



**PRENTISS
SMITH & CO**

Socially Responsible Investment Report for:

Vaisala Oyj

Vantaa, Finland

Ticker: VAIAS (Helsinki Stock Exchange)

Last Updated: March 13, 2020

I. Exclusionary Screening

Does Vaisala appear on any of the following lists? In our exclusionary screening, a single appearance disqualifies an investment.

Fossil Fuels & Precious Metals Mining

- Carbon Underground 200
- CDP/CAI Carbon Major
- BICS - Oil, Gas & Coal
- BICS - Precious Metals Mining

Pornography, Gambling & Tobacco

- BICS - Casinos & Gaming
- BICS - Gaming Equipment
- BICS - Adult/nightclubs
- BICS - Tobacco

Agrochemicals & Animal Cruelty

- BICS - Crop Chemicals & Fertilizers
- Cruelty Free Investing 10 Worst

Defense & Retail Gun Sales

- SIPRI Top 100
- BICS - Defense Primes
- NRA Top Industry Allies

Private Prisons

- BICS - Security Services

CDP = Carbon Disclosure Project
CAI = Climate Accountability Institute
BICS = Bloomberg Industry Classification Systems

SIPRI = Stockholm International Peace Research Institute
NRA = National Rifle Association

II. Environmental, Social & Governance Data

What quantifiable environmental, social and governance data, policies or recognition does Vaisala exhibit? Positive factors may help support a decision to invest.

General

CSR (Corporate Sustainability Reporting) since:

2009

GRI Criteria:

Compliant

Climate Change & Fossil Fuels

CDP Climate Change 2019 Score:

B

CDP Reporting since:

2009

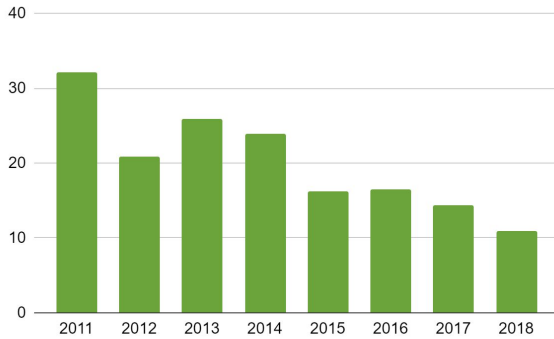
Scope 2 Emissions Reduction from 2014
Baseline:

90%

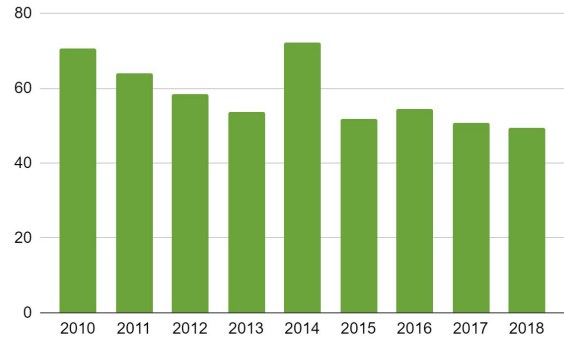
Overall Scope 2 Emissions Reduction Goal for
2020:

100%

GHG Emissions per Sales, 2011-2018:



Energy Intensity per Sales, 2010-2018:



Strategic climate initiatives:

- **Climate Change Strategy**
- **Renewable Energy Targets**
- **Incentives for Management of Climate Change**
- **Engages Policymakers on Climate Change**

Additional climate initiatives:

- **3rd Party Avoided Emissions**
- **Emission Reduction Activities**
- **Value Chain Engagement**

2019 Renewable Electricity Use:

93%

RE100 (100% Renewable Energy) Commitment Level:

Leader

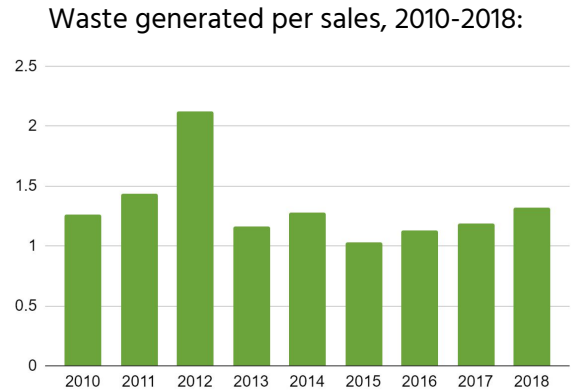
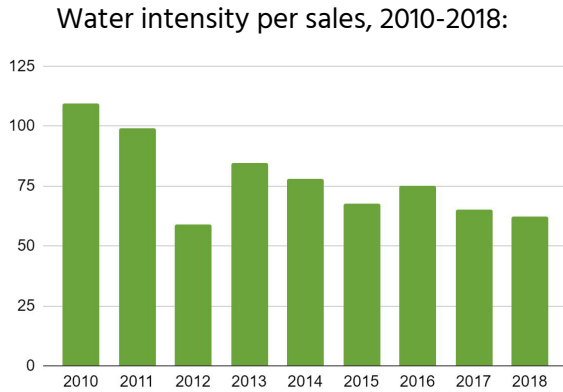
Environmental Stewardship

Environmental policies in place:

- **Energy Efficiency**
- **Supply Chain Management**
- **Waste Reduction**
- **Water**

Waste recycling rate:

53%



Human Rights & Well-Being

Human rights policies in place:

- **Equal Opportunity Policy**
- **Health and Safety Policy**
- **Human Rights Policy**
- **Policy Against Child Labor**
- **Consumer Data Protection Policy**

2019 Human Rights Sanctions or Violations in Supply Chain:

0

Purchases made from suppliers who signed code of conduct:

87%

Purchases made from suppliers rated on ESG metrics:

82%

Percent of workforce that is temporary:

6%

Diversity, Equity and Inclusion

Percent of women in workforce:

29%

Percent of managers who are women:

26%

Percent women in senior leadership (3/7):

43%

Percent women on Board of Directors (2/8):

25%

Gender Pay Gap:

100.8%

Corporate Responsibility

Global 2019 Donations in EUR:

200,000

Independent Board Members:

100%

Classified Board:

Yes

Data sources may include:

- Sustainability and other report(s) published by Tennant Company.
- Bloomberg LP ESG Data (via Data License).
- Global Reporting Initiative (GRI)
- Dow Jones Sustainability Indices (DJSI)
- Barrons 100 Most Sustainable US Companies
- RobecoSAM Corporate Sustainability Assessment (CSA)
- JUST Capital
- Business Intelligence Group Sustainability Leadership Awards
- MSCI ESG Ratings
- CDP
- Science-Based Targets initiative (SBTi)
- RE100
- Climate Accountability Institute (CAI)
- Fossil Free Funds
- Newsweek Green Rankings
- Equileap's Top 100 Companies for Gender Equality
- State Street Global Advisors' Gender Diversity Index
- The 2019 Top 50 DiversityInc
- HRC's 2020 Corporate Equality Index
- Forbes' America's Best Employers Series
- BankTrack's Human Rights Benchmark
- PEOPLE's 50 Companies That Care
- Fortune's 50 Best Workplaces for Charity and Volunteering
- Points of Light Civic 50 Honorees
- Stockholm International Peace Research Institute (SIPRI)
- Institute for Clinical and Economic Review (ICER)
- FAIRR Protein Producer Index
- Roundtable on Sustainable Palm Oil (RSPO)
- National Rifle Association (NRA)

III. Research Narrative

What else has our research process told us about how Vaisala conducts business, in terms of its products and services, its environmental impact, and its approach to governance?

Summary

Vaisala's meteorological and environmental measurement equipment is used in a wide variety of applications. Its products enable scientists to study, forecast, and prepare for climate change and other extreme weather. Governments and municipalities use Vaisala's products to monitor and make decisions around weather events, as well as measure air quality and road conditions. Vaisala's equipment is commonly used by airports to ensure air traffic safety. The company's sensors have a wide variety of industrial measurement applications, including exacting manufacturing applications such as pharmaceutical or semiconductor manufacturing. These systems are also used to improve the energy efficiency of buildings through the accurate measurement of the indoor and outdoor environment. Vaisala also makes remote sensing wind lidar systems, which among other applications allow wind farms to optimize the amount of energy they produce.

Aside from its environmentally beneficial technologies, Vaisala is also a sustainability leader at the company level. In 2019, for example, 93% of the company's energy consumption came from renewable sources.¹ Vaisala has reduced its corporate greenhouse gas emissions footprint by 90% from its 2014 baseline, and will have 100% of its energy consumption from renewable sources by the end of 2020.²

While Vaisala is environmentally very progressive, we would like to see the company do more to address waste. We also believe Vaisala can significantly improve the diversity of its workforce. In terms of governance, while we appreciate Vaisala's board independence, we'd like to see Vaisala move away from a classified board structure and pursue greater gender diversity on its board.

¹ https://www.vaisala.com/sites/default/files/documents/Vaisala_annual_report_2019_web.pdf

² https://www.vaisala.com/sites/default/files/documents/Vaisala_annual_report_2019_web.pdf

Products & Services

Vaisala was founded in Finland in 1936 as a manufacturer of lightweight radiosondes, which could transmit wind, air pressure and temperature data over long distances. Vaisala has been called Finland's first high tech company: their first radiosonde won a gold medal at the 1937 Paris World Fair, and their first customer was MIT. In the 1970s, Vaisala developed the first thin-film humidity sensor, beginning a line of business that remains important today. In the 1990s, the US National Weather Service became one of Vaisala's biggest customers, while the company continued to innovate around the measurement of everything from carbon dioxide to lightning to road surfaces.

Today, 65% of Vaisala's business is in weather and environment measurement, serving weather-dependent markets where reliable, real-time data is critical, including meteorology, aviation and transportation, and renewable energy.³ The other 35% of Vaisala's business is in industrial measurements, serving a wide range of customers with continuous monitoring and power systems and high-end humidity, carbon dioxide, and liquid measurements to drive efficiency, minimize energy consumption, and maximize product quality.⁴ Vaisala has over 25% of the market share of measurement technology within the global meteorology, transportation and renewable energy markets, and a more than 10% global share in industrial instruments, continuous monitoring systems, and liquid measurements.⁵

Vaisala's larger projects tend to be capacity-building, including the recent delivery of nationwide weather infrastructure to Vietnam and an upcoming project to do the same in Ethiopia.^{6,7} Other recent projects have included weather systems for 31 Argentinian airports, and road weather systems across Sweden.^{8,9} Vaisala points to weather incidents like 2019's Hurricane Dorian as an example of how their weather technology prepares governments to respond to major weather events. In that case, a system delivered by Vaisala in 2016 equipped Bahamian authorities to issue

³ https://www.vaisala.com/sites/default/files/documents/Vaisala_annual_report_2019_web.pdf

⁴ https://www.vaisala.com/sites/default/files/documents/Vaisala_annual_report_2019_web.pdf

⁵ <https://www.vaisala.com/en/global-market-size-and-growth>

⁶ <https://www.vaisala.com/en/stock-exchange-releases/2016-02/vaisala-signs-eur-20-million-contract>

⁷ <https://www.vaisala.com/en/press-releases/2019-10/vaisala-modernizes-ethiopias-meteorological-infrastructure>

⁸ <https://www.vaisala.com/en/press-releases/2019-03/vaisalas-automated-weather-observing-system-31-airports-argentina>

⁹ <https://www.vaisala.com/en/press-releases/2019-02/vaisala-provide-swedish-transport-administration-new-road-weather-station-network>

timely and accurate alerts, saving the lives of citizens who were able to seek shelter and prepare appropriately for the storm.¹⁰

Vaisala's weather measurement business is directly positioned to help governments and institutions plan for and respond to climate change. At the same time, Vaisala offers products that provide wind and solar energy assessments and forecasting, which help optimize and drive investments in the renewable energy sector.¹¹ The company's growing line of industrial measurement products include instruments to calibrate outdoor and indoor temperatures, helping power a new wave of highly efficient heating and cooling technologies.¹² And Vaisala's viewLinc Continuous Monitoring System is used in hospitals, blood and tissue banks to help ensure the health and safety of patients.¹³

Environment

Vaisala has been submitting detailed Climate Change reports to CDP since 2010. The company has reduced its Scope 2 emissions by 90% compared to a 2014 baseline, and is on track to achieve its 100% reduction target in 2020.¹⁴ The company is also a member of RE100, a global initiative encouraging companies to make a 100% renewable energy commitment within a clear timeframe. In keeping with that membership, Vaisala is on track to use 100% renewable electricity in 2020.¹⁵ The company has committed to further energy efficiency improvements that will account for 126 tons of CO₂e savings by 2025.¹⁶ Unfortunately, Vaisala's Scope 1 emissions actually went up by 30% in the last reported year, due to increased mileage by Vaisala's US transportation and delivery fleet.¹⁷

¹⁰ <https://finance.yahoo.com/news/edited-transcript-vaias-earnings-conference-221233208.html>

¹¹ <https://www.vaisala.com/en/industries-applications/renewable-energy-and-weather>

¹²

<https://www.vaisala.com/en/products/instruments-sensors-and-other-measurement-devices/instruments-industrial-measurements>

¹³ <https://www.vaisala.com/en/products/software/viewlinc>

¹⁴

https://www.cdp.net/en/formatted_responses/responses?campaign_id=66216852&discloser_id=821332&locale=en&organization_name=Vaisala+Oyj&organization_number=23130&program=Investor&project_year=2019&redirect=https%3A%2F%2Fcdp.credit360.com%2Fsurveys%2F9hz110bc%2F54817&survey_id=65670419

¹⁵ <http://there100.org/companies>

¹⁶

https://www.cdp.net/en/formatted_responses/responses?campaign_id=66216852&discloser_id=821332&locale=en&organization_name=Vaisala+Oyj&organization_number=23130&program=Investor&project_year=2019&redirect=https%3A%2F%2Fcdp.credit360.com%2Fsurveys%2F9hz110bc%2F54817&survey_id=65670419

¹⁷

https://www.cdp.net/en/formatted_responses/responses?campaign_id=66216852&discloser_id=821332&locale=en

Several of Vaisala's products generate wide-ranging environmental benefits, which have included the delivery of more than 1,800 renewable energy assessments and ongoing, hourly forecasts of more than 150 GW of wind energy capacity.¹⁸ The company's industrial monitoring technologies are also used to drive more efficient energy consumption in high-use facilities such as data centers; optimize seasonal road maintenance to reduce the use of fuel and chemicals; and optimize the generation of energy alternatives like fuel cells and biogas generated from waste.

Management Integrity & Ethics

In terms of corporate transparency, Vaisala has been putting out Corporate Responsibility reporting since 2008, when it received an honorable mention from the UN Global Compact.¹⁹ Vaisala is GRI-compliant and has integrated 12 of the 17 UN Sustainable Development Goals into its strategy work, alongside internally identified "megatrends" that help guide the company's evaluation of risks and opportunities.²⁰ These include climate change, resource efficiency and the circular economy, renewable energy, smart energy production and utilization, urbanization, the future of mobility, well-being and health, and digitalization.

Vaisala has integrated sustainable supply chain management into its sourcing, with detailed ESG criteria at the top of its supplier requirements. In 2019, 82% of purchases (based on spend) were made from suppliers rated on these ESG metrics.²¹ Nearly 60% of Vaisala's suppliers are local to Finland, with another 26% located elsewhere in the EU.²²

One way that Vaisala supports the global community is by participating in public-private partnerships to provide meteorological infrastructure to developing markets that will be impacted by the increase of extreme weather events accompanying climate change. The recent development of this national infrastructure in Vietnam, and similar, planned development in Ethiopia, follow this model, in which the Finnish government provides funding through its development cooperation portfolio and Vaisala delivers the technology. In 2019, Vaisala also

[n&organization_name=Vaisala+Oyj&organization_number=23130&program=Investor&project_year=2019&redirect=https%3A%2F%2Fcdp.credit360.com%2Fsurveys%2F9hz110bc%2F54817&survey_id=65670419](https://www.vaisala.com/en/industries-applications/renewable-energy-and-weather)

¹⁸ <https://www.vaisala.com/en/industries-applications/renewable-energy-and-weather>

¹⁹

<https://www.vaisala.com/en/press-releases/2009-09/vaisala-corporate-responsibility-report-2008-recognized-un-global-compact>

²⁰ https://www.vaisala.com/sites/default/files/documents/Vaisala_annual_report_2019_web.pdf

²¹ https://www.vaisala.com/sites/default/files/documents/Vaisala_annual_report_2019_web.pdf

²² <https://www.vaisala.com/en/about-vaisala/sourcing-and-suppliers>

directly donated 200,000 EUR globally, along with three new automated weather observation systems for Bahamian airports following Hurricane Dorian.²³

Vaisala's CEO, Kjell Forsén, joined the company in 2006 after 20 years in management at Ericsson, including serving as President of Ericsson Finland from 2003-2006. Vaisala does have a classified board, with members serving three-year terms, and just 2 of its 8 board members are women. But while Vaisala's overall workforce is 71% male and 29% female, 3 of its 7 top executives are women.

²⁴

As a company specializing in scientific measurement, Vaisala invests heavily in research and development; in 2019, the company spent over 13% of its net sales revenue on R&D.²⁵ In 2018 Vaisala acquired the French company Leosphere, significantly increasing its position in the remote wind sensing market.²⁶

Vaisala does not have any current environmental liabilities and is not involved in any material legal proceedings.

²³ https://www.vaisala.com/sites/default/files/documents/Vaisala_annual_report_2019_web.pdf

²⁴ https://www.vaisala.com/sites/default/files/documents/Vaisala_annual_report_2019_web.pdf

²⁵ https://www.vaisala.com/sites/default/files/documents/Vaisala_annual_report_2019_web.pdf

²⁶

<https://www.vaisala.com/en/stock-exchange-releases/2018-10/vaisala-strengthens-its-position-remote-wind-sensing-acquiring-leosphere-sas-and-consequently-revises-its-business-outlook-2018>

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