the total number of large companies, 2013**



Most importantly, as evidenced by figure 5, the rate of uptake in reporting is slowing down. In the case of GHGs, the rate of increase in GHG reporting over the period 2009–2010 by the world’s large companies stood at 17%. However, as noted earlier, the corresponding figure for the period 2012–2013 is down to only 6%. Assuming that the number of large companies and rate of uptake in GHG reporting remains the same, it will take approximately 17 years for all these large companies to report on GHGs. The same “slowdown” is noted for the other six indicators.

With the exception of payroll,<sup>15</sup> the disclosure of the seven first-generation

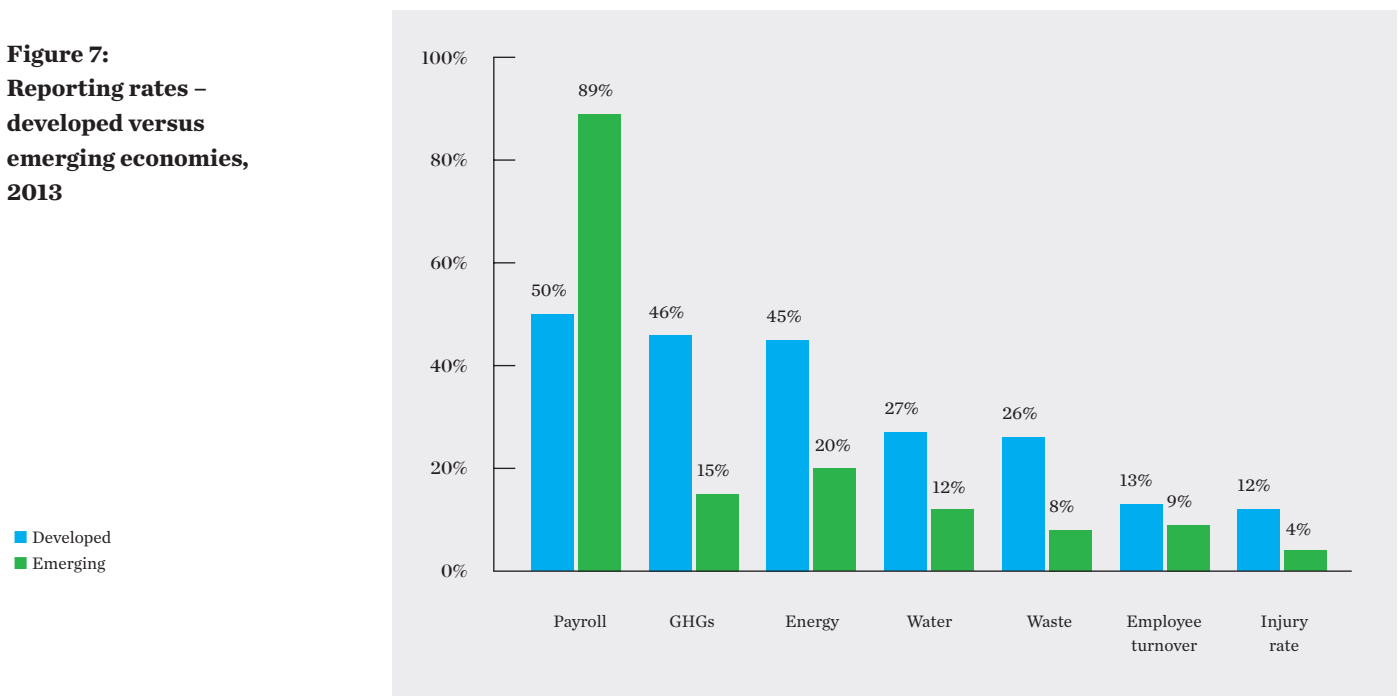
indicators is significantly lower among companies trading on stock exchanges based in emerging countries. For instance, while 46% of the 3,493 large companies based in developed economies disclosed GHGs for 2013, only 15% of their 1,476 counterparts from emerging countries reported GHGs for the same year. The same pattern is observed for the remaining five indicators as shown in figure 7.

Adding to the problem, it appears that the general trend is a continual slowdown in the year-over-year growth of disclosure across the seven first-generation indicators not only among large listings in developed countries but also

among their counterparts in emerging economies. As shown in figure 8, the growth rate for the disclosure of GHGs by large listings in developed economies fell from 14% over the period 2009–2010 to 6% for 2012–2013. However, a similar trend is noted among large listings in emerging countries, where the corresponding growth rate plunged from 41% for the period 2009–2010 to only 4% for 2012–2013.

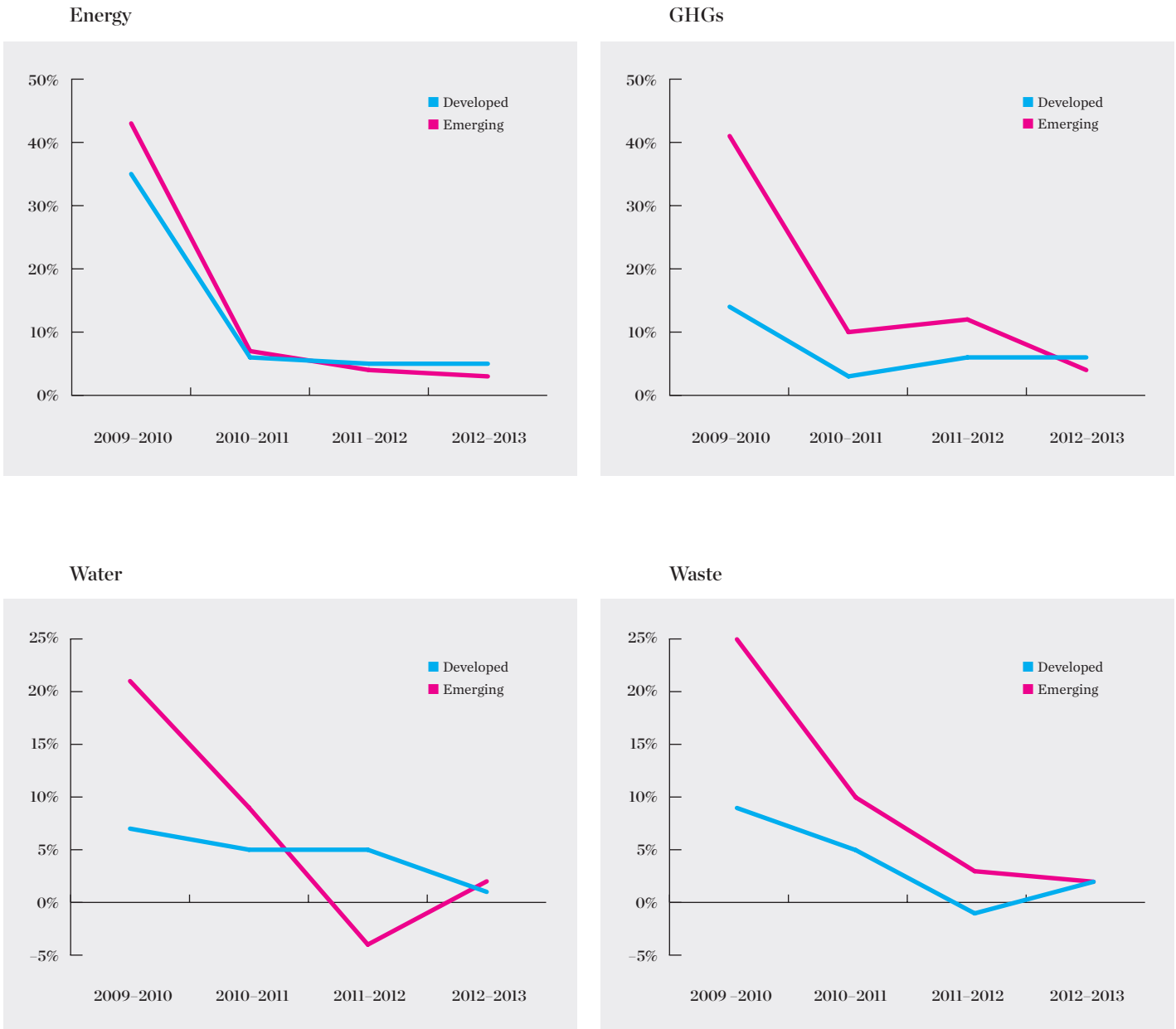
15. This may in part be due to the use of the International Financial Reporting Standards (IFRS) as the financial reporting standard, which under IAS 19 – Employee Benefits mandates the disclosure of payroll costs.

**Figure 7:**  
**Reporting rates –**  
**developed versus**  
**emerging economies,**  
**2013**

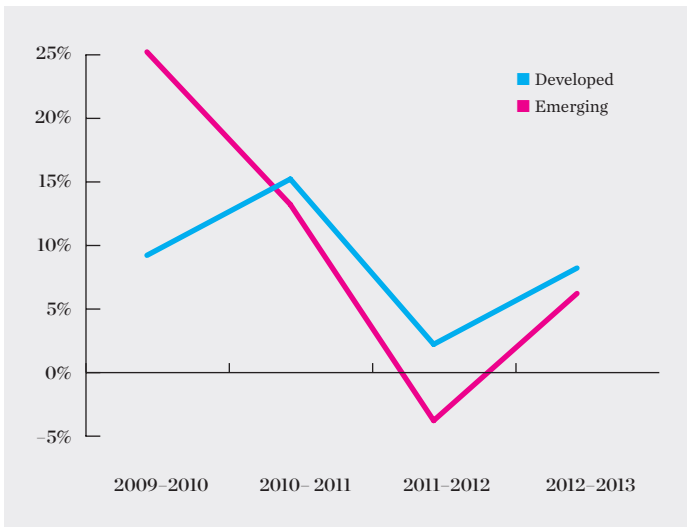


## Sustainability Disclosure Trends

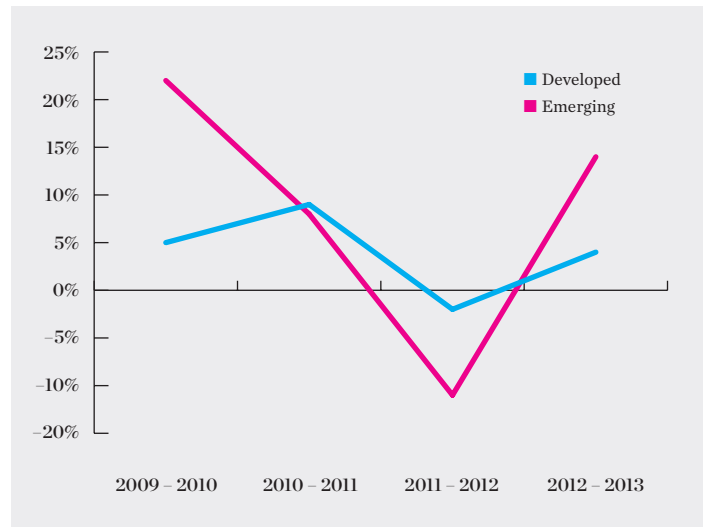
**Figure 8:**  
**Year-over-year growth rates in the disclosure**  
**of the seven first-generation indicators**



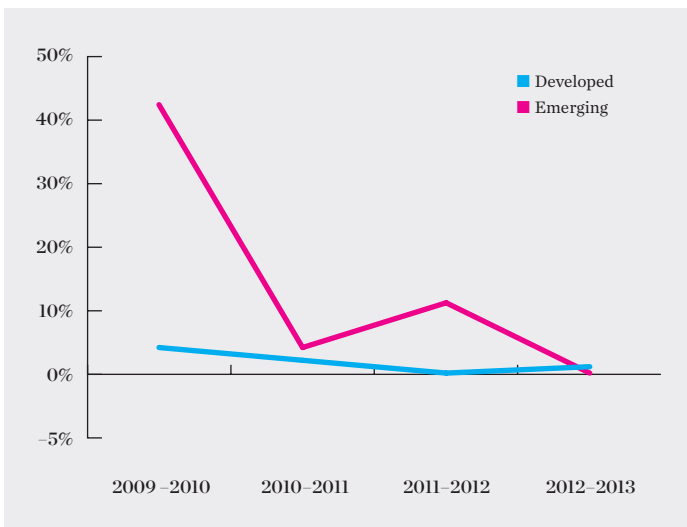
Employee turnover



Injury rate



Payroll



Special attention by policy-makers to further boost the rate of uptake in sustainability reporting by large companies in emerging economies appears to be in order.

On a sectorial basis, the Materials and Telecommunication Services sectors turn out to have the highest reporting rates on the seven indicators except in the case of waste. As shown in figure 9, 31% of the Utilities companies reported waste for 2013, the highest among all 10 GICS sectors.

## Sustainability Disclosure Trends

*SIMILARLY DISQUIETING IS THE LOW REPORTING RATE OF THE INJURY RATE INDICATOR IN GENERAL BUT MOST DISCONCERTINGLY BY THE SECTORS SUCH AS ENERGY AND MATERIALS WHERE THE NATURE OF THEIR OPERATIONS POSE A GREATER RISK TO WORKER SAFETY RELATIVE TO OTHER SECTORS.*

The Financials sector happens to be the worst reporter on a majority of the seven indicators. For instance, only 30% of the sector reported on GHGs for the year 2013, the lowest among all 10 GICS sector. The low reporting rate by large companies in the Financials sector may in part be due to the relatively lower environmental impact of their operations. But there are regulatory developments afoot for the Finance sector on the issue of financed emissions. This May, for instance, France announced that it will require institutional investors to disclose GHGs

associated with their investments.

However, in the case of the Energy sector, it is noted that GHGs was reported by just a third of the world's large companies despite the relatively higher environmental footprint of the Energy sector operations. It is hard to explain why companies in much less GHG-intensive sectors such as Consumer Staples and Consumer Discretionary are more likely to report their GHGs than companies in the GHG-intensive Energy sector.

Similarly disquieting is the low reporting rate of the injury rate

indicator in general but most disconcertingly by the sectors such as Energy and Materials where the nature of their operations poses a greater risk to worker safety relative to other sectors. For example, less than a quarter of the Energy sector companies and only 26% of Materials sector companies disclosed their injury rates for 2013.

Policy-makers as well as civil society have an opportunity to engage companies in these sectors to enhance transparency, especially in the areas described above.

**Figure 9: Disclosure rate by GICS Sector, 2013**

GICS sector	Energy	GHGs	Water	Waste	Employee turnover	Injury rate	Payroll
Consumer Discretionary	33%	35%	17%	17%	7%	5%	61%
Consumer Staples	48%	46%	28%	29%	13%	12%	69%
Energy	33%	33%	23%	18%	16%	22%	41%
Financials	31%	30%	16%	13%	13%	2%	61%
Health Care	33%	31%	20%	18%	7%	9%	53%
Industrials	43%	43%	27%	25%	11%	13%	73%
Information Technology	33%	35%	18%	17%	7%	5%	48%
Materials	48%	45%	36%	30%	17%	26%	70%
Telecommunication Services	52%	49%	26%	28%	25%	14%	77%
Utilities	40%	44%	35%	31%	21%	18%	65%

■ Lowest reporting rate ■ Highest reporting rate

# BREAKOUT DISCUSSION

## Profiling the non-disclosers

This year's report studied a total of 4,969 large companies trading on 88 different stock exchanges around the world. Of these, and ignoring the disclosure of payroll,<sup>16</sup> 2,923 companies (59%) did not disclose any results for energy, GHGs, water, waste, employee turnover or injury rate for the year 2013.

What are the characteristics of these “non-disclosers”? Table 10 breaks down those 2,923 non-disclosers under three dimensions:

- Type of economy they are based in;
- The GICS sector to which they belong; and
- The size of the companies measured

by their market capitalization in U.S. dollars as at April 1, 2015, broken down in four bands: US\$2 billion to US\$4.9 billion, US\$5 billion to US\$9.9 billion, US\$10 billion to US\$24.9 billion and US\$25 billion and above.

**Figure 10:**  
**Breakdown of large companies that did not disclose any data for energy, GHGs, water, waste, employee turnover and injury rate for the year 2013**

	Market capitalization (in billions)	Type of economy	Consumer Discretionary	Consumer Staples	Energy	Financials	Health Care	Industrials	Information Technology	Materials	Telecommunication Services	Utilities	Total
US\$2 to US\$4.9	Developed	5.9%	1.8%	2.8%	10.2%	3.3%	4.0%	4.7%	1.6%	0.5%	1.5%	36.2%	
	Emerging	3.2%	2.2%	1.0%	5.0%	2.2%	4.8%	2.9%	3.6%	0.4%	1.1%	26.4%	
US\$5 to US\$9.9	Developed	2.1%	0.6%	1.1%	3.9%	1.1%	1.9%	1.5%	0.7%	0.2%	0.6%	13.7%	
	Emerging	1.2%	0.6%	0.2%	1.5%	0.3%	1.3%	0.9%	0.8%	0.3%	0.4%	7.5%	
US\$10 to US\$24.9	Developed	1.6%	0.4%	0.7%	1.4%	0.7%	0.6%	0.8%	0.3%	0.1%	0.1%	6.7%	
	Emerging	0.3%	0.4%	0.1%	1.6%	0.2%	0.5%	0.2%	0.2%	0.1%	0.2%	3.8%	
US\$25 and above	Developed	0.6%	0.0%	0.6%	1.1%	0.5%	0.4%	0.7%	0.1%	0.2%	0.1%	4.3%	
	Emerging	0.1%	0.0%	0.1%	0.7%	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%	1.3%	
<b>Total</b>		<b>15.1%</b>	<b>6.0%</b>	<b>6.5%</b>	<b>25.4%</b>	<b>8.3%</b>	<b>13.7%</b>	<b>11.6%</b>	<b>7.4%</b>	<b>1.9%</b>	<b>4.1%</b>	<b>100%</b>	

16. The disclose of payroll may be influenced by the requirement in certain jurisdictions to use IFRS as the financial reporting standard, which under IAS 19 – Employee Benefits mandates the disclosure of payroll costs.

# BREAKOUT DISCUSSION

Profiling the non-disclosers

**Figure 11:**  
**Breakdown of large companies that did not disclose GHGs for 2013**

Market capitalization (in billions)	Type of economy	Consumer Discretionary	Consumer Staples	Energy	Financials	Health Care	Industrials	Information Technology	Materials	Telecommunication Services	Utilities	Total
US\$2 to US\$4.9	Developed	5.7%	1.7%	2.7%	9.8%	3.2%	4.0%	4.4%	1.5%	0.5%	1.4%	34.9%
	Emerging	3.1%	2.1%	1.2%	4.7%	2.3%	4.9%	2.7%	3.8%	0.4%	1.2%	26.4%
US\$5 to US\$9.9	Developed	2.0%	0.5%	1.0%	3.7%	1.0%	2.0%	1.4%	0.7%	0.2%	0.6%	13.3%
	Emerging	1.2%	0.7%	0.3%	1.5%	0.4%	1.4%	0.8%	1.0%	0.3%	0.4%	7.9%
US\$10 to US\$24.9	Developed	1.6%	0.4%	0.7%	1.4%	0.6%	0.7%	0.8%	0.4%	0.1%	0.3%	7.0%
	Emerging	0.4%	0.4%	0.1%	1.6%	0.2%	0.6%	0.2%	0.3%	0.3%	0.3%	4.3%
US\$25 and above	Developed	0.6%	0.0%	0.6%	1.3%	0.5%	0.4%	0.6%	0.1%	0.2%	0.1%	4.5%
	Emerging	0.1%	0.1%	0.2%	0.8%	0.1%	0.2%	0.0%	0.0%	0.2%	0.1%	1.7%
<b>Total</b>		<b>14.6%</b>	<b>6.0%</b>	<b>6.8%</b>	<b>24.9%</b>	<b>8.2%</b>	<b>14.1%</b>	<b>11.0%</b>	<b>7.9%</b>	<b>2.1%</b>	<b>4.4%</b>	<b>100%</b>

**The following stand out:**

- About a quarter of the world’s non-disclosers are in the Financials sector, with over half of them being smaller companies in the US\$2–4.9 billion range in market capitalization. The Consumer Discretionary GICS sector represented 15.1% of the world’s non-disclosers, with a majority of them being companies in the US\$2–4.9 billion range in market capitalization.
- Generally, the smaller companies within the US\$2–4.9 billion range in market capitalization account for the lion’s share of the non-disclosers at 62.6%. A lack of sufficient resources to

engage in sustainability reporting and different levels of stakeholder interest may in part explain this state of things.

- Of the world’s non-disclosers, 36.2% are smaller companies in the US\$2–4.9 billion range in market capitalization based in developed economies. Companies in the developed world account for close to 61% of the world’s non-disclosers regardless of size and GICS sector, roughly in line with their 70% share of all large listed companies.
- Bigger companies are more likely to disclose energy, GHGs, water, waste, employee turnover and injury rate. While 62.6% of the world’s non-dis-

closers are in the US\$2–4.9 billion range in market capitalization, companies with a market capitalization of US\$25 billion and above represent only 5.6% of the world’s non-disclosers.

Policy-makers around the world are urged to adopt measures that are targeted at and tailored to the circumstances of the non-reporting segments to address the specific barriers that exist in those segments in order to stem the persistent trend in low reporting rates of sustainability data.



# Ranking

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Applying our ranking model to the 45 stock exchanges included in our study, the Helsinki Stock Exchange had the best overall performance, topping the ranking for the second year in a row. This is an indication of the focus of and continued impetus among the Helsinki Stock Exchange's large listings toward increased sustainability transparency. It also points to the existence of an environment that is conducive to superior sustainability reporting practices, which may be benchmarked by other stock exchanges that are engaged in a process of promoting sustainability reporting among their respective large listings.<sup>17</sup>

The Euronext Amsterdam placed 2nd, followed by the Copenhagen Stock Exchange (3rd), the Australian Securities Exchange (4th), the London Stock Exchange (5th), the Euronext Paris (6th), the Deutsche Börse (7th), the Johannesburg Stock Exchange (8th), the Oslo Stock Exchange (9th) and the BME Spanish Exchanges (10th).

All 10 top-ranked exchanges are located in countries with sustainability disclosure policies that are mandatory,

prescriptive and broad – what we refer to as “super policies.” Of the 10 bottom-ranked exchanges, six are based in countries with no super policies in place.<sup>18</sup> Furthermore, no evidence of the existence of any policy geared toward the promotion of corporate sustainability disclosure could be found for two of the other 10 bottom-ranked stock exchanges – the New Zealand Stock Exchange and the Dubai Financial Market.

As in the prior-year rankings, European stock exchanges occupy a majority of the top 10 spots. In this year's top 10, a total of eight stock exchanges hail from European countries. The continued strong performances by European stock exchanges suggest the existence of socio-cultural and regulatory conditions that continually promote sustainability disclosure.<sup>19</sup>

The Johannesburg Stock Exchange (JSE) is the only stock exchange in this year's top 10 based in an emerging country. It dropped five spots to the 8th place in this year's ranking, in part due to a slightly lower disclosure score (caused by a weaker disclosure rate for

energy, GHGs, water, waste, injury rate and employee turnover) and a weaker Timeliness Score, which may be suggestive of the limitations of achieving comprehensive integrated reporting on a comply-or-explain basis, the model embedded in the once pioneering King Code of Governance (King III).<sup>20</sup>

The Irish Stock Exchange was the exchange that improved the most – climbing 24 spots from last year to the 13th position in this year's ranking. Large listings on the Irish Stock Exchange are noted for the continued improvement in the reporting of energy, GHGs, employee turnover, injury rate and payroll. Despite the small size of the exchange (11 large listings as at April 1, 2015), the disclosure performance of its large listings offers an interesting case mostly due to the relative absence of national policies geared toward the promotion of sustainability reporting. Membership in the European Union and hence the discussions taking place in advance of passing its directives,<sup>21</sup> as well as sustainability reporting practices of large companies from other European countries, likely played a catalytic role.

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17. The more extensive sustainability reporting practices among Finnish companies may be a function of several pieces of legislation such as the Act No. 1304 (2004), the Finnish Accounting Act (2004), General guidelines for recording, accounting and disclosing of environmental issues (2006) and Government Resolution on State Ownership Policy (2011). A 2012 study by Matthias S. Fifka and Maria Drabble also points to socio-cultural factors, suggesting that strong environmentalism in Finland may contribute to superior environmental reporting (Fifka, M. S., & Drabble, M. (2012). Focus and standardization of sustainability reporting – A comparative study of the United Kingdom and Finland. *Business Strategy and the Environment*, 21(7), 455-474. doi:10.1002/bse.1730). It can then be suggested that strong environmental disclosure practice may have spillover effects on other dimensions of sustainability reporting.

18. The Lima Stock Exchange, Saudi Arabia Stock Exchange, Kuwait Stock Exchange, Qatar Stock Exchange, Santiago Stock Exchange and Tel Aviv Stock Exchange. Based on Lee, B., Morrow, D. and Yow, M. (2013). Trends in Sustainability Disclosure: Benchmarking the World's Stock Exchanges. Retrieved from <http://static.corporateknights.com/StockExchangeReport2013.pdf> on May 19, 2015.

19. For more information on the Directive, see [http://europa.eu/rapid/press-release\\_STATEMENT-14-124\\_en.htm](http://europa.eu/rapid/press-release_STATEMENT-14-124_en.htm). File accessed September 3, 2014.

20. See <http://www.world-exchanges.org/insight/views/integrating-sustainability-south-africa>. File accessed April 24, 2015.

21. EU Modernisation directive (2003/51/EC) and the Directive 2014/95/EU Of The European Parliament And Of The Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups.

## Ranking

The progression of the Deutsche Börse by 13 spots to the eighth place in this year's ranking is also noteworthy. Large listings on the Deutsche Börse showed improvement in the reporting of all seven first-generation indicators; this may in part be due to the exchange releasing a guidance on reporting on sustainability in 2013,<sup>22</sup> as well as the issuance in 2013 of the revised version of the German Sustainability Code by the German Council for Sustainable Development.<sup>23</sup>

The Australian Securities Exchange

continues to progress in the ranking, climbing from the 17th spot in the 2013 ranking to the 4th place this year. The Australian Securities Exchange showed strength across all three indicators, maintaining an upper-second-quartile performance on both the Disclosure Score and Disclosure Growth score and a top-quartile performance on the Disclosure Timeliness Score. Australia also stands out as a jurisdiction with no less than six policy initiatives in place meant to promote corporate sustainability disclosure.<sup>24</sup>

22. [https://deutsche-boerse.com/dbg/dispatch/en/binary/gdb\\_content\\_pool/imported\\_files/public\\_files/10\\_downloads/33\\_going\\_being\\_public/10\\_products/Communicating\\_sustainability/Communicating\\_sustainability.pdf](https://deutsche-boerse.com/dbg/dispatch/en/binary/gdb_content_pool/imported_files/public_files/10_downloads/33_going_being_public/10_products/Communicating_sustainability/Communicating_sustainability.pdf)

23. <https://www.globalreporting.org/information/policy/initiatives-worldwide/Pages/Germany.aspx>

24. Based on Lee, B., Morrow, D. and Yow, M. (2013). Trends in Sustainability Disclosure: Benchmarking the World's Stock Exchanges. Retrieved from <http://static.corporateknights.com/StockExchangeReport2013.pdf> on May 19, 2015.

The London Stock Exchange's ascension to fifth place this year (from ninth a year ago) is a clear example of how targeted mandatory disclosure policy can quickly close the disclosure gap. A 2013 update to the UK Companies Act (2006)

requires UK incorporated companies listed on the London Stock Exchange main market, NYSE or Nasdaq to report their levels of GHGs. This effectively elevates GHGs from voluntary to regulatory disclosure. The discussion

in the lead-up to the update helped catalyze a surge in GHG reporting: Fully 100% of FTSE 100 companies now disclose their GHGs, while 91% of LSE's 206 large listings do as well.

Stock exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013
London Stock Exchange	206	70%	74%	76%	81%	91%
All large companies in the research universe	4,969	27%	32%	33%	35%	37%

*EUROPEAN EXCHANGES  
ONCE AGAIN DOMINATED  
THE TOP 10 IN THE  
RANKING CLAIMING  
A TOTAL OF EIGHT SPOTS.*

Among the exchanges based in emerging countries, India's stock exchanges – the Bombay Stock Exchange and National Stock Exchange – stand out with an improvement of 19 spots to the 16th place in this year's ranking. Large listings on India's stock exchanges are noted for an increase in the number of companies disclosing all seven first-generation indicators, primarily energy and GHGs for the year 2013. For example, the number of large listings that disclosed GHGs rose from 17 for the year 2009 to 40 for 2013. The rapid uptake in reporting on these factors may be attributed to a number of government and securities regulator-led initiatives, particularly the Securities and Exchange Board (SEBI)'s 2012 requirement for mandated listed companies to submit business responsibility reports.<sup>25</sup>

The Bangkok Stock Exchange progressed 10 spots from the 27th to the 17th place in this year's ranking. Interestingly, the disclosure rate of all seven first-generation indicators by the exchange's 41 large listings virtually doubled for the year 2013 compared to a year ago. This notable improvement could in part be due to the exchange's guidance document issued on June 29, 2012, that provides an overview of the principles, theory and implementation of social responsibility.<sup>26</sup>

Switzerland's SIX Swiss Exchange continues to impress with a strong performance across all three indicators, ending up in the 12th position in this

year's ranking, up from the 15th spot in last year's ranking. Its performance is even more striking given the absence of any mandatory policy aimed at the disclosure of corporate sustainability performance data.<sup>27</sup> This brings into the spotlight the non-negligible contribution of both domestic and international voluntary initiatives such as the Global Reporting Initiative,<sup>28</sup> as well as the corporate responsibility and transparency culture that govern corporations in a given country.

Among the decliners, the Borsa Istanbul lost 23 spots from the 11th place last year to the 34th position in this year's ranking. This notable decline can be attributed to a weaker performance across all three indicators used in the ranking and mostly in the Disclosure Timeliness Score; in last year's assessment, 10 of the Borsa Istanbul's large companies with a December 31 year-end had already disclosed their sustainability performance data after six months. However, in this year's study, we noted that only one of such companies had disclosed its sustainability performance data by April 1 or three months after its fiscal year-end.

The bottom performers in this year's ranking consist of the Qatar Stock Exchange (41st), New Zealand Stock Exchange (42nd), the Kuwait Stock Exchange (43rd), the Saudi Arabia Stock Exchange (44th) and Lima Stock Exchange (45th).

Stock exchanges located in developed

countries once again dominate the top half of the ranking, occupying 18 of the top 23 spots. As shown in figure 12 below, stock exchanges located in emerging countries and represented in yellow generally tend to occupy the lower half of the ranking historically; renewed action from policy-makers in those jurisdictions to provide further impetus to sustainability reporting may be needed.

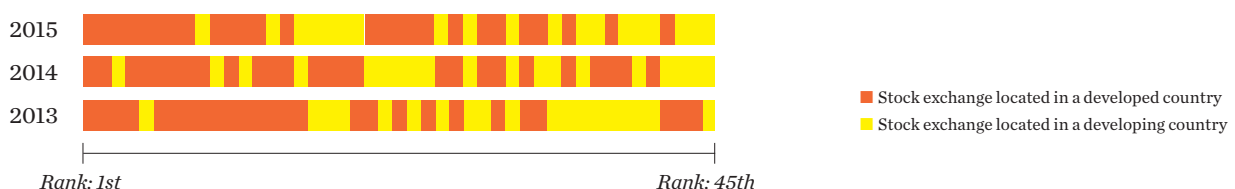
25. <https://www.globalreporting.org/information/policy/initiatives-worldwide/Pages/India.aspx>

26. On June 29, 2012, the Stock Exchange of Thailand (SET) issued a guidance document (available in Thai only) that provides an overview of the principles, theory and implementation of social responsibility. The advice comes in two parts: guidance on sustainability reporting, including a Thai translation of GRI's G3.1 Guidelines, and a guide to how companies can begin to implement social responsibility programs. Both documents have been produced by the Stock Exchange of Thailand's Corporate Social Responsibility Institute (CSRI), which was set up to promote responsible business behaviour among Thailand's 500-plus listed companies. The guidance document is based largely on ISO 26000 but also draws on other international CSR instruments such as the UN Global Compact. <https://www.globalreporting.org/information/policy/initiatives-worldwide/Pages/Thailand.aspx>. Accessed on April 24, 2015.

27. <https://www.globalreporting.org/resourcelibrary/Carrots-and-Sticks.pdf>

28. The Global Reporting Initiative (GRI) is an international independent organization that helps businesses, governments and other organizations understand and communicate the impact of business on critical sustainability issues such as climate change, human rights, corruption and many others.

**Figure 12:**  
**Heat map of the stock exchanges by rank and location**



## Ranking

Figure 13: Overall results

■ First quartile ■ Second quartile ■ Third quartile ■ Fourth quartile

Rank 2015	Rank 2014	Rank 2013	Real exchange	Number of large listed companies	Final score
1	1	2	Helsinki Stock Exchange	19	89.1%
2	2	10	Euronext Amsterdam	35	85.5%
3	5	7	Copenhagen Stock Exchange	22	75.6%
4	10	17	Australian Securities Exchange	90	73.6%
5	9	11	London Stock Exchange	206	73.2%
6	4	6	Euronext Paris	116	72.9%
7	20	15	Deutsche Börse	92	72.5%
8	3	5	Johannesburg Stock Exchange	55	72.0%
9	7	4	Oslo Stock Exchange	14	71.9%
10	8	1	BME Spanish Exchanges	45	71.0%
11	14	12	Stockholm Stock Exchange	57	70.4%
12	15	8	SIX Swiss Exchange	67	66.2%
13	37	N/A	Irish Stock Exchange	11	64.4%
14	18	26	Shanghai Stock Exchange	346	64.4%
15	22	18	Singapore Exchange	52	62.3%
16	35	34	Bombay Stock Exchange/ National Stock Exchange	132	61.0%
17	27	40	Bangkok Stock Exchange	41	60.6%
18	13	31	Bolsa Colombia	17	60.5%
19	23	24	Bursa Malaysia	45	59.8%
20	26	38	Shenzhen Stock Exchange	381	59.7%
21	12	3	Tokyo Stock Exchange	400	59.3%
22	28	27	Wiener Börse	15	58.4%
23	17	23	Hong Kong Stock Exchange	234	57.7%
24	32	30	Toronto Stock Exchange	145	57.6%
25	29	22	Euronext Brussels	24	57.5%
26	24	21	BM&FBOVESPA	57	55.4%
27	21	25	Taiwan Stock Exchange	72	55.2%
28	33	39	Philippine Stock Exchange	38	53.7%
29	34	33	New York Stock Exchange	1,070	51.8%
30	19	13	Borsa Italiana	56	51.1%
31	38	37	Indonesia Stock Exchange	34	50.8%
32	39	36	Nasdaq	440	50.7%
33	43	35	Warsaw Stock Exchange	18	49.4%
34	11	32	Borsa Istanbul	26	46.2%
35	31	16	Korea Exchange	102	46.2%
36	25	28	Mexican Stock Exchange	44	46.1%
37	30	19	Moscow Exchange	32	45.6%
38	41	45	Tel Aviv Stock Exchange	22	41.4%
39	36	20	Santiago Stock Exchange	30	33.2%
40	N/A	N/A	Dubai Financial Market	10	18.1%
41	44	44	Qatar Stock Exchange	21	18.0%
42	40	N/A	New Zealand Exchange	11	17.5%
43	45	41	Kuwait Stock Exchange	13	17.1%
44	42	42	Saudi Arabia Stock Exchange	45	15.2%
45	46	43	Lima Stock Exchange	13	2.7%

Source: Corporate Knights Capital

**Figure 14: Disclosure rates, 2013**

Stock Exchange	Number of large listed companies	Employee turnover	Energy	GHGs	Injury rate	Payroll	Waste	Water
New York Stock Exchange	1,070	4%	31%	34%	11%	11%	15%	16%
Nasdaq	440	2%	20%	20%	2%	16%	5%	5%
Tokyo Stock Exchange	400	1%	67%	69%	7%	81%	56%	54%
Shenzhen Stock Exchange	381	1%	3%	1%	0%	95%	1%	2%
Shanghai Stock Exchange	346	3%	8%	1%	0%	93%	2%	6%
Hong Kong Stock Exchange	234	9%	17%	14%	3%	94%	7%	12%
London Stock Exchange	206	24%	73%	91%	27%	84%	35%	34%
Toronto Stock Exchange	145	16%	54%	59%	17%	13%	21%	21%
Bombay Stock Exchange/ National Stock Exchange	132	9%	45%	30%	11%	95%	13%	17%
Euronext Paris	116	46%	75%	72%	37%	84%	57%	63%
Korea Exchange	102	11%	58%	61%	1%	90%	17%	18%
Deutsche Börse	92	43%	59%	57%	20%	80%	42%	41%
Australian Securities Exchange	90	19%	63%	62%	39%	79%	28%	31%
Taiwan Stock Exchange	72	32%	53%	53%	18%	94%	39%	38%
SIX Swiss Exchange	67	37%	69%	67%	13%	79%	37%	46%
BM&FBOVESPA	57	33%	65%	65%	16%	96%	40%	39%
Stockholm Stock Exchange	57	37%	75%	77%	16%	77%	39%	40%
Borsa Italiana	56	36%	61%	63%	14%	84%	46%	52%
Johannesburg Stock Exchange	55	44%	78%	82%	16%	75%	22%	31%
Singapore Exchange	52	19%	31%	27%	2%	79%	15%	31%
Bursa Malaysia	45	18%	22%	20%	18%	98%	9%	13%
BME Spanish Exchanges	45	44%	80%	80%	22%	96%	71%	71%
Saudi Arabia Stock Exchange	45	0%	2%	2%	0%	73%	0%	2%
Mexican Stock Exchange	44	14%	39%	27%	7%	18%	27%	32%
Bangkok Stock Exchange	41	20%	37%	32%	20%	95%	20%	27%
Philippine Stock Exchange	38	8%	18%	21%	0%	89%	13%	16%
Euronext Amsterdam	35	31%	74%	74%	34%	80%	46%	46%
Indonesia Stock Exchange	34	26%	18%	9%	9%	100%	3%	12%
Moscow Exchange	32	28%	31%	25%	13%	91%	38%	44%
Santiago Stock Exchange	30	17%	23%	20%	3%	87%	20%	23%
Borsa Istanbul	26	15%	50%	46%	0%	100%	15%	23%
Euronext Brussels	24	25%	42%	42%	13%	88%	38%	29%
Copenhagen Stock Exchange	22	45%	73%	77%	32%	91%	50%	55%
Tel Aviv Stock Exchange	22	9%	18%	18%	5%	59%	5%	14%
Qatar Stock Exchange	21	5%	5%	0%	0%	76%	0%	5%
Helsinki Stock Exchange	19	53%	100%	100%	47%	95%	84%	79%
Warsaw Stock Exchange	18	11%	28%	22%	0%	94%	17%	17%
Bolsa Colombia	17	29%	65%	65%	18%	82%	41%	53%
Wiener Börse	15	20%	53%	53%	13%	67%	27%	27%
Oslo Stock Exchange	14	29%	79%	79%	43%	71%	50%	36%
Kuwait Stock Exchange	13	8%	8%	8%	0%	69%	0%	0%
Lima Stock Exchange	13	0%	0%	0%	0%	54%	0%	0%
Irish Stock Exchange	11	27%	55%	55%	18%	82%	18%	18%
New Zealand Exchange	11	0%	45%	36%	9%	82%	0%	0%
Dubai Financial Market	10	0%	10%	10%	0%	70%	10%	0%

### Disclosure Score

The Helsinki Stock Exchange led in terms of the Disclosure Score with strong disclosure rates across all seven first-generation indicators for the year 2013. Large listings on the Helsinki Stock Exchange were also found to have superior disclosure practices across all seven indicators in last year's ranking; it is noted therefore that these Finnish companies maintained their high sustainability transparency practices year over year. The Helsinki Stock

Exchange was the only exchange out of the 45 included in our research universe where all of its 19 large listings as at April 1, 2015, reported energy and GHGs for the year 2013. It also had the highest reporting rate for 2013 for waste (84%), water (79%), employee turnover (53%) and injury rate (47%) among all the exchanges surveyed.

It is also important to highlight the 9th-placed London Stock Exchange's performance on the disclosure of GHGs

for 2013. With 206 large listings as of March 31, 2015, it is one of the largest exchanges in the world; fully 91% of them disclosed GHGs for 2013. This makes the London Stock Exchange the second best stock exchange for GHGs reporting after the Helsinki Stock Exchange.

**Figure 15: Top 10 stock exchanges, Disclosure Score**

Stock exchange	Country	Number of large listed companies as of April 1, 2015	Energy	GHGs	Water	Waste	Employee turnover	Injury rate	Payroll	Disclosure Score (Maximum: 50%)
Helsinki Stock Exchange	Finland	19	100%	100%	79%	84%	53%	47%	95%	46%
BME Spanish Exchanges	Spain	45	80%	80%	71%	71%	44%	22%	96%	44%
Euronext Paris	France	116	75%	72%	63%	57%	46%	37%	84%	42%
Copenhagen Stock Exchange	Denmark	22	73%	77%	55%	50%	45%	32%	91%	42%
Euronext Amsterdam	Netherlands	35	74%	74%	46%	46%	31%	34%	80%	39%
BM&FBOVESPA	Brazil	57	65%	65%	39%	40%	33%	16%	96%	39%
Oslo Stock Exchange	Norway	14	79%	79%	36%	50%	29%	43%	71%	39%
London Stock Exchange	United Kingdom	206	73%	91%	34%	35%	24%	27%	84%	38%
Borsa Italiana	Italy	56	61%	63%	52%	46%	36%	14%	84%	38%
Bolsa Colombia	Colombia	17	65%	65%	53%	41%	29%	18%	82%	38%

Source: Bloomberg, Corporate Knights Capital

## Disclosure Growth Score

The Bangkok Stock Exchange grew the most on average in terms of the disclosure of the first-generation indicators. Of the exchange's 41 large listings, 15 of them disclosed energy for 2013, from only four for the year 2009. Similarly, only five of these 41 large companies disclosed GHGs for 2009; this number grew to 13 for the year 2013. Most impressively, eight of its 41 large listings disclosed employee turnover for 2013, up from only one for the year 2009 or an annualized growth rate of 68%.

Bolsa Colombia's 17 large listings, which were noted for the high growth rates in the disclosure of the seven indicators in last year's report, continue to impress by having the highest annualized growth rate in the disclosure

of energy (53%) and water (32%) over the period 2009–2013.

Also noteworthy was the Toronto Stock Exchange's improvement in sustainability disclosure rates, mainly in the disclosure of payroll; the average annualized growth rate stood at 59% over the period 2009–2013. This progression may in part be due to the adoption of IFRS as the financial reporting standard for large Canadian companies since 2011.<sup>29</sup> Equally interesting was the progress made by the New York Stock Exchange's 1,070 large listings, where moderate growth was noted generally across all seven indicators. North American companies, which have trailed their European counterparts for so long, may be on a path to narrow the disclosure

gap in sustainability reporting.

Five of last year's top 10 exchanges by Disclosure Growth Score are also in this year's top 10; namely, the Bangkok Stock Exchange, the Taiwan Stock Exchange, Bursa Malaysia, Bolsa Colombia and the Singapore Exchange. This may be an indication of the existence of conditions that are favourable to a rapid uptake in sustainability reporting among those exchanges.

29. International Financial Reporting Standards (IFRS) are a widely adopted set of accounting standards, which aim to become the single global standard. IAS 19 – Employee Benefits mandates the disclosure of payroll costs. With the notable exception of the United States and Japan, most of the world's largest economies have adopted IFRS in their domestic corporate accounting framework.

**Figure 16: Top 10 stock exchanges, Disclosure Growth Score**

Stock exchange	Country	Number of large listed companies as of April 1, 2015	Energy	GHGs	Water	Waste	Employee turnover	Injury rate	Payroll	Disclosure Score (Maximum: 50%)
Bangkok Stock Exchange	Thailand	41	39%	27%	22%	19%	68%	19%	1%	18%
Taiwan Stock Exchange	Taiwan	72	33%	16%	28%	17%	35%	44%	1%	18%
Toronto Stock Exchange	Canada	145	20%	12%	9%	14%	20%	2%	59%	18%
Bursa Malaysia	Malaysia	45	35%	16%	11%	7%	19%	19%	3%	17%
Euronext Amsterdam	Netherlands	35	11%	10%	12%	10%	12%	19%	5%	17%
Bolsa Colombia	Colombia	17	53%	38%	32%	24%	14%	0%	2%	16%
New York Stock Exchange	United States	1,070	18%	8%	10%	8%	8%	7%	1%	16%
Singapore Exchange	Singapore	52	28%	29%	28%	28%	19%	-16%	1%	15%
BME Spanish Exchanges	Spain	45	6%	6%	4%	6%	11%	14%	2%	15%
Euronext Paris	France	116	9%	9%	7%	11%	9%	5%	0%	15%

Source: Bloomberg, Corporate Knights Capital

### Disclosure Timeliness Score

While disclosure rates and, hence, the quantity of sustainability data are an important aspect of sustainability reporting to the users of such data, the timely availability of such data is an equally crucial dimension, mostly when such data is part of investor decision-making. Unlike financial reporting, the timing of the release of sustainability data is hardly regulated. The Timeliness Score measures the gap between a given large company's fiscal year-end and the publication of its sustainability performance data to the market.

The Timeliness Score is arrived at by considering all large companies on a given exchange with a fiscal year-end of December 31, 2014, and after ("the qualifying companies"), then calculating

the proportion that had disclosed at least one of the first-generation indicators (excluding payroll) by April 1, 2015. This process is repeated for all 45 stock exchanges included in the research universe. To maintain statistical significance, any stock exchange with fewer than 10 qualifying companies is not assessed on the Timeliness indicator.<sup>30</sup>

The Shanghai Stock Exchange, which was the fastest-disclosing exchange in last year's report, placed first again in this year's report in terms of disclosure timeliness, where 79% of its 24 qualifying companies had disclosed sustainability data by April 1, 2015. With an average Bloomberg ESG Score<sup>31</sup> of 22.5, the breadth of sustainability information being disclosed by the Chinese

companies may not be as extensive as that of their counterparts in other jurisdictions. Nevertheless, fast turnaround times for the disclosure of sustainability data is a desirable development.

The Euronext Amsterdam followed closely in second position, where 77% of its 35 qualifying large listings had already disclosed their sustainability data by April 1, 2015. The Helsinki Stock Exchange, already identified as the exchange with the highest disclosure rate of the seven first-generation indicators, was found to be home to the world's third fastest disclosers, with 12 of its 19 qualifying companies (63%) having disclosed their sustainability data within three months of their fiscal year-end.

*NOVARTIS, A SWISS  
PHARMACEUTICALS COMPANY  
HAS CONSTANTLY PUBLISHED  
ITS ANNUAL FINANCIAL AND  
SUSTAINABILITY RESULTS IN ONE  
REPORT WITHIN A MONTH OF  
THEIR FISCAL YEAR END.*

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30. See the detailed methodology in the Appendix A.

31. Proprietary Bloomberg score based on the extent of a company's Environmental, Social, and Governance (ESG) disclosure. Companies that are not covered by ESG group will have no score and will show N/A. Companies that do not disclose anything will also show N/A. The score ranges from 0.1 for companies that disclose a minimum amount of ESG data to 100 for those that disclose every data point collected by Bloomberg. Each data point is weighted in terms of importance, with data such as Greenhouse Gas Emissions carrying greater weight than other disclosures. The score is also tailored to different industry sectors. In this way, each company is only evaluated in terms of the data that is relevant to its industry sector.



**Figure 17: Disclosure Timeliness Score**

Stock exchange	Number of large companies as at April 1, 2015	Number of qualifying companies	Percentage of qualifying companies that have disclosed sustainability data by April 1, 2015	Timeliness Score	Average Bloomberg ESG Score
Shanghai Stock Exchange	346	24	79%	100%	22.5
Euronext Amsterdam	35	26	77%	97%	41.6
Helsinki Stock Exchange	19	19	63%	94%	49.2
Shenzhen Stock Exchange	381	10	60%	91%	21.3
Australian Securities Exchange	90	20	55%	88%	41.5
Copenhagen Stock Exchange	22	17	53%	85%	40.1
London Stock Exchange	206	129	47%	82%	37.4
Oslo Stock Exchange	14	11	45%	79%	43.9
Johannesburg Stock Exchange	55	20	40%	76%	34.6
Stockholm Stock Exchange	57	44	39%	73%	44.1
Deutsche Börse	92	58	34%	70%	33.3
SIX Swiss Exchange	67	41	34%	67%	41.2
Singapore Exchange	52	15	33%	64%	18.5
Nasdaq	440	68	32%	61%	17.2
Hong Kong Stock Exchange	234	42	31%	58%	27.1
Euronext Paris	116	81	25%	52%	49.1
Tokyo Stock Exchange	400	32	22%	48%	18.4
Bursa Malaysia	45	15	20%	42%	20.1
Euronext Brussels	24	10	20%	42%	29.3
BME Spanish Exchanges	45	37	19%	39%	51.0
New York Stock Exchange	1,070	348	19%	36%	17.8
Toronto Stock Exchange	145	81	15%	33%	18.0
Bangkok Stock Exchange	41	19	11%	30%	37.4
Indonesia Stock Exchange	34	10	10%	27%	31.0
Korea Exchange	102	61	10%	24%	17.2
Bolsa Colombia	17	11	9%	21%	25.9
Borsa Istanbul	26	14	7%	18%	10.3
Borsa Italiana	56	34	6%	15%	43.5
Mexican Stock Exchange	44	18	6%	12%	38.8
BM&FBOVESPA	57	31	3%	9%	57.4
Moscow Exchange	32	17	0%	0%	-
Santiago Stock Exchange	30	10	0%	0%	-
Taiwan Stock Exchange	72	39	0%	0%	-

Source: Bloomberg, Corporate Knights Capital

## Ranking

Of the qualifying exchanges, the three with the poorest Disclosure Timeliness Score were the Moscow Stock Exchange, the Santiago Stock Exchange and the Taiwan Stock Exchange, where none of their qualifying large listings had disclosed any sustainability data within three months of their fiscal year-end.

Overall, only 26% of the 1,479 qualifying large companies included in our study had disclosed sustainability performance within three months of their fiscal year-end.

Historically, there is a time gap between the release of a company's financial information and the publi-

cation of sustainability data after the year-end. Most companies disclose their sustainability-related information through a "sustainability" or "corporate responsibility" report. These reports are in most cases issued after the publication of a company's annual report or financial report. However, best practice would entail the publication of financial and sustainability information at the same time and in the same report; for example, Novartis, a Swiss pharmaceuticals company has constantly published its annual financial and sustainability results in one report within a month of their fiscal year end.<sup>32</sup>

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32. Novartis released its fiscal December 31, 2014, financial results in its 2014 annual report on January 27, 2015 ([http://www.novartis.com/downloads/investors/financial-results/quarterly-results/q4-2014-media-release\\_en.pdf](http://www.novartis.com/downloads/investors/financial-results/quarterly-results/q4-2014-media-release_en.pdf)). The 2014 annual report also includes of sustainability information for the December 31, 2014 year-end.



# 26

The number of large companies trading on the Euronext Amsterdam with a 31 December 2014 year end out of a total of 35 that have already disclosed their 2014 sustainability data by April 1, 2015.

# Conclusion

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Reporting of the seven first-generation indicators by the world's large companies remains remarkably low. While reporting rates have edged up over the past few years, the rate of increase has slowed down to a snail's pace of late. This phenomenon is noted among large companies in both developed and emerging countries despite the coming into force of an increasing number of policy instruments around the world and strengthening stakeholder demands, in particular from investors.

As the world is moving toward a low-carbon society, it is a concern that a sizable portion of the world's large publicly traded companies are still not reporting on their GHG emissions.

For the most part, smaller companies are failing to keep pace with their larger counterparts in terms of sustainability reporting and, as a result, represent the bulk of the world's companies that have not engaged in the disclosure of most if not all of the seven first generation indicators; policy-makers including governments, stock exchanges and securities regulators have the opportunity to come up with tailored initiatives

to help these companies to overcome the barriers that prevent them from undertaking sustainability reporting.

There are a number of inspiring cases as revealed by our ranking. Large listings on exchanges such as the Helsinki Stock Exchange and the Euronext Amsterdam continue to shine with continual strong performances on disclosure, growth in disclosure and disclosure timeliness. The London Stock Exchange shows promise with a significantly improved reporting rate of GHGs by its large companies. The Bangkok Stock Exchange and the London Stock Exchange offer examples

of initiatives by the exchanges to promote sustainability reporting. Large listings on India's stock exchanges – the Bombay Stock Exchange and National Stock Exchange – appear to have benefited from the Securities Board of India's 2012 requirement for mandated listed companies to submit Business Responsibility Reports.

Through carefully crafted and targeted policies and initiatives, policy-makers, exchanges and their regulators, as well as investors, stand in a critical position to positively influence corporate sustainability reporting worldwide.

## Appendix A: Detailed methodology

**Ranking model:** Stock exchanges were ranked on three measures:

- i) The Disclosure Score (50% weight). The Disclosure Score measures the proportion of large listings that disclosed the seven first-generation indicators in 2013. First, the percentage of large companies trading on a given stock exchange that disclosed a given indicator in 2013 is determined. This is done for all 45 exchanges analyzed. Second, the 45 resulting percentages are percent-rank scored, with the highest percentage receiving the highest score. This is repeated for each of the remaining six indicators. Finally, an exchange's Disclosure Score is a simple average of the seven percent-rank scores. The indicators are equally weighted in terms of their contribution to the Disclosure Score.
- ii) The Disclosure Growth Score (20% weight). The Disclosure Growth Score measures the growth rate in the proportion of large listings that disclosed the seven first-generation indicators over the 2009–2013 period (20% weight). First, the annualized compound growth rate in the disclosure of a given indicator is calculated for the period 2009–2013. This is done for all 45 exchanges analyzed. Second, the resulting 45 annualized compound growth rates are percent-rank scored, with the highest percentage receiving the highest score. This is repeated for each of the remaining six indicators. Finally, an exchange's Disclosure Growth Score is a simple average of the seven percent-rank scores.
- iii) The Disclosure Timeliness Score (30% weight). The Disclosure Timeliness Score measures how quickly companies report sustainability data to the market after the end of their fiscal year. First, from our universe of 4,969 companies, we removed all the ones that had not disclosed any first-generation sustainability data in 2013. From the remaining companies, we considered the ones that had a fiscal year-end December 31, 2014. If a given stock exchange had fewer than 10 companies remaining after applying the above screens, it was discarded from the analysis. Second, for each of the remaining exchanges, we looked at the existence of publicly disclosed sustainability data as at April 1, 2015 (three months after year-end) on a per-exchange basis. Third, the percentage of companies that disclosed sustainability data is calculated. This is

done for all eligible exchanges. Finally, the percentage values are percent-rank scored; these are the Disclosure Scores.

In the event the Disclosure Timeliness Score cannot be calculated for a given stock exchange, that stock exchange will be scored on the Disclosure Score (70%) and Disclosure Growth Score (30%).

### *Let's consider an illustrative example:*

Assume that stock exchange ABC is one of the 45 exchanges included in our analysis. Stock exchange ABC had 100 large listings as of April 1, 2015. Of these listings, 16 disclosed their 2013 employee turnover rate, 61 disclosed their energy usage, 58 disclosed their GHG emissions, 11 disclosed their injury rate, 89 disclosed their payroll, 17 disclosed their waste generated and none disclosed their water usage. The exchange's disclosure rates are:

Indicator	Disclosure rate
Employee turnover	16%
Energy	61%
GHGs	58%
Injury rate	11%
Payroll	89%
Waste	17%
Water	0%

Assume that ABC was best among all 45 exchanges in terms of the disclosure of energy, GHG, payroll and waste and the worst in terms of employee turnover, injury rate and water.

The resulting percent-rank scores are:

Indicator	Percent-rank scores
Employee turnover	0%
Energy	100%
GHGs	100%
Injury rate	0%
Payroll	100%
Waste	100%
Water	0%

## Appendix A: Detailed methodology

ABC's Disclosure Score is therefore the simple average of the above percent-rank scores times a weight of 29–50%.

In terms of Disclosure Growth, assume that over the period 2009–2013, the disclosure of each one of the seven indicators grew at an annualized compound rate as per the table below:

Indicator	Annualized compound growth rate
Employee turnover	12%
Energy	48%
GHGs	50%
Injury rate	-10%
Payroll	0%
Waste	5%
Water	0%

Assume further that ABC had the best growth rate among all 45 exchanges for energy and GHG, the median growth rate for employee turnover and the worst for injury rate, payroll, waste and water. The resulting percent-rank scores for disclosure growth are as follows:

Indicator	Percent-rank scores
Employee turnover	50%
Energy	100%
GHGs	100%
Injury rate	0%
Payroll	0%
Waste	0%
Water	0%

The Disclosure Growth Score for ABC is the simple average of the above scores times a weight of 7–20%.

Finally, in terms of disclosure timeliness, assume that out of the 100 large companies that traded on ABC exchange on April 1, 2015, 70 had a December 31, 2014, year-end. Furthermore, as at April 1, 2015, five of these 70 (7%) companies had already disclosed their sustainability performance data.

Compared to the remaining 45 exchanges, ABC had the second lowest percentage of its large companies with a December 31, 2014, year-end that had disclosed sustainability data by April 1, 2015. This results in a percent-rank score of 2%.

ABC's Disclosure Timeliness Score is therefore the above 2% times a weight of 1-30%.

The sum ABC's Disclosure Score (29%), Disclosure Growth Score (7%) and Disclosure Timeliness Score (1%) is 37%, the Overall Score.

If 37% is the third lowest Overall Score among all 45 exchanges, ABC is placed 43rd out of 45 in the ranking.

**Exchange size:** While exchanges with fewer than 10 large company listings were eliminated from the ranking, exchanges that met this cut-off were treated equally. This means that the largest exchanges, such as the New York Stock Exchange, with 1,070 large listings, or the Tokyo Stock Exchange, with 400 large listings, were compared against the Borsa Italiana (56 large listings), Borsa Istanbul (26 large listings) and the Irish Stock Exchange (11 large listings).

**Exchange characteristics.** Exchange characteristics such as ownership structure, or the degree of autonomy that exchanges have to implement listing requirements, were not analyzed.

**Sector composition.** The sector composition of each exchange's large listings was not taken into account. Exchanges that are home to a disproportionately large share of companies in industries known to have strong disclosure practices, such as the mining industry, may have been advantaged in our ranking.

**Bloomberg data conventions.** All data is subject to the data collection methodologies employed by Bloomberg. For instance, Bloomberg discards a small but unspecified number of data points in its ESG database that do not meet quality control thresholds. While the merits of Bloomberg's quality control process are obvious, it means that Bloomberg's ESG database is not a complete representation of global reporting trends on the seven first-generation indicators.

## Appendix A: Detailed methodology

### Bloomberg data fields:

First-generation sustainability indicator	Global Reporting Initiative (GRI 3.1) Indicator	Bloomberg ESG field	Disclosure rate, 2013	Reporting rationale
Employee turnover	LA2	(i) Percentage employee turnover	12%	Low employee turnover is often correlated with effective human capital management and talent retention, which are well-established returns drivers in many sectors.
Energy	EN3, EN4	(i) Total energy use; (ii) total electricity use; (iii) CDP fuel use; and (iv) CDP electricity use	37%	Energy use can be an important proxy for firm-wide resource use efficiency and an increasingly important cost centre for companies in many industries.
GHGs	EN16	(i) Total GHG emissions; (ii) total CO <sub>2</sub> emissions; (iii) scope 3 GHG emissions; (iv) CDP scope 1 emissions globally; (v) CDP scope 2 emissions globally; and (vi) CDP reported CO <sub>2</sub>	37%	The prospect of carbon regulation is leading to a growing monetization of GHG externalities, with the concept of carbon shadow pricing an increasingly utilized accounting tool.
Injury rate	LA7	(i) Lost-time incident rate; and (ii) personal injury frequency rate	10%	Workplace health and safety can be a useful proxy for management quality.
Payroll	LA3	(i) Personnel expenses	60%	Pay equity is an increasingly visible sustainability theme, with tightening rules about workforce and CEO pay disclosure and greater vigilance of excessive CEO compensation. Payroll also provides insight into how well a company is positioned to retain and attract the best human talent.
Waste	EN22	(i) Total waste; (ii) waste recycled; and (iii) waste landfilled	20%	Waste generated per unit of revenue can be an insightful measure of operational efficiency.
Water	EN8	(i) Total water use; (ii) water withdrawal; (iii) surface water withdrawal; (iv) total water discharge; and (v) recycled water	22%	Water is an increasingly scarce global resource, and a firm's water use practices can reflect management foresight.

Source: The Global Reporting Initiative, Bloomberg, Corporate Knights Capital

**Disclosure timeliness.** Exchanges that could not be assigned a Disclosure Timeliness Score received a “bye” and were scored on the Disclosure Score and Disclosure Growth Score with revised weights of 70% and 30%, respectively.<sup>33</sup>

Notwithstanding these limitations, this year's ranking is based on a clear and objective set of criteria and allows for transparent benchmarking of sustainability disclosure across the world's stock exchanges.

33. Of the 45 exchanges reviewed in this year's ranking, 12 could not be scored on disclosure timeliness due to an insufficient number of companies with a December 31 fiscal year-end.

## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

### Employee turnover

Stock exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Australian Securities Exchange	90	17%	20%	20%	20%	19%	3%
Bangkok Stock Exchange	41	2%	7%	10%	12%	20%	68%
BM&FBOVESPA	57	28%	33%	37%	32%	33%	4%
BME Spanish Exchanges	45	29%	33%	47%	42%	44%	11%
Bolsa Colombia	17	18%	18%	12%	12%	29%	14%
Borsa Istanbul	26	15%	19%	23%	12%	15%	0%
Borsa Italiana	56	39%	36%	36%	30%	36%	-2%
Bursa Malaysia	45	9%	16%	16%	13%	18%	19%
Copenhagen Stock Exchange	22	36%	32%	41%	41%	45%	6%
Deutsche Börse	92	32%	36%	38%	40%	43%	8%
Dubai Financial Market	10	0%	0%	0%	0%	0%	0%
Euronext Amsterdam	35	20%	26%	31%	40%	31%	12%
Euronext Brussels	24	8%	13%	21%	17%	25%	32%
Euronext Paris	116	32%	35%	40%	41%	46%	9%
Helsinki Stock Exchange	19	42%	53%	58%	58%	53%	6%
Hong Kong Stock Exchange	234	3%	4%	5%	9%	9%	26%
Indonesia Stock Exchange	34	3%	6%	12%	24%	26%	73%
Irish Stock Exchange	11	18%	27%	27%	27%	27%	11%
Johannesburg Stock Exchange	55	38%	38%	45%	47%	44%	3%
Korea Exchange	102	12%	9%	9%	12%	11%	-2%
Kuwait Stock Exchange	13	0%	0%	8%	0%	8%	0%
Lima Stock Exchange	13	0%	8%	0%	0%	0%	0%
London Stock Exchange	206	20%	19%	24%	23%	24%	5%
Mexican Stock Exchange	44	9%	9%	11%	16%	14%	11%
Moscow Exchange	32	19%	28%	34%	22%	28%	11%
Nasdaq	440	1%	2%	3%	2%	2%	19%
Bombay Stock Exchange/National Stock Exchange	132	10%	10%	8%	9%	9%	-2%
New York Stock Exchange	1,070	3%	3%	4%	4%	4%	8%
New Zealand Exchange	11	9%	0%	0%	9%	0%	0%
Oslo Stock Exchange	14	14%	21%	29%	29%	1%	-49%

## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

Exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Philippine Stock Exchange	38	5%	13%	11%	11%	8%	11%
Qatar Stock Exchange	21	0%	0%	5%	0%	5%	0%
Santiago Stock Exchange	30	13%	20%	27%	17%	17%	6%
Saudi Arabia Stock Exchange	45	0%	2%	2%	2%	0%	0%
Shanghai Stock Exchange	346	2%	3%	4%	3%	3%	9%
Shenzhen Stock Exchange	381	1%	2%	1%	1%	1%	0%
Singapore Exchange	52	10%	13%	15%	13%	19%	19%
SIX Swiss Exchange	67	30%	27%	30%	33%	37%	6%
Stockholm Stock Exchange	57	37%	42%	44%	42%	37%	0%
Taiwan Stock Exchange	72	10%	15%	21%	24%	32%	35%
Tel Aviv Stock Exchange	22	0%	0%	0%	0%	9%	0%
Tokyo Stock Exchange	400	1%	1%	2%	2%	1%	0%
Toronto Stock Exchange	145	8%	12%	12%	14%	16%	20%
Warsaw Stock Exchange	18	6%	11%	11%	6%	11%	19%
Wiener Börse	15	27%	27%	13%	13%	20%	-7%

### Energy

Australian Securities Exchange	90	44%	54%	58%	63%	63%	9%
Bangkok Stock Exchange	41	10%	20%	24%	22%	37%	39%
BM&FBOVESPA	57	47%	67%	68%	68%	65%	8%
BME Spanish Exchanges	45	62%	69%	71%	76%	80%	6%
Bolsa Colombia	17	12%	24%	29%	47%	65%	53%
Borsa Istanbul	26	15%	38%	38%	42%	50%	34%
Borsa Italiana	56	54%	54%	59%	57%	61%	3%
Bursa Malaysia	45	7%	13%	16%	18%	22%	35%
Copenhagen Stock Exchange	22	59%	77%	77%	73%	73%	5%
Deutsche Börse	92	46%	49%	51%	55%	59%	6%
Dubai Financial Market	10	0%	0%	0%	0%	10%	0%
Euronext Amsterdam	35	49%	66%	69%	71%	74%	11%
Euronext Brussels	24	29%	42%	42%	42%	42%	9%



## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

Exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Euronext Paris	116	53%	64%	66%	73%	75%	9%
Helsinki Stock Exchange	19	74%	89%	89%	84%	100%	8%
Hong Kong Stock Exchange	234	11%	12%	14%	17%	17%	11%
Indonesia Stock Exchange	34	12%	18%	15%	18%	18%	11%
Irish Stock Exchange	11	36%	45%	64%	45%	55%	11%
Johannesburg Stock Exchange	55	55%	73%	71%	80%	78%	9%
Korea Exchange	102	25%	42%	53%	57%	58%	23%
Kuwait Stock Exchange	13	0%	0%	0%	8%	8%	0%
Lima Stock Exchange	13	8%	15%	15%	0%	0%	0%
London Stock Exchange	206	48%	69%	72%	75%	73%	11%
Mexican Stock Exchange	44	20%	27%	36%	43%	39%	17%
Moscow Exchange	32	22%	38%	38%	34%	31%	9%
Nasdaq	440	9%	14%	16%	19%	20%	23%
Bombay Stock Exchange/National Stock Exchange	132	33%	42%	41%	43%	45%	8%
New York Stock Exchange	1,070	16%	25%	26%	28%	31%	18%
New Zealand Exchange	11	45%	27%	36%	45%	45%	0%
Oslo Stock Exchange	14	64%	71%	71%	71%	79%	5%
Philippine Stock Exchange	38	8%	13%	13%	16%	18%	24%
Qatar Stock Exchange	21	0%	0%	5%	0%	5%	0%
Santiago Stock Exchange	30	33%	40%	37%	33%	23%	-9%
Saudi Arabia Stock Exchange	45	0%	4%	4%	4%	2%	-20%
Shanghai Stock Exchange	346	6%	7%	9%	8%	8%	8%
Shenzhen Stock Exchange	381	2%	3%	3%	3%	3%	19%
Singapore Exchange	52	12%	19%	25%	25%	31%	28%
SIX Swiss Exchange	67	45%	60%	66%	67%	69%	11%
Stockholm Stock Exchange	57	49%	79%	75%	77%	75%	11%
Taiwan Stock Exchange	72	17%	32%	42%	46%	53%	33%
Tel Aviv Stock Exchange	22	14%	18%	18%	18%	18%	7%

## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

Exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Tokyo Stock Exchange	400	54%	65%	66%	68%	67%	5%
Toronto Stock Exchange	145	26%	43%	45%	49%	54%	20%
Warsaw Stock Exchange	18	17%	28%	33%	22%	28%	14%
Wiener Börse	15	33%	40%	53%	53%	53%	12%

### GHGs

Australian Securities Exchange	90	58%	57%	61%	63%	62%	2%
Bangkok Stock Exchange	41	12%	17%	20%	17%	32%	27%
BM&FBOVESPA	57	40%	61%	61%	63%	65%	13%
BME Spanish Exchanges	45	62%	67%	69%	76%	80%	6%
Bolsa Colombia	17	18%	18%	24%	47%	65%	38%
Borsa Istanbul	26	8%	31%	35%	38%	46%	57%
Borsa Italiana	56	43%	48%	52%	54%	63%	10%
Bursa Malaysia	45	11%	11%	13%	16%	20%	16%
Copenhagen Stock Exchange	22	73%	77%	77%	82%	77%	2%
Deutsche Börse	92	49%	50%	50%	52%	57%	4%
Dubai Financial Market	10	0%	0%	0%	10%	10%	0%
Euronext Amsterdam	35	51%	69%	69%	74%	74%	10%
Euronext Brussels	24	42%	42%	42%	42%	42%	0%
Euronext Paris	116	52%	58%	62%	68%	72%	9%
Helsinki Stock Exchange	19	74%	84%	84%	84%	100%	8%
Hong Kong Stock Exchange	234	7%	9%	9%	12%	14%	18%
Indonesia Stock Exchange	34	3%	3%	3%	9%	9%	32%
Irish Stock Exchange	11	36%	45%	55%	45%	55%	11%
Johannesburg Stock Exchange	55	64%	75%	76%	82%	82%	6%
Korea Exchange	102	41%	46%	54%	60%	61%	10%
Kuwait Stock Exchange	13	0%	0%	0%	8%	8%	0%
Lima Stock Exchange	13	8%	15%	8%	0%	0%	0%
London Stock Exchange	206	70%	74%	76%	81%	91%	7%
Mexican Stock Exchange	44	23%	23%	27%	34%	27%	5%
Moscow Exchange	32	13%	13%	22%	25%	25%	19%
Nasdaq	440	13%	15%	16%	18%	20%	13%

## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

Exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Bombay Stock Exchange/National Stock Exchange	132	13%	23%	25%	29%	30%	24%
New York Stock Exchange	1,070	24%	28%	29%	31%	34%	8%
New Zealand Exchange	11	64%	45%	36%	36%	36%	-13%
Oslo Stock Exchange	14	57%	79%	71%	79%	79%	8%
Philippine Stock Exchange	38	13%	18%	18%	18%	21%	12%
Qatar Stock Exchange	21	0%	0%	0%	0%	0%	0%
Santiago Stock Exchange	30	20%	30%	30%	30%	20%	0%
Saudi Arabia Stock Exchange	45	0%	4%	4%	4%	2%	-20%
Shanghai Stock Exchange	346	0%	0%	1%	1%	1%	44%
Shenzhen Stock Exchange	381	1%	1%	1%	1%	1%	7%
Singapore Exchange	52	10%	19%	21%	25%	27%	29%
SIX Swiss Exchange	67	55%	63%	63%	69%	67%	5%
Stockholm Stock Exchange	57	63%	79%	77%	77%	77%	5%
Taiwan Stock Exchange	72	29%	35%	42%	46%	53%	16%
Tel Aviv Stock Exchange	22	5%	18%	14%	18%	18%	41%
Tokyo Stock Exchange	400	59%	67%	68%	70%	69%	4%
Toronto Stock Exchange	145	38%	49%	50%	56%	59%	12%
Warsaw Stock Exchange	18	11%	22%	22%	6%	22%	19%
Wiener Börse	15	33%	53%	53%	53%	53%	12%

### Injury rate

Australian Securities Exchange	90	32%	36%	34%	34%	39%	5%
Bangkok Stock Exchange	41	10%	12%	12%	7%	20%	19%
BM&FBOVESPA	57	12%	16%	18%	14%	16%	6%
BME Spanish Exchanges	45	13%	13%	20%	18%	22%	14%
Bolsa Colombia	17	0%	0%	0%	0%	18%	0%
Borsa Istanbul	26	4%	4%	4%	8%	0%	0%
Borsa Italiana	56	13%	13%	14%	16%	14%	3%
Bursa Malaysia	45	9%	11%	11%	11%	18%	19%

## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

Exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Copenhagen Stock Exchange	22	36%	36%	32%	27%	32%	-3%
Deutsche Börse	92	17%	20%	21%	22%	20%	3%
Dubai Financial Market	10	0%	0%	0%	0%	0%	0%
Euronext Amsterdam	35	17%	20%	23%	23%	34%	19%
Euronext Brussels	24	17%	17%	17%	17%	13%	-7%
Euronext Paris	116	30%	32%	36%	37%	37%	5%
Helsinki Stock Exchange	19	32%	47%	53%	53%	47%	11%
Hong Kong Stock Exchange	234	3%	3%	3%	2%	3%	0%
Indonesia Stock Exchange	34	0%	3%	6%	6%	9%	44%
Irish Stock Exchange	11	9%	9%	9%	9%	18%	19%
Johannesburg Stock Exchange	55	15%	20%	18%	20%	16%	3%
Korea Exchange	102	12%	8%	9%	11%	1%	-46%
Kuwait Stock Exchange	13	0%	0%	0%	0%	0%	0%
Lima Stock Exchange	13	0%	0%	0%	0%	0%	0%
London Stock Exchange	206	20%	21%	24%	24%	27%	7%
Mexican Stock Exchange	44	11%	11%	11%	11%	7%	-12%
Moscow Exchange	32	9%	13%	16%	16%	13%	7%
Nasdaq	440	1%	2%	1%	1%	2%	26%
Bombay Stock Exchange/National Stock Exchange	132	9%	9%	9%	7%	11%	4%
New York Stock Exchange	1,070	8%	9%	10%	10%	11%	7%
New Zealand Exchange	11	18%	18%	0%	18%	9%	-16%
Oslo Stock Exchange	14	43%	43%	43%	43%	43%	0%
Philippine Stock Exchange	38	0%	3%	3%	0%	0%	0%
Qatar Stock Exchange	21	0%	0%	0%	0%	0%	0%
Santiago Stock Exchange	30	13%	13%	13%	13%	3%	-29%
Saudi Arabia Stock Exchange	45	0%	0%	0%	0%	0%	0%
Shanghai Stock Exchange	346	0%	0%	0%	0%	0%	0%
Shenzhen Stock Exchange	381	0%	0%	1%	0%	0%	0%

## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

Exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Singapore Exchange	52	4%	2%	2%	4%	2%	-16%
SIX Swiss Exchange	67	13%	12%	13%	12%	13%	0%
Stockholm Stock Exchange	57	14%	14%	14%	12%	16%	3%
Taiwan Stock Exchange	72	4%	11%	13%	10%	18%	44%
Tel Aviv Stock Exchange	22	0%	0%	0%	0%	5%	0%
Tokyo Stock Exchange	400	11%	10%	10%	9%	7%	-11%
Toronto Stock Exchange	145	16%	15%	18%	18%	17%	2%
Warsaw Stock Exchange	18	0%	0%	0%	0%	0%	0%
Wiener Börse	15	13%	13%	20%	20%	13%	0%

### Payroll

Australian Securities Exchange	90	76%	76%	77%	77%	79%	1%
Bangkok Stock Exchange	41	90%	93%	93%	95%	95%	1%
BM&FBOVESPA	57	81%	95%	96%	95%	96%	5%
BME Spanish Exchanges	45	87%	89%	96%	93%	96%	2%
Bolsa Colombia	17	76%	71%	76%	88%	82%	2%
Borsa Istanbul	26	92%	100%	96%	85%	100%	2%
Borsa Italiana	56	84%	84%	84%	79%	84%	0%
Bursa Malaysia	45	87%	89%	93%	98%	98%	3%
Copenhagen Stock Exchange	22	91%	86%	91%	91%	91%	0%
Deutsche Börse	92	76%	79%	80%	82%	80%	1%
Dubai Financial Market	10	80%	80%	60%	70%	70%	-3%
Euronext Amsterdam	35	66%	69%	71%	60%	80%	5%
Euronext Brussels	24	75%	83%	88%	83%	88%	4%
Euronext Paris	116	84%	84%	85%	88%	84%	0%
Helsinki Stock Exchange	19	89%	89%	95%	95%	95%	1%
Hong Kong Stock Exchange	234	83%	89%	93%	94%	94%	3%
Indonesia Stock Exchange	34	97%	94%	100%	100%	100%	1%
Irish Stock Exchange	11	73%	73%	64%	82%	82%	3%
Johannesburg Stock Exchange	55	69%	73%	73%	71%	75%	2%
Korea Exchange	102	62%	75%	82%	86%	90%	10%

## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

Exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Kuwait Stock Exchange	13	69%	69%	69%	69%	69%	0%
Lima Stock Exchange	13	54%	69%	54%	38%	54%	0%
London Stock Exchange	206	83%	86%	89%	85%	84%	0%
Mexican Stock Exchange	44	2%	5%	16%	18%	18%	68%
Moscow Exchange	32	75%	72%	75%	84%	91%	5%
Nasdaq	440	16%	16%	16%	16%	16%	0%
Bombay Stock Exchange/National Stock Exchange	132	91%	90%	90%	92%	95%	1%
New York Stock Exchange	1,070	10%	11%	11%	11%	11%	1%
New Zealand Exchange	11	100%	100%	100%	91%	82%	-5%
Oslo Stock Exchange	14	71%	71%	71%	64%	71%	0%
Philippine Stock Exchange	38	84%	92%	97%	89%	89%	2%
Qatar Stock Exchange	21	81%	76%	76%	76%	76%	-2%
Santiago Stock Exchange	30	77%	80%	83%	87%	87%	3%
Saudi Arabia Stock Exchange	45	80%	87%	84%	89%	73%	-2%
Shanghai Stock Exchange	346	27%	75%	78%	92%	93%	36%
Shenzhen Stock Exchange	381	34%	72%	76%	97%	95%	30%
Singapore Exchange	52	77%	81%	79%	81%	79%	1%
SIX Swiss Exchange	67	79%	79%	78%	79%	79%	0%
Stockholm Stock Exchange	57	74%	74%	77%	79%	77%	1%
Taiwan Stock Exchange	72	92%	94%	94%	94%	94%	1%
Tel Aviv Stock Exchange	22	59%	59%	59%	59%	59%	0%
Tokyo Stock Exchange	400	77%	78%	79%	79%	81%	1%
Toronto Stock Exchange	145	2%	6%	6%	6%	13%	59%
Warsaw Stock Exchange	18	89%	94%	94%	94%	94%	2%
Wiener Börse	15	67%	67%	67%	67%	67%	0%

## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

### Waste

Exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Australian Securities Exchange	90	26%	26%	24%	30%	28%	2%
Bangkok Stock Exchange	41	10%	15%	15%	10%	20%	19%
BM&FBOVESPA	57	28%	39%	44%	44%	40%	9%
BME Spanish Exchanges	45	56%	58%	60%	67%	71%	6%
Bolsa Colombia	17	18%	18%	29%	41%	41%	24%
Borsa Istanbul	26	4%	15%	23%	15%	15%	41%
Borsa Italiana	56	46%	48%	48%	45%	46%	0%
Bursa Malaysia	45	7%	9%	9%	9%	9%	7%
Copenhagen Stock Exchange	22	50%	45%	45%	50%	50%	0%
Deutsche Börse	92	38%	41%	41%	40%	42%	3%
Dubai Financial Market	10	0%	0%	0%	0%	10%	0%
Euronext Amsterdam	35	31%	40%	46%	40%	46%	10%
Euronext Brussels	24	29%	33%	38%	33%	38%	6%
Euronext Paris	116	38%	43%	50%	50%	57%	11%
Helsinki Stock Exchange	19	68%	79%	84%	74%	84%	5%
Hong Kong Stock Exchange	234	5%	5%	6%	7%	7%	11%
Indonesia Stock Exchange	34	3%	0%	0%	0%	3%	0%
Irish Stock Exchange	11	27%	27%	27%	18%	18%	-10%
Johannesburg Stock Exchange	55	16%	20%	22%	20%	22%	7%
Korea Exchange	102	18%	11%	13%	20%	17%	-1%
Kuwait Stock Exchange	13	0%	0%	0%	0%	0%	0%
Lima Stock Exchange	13	0%	8%	8%	0%	0%	0%
London Stock Exchange	206	40%	42%	45%	41%	35%	-3%
Mexican Stock Exchange	44	18%	20%	23%	32%	27%	11%
Moscow Exchange	32	41%	41%	47%	44%	38%	-2%
Nasdaq	440	5%	6%	6%	6%	5%	-2%
Bombay Stock Exchange/National Stock Exchange	132	11%	10%	11%	11%	13%	5%
New York Stock Exchange	1,070	11%	13%	14%	13%	15%	8%
New Zealand Exchange	11	9%	9%	9%	9%	0%	0%
Oslo Stock Exchange	14	29%	50%	50%	50%	50%	15%

## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

Exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Philippine Stock Exchange	38	5%	11%	11%	11%	13%	26%
Qatar Stock Exchange	21	0%	0%	0%	0%	0%	0%
Santiago Stock Exchange	30	23%	30%	30%	27%	20%	-4%
Saudi Arabia Stock Exchange	45	0%	0%	0%	0%	0%	0%
Shanghai Stock Exchange	346	1%	1%	1%	2%	2%	19%
Shenzhen Stock Exchange	381	1%	1%	1%	1%	1%	11%
Singapore Exchange	52	6%	13%	13%	15%	15%	28%
SIX Swiss Exchange	67	37%	37%	40%	42%	37%	0%
Stockholm Stock Exchange	57	35%	33%	35%	37%	39%	2%
Taiwan Stock Exchange	72	21%	31%	35%	33%	39%	17%
Tel Aviv Stock Exchange	22	5%	5%	0%	5%	5%	0%
Tokyo Stock Exchange	400	53%	57%	57%	57%	56%	1%
Toronto Stock Exchange	145	12%	17%	20%	21%	21%	14%
Warsaw Stock Exchange	18	17%	17%	17%	6%	17%	0%
Wiener Börse	15	20%	20%	20%	27%	27%	7%

### Water

Australian Securities Exchange	90	31%	29%	27%	30%	31%	0%
Bangkok Stock Exchange	41	12%	17%	17%	12%	27%	22%
BM&FBOVESPA	57	42%	49%	54%	44%	39%	-2%
BME Spanish Exchanges	45	60%	64%	67%	71%	71%	4%
Bolsa Colombia	17	18%	24%	29%	41%	53%	32%
Borsa Istanbul	26	19%	31%	31%	27%	23%	5%
Borsa Italiana	56	48%	50%	52%	46%	52%	2%
Bursa Malaysia	45	9%	13%	11%	9%	13%	11%
Copenhagen Stock Exchange	22	50%	50%	55%	55%	55%	2%
Deutsche Börse	92	38%	38%	42%	42%	41%	2%
Dubai Financial Market	10	0%	0%	0%	0%	0%	0%
Euronext Amsterdam	35	29%	40%	43%	49%	46%	12%
Euronext Brussels	24	25%	29%	33%	29%	29%	4%



## Appendix B: Disclosure rates (2009–2013) by stock exchange and first-generation indicator

Exchange	Number of large companies as at April 1, 2015	2009	2010	2011	2012	2013	CAGR
Euronext Paris	116	48%	49%	53%	59%	63%	7%
Helsinki Stock Exchange	19	53%	68%	79%	68%	79%	11%
Hong Kong Stock Exchange	234	9%	9%	9%	12%	12%	8%
Indonesia Stock Exchange	34	9%	12%	12%	9%	12%	7%
Irish Stock Exchange	11	18%	18%	18%	18%	18%	0%
Johannesburg Stock Exchange	55	35%	40%	38%	36%	31%	-3%
Korea Exchange	102	19%	12%	13%	19%	18%	-1%
Kuwait Stock Exchange	13	0%	0%	0%	0%	0%	0%
Lima Stock Exchange	13	8%	8%	8%	0%	0%	0%
London Stock Exchange	206	37%	37%	41%	40%	34%	-2%
Mexican Stock Exchange	44	16%	18%	25%	34%	32%	19%
Moscow Exchange	32	47%	50%	56%	44%	44%	-2%
Nasdaq	440	5%	6%	5%	6%	5%	-1%
Bombay Stock Exchange/National Stock Exchange	132	15%	14%	14%	17%	17%	2%
New York Stock Exchange	1,070	11%	14%	14%	17%	16%	10%
New Zealand Exchange	11	9%	0%	0%	0%	0%	0%
Oslo Stock Exchange	14	21%	29%	36%	36%	36%	14%
Philippine Stock Exchange	38	8%	16%	13%	13%	16%	19%
Qatar Stock Exchange	21	0%	0%	0%	0%	5%	0%
Santiago Stock Exchange	30	23%	37%	37%	30%	23%	0%
Saudi Arabia Stock Exchange	45	0%	4%	4%	4%	2%	-20%
Shanghai Stock Exchange	346	5%	5%	6%	5%	6%	6%
Shenzhen Stock Exchange	381	1%	2%	2%	2%	2%	32%
Singapore Exchange	52	12%	17%	25%	23%	31%	28%
SIX Swiss Exchange	67	42%	40%	42%	46%	46%	3%
Stockholm Stock Exchange	57	42%	44%	40%	40%	40%	-1%
Taiwan Stock Exchange	72	14%	25%	33%	24%	38%	28%
Tel Aviv Stock Exchange	22	14%	14%	9%	14%	14%	0%
Tokyo Stock Exchange	400	50%	53%	54%	55%	54%	2%
Toronto Stock Exchange	145	14%	15%	17%	17%	21%	9%
Warsaw Stock Exchange	18	17%	17%	17%	6%	17%	0%
Wiener Börse	15	20%	20%	27%	33%	27%	7%



# 19

The Helsinki Stock Exchange topped this year's ranking for the second year in a row; all of its 19 large companies disclosed energy and GHGs for 2013.

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