REFINITIV INSIGHT: FINANCING A SUSTAINABLE FUTURE IN ASIA

Edition One: Environmental Impact



Edition one: Environmental impact

Overview:

It is estimated that meeting the targets set by the Paris Agreement and United Nations Sustainable Development Goals (SDGs) will require approximately \$7 trillion dollars per year¹, much of which will need to be mobilised from private finance. At the same time, the growing prevalence of financial crime, with more than 72% of companies globally falling victim in the past 12 months², is working against these efforts.

Financial and Environmental, Social, Governance (ESG) data that can help companies and investors to make better and more intelligent and informed decisions, will play a critical role in achieving the goals of the sustainability agenda.

Nowhere is this agenda more important than in Asia. In the coming decade the region will be the growth engine of the world, with two-thirds of global middle-class living in Asia by 2030³. As this occurs, the region's companies will face increasing sustainability challenges as regulations tighten, particularly in emerging markets, and resources come under pressure from population expansion. As these pressures increase, financial performance and sustainability will naturally become more intertwined – adding fuel to the fire of the sustainable finance movement.

Already we see evidence of this both globally and in Asia, with sustainable finance

moving beyond niche green bond and loan offerings to ESG factors being introduced or considered for investment and ratings frameworks more broadly.

Highlighting the region's sustainable development challenge, the Asian Development Bank estimates that US\$26 trillion needs to be invested in infrastructure over the next decade to maintain economic expansion, eradicate poverty and respond to climate change⁴. While much needed, this development also must consider a broad set of environmental factors including emissions, resource use, waste management, and the region's rich biodiversity.

Drawing on Refinitv's ESG database, which covers 70% of global market cap, this report is the first in a series which looks at the ESG performance of the largest companies across Asia. While Small and Medium Enterprises (SMEs) make up the vast majority of the global business community, it is predominantly these large enterprises and governments who will be responsible for leading and shaping the region's future approach to sustainable development.

This edition focuses on environmental impacts and looks at how companies in Asia are measuring up on environmental performance metrics.

- 2 refinitiv.com/content/dam/marketing/en_us/documents/reports/true-cost-of-financial-crime-global-focus.pdf
- 3 scmp.com/comment/insight-opinion/article/2087687/made-asia-asia-how-rise-its-middle-class-remaking-world
- adb.org/sites/default/files/publication/227496/special-report-infrastructure.pdf

oecd.org/environment/cc/climate-futures/policy-highlights-financing-climate-futures.pdf



Contents

Emissions	4
Waste and recycling	8
Water metrics	9
Supply chain	14
Biodiversity	15
Summary	17
Refinitiv and Sustainability	18
Refinitiv ESG data	19

How is Asia measuring up on environmental sustainability?*

Overall, Asia's largest companies are comparable with their global peers in reporting on their environmental impact. The regional average slightly exceeds the global average by 2.74 points in Refinitiv's Environmental Pillar Scores.

These environmental scores are based on performance across three themes: emissions, resource use and innovation. Overall, companies in Hong Kong performed the best in the region, followed by South Korea and India.

By industry, industrial conglomerates scored highest, followed by insurers. However, as will be shown later in the report, greater transparency does not always equate to better performance or lower impact, as high-impact industries are also more likely to face more pressure to disclose ESG metrics.

Market	Average Environmental Pillar Score
Global	59.60
Asia, inc Japan	62.34

Top Markets in Asia, inc Japan	Average Environmental Pillar Score
Hong Kong	70.06
South Korea	64.57
India	63.12
Japan	63.03
Taiwan	61.64
Malaysia	57.82
Singapore	57.02
China (PRC)	56.10
Top Three Industries in	Average

Top Three Industries in Asia, inc Japan	Average Environmental Pillar Score
Industrial Conglomerates	73.55
Insurance	71.22
Energy – Fossil Fuels	67.97

*Analysis includes countries with more than 40 companies reporting and regional averages have been adjusted to be an average of averages.

The emissions intention gap in Asia

Approaching two-thirds (63%) of global companies have a policy to reduce emissions. This is up from 56% five years earlier. However, only one third (35%) of companies have specific reduction targets around emissions, meaning many are setting policies without backing up their intentions.

In Asia, we also see this gap between intention and action. The number of companies in the region with emissions policies has jumped significantly over five years from just over half (55%) to 69%, surpassing the global average. While the number of companies with specific reduction targets around emissions has remained relatively the same, with only a 2% growth from 28% in 2013 to 30% in 2017.

66

With Asia set to lead global economic growth in the coming decade, the region's companies and business leaders will play a prominent role in the sustainable development agenda. As many of the world's most pressing environmental and social concerns, such as climate change and social inequality, reach critical junctures, it is important that companies take their responsibilities seriously. ESG data and transparency play an important role to drive and influence the changes required to sustain future economic and social growth.

Elena Philipova, Global Head of ESG at Refinitiv

??

Leading the way in adopting emissions policies is Hong Kong, where 87% of organizations have emissions policies, followed by China (77%) and India (76%).

100 90 87% 80 77% 76% companies with CO2 emissions policies 72% 70% 69% 69% 69% 70 64% 64% 63% 60 56% 55% 52% 50% 54% 53% 53% 50 43% 40 38% 30 20 đ 10 % 0 Malaysia Singapore Global Asia, inc China Hong India Japan South Taiwan Japan Kona Korea Country/Region

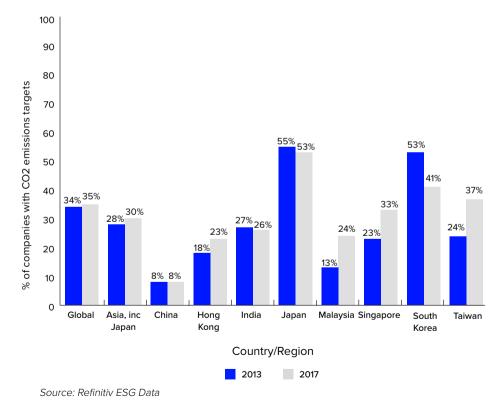
2013

2017

Companies with CO2 emissions policies

For emissions reductions targets, companies in Japan (53%), South Korea (41%) and Taiwan (37%) fared the best. The largest gap was seen in China, where 77% of companies have emissions polices but only 8% have reduction targets.

Companies with CO2 emissions targets



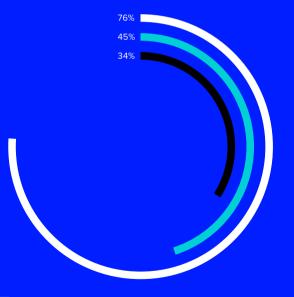
Why financial crime is part of the problem

Financial crime poses a significant and growing threat to environmental sustainability efforts through the funding of illegal and undesirable activities. In 2019 three quarters (75%) of companies in Asia Pacific were victims of financial crime. These funds can often be misdirected towards activities with negative environmental impacts – with illegal logging and wildlife trafficking being prime examples in the Asia region.

This is a concerning trend largely being driven by the rapidly increasing number of third-party customers and suppliers that companies in the region need to manage, and insufficient due diligence and onboarding processes. However, it is encouraging that over the next year, companies in Asia Pacific intend to spend on average 47% more to mitigate the crisis.

Technology is key, with 97% of global companies believing that application of new technologies can help with financial crime prevention.

Companies in Asia Pacific affected by financial crime

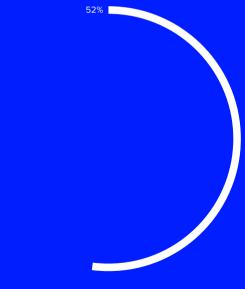


% of companies that were victims of financial crime

% of financial crime by customer or client

% of financial crime by vendor, supplier or partner relationships

Companies that did not conduct initial due diligence



% of companies that did not conduct initial due diligence Source: Refinitiv ESG Data

Waste not, want not

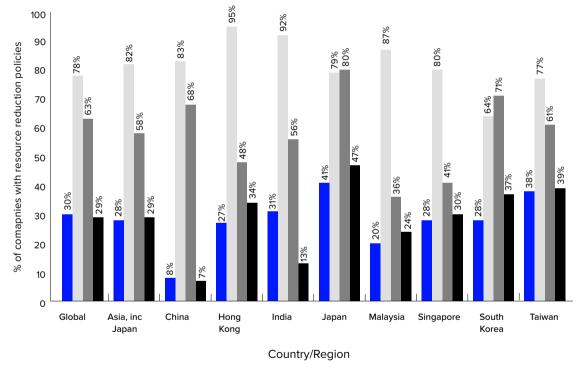
Resource and waste management presents a mixed story in Asia. While regional companies slightly outperform the global average on resource reduction, they are marginally behind in waste recycling.

The average company in Asia has a recycling ratio of 58% and only 29% of regional companies report on this metric. When it comes to setting targets, positively 82% of companies in Asia have resource reduction policies, while only a quarter (28%) have actual resource reduction targets.

Companies in Hong Kong (95%) and India (92%) are most likely to have policies on resource reduction, and Japanese (41%) and Taiwanese (38%) organizations are most likely to back up their polices with targets. Japanese companies are also clear leaders in waste recycling, with both the highest recycling ratios averaging 80% and level of ratio reporting at 47%.

As further legislation around recycling is introduced, and greater investment is made into initiatives and infrastructure to support waste management across the region, we expect this area will improve in coming years.

Industries with waste reduction initiatives





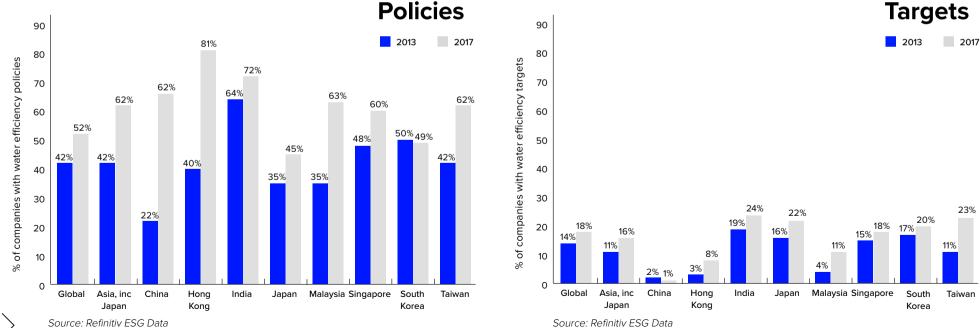
Water pressures increase

Water is the world's most precious resource and will come under increasing pressure in future years internationally and in Asia. In recognition of this, in the past five years, there has been a 25% rise in companies globally with water efficiency policies and 24% more companies setting specific water efficiency targets.

In Asia, while there has been a greater focus on water efficiency by companies, with more than half (62%) instating a water efficiency policy, only 16% still have targets.

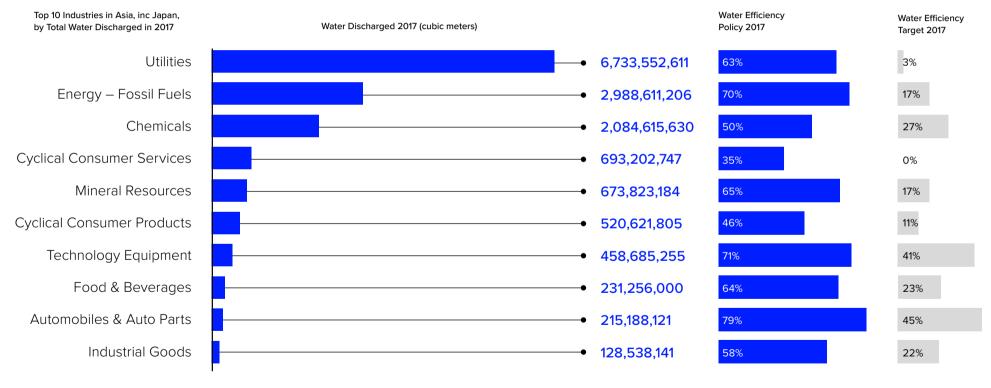
Companies in Hong Kong lead the region in setting water efficiency polices at 81%. The greatest growth in companies with policies has been seen in China, with a 44% increase over five years. However, companies in both China and Hong Kong also rank lowest for setting water efficiency targets, with only 1% and 8% of companies respectively stating targets.

Despite water being a highly limited resource in Singapore, only 60% of companies have water efficiency policies and 18% maintain targets.



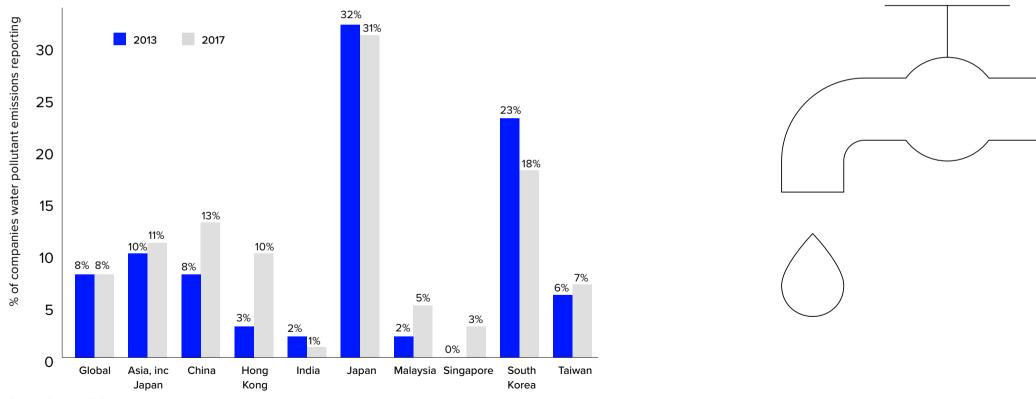
At the industry level concerning themes emerge. Some of the industries discharging the most also perform the lowest on efficiency targets. Utilities has the highest industry impact, yet ranks among the lowest for targets.

Performance of industries with highest water discharged

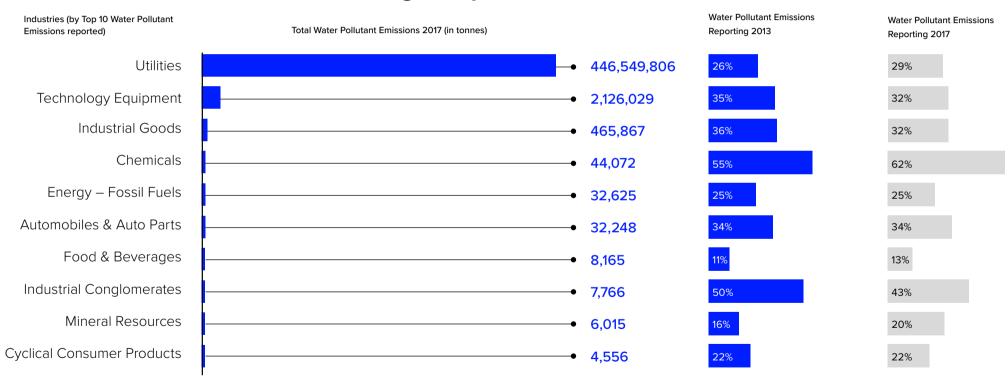


A further important consideration around water use is pollutants. Reporting on this area has been consistently low over the five years assessed by this report – particularly among industries in the region responsible for the most water pollutant emissions.

Company reporting on water pollutant emissions



Performance of industries with highest pollutant emissions



Green is the new black

While Asia faces many challenges ahead in balancing economic growth with environmental preservation, green financing is a growing area.

There was substantial growth in the issuance of green bonds in Asia Pacific and Japan in the first half of 2019, as the markets innovated to meet investor appetite for sustainable investments. Asia Pacific including Japan, with 25.4% market share, raised a record high of US\$21.9 billion, up 29.6% from a year ago.

The surge was led by China. China ranked third among the top issuer nations globally, with total proceeds from Chinese green bonds totalling US\$8.3 billion in the first half of 2019. ICBC was the most active Chinese green bond issuer and the second largest corporate green bond issuer globally, raising an aggregate of US\$2.2 billion proceeds from three green bond offerings in H1 2019. ICBC-Singapore Branch also issued the largest Asian green bond offering in April 2019, which raised approximately US\$1.5 billion.

Elsewhere in Asia, Japan started to pick up issuance in 2018 and raised US\$2.2 billion during the first half of 2019, up 72.9% from H1 2018. Southeast Asia also gained momentum with US\$3.3 billion worth of proceeds in H1 2019, up 36.1% growth from the comparable period in 2018. Elsewhere in Asia, Hong Kong raised US\$1 billion from its inaugural green bond, and South Korea saw a 467.5% surge in proceeds from a year ago to US\$3.9 billion in 1H 2019.

Breakdown of total proceeds from green bonds in Asia

Country	Amount raised in H1 2019
Asia-Pacific – Total (inc Japan)	US\$21.9 billion
China	US\$8.3 billion
Japan	US\$2.2 billion
Hong Kong	US\$1 billion
South Korea	US\$3.9 billion
Southeast Asia	US\$3.3 billion

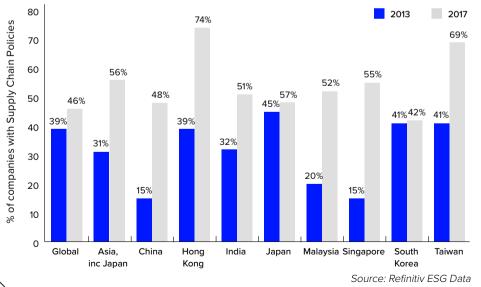
Source: Refinitiv Deals Data

Great strides in supply chain

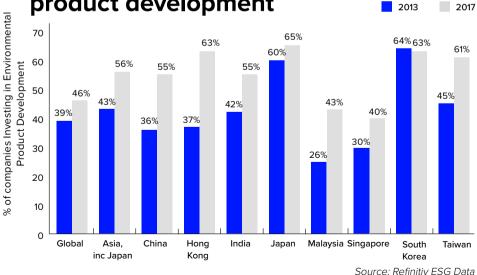
Our data shows that more than half (56%) of companies in the region have a supply chain policy, up from 31% over five years. At the same time there has been an increasing commitment to delivering environmentally conscious products and services – with this figure rising from 43% to 56% for Asian companies.

Hong Kong companies again emerge as leaders in the region, with 74% having supply chain policies and 63% committing to developing environmentally friendly products and services. At the lower end, only 42% of organizations in South Korea have supply chain policies.

Companies with supply chain policies



The largest increase in companies with supply chain policies has been in Singapore, with a huge 40% jump over five years. This has most likely been motivated by the Southeast Asian Haze crisis of 2015, which saw more CO2 emitted per day than the entire US economy⁶. However, it remains concerning that considering the Haze is a consumer product-related event, linked with the burning oil plantations in Indonesia and Malaysia, that companies in Singapore and Malaysia still lag the region in the development of environmentally conscious products, at 40% and 43% respectively.



Companies investing in environmental product development

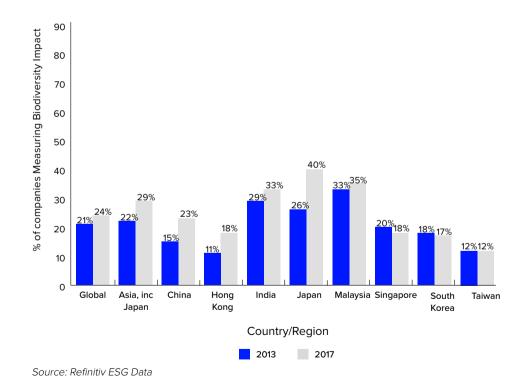
Biodiversity off the menu

Biodiversity refers to biological diversity, and ultimately the health of the world's plant and animal life and habitats.

When looking at biodiversity impact, companies in Asia and across the globe have been worryingly stagnant in this area, with just 24% of companies globally and 29% in Asia measuring their affects on biodiversity.

Across the region, Japanese companies are the most advanced in this area, with 40% measuring biodiversity impact, and Taiwan the lowest at 12%.

Companies measuring biodiversity impact



Greening China's Belt & Road Initiative

China's ambitious Belt and Road Initiative (BRI) to link seven key regions within the wider Eurasia-African region began in 2016. This has emerged as a gargantuan new investment vehicle to upgrade the region's infrastructure. Refinitiv's BRI database shows that around 84 new projects related to BRI were unveiled in July 2019, valued at \$52.54 billion. In total, there are 2,951 projects valued at \$3.87 trillion already underway across the wider Silk Road region, involving 2,630 companies.

According to Refinitiv data, power and water and transportation-related projects account for more than two thirds of the BRI projects in the works. A critical issue is that largescale infrastructure and logistics plans have traditionally been at odds with environmental interests. The BRI's immense scope is being realised amid urgent calls for governments to protect the planet's endangered resources and act on climate change.

These messages have resonated with policymakers in Beijing, who have endorsed several 'Green Investment Principles' for the BRI to incorporate low-carbon and sustainable development practices.⁷ President Xi Jinping, who conceived and has championed the initiative, has also spoken of the need for the BRI to create green and sustainable infrastructure.⁸

During the second Belt and Road Forum held in the capital in April 2019, President Xi's keynote speech highlighted how environmental concerns need to underpin the initiative "to protect the common home we live in"⁹ by adhering to open, green and clean approaches. To this end, China and the City of London Corporation's Green Finance Initiative have worked together to create the Green Investment Principles (GIP) for the Belt and Road.

Twenty-seven global institutions have so far signed up to the set of voluntary principles which advocate in-depth environmental and social due diligence, the exploration of environmental stress tests of investment decisions, and integrating ESG factors into supply chain management, among other points.¹⁰

10 beltandroad.hktdc.com/en/insights/twenty-seven-global-institutions-sign-green-investment-principles-belt-road

 $[\]label{eq:poly} \hline \textbf{2} \quad \underline{\textbf{beltandroad.hktdc.com/en/insights/twenty-seven-global-institutions-sign-green-investment-principles-belt-road} \\ \hline \textbf{2} \quad \underline{\textbf{beltandroad.hktdc.com/en/insights/twenty-seven-global-institutions-sign-green-investment-principles-belt-road} \\ \hline \textbf{2} \quad \underline{\textbf{beltandroad.hktdc.com/en/insights/twenty-seven-global-institutions-sign-green-investment-principles-belt-road} \\ \hline \textbf{3} \quad \underline{\textbf{5} \quad \underline{5} \quad \underline{5}$

⁸ uk.reuters.com/article/us-china-silkroad/chinas-xi-says-belt-and-road-must-be-green-sustainable-idUKKCN1S104I

⁹ af.reuters.com/article/worldNews/idAFKCN1S2063

Summary

As economic growth forges ahead at a blistering pace in Asia, there's increasing recognition that organizations will need to balance financial targets with sustainable development.

While companies in the region are largely on a par with their global peers in their performance on environmental metrics, areas of considerable concern exist. Most prominently, a clear gap is seen between intention and action, with a far greater portion of companies having policies on emissions, waste management, and water efficiency, than those with actual targets for improvement. As our data shows targets can make a significant impact on action over time.

Alongside this, we see considerable effort being made by companies to build more ethical supply chains. However, at the same time there is still a lack of momentum or impetus by Asian companies to develop environmental responsible products or to consider their impact on biodiversity.

To move beyond the superficial, it is important that organizations recognise how they can play a role in supporting global initiatives such as the SDGs by identifying where their key impacts, risks and opportunities lie, and then mobilising their resources towards these areas. By governments and larger companies taking the lead, this will naturally help generate changes that flow through to and benefit society more broadly both today and in the future. It can also benefit companies by helping to identify sustainability risks earlier, improving long term business viability, and increasing access to green financing options.

For most companies, improving performance on ESG metrics will inevitably involve some level of change in the key areas covered by this report, as well as investment in technologies such as AI and Blockchain to improve governance, transparency, and supply chain integrity. 66

Achieving the Sustainable Development Goals is a collective effort that starts with the most influential members of society leading the way. It requires a deep collaboration between the public and private sectors, as well as mobilisation of significant finances in Asia and globally to succeed. As part of this movement, daily, we see more financial institutions increasing due diligence and directing investment towards more responsible and sustainable investment options. As concerns in areas such as climate change grow, we expect this trend to only accelerate.

Julia Walker, Head of Market Development, Risk at Refinitiv

99

Refinitiv and sustainability

Refinitiv has committed to three global sustainability pledges and targets, to hold ourselves to account on our sustainability commitments.

We intend to build on our strong legacy of community investment, be transparent with our environmental commitments and disclosures, foster a culture of openness and inclusion, and leverage the skills of our people to develop and drive social impact.

1. Lighten our environmental footprint

- Be carbon neutral by 2020
- Be 100% powered by renewable energy by 2020
- Reduce annual carbon emissions by 10% over the next five years

2. Support all communities where we operate

3. Put sustainability at the heart of our product offering.

- Culture of openness and inclusion
- Committing to 40% women in leadership target
- Double investment with community programmes by 2020

Alongside our charity and community relationships, we are partnering with global organizations to help deliver on what we promise and further widen our impact. Refinitiv is a participant of the United Nations Global Compact, committing to align with the Ten Principles and support the mission of the Sustainable Development Goals (SDGs).

Refinitiv is also a data partner for the United Nations Task Force on Digital Financing, charged with harnessing the potential of financial technology to advance the SDGs. The other global organizations that we partner include the European Commission for the European Commission Technical Expert Group on Sustainable Finance, and the World Economic Forum.

66

Large corporations must play a bigger role in combating the climate crisis. Their sheer size. influence and footprint dictates it. The main blocker for combatting climate change is collective will and mindset, with three major stakeholder groups needing to align – individuals, businesses and the State. Data is just the beginning when it comes to shifting behaviour; it provides transparency and ultimately holds businesses to account. You need data to inform decisions, to focus action and to mobilise.

Luke Manning, Head of Sustainability and Strategic Initiatives at Refinitiv

About Refinitiv's ESG solutions

Refinitiv's ESG data covers over 7,000 global companies, representing 70% of global market cap. This includes coverage of 2,369 companies in the Asia-Pacific region, of which 482 companies are based in Japan, 570 in Oceania and the remaining 1317 in the rest of Asia. We offer one of the most comprehensive ESG databases in the industry, covering more than 400 different ESG metrics, with history going back to 2002.

Our ESG data is fully transparent, with access to raw metrics, allowing users to create custom ratings based on their own values or prioritised metrics. Our ESG data is available through Eikon, Excel® add-in, Datastream®, Datastream Data Loader (DDL), QA Direct® and the Elektron Data Platform Cloud API.

Developed in partnership with the World Economic Forum (WEF) Refinitiv's Sustainable Leadership Monitor (SLM) allows companies to analyse the trajectory of the data versus that of their peers. Companies can also receive timely updates, with ESG data updated weekly and financial analytical models updated daily.

At Refinitiv, our ESG data covers:

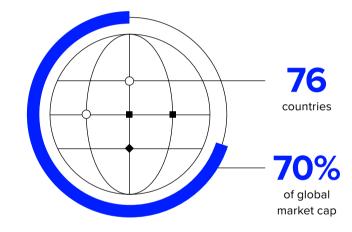


Figure 1: Refinitiv ESG Data

Source: Refinitiv ESG Data

400+ countries 1.2M officers and directors 513,000 individual fixed income securities

6,500+ equity issuers

refinitiv.com

 REFINITIV

 DATA IS JUST

 THE BEGINNING™

RE1049715/10-19