### **REFINITIV INSIGHT:** A DEEP DIVE INTO ENVIRONMENTAL METRICS



# Looking at environmental metrics to preserve capital

We are at a pivotal moment in our civilization's history, as we are at the tipping point of turning the ship towards a prosperous future for humanity on Earth or facing existential consequences from our irresponsible behavior for decades, even centuries.

Recently The Guardian updated its style guide to use terms that more accurately describe the climate crisis the world is facing.

Instead of "climate change," the preferred terms are "climate emergency, crisis or breakdown."

The shift is only possible if we act with a heightened sense of urgency and collaboration across all market participants, redesign how the systems operate and fundamentally change our lifestyle and expectations. This change cannot be scary; we all should be running to it. Absence of change should be frightening!

The good news is that there are many examples emerging across the world of change leadership and innovation that are truly inspirational. These include small entrepreneurial businesses targeting the Sustainable Development Goals, large mega corporations redesigning their whole business model towards a low-carbon economy, to the most comprehensive effort thus far introduced by the European Commission to shift all capital market participants towards sustainability.

Human nature is one of care and responsibility, but to act, we require information. This is where we see the most critical role for Refinitiv to play in responding to the climate crisis. We advocate for data transparency and standardization to inform investors and redirect capital towards the winning sectors, companies and asset classes of the sustainable future.

In this report, we have looked at our ESG database to understand what companies are doing to improve their impact on the environment.



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### Which companies are positioning themselves for success in the transition to low-carbon economies?

In December 2015, countries from around the world adopted The Paris Agreement, their central aim being to strengthen the global response to the threat of climate change. The agreement proposes signatories work to keep a global temperature rise, this century, below 2 degrees Celsius above preindustrial levels.

Three and a half years later, who is leading the fight to tackle air pollution?

63% of companies within our ESG database, which covers 70% global market cap, have a policy to reduce emissions; this is up 56% from five years previous, showing a solid trend of companies publicly committing to take their impact on the environment more seriously. However, only 35% of companies have specific reduction targets around emissions, meaning many companies are setting up policies without specific targets to back these up and put a real figure behind the fluff.

### **Policy on emissions**

#### TOP FIVE INDUSTRIES REPORTING ON EMISSION POLICIES



### **Target on emissions**

#### TOP FIVE INDUSTRIES REPORTING ON TARGETS ON EMISSIONS



At an industry level, as expected, many of the highly polluting industries have a policy on emissions, for example the automobile and transportation industry. It is unsurprising that some of the highest emitting industries are more proactive and transparent on setting emission reduction policies and targets. This results from different stakeholder pressures and public acknowledgement of the significant business risks climate changes create for these industries. However, it is also worth noting that some of the highest emitting industries that we would expect to see at the top of the transparency cut like Energy, Utilities and Mining are not present.

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## Top five countries/regions with emissions policy

As expected, when breaking this down geographically, it is Europe and Asia leading the way thanks mostly in part to regulation (one example being The European Commission recently committing to climate-neutral Europe by 2050 and the rollout of the world's most comprehensive effort to drive business and capital markets towards sustainability).

# Top five countries reporting on emissions targets

Germany comes out on top when looking at targets on emissions and we see more additions from Asia with Japan and South Korea. There is a noticeable absence of the United States, Canada and South America who are lagging behind their counterparts in tackling climate change through policy. In comparison to total CO<sub>2</sub> produced, the biggest polluters including China, India and Hong Kong are noticeably absent from the top countries/regions by emissions targets. Although Germany is also a manufacturing intensive country, the majority of companies are implementing reduction targets on their emissions to limit their impact on the environment. The question remains, when will the others catch up on their commitment to emissions?





\*Based on TRBC Business Sectors with <40 companies reporting and ranked by percentage of companies reporting policy emissions in 2017.

# What is happening with waste?

Outside of direct emissions by companies, we should also consider what impact waste has on our planet and the life it sustains. The media has been filled with images of animals suffering due to our plastic obsession, toxic fumes produced from the burning of waste and landfill, as well as recycling wars as many Asian countries begin to push back on Western imports of recyclable materials. So where are the bright spots and who is combatting this environmental crisis?

Waste is an increasing concern for individuals, companies and countries globally. It's becoming more expensive to deal with waste so companies are making moves to minimize the waste they produce.

68% of companies have a waste reduction initiative. The number of companies with such initiatives has grown by 25% over five years.

The Financial industry has seen the biggest increase, followed by Healthcare and Technology.

#### Industries with waste reduction initiatives



The UK, France, Spain and U.S. all have over 90% of companies reporting as having a waste reduction initiative. Do these initiatives translate into less waste and more recycling? We dig deeper into our ESG waste metrics.

COUNTRY	% OF COMPANIES WITH WASTE REDUCTION INITIATIVE
United Kingdom	99.02
France	96.55
Spain	90.91
United States of America	90.90
Hong Kong	85.25
Malaysia	84.44
Brazil	83.10
India	79.52
Italy	73.81
South Africa	73.50
Germany	73.08
Taiwan	73.04
Japan	71.32
Switzerland	69.23
China (PRC)	68.60
South Korea	68.42
Sweden	66.67
Cayman Islands	62.50
Bermuda	60.94
Canada	46.78
Australia	40.36



#### Total waste/revenue in 2017

Tonnes of waste
52597.6
31876.187
6966.144
1720.013
1584.416
39.51749
37.42191
18.03399
17.97641
16.79573
12.44324

#### Waste vs. revenue

When we look at total waste by revenue, we find that the amount of waste produced by companies divided by US\$1 million in net sales or revenue has decreased by 36.071 tonnes over the last five years.

# 2013 **3,717.997** tonnes 2017 **3,681.926** tonnes

We take a country view of the total waste to revenue metric and find that South Africa, Canada, Australia, Hong Kong and the UK are producing a lot of waste compared to revenue – a worrying trend as landfills begin to fill up.

### Waste recycling ratio

Another concerning finding is that the waste recycling ratio has fallen over the last five years. The ratio is calculated by dividing waste recycled by total waste produced x 100.

The average company has a recycling ratio of 63%, but only 29% of companies actually report on this metric which raises the question whether those who are not disclosing this information are pushing this agenda as much as emissions targets and policies.

2013 **64** 2017 **62** 

Industries with the best waste recycling are non-cyclical consumer goods and services, technology and cyclical consumer goods and services.

All have decreased slightly over five years, but as they are recycling over 70% of waste, they are interesting industries to keep an eye on.

### Waste recycling ratio by year

TRBC Economic Sector Name	2013	2017
Basic Materials	51	52
Cyclical Consumer Goods & Services	71	71
Energy	42	46
Financials	59	55
Healthcare	61	61
Industrials	69	66
Non-Cyclical Consumer Goods & Services	79	76
Technology	79	75
Telecommunication Services	66	66
Utilities	54	52

The country view is a mixed bag with 11 of the 21 countries having increased the amount of overall waste they are recycling.

There is a concern around China, as recycling has decreased 25% over five years. As the country continues to industrialize, investor behavior will be interesting to monitor.



COUNTRY	2013 RATIO	2017 RATIO	% DIFFERENCE
Bermuda	13	32	136.10%
Malaysia	58	37	-35.77%
Cayman Islands	37	39	6.90%
Canada	41	44	7.96%
South Africa	43	48	12.34%
Hong Kong	49	49	-0.05%
Australia	49	50	1.92%
China (PRC)	67	50	-24.67%
Spain	56	55	-1.99%
Italy	65	56	-13.08%
Brazil	64	57	-10.36%
United States of America	60	58	-3.33%
Sweden	64	61	-4.68%
France	66	61	-7.48%
India	58	62	7.95%
Taiwan	73	63	-13.61%
Switzerland	60	63	4.79%
Germany	64	65	1.55%
South Korea	68	69	1.62%
United Kingdom	69	70	2.35%
Japan	80	81	0.70%

## **Biodiversity impact reduction**

Turning our attention to biodiversity, companies are yet again failing in developing policies to limit their impact on flora and fauna. Apart from France (at 69%) which is leading the way in their commitment, all other countries are reporting 40% or less.

Companies need to focus on developing biodiversity policies as rain forests shrink, ice caps melt and urban development grows.

#### Biodiversity impact view across country, region and industry



\*\*\*Based on countries with more than 40 companies reporting

\*\*\*\*Based on regions with more than 40 companies reporting

g \*\*\*\*\*Based on TRBC Business Sectors with <40 companies reporting

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### Do you understand the risks in the supply chain of your investment?

The supply chain of an organization is vital. It can be argued that you are only as sustainable as your supply chain. With this in mind, we look at whether a company has a policy to include its supply chain in the company's efforts to lessen its overall environmental impact.

Our data shows that over the past five years, the number of companies with a focus on the environmental impact of their supply chain has increased by 44%. Now, over 50% of companies report on environmental policies for their suppliers, based on Refinitiv ESG data.



### What does the rise of environmentally friendly products mean to investors?

We looked at companies creating at least one product line or service that is designed to have positive effects on the environment or which is environmentally labeled.

In 2017, 46% of companies reported having products or services which are environmentally friendly, an increase of 7% over five years.

### Companies reporting environmentally friendly products

2013 **39%** 2017 **46%** 

# Will water have the same emphasis as emissions in the fight to save the Earth?

## A focus on water efficiency policies and targets

The latest figures from our ESG database show that 56% of companies have a water efficiency policy, but only 19% have water efficiency targets. This may make investors question whether water is top of mind for corporations.

However, over the last five years, we have seen a 25% increase in companies with water efficiency policies and 34% more companies setting specific water efficiency targets. As companies with water efficiency targets grow, we are hoping to see better use and treatment of water in the production of goods and services.

As we look at water efficiency across regions, countries and industries, we have pulled out a few interesting findings for investors:

Despite LATAM and Asia (ex. Japan) having the highest number of companies with a water efficiency policy, they don't have corresponding numbers of companies with water efficiency targets. European companies are leading the way with just over 25% of companies with water efficiency targets.

#### WATER EFFICIENCY POLICIES



### Water efficiency and the regional view

Top performers on the water efficiency policy metric are spread across the globe. However, France, Germany and the UK have some of the highest percentage of companies reporting on water efficiency targets. This is unsurprising due to the EU Water Framework Directive which requires all member states to charge users of water services that have a negative impact on the environment.

It is interesting to note that currently, almost a quarter of Indian companies are reporting on water efficiency targets. Water efficiency is gaining more traction in India where the topic of water is a contentious political issue.

#### TOP COUNTRIES WITH COMPANIES DISCLOSING WATER EFFICIENCY POLICIES AND TARGETS

Companies with water efficiency policy (%)

Countries with water efficiency targets (%)



### Water efficiency and the industry view

When looking at the SASB Materiality map, we can see that some industries are likely to be affected financially or operationally by water and wastewater management.

We take a look at the water efficiency disclosure of these industries:

SECTOR	COMPANIES WITH WATER EFFICIENCY POLICY (%)	COMPANIES WITH WATER EFFICIENCY TARGET (%)
Consumer Goods	64	30
Extractives & Minerals Processing	59	12
Food & Beverages	79	49
Infrastructure	64	19
Resource Transformation	63	29

We can see that the majority of companies in sectors which are affected by water and wastewater management have policies on water efficiency, with the Food & Beverages industry having almost 50% of companies reporting water efficiency targets, while the Extractives & Minerals Processing and Infrastructure industries need to ensure their policies are being met via targets.

Water efficiency policies and targets are becoming a more common environmental metric for companies to disclose – we are seeing a more rapid increase in companies reporting on water than emissions. However, there is room for improvement. With over 80% of companies not implementing water efficiency targets, water waste should still be a main concern for corporations and investors alike.



#### Water pollution and the revenue view

The Refinitiv ESG database includes two metrics around water pollutant emissions. They measure the total weight of water pollutant emissions in tonnes.

We can see there has been a flux in the amount of water pollutants emitted over the last five years:



#### WATER POLLUTANT EMISSIONS

It is disappointing to see that after an initial dip, pollutants increased, but have since decreased. So, this is an area which might be of interest for investors in the coming years.

When we look at the regional view of countries and water pollution, we can see that Asia (ex. Japan) is by far the worst polluting region in terms of water. Asia (ex. Japan) produces over 10 times more water pollutants than the rest of the world combined, a shocking figure and one which needs to be addressed.

REGION	AVERAGE WATER POLLUTANT EMISSIONS
Asia (ex. Japan)	8,309,949.11
North America	693,618.30
Africa & Middle East	25,089.40
Europe	15,506.82
Japan	5,904.54
LATAM	5,424.28
Oceania	129.41

Looking back to the water policy and targets, we can again question whether more companies implementing water efficiency targets will help this situation.

Average weight of water pollutant emissions (tonnes)

Average weight of water pollutant emissions (tonnes)/1 million USD

When we look at regional pollutants against revenue, we see a similar story. Along with Asia (ex. Japan) polluting the most, the pollution isn't resulting in high revenues. For every 1 million USD made in Asia (ex. Japan), over 668 tonnes of water pollutants are emitted. In comparison, the best performing region is Oceania, where every 1 million USD of revenue produces 0.259 tonnes of water pollutants.

REGION	AVERAGE WATER POLLUTANT EMISSIONS/ MILLION USD
Asia (ex. Japan)	668.6566911
North America	251.3255062
Africa & Middle East	2.9872495
Europe	1.926867732
LATAM	1.61113131
Japan	0.765718806
Oceania	0.25855875

When we drill down in the country water pollutants, a few questions arise:

- Will India get on top of its water pollution problem?
- Will China's highly industrial workforce be able to innovate to minimize water pollution?
- As South Africa sits amongst the highest polluting nations, what more can the country do to protect itself against developing water problems?

COUNTRY	AVERAGE WATER POLLUTANT EMISSIONS	AVERAGE WATER POLLUTANT EMISSIONS/ MILLION USD
India	441383412.4	34889.344
Canada	2632440.973	956.9566661
China (PRC)	472628.5155	36.33823235
Taiwan	264979.5686	15.36728039
Bermuda	31782.99333	11.80468633
South Africa	25089.4035	2.9872495
Germany	23415.978	0.612190379
United Kingdom	18378.6892	2.865650062
Brazil	15982.656	4.727818333
Sweden	13226.23333	5.77141345
Japan	5904.54186	0.765718806
United States	4516.149786	0.238041915
Spain	3486	0.069741
France	2667.96195	0.996297792
Switzerland	2149.4215	0.12662416
Hong Kong	653.805	0.151667726
South Korea	612.4042353	0.028883437
Malaysia	408	0.0697164
Italy	305.883	0.015407685
Cayman Islands	145.0933333	0.052787798
Australia	129.4123333	0.25855875

Worst Performing

Best Performing

### Water pollution and the industry view

Looking back to the SASB Materiality Map, we concentrate on some of the industries likely to be affected by wastewater management.

SECTOR	AVERAGE WATER POLLUTANT EMISSIONS/ MILLION USD
Consumer Goods	220.89
Extractives & Mineral Processing	1.21
Food & Beverages	0.91
Infrastructure	2356.56
Resource Transformation	1.53

The Infrastructure industry is the worst performing industry in terms of water pollution for every 1 million USD in revenue. The Infrastructure industry produces five times more water pollutants for every 1 million in USD of revenue than all other industries combined.





## **About Refinitiv ESG**

At Refinitiv, we strive to be the trusted and preferred partner for environmental, social and governance (ESG) data and solutions, and are committed to bringing to the market an array of best-in-class data, analytics and fully integrated workflow solutions.

We understand the increasingly critical need for ESG information, and the solutions we offer enable customers to act with confidence on consistently captured and standardized transparent information and insights.

We have deep domain expertise and have been providing ESG solutions to the financial industry since the early 2000s. Designed to help you make sound, sustainable investment decisions, our ESG data covers nearly 70% of global market cap and over 400 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.

For more information, visit us online at refinitiv.com/esg

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