

**Methodology Summaries** 



# **Contents**

	Page Numbers
Data Gathering and Validation	3-4
IFRS S1 Sector-Specific Metrics	5-7
IFRS S2 Climate-Related Metrics	8-19
Governance Metrics	20-23
Impact Metrics (UN SDGs)	24-34
Company ESG Grade	35-36
Implied Temperature Rise	37-38
SFDR & PAIs	39-57
Real-Time ESG Sentiment	58-60
Consensus ESG Scores	61-78



# Data Gathering and Validation

Our methodology for collecting, cleaning and validating ESG data at scale using Al-driven processes and expert review.

### 1. Introduction

Integrum ESG is an ESG Intelligence company.

With over 200 machine learning models, each purpose-built and trained for more than five years on a specific ESG metric, we transform complex, unstructured information into actionable data.

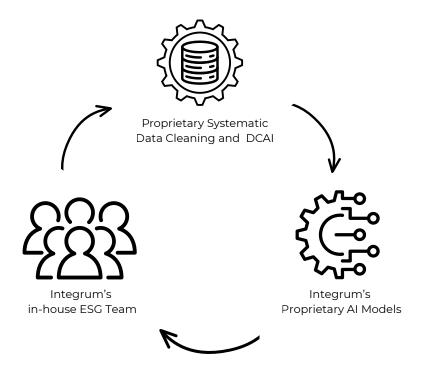
Our unique combination of AI-driven scalability and expert human oversight ensures exceptional accuracy and relevance. This integrated approach enables us to update our data within just 10 days of company reports being published, providing clients with timely high-quality and credible ESG insights.

## 2. How it works

We have built an industry-first Data-Centric AI (DCAI) platform using advanced semi-supervised learning.

We systematically clean and validate ESG data at scale, reviewing millions of datapoints every month - automatically detecting inconsistencies and refining our datasets making sure that the data going into training our proprietary models is as good as it can be.

This metric assesses the extent to which a company discloses the governance structures, oversight processes, and incentive mechanisms in place for managing climate-related risks and opportunities. Higher scores reflect more detailed, transparent, and target-linked disclosures.



We complement out DCAI platform, using a Human-in-the-Loop approach. Every ESG datapoint is reviewed by an ESG expert before being surfaced to the glass box, bringing context, sector knowledge, and analytical precision, ensuring that every model output reflects real-world understanding.

This combination of AI efficiency and human insight drives a continuous improvement cycle, where every expert validation feeds back into our models to make them smarter and our data even more accurate over time.

The result is high-quality information - transparent, consistent, and actionable ESG intelligence that enables our clients to make better, more sustainable decisions.



## **IFRS S1 Sector-Specific Metrics**

IFRS S1 metrics look at a company's sector-specific risks, formerly known as the SASB standards.

### 1. Introduction

Integrum ESG is a licensee of the ISSB (International Sustainability Standards Board) Standards, based on the SASB Materiality Map. This proposes the most important sustainability issues for each global subsector, and is the result of a five year project involving multiple stakeholder groups.

## 2. Metrics

The Integrum ESG Dashboard includes 26 S1 metrics and 48 corresponding S1 sub-metrics, encompassing both qualitative and quantitative measures.

- Qualitative metrics evaluate a company's awareness of an ESG issue.
- Quantitative metrics assess both awareness and actual performance on that issue.

Accordingly, metrics are presented as Awareness Scores (for all metrics) and Performance Scores (applicable only to quantitative metrics). Scores are assigned on a 0–4 scale, with specific definitions provided separately for Awareness and Performance.

	Qualitative metrics - Scoring Methodology / Explanation
Awareness Score = 0	A score of 0 means that the ESG risk is not acknowledged by the company.
Awareness Score = 1	A score of 1 means that the company acknowledges the ESG issue, but has no clear policy in place to manage it.
Awareness Score = 2	A score of 2 means that the company has a policy in place to manage the ESG issue, but this policy is not audited or does not conform to a recognised standard.
Awareness Score = 3	A score of 3 means that the company has a standardised or audited policy in place to manage the ESG Issue, but has not set itself any target.
Awareness Score = 4	A score of 4 means that the company has an audited or standardised policy in place, and has set itself a target for addressing the ESG issue.



	Quantitative metrics - Scoring Methodology / Explanation
Awareness Score = 0	A score of 0 means that the ESG risk is not acknowledged by the company.
Awareness Score = 1	A score of 1 means that the company acknowledges the ESG issue, but has no clear policy in place to manage it.
Awareness Score = 2	A score of 2 means that the company has a policy in place to manage the ESG issue, but does not disclose relevant numbers related to this ESG issue.
Awareness Score = 3	A score of 3 means that the company has a policy in place and discloses relevant numbers related to the ESG issue, but either does not give detailed numbers or does not set itself a target.
Awareness Score = 4	A score of 4 means that the company has a policy in place, and discloses detailed numbers, and has set itself a target to address the ESG issue.
Performance Score = 0	A score of 0 means that the company does not disclose the key number (specific to the ESG issue) needed to assess its performance versus peers for this metric
Performance Score = 1	A score of 1 means that the company's quantitative disclosure places it in the bottom quartile of its peer group.
Performance Score = 2	A score of 1 means that the company's quantitative disclosure places it in the third quartile of its peer group.
Performance Score = 3	A score of 1 means that the company's quantitative disclosure places it in the second quartile of its peer group.
Performance Score = 4	A score of 1 means that the company's quantitative disclosure places it in the top quartile of its peer group.

For Quantitative metrics, the Awareness Score and Performance Score are averaged to give an Overall Score for the metric.



## **IFRS S2 Climate-Related Metrics**

IFRS S2 metrics look at a company's climate-related risks and opportunities, aligned with TCFD recommendations.

### 1. Introduction

The IFRS S2 Climate-related disclosures are based on the FSB Taskforce on Climate-related Financial Disclosures (TCFD) recommendations.

The Taskforce itself has now been disbanded, and its recommendations have been converted into Standards, managed by ISSB, the successor organisation to SASB.

Integrum ESG formally licences these Standards from ISSB.

There are four S2 metrics (listed under 'Sustainability') we analyse for every company on our Platform, which will be rolled out onto our Platform by end of 2025.

## 2. Metrics

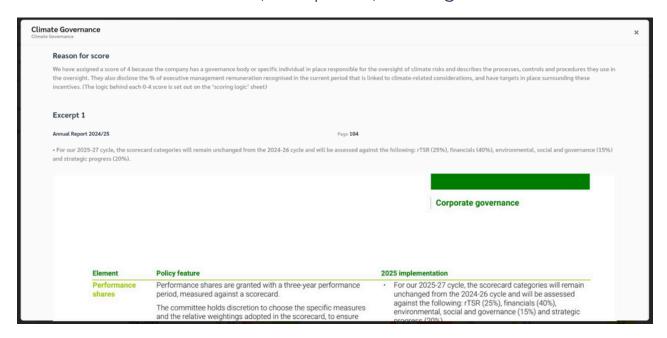
### 2.1. Climate Governance

The objective of climate-related financial disclosures on governance is to enable users of general purpose financial reports to understand the governance processes, controls and procedures an entity uses to monitor, manage and oversee climate-related risks and opportunities.



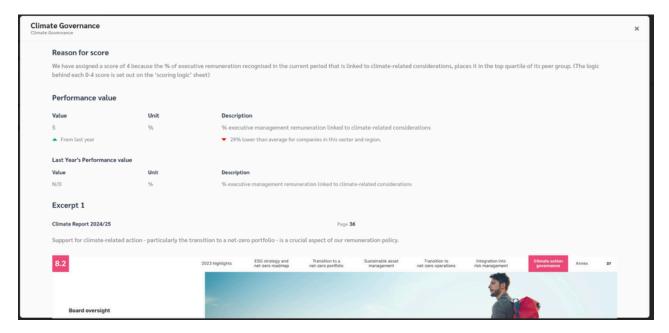
#### **Climate Governance - Awareness**

This metric assesses the extent to which a company discloses the governance structures, oversight processes, and incentive mechanisms in place for managing climate-related risks and opportunities. Higher scores reflect more detailed, transparent, and target-linked disclosures.



#### **Climate Governance - Performance**

This metric measures the proportion of executive remuneration linked to climate-related considerations, scoring companies higher when this proportion ranks in a higher quartile compared to their peer group.

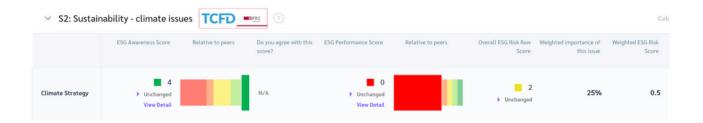




	IFRS S2 - Climate Governance - Scoring Methodology / Explanation
Available Data	% executive management remuneration linked to climate-related considerations
Awareness Score = 0	There is no disclosure on board or executive oversight on climate-related risks.
Awareness Score = 1	The company has a governance body or a specific individual in place responsible for the oversight of climate-related risks and opportunities.
Awareness Score = 2	The company describes the board's oversight (processes, controls and procedures) to manage climate-related risks and opportunities.
Awareness Score = 3	The company has a governance body or specific individual in place responsible for the oversight of climate risks and describes the processes, controls and procedures they use in the oversight. They also disclose the % of executive management remuneration recognised in the current period that is linked to climate-related considerations.
Awareness Score = 4	The company has a governance body or specific individual in place responsible for the oversight of climate risks and describes the processes, controls and procedures they use in the oversight. They also disclose the % of executive management remuneration recognised in the current period that is linked to climate-related considerations, and have targets in place surrounding these incentives.
Performance Score = 0	The company does not disclose the % of executive remuneration recognised in the current period that is linked to climate-related considerations.
Performance Score = 1	The % of executive remuneration recognised in the current period that is linked to climate-related considerations, places it in the bottom quartile of its peer group.
Performance Score = 2	The % of executive remuneration recognised in the current period that is linked to climate-related considerations, places it in the third quartile of its peer group.
Performance Score = 3	The % of executive remuneration recognised in the current period that is linked to climate-related considerations, places it in the second quartile of its peer group.
Performance Score = 4	The % of executive remuneration recognised in the current period that is linked to climate-related considerations, places it in the top quartile of its peer group.

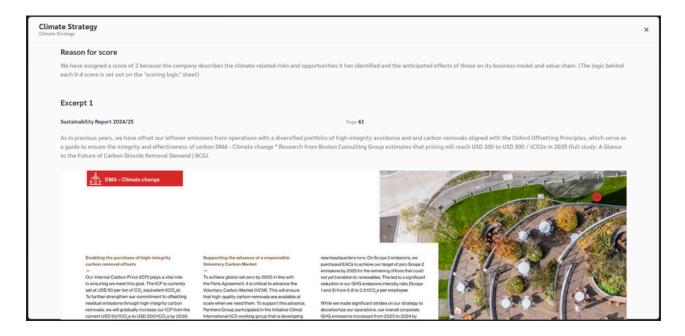
## 2.2. Climate Strategy

The objective of climate-related financial disclosures on strategy is to enable users of general purpose financial reports to understand an entity's strategy for managing climate-related risks and opportunities.



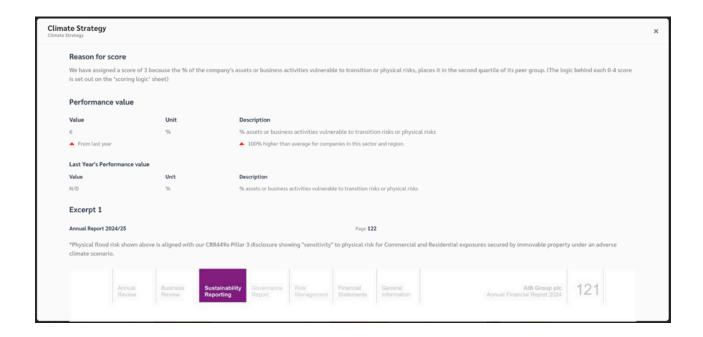
#### **Climate Strategy - Awareness**

This metric assesses the depth and detail of a company's qualitative disclosures on climate-related risks and opportunities, including their potential impacts, the vulnerability of assets or activities, and the strategic responses in place to address them.



#### **Climate Strategy - Performance**

This metric assesses the proportion of a company's assets or business activities that are vulnerable to transition or physical climate risks, with higher scores reflecting a more favourable position relative to peers.





	IFRS S2 - Climate Strategy - Scoring Methodology / Explanation
Available Data	% of the company's assets or business activities vulnerable to transition / physical risks
Awareness Score = 0	There is no disclosure on potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.
Awareness Score = 1	The company describes the climate-related risks and opportunities it has identified that are relevant to its business.
Awareness Score = 2	The company describes the climate-related risks and opportunities it has identified and the anticipated effects of those on its business model and value chain.
Awareness Score = 3	The company describes the climate-related risks and opportunities it has identified and the anticipated effects of those on its business model and value chain. The company also indicate the proportion of assets or business activities vulnerable to transition or physical risks.
Awareness Score = 4	The company describes the climate-related risks and opportunities it has identified and the anticipated effects of those on its business model and value chain. The company also indicate the proportion of assets or business activities vulnerable to transition or physical risks, and has described its response/strategy to the climate-related risks.
Performance Score = 0	The company does not disclose the % of their assets or business activities vulnerable to transition risks or physical risks.
Performance Score = 1	The % of the company's assets or business activities vulnerable to transition or physical risks, places it in the bottom quartile of its peer group.
Performance Score = 2	The % of the company's assets or business activities vulnerable to transition or physical risks, places it in the third quartile of its peer group.
Performance Score = 3	The % of the company's assets or business activities vulnerable to transition or physical risks, places it in the second quartile of its peer group.
Performance Score = 4	The % of the company's assets or business activities vulnerable to transition or physical risks, places it in the top quartile of its peer group.

## 2.3. Climate Risk Management

The objective of climate-related financial disclosures on risk management is to enable users of general purpose financial reports to understand an entity's processes to identify, assess, prioritise and monitor climate-related risks and opportunities, including whether and how those processes are integrated into and inform the entity's overall risk management process.



#### **Climate Risk Management - Awareness**

This metric evaluates the quality of a company's disclosures on how it identifies, assesses, and manages climate-related risks, including monitoring processes, use of carbon pricing, and application of scenario analysis.





#### **Climate Risk Management - Performance**

This metric quantifies the proportion of a company's value at risk from increased carbon permit prices in a hothouse scenario, with higher scores indicating stronger performance relative to peers.

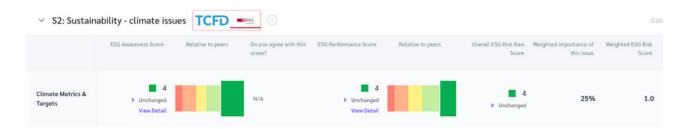




	IFRS S2 - Climate Risk Management - Scoring Methodology / Explanation
Available Data	% Climate Value at Risk (VAR) at \$150 per tonne (estimates the potential percentage loss in a company's value due to future carbon costs, assuming carbon emissions are priced at \$150 per tonne of CO <sub>2</sub> ).
Awareness Score = 0	There is no disclosure on how the company identifies, assesses, and manages climate-related risks.
Awareness Score = 1	The company describes the inputs and parameters it uses to identify and assess climate-related risks.
Awareness Score = 2	The company describes the inputs and parameters it uses to identify and assess climate-related risks and how it monitor these risks on an ongoing basis.
Awareness Score = 3	The company describes the inputs and parameters it uses to identify and assess climate-related risks and how it monitors these risks on an ongoing basis. The company also discloses its use of carbon pricing in its climate risk assessment process.
Awareness Score = 4	The company describes the inputs and parameters it uses to identify and assess climate-related risks and how it monitors these risks on an ongoing basis. The company also discloses its use of carbon pricing in its climate risk assessment process, and its use of climate-related scenario analysis to inform identification of climate-related risks.
Performance Score = 0	The % of the company's value at risk due to increased carbon permit prices in a hothouse scenario could not be calculated due to their lack of emissions disclosure or fundamentals less than or equal to 0.
Performance Score = 1	The % of the company's value at risk in a hothouse scenario (\$150 permit price), places it in the bottom quartile of its peer group.
Performance Score = 2	The % of the company's value at risk in a hothouse scenario (\$150 permit price), places it in the third quartile of its peer group.
Performance Score = 3	The % of the company's value at risk in a hothouse scenario (\$150 permit price), places it in the second quartile of its peer group.
Performance Score = 4	The % of the company's value at risk in a hothouse scenario (\$150 permit price), places it in the top quartile of its peer group.

## 2.4. Climate Metrics & Targets

The objective of climate-related financial disclosures on metrics and targets is to enable users of general purpose financial reports to understand an entity's performance in relation to its climate-related risks and opportunities, including progress towards any climate-related targets it has set, and any targets it is required to meet by law or regulation.



#### **Climate Metrics & Targets - Awareness**

This metric assesses the quality of a company's disclosures on emissions data, third-party assurance or standards used, and the presence and verification of targets to reduce carbon emissions.





#### **Climate Metrics & Targets - Performance**

This metric measures a company's Scope 1 & 2 greenhouse gas emissions intensity (per unit of revenue), with higher scores reflecting stronger performance relative to peers.



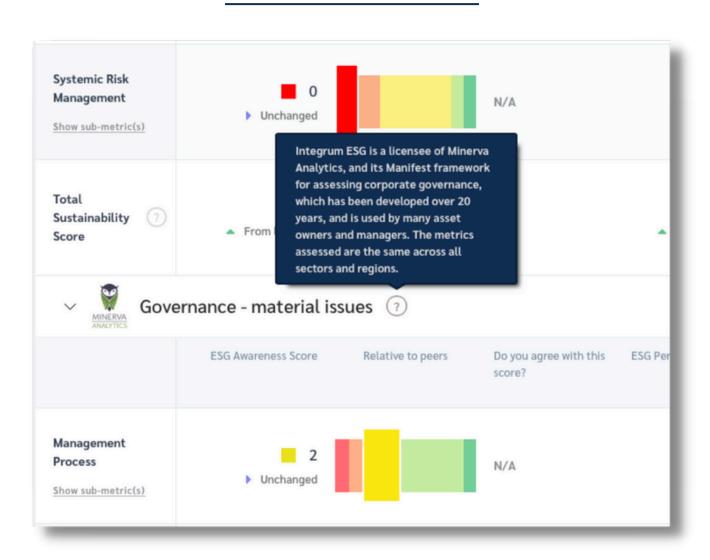


	IFRS S2 - Climate Metrics & Targets - Scoring Methodology / Explanation
Available Data	Scope 1 plus Scope 2 CO2e emissions in the year Scope 1 CO2 emissions Scope 2 CO2 emissions Scope 3 CO2 emissions
Awareness Score = 0	There is no disclosure on the metrics and targets the company uses to assess and manage relevant climate-related risks and opportunities.
Awareness Score = 1	The company discloses its Scope 1 & 2 emissions.
Awareness Score = 2	The company discloses its Scope 1 & 2 emissions, and this data is assured by a third party or follows third party standards such as the GHG Protocol.
Awareness Score = 3	The company discloses its Scope 1 & 2 emissions, this data is assured or follows third party disclosure standards, and has a target in place to reduce its carbon emissions.
Awareness Score = 4	The company discloses its Scope 1 & 2 emissions, this data is assured or follows third party disclosure standards, and has a verified target in place to reduce its carbon emissions.
Performance Score = 0	The company does not disclose the key number (Scope 1 & 2 greenhouse gas emissions) needed to assess its performance versus peers for this metric.
Performance Score = 1	The company's Scope 1 & 2 greenhouse gas emissions, per unit of revenue, places it in the bottom quartile of its peer group.
Performance Score = 2	The company's Scope 1 & 2 greenhouse gas emissions, per unit of revenue, places it in the third quartile of its peer group.
Performance Score = 3	The company's Scope 1 & 2 greenhouse gas emissions, per unit of revenue, places it in the second quartile of its peer group.
Performance Score = 4	The company's Scope 1 & 2 greenhouse gas emissions, per unit of revenue, places it in the top quartile of its peer group.



## **Governance Metrics**

We use the SASB framework to assess environmental and social metrics, but SASB focuses on sustainability rather than governance. This is why we use the Minerva framework to assess governance issues.





It has 9 metrics and 39 sub-metrics which are mapped across all companies.





Why do we typically show many more governance sub-metrics than sustainability sub-metrics for a company?

Well, like many investment firms, we believe that governance is a very price sensitive topic and that good behaviour in many environmental and social areas is hard to achieve without good governance.

This is why we have partnered with the stewardship experts at <u>Minerva Analytics</u> to provide this comprehensive framework, and we would recommend that your stewardship and voting team engages directly with Minerva.

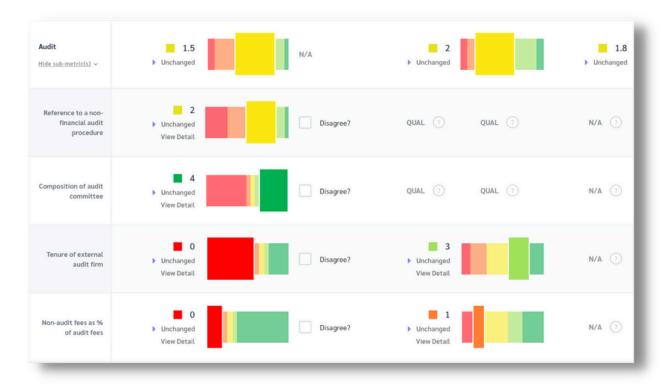


Minerva collects governance data from public company disclosures, but their team is much quicker to update the database than other data governance firms.

They capture over 1,000 governance related data items per company, acting as soon as the company has released new figures.



The Integrum ESG approach to surfacing governance data is entirely consistent with how we assess both sustainability and impact issues.



For every single metric we will show you a glass box, a simple explanation of why that score has been awarded and the precise company data that has informed that scoring decision.

There are fewer performance scores than there are for sustainability or impact. This is because many of the governance metrics are qualitative. Moreover, some of the governance scoring is inherently absolute rather than relative.

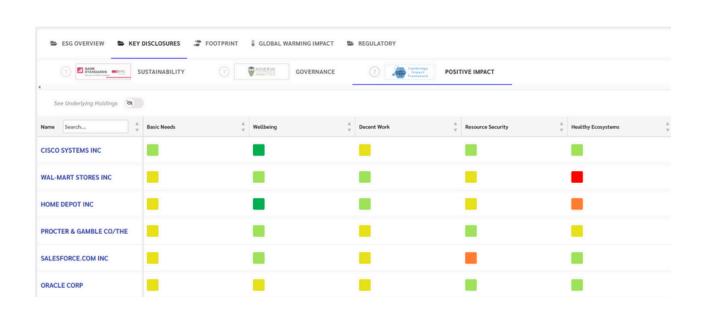
Minerva and Integrum use number boundaries to determine poor or good governance, and it makes little sense to try to put companies into quartiles for such metrics.





# **Impact Metrics**

Impact investing refers to investments made into companies, organizations, and funds with the intention to generate a measurable, beneficial social or environmental impact alongside a financial return.



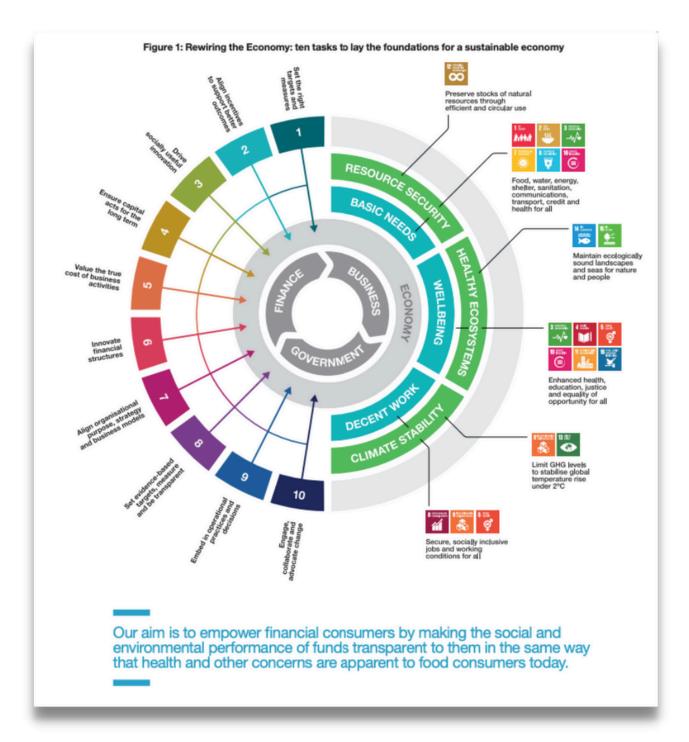
The measure of what is beneficial, that most impact investment strategies now use, is the extent to which the company invested in is advancing the United Nations Sustainable Development Goals. These are often referred to as the shorthand SDGs.

We use the Cambridge Impact Framework to assess this, which aims to assist investors in understanding the alignment of their portfolios through six impact themes (basic needs, climate stability, decent work, healthy ecosystems, resource security and wellbeing).

The Cambridge Impact Framework was developed at the University's Institute for Sustainable Leadership in accordance with a group of impact focused fund management groups. The reports that explain their methodology are freely <u>available online</u>.



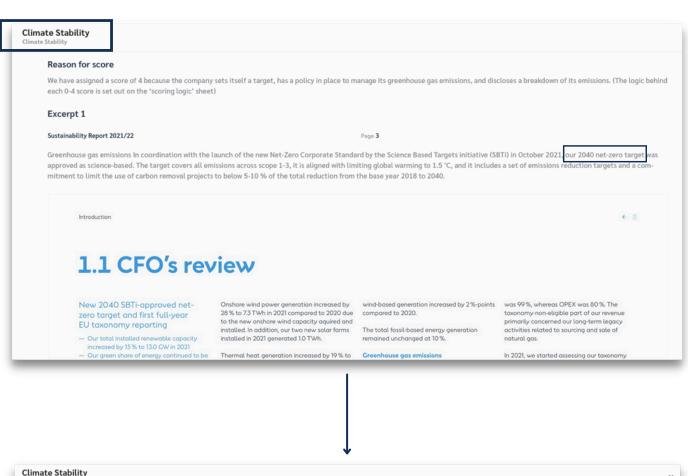
The Cambridge Impact Framework selected just six metrics to represent these six themes, but intends to extend and deepen the framework over time.

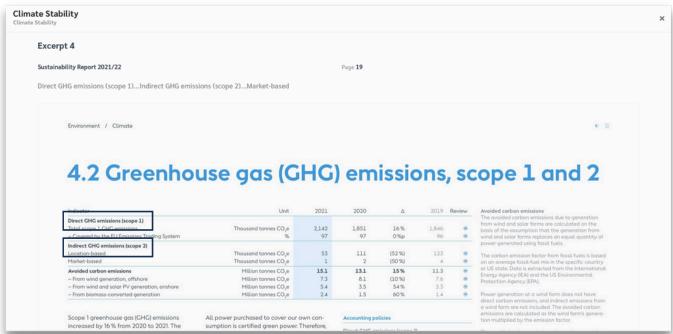


They selected these six metrics because each is highly illustrative of a company's commitment to the SDGs and because most companies disclose the relevant metric, whether it's greenhouse gas emissions or water consumption.



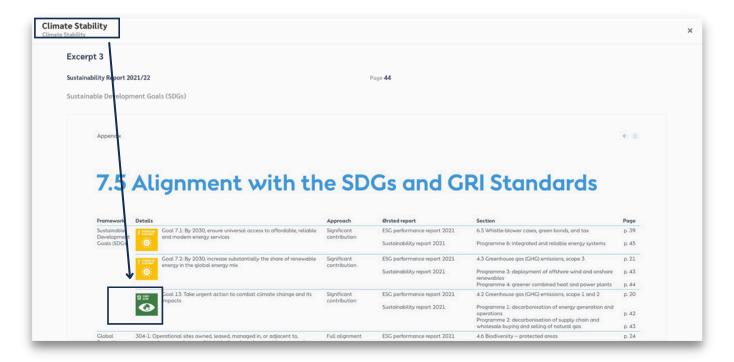
Therefore, to gain a high raw impact score from Integrum ESG, companies have to disclose specific information and **provide data**, and **quantifiable targets** relevant to each of the six themes.



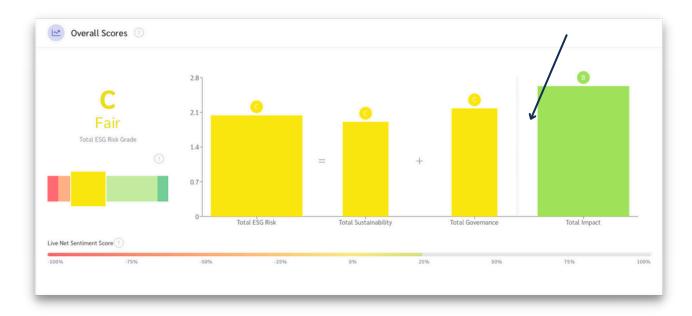




Moreover, we need to see companies showing an awareness of specific UN Sustainable Development Goals.



Note that the impact score does not feed into the ESG score, as is the case with some ESG analytics firms. It is a separate, specific framework and there is a dotted line on the summary score view for each company to remind you that the impact score is separate from the ESG score.





### **Impact Metrics Summary**

1 BASIC NEEDS

'Basic Needs' is the metric within the Cambridge Impact Framework that maps to SDGs 1, 2, 3, 6, 7, & 10. It assesses total revenue (goods or services) from clothing, communications, education, energy, finance, food, healthcare, housing, sanitation, transport and water - in US\$.

2 WELLBEING

'Wellbeing' is the metric within the Cambridge Impact Framework that maps to SDGs 3, 4, 5, 10, 11 & 16. It assesses the company's total tax contribution - in US\$.

3 DECENT WORK

'Decent Work' is the metric within the Cambridge Impact Framework that maps to SDGs 5, 8 & 9. It assesses a company's approach to the creation of secure, socially inclusive jobs and working conditions for all, and their total number of (full-time equivalent) employees.

4 RESOURCE SECURITY

'Resource Security' is the metric within the Cambridge Impact Framework that maps to SDG 12. It assesses the company's approach to the preservation of natural resources through efficient and circular use, and their total net waste (total waste arising minus total waste recycled) - in metric tonnes.

5 HEALTHY ECOSYSTEMS

'Healthy Ecosystems' is the metric within the Cambridge Impact Framework that maps to SDGs 14 & 15. It assesses a company's approach to the maintenance of ecologically sound landscapes and seas for people and nature, and their fresh water use (surface water + groundwater + municipal water) - in m3.

6 CLIMATE STABILITY

'Climate Stability' is the metric within the Cambridge Impact Framework that maps to SDGs 9 & 13. It assesses a company's approach to curb the Earth's temperature rise, and their total Greenhouse Gas Scope 1 (direct) & 2 (indirect) emissions - in tonnes of CO2 equivalents.



Basic Needs Revenue from providing basic human necessities (maps to SDGs 1,2,3,6,7 & 10)	
Available Data	Estimate % revenue arising from supplying basic needs (clothing, communication, energy, food, finance, healthcare, housing, sanitation, water and transport).
Awareness Score = 0	The company discloses no breakdown of its total revenue.
Awareness Score = 1	The company discloses some breakdown of its total revenue, but does not disclose a clear breakdown by product.
Awareness Score = 2	The company discloses a breakdown of revenue by product, but shows no general awareness of the UN Sustainable Development Goals.
Awareness Score = 3	The company discloses a breakdown of revenue by product, and also shows a general awareness of the UN Sustainable Development Goals.
Awareness Score = 4	The company discloses a breakdown of revenue by product, and also shows a specific awareness of relevant UN Sustainable Development Goals (SDGs 1,2,3,6,7 or 10).
Performance Score = 0	The company does not disclose the key number (revenue from providing basic human necessities) needed to assess its performance versus peers for this metric.
Performance Score = 1	The company's revenues from providing basic human necessities as a % of total revenue, place it in the bottom quartile of the Integrum ESG universe.
Performance Score = 2	The company's revenues from providing basic human necessities as a % of total revenue, place it in the third quartile of the Integrum ESG universe.
Performance Score = 3	The company's revenues from providing basic human necessities as a % of total revenue, place it in the second quartile of the Integrum ESG universe.
Performance Score = 4	The company's revenues from providing basic human necessities as a % of total revenue, place it in the top quartile of the Integrum ESG universe.



Wellbeing Total tax contribution (maps to SDGs 3,4,5,10,11 & 16)	
Available Data	Taxation paid by the company (\$M) Taxation paid by the company relative to revenue (\$M per \$M)
Awareness Score = 0	The company discloses no breakdown of its tax payments.
Awareness Score = 1	The company discloses some breakdown of its tax payments, but does not reconcile its actual payments to the statutory tax rate.
Awareness Score = 2	The company discloses a reconciliation of its tax payments, but shows no general awareness of the UN Sustainable Development Goals.
Awareness Score = 3	The company discloses a reconciliation of its tax payments, and also shows a general awareness of the UN Sustainable Development Goals.
Awareness Score = 4	The company discloses a reconciliation of its tax payments, and also shows a specific awareness of relevant UN Sustainable Development Goals (SDGs 3,4,5,10,11 or 16).
Performance Score = 0	The company does not disclose the key number (total tax contribution) needed to assess its performance versus peers for this metric.
Performance Score = 1	The company's total tax contribution, per unit of revenue, places it in the bottom quartile of the Integrum ESG universe.
Performance Score = 2	The company's total tax contribution, per unit of revenue, places it in the third quartile of the Integrum ESG universe.
Performance Score = 3	The company's total tax contribution, per unit of revenue, places it in the second quartile of the Integrum ESG universe.
Performance Score = 4	The company's total tax contribution, per unit of revenue, places it in the top quartile of the Integrum ESG universe.



Decent work Number of full-time equivalent jobs created (maps to SDGs 5,8 & 9)	
Available Data	Number of jobs created by the company (No. of Full-Time Employees) Number of full-time equivalent relative to revenue (FTEs per \$m revenue)
Awareness Score = 0	The company does not disclose its number of employees.
Awareness Score = 1	The company discloses an employee policy but does not disclose the total number of employees - even if it shows a general awareness of the UN Sustainable Development Goals.
Awareness Score = 2	The company discloses an employee policy and the total number of employees - it may not show alignment to the UN Sustainable Development Goal relevant to this metric (SDGs 5, 8, 9), or it may not give a breakdown of its employees by contact type.
Awareness Score = 3	The company discloses an employee policy, the number of employees, and a breakdown by contract type. The company also shows an awareness of the specific UN Sustainable Development Goals relevant to this metric (SDGs 5, 8, 9), but has not disclosed the exact number of full-time equivalent (FTE) employees.
Awareness Score = 4	The company discloses its exact number of full-time equivalent (FTE) employees, a breakdown by contract type and an employee policy The company also shows an awareness of the specific UN Sustainable Development Goals relevant to this metric (SDGs 5, 8, 9).
Performance Score = 0	The company does not disclose the key number (number of full-time equivalent employees) needed to assess its performance versus peers for this metric.
Performance Score = 1	The company's number of full-time equivalent employees, per unit of revenue, places it in the bottom quartile of the Integrum ESG universe.
Performance Score = 2	The company's number of full-time equivalent employees, per unit of revenue, places it in the third quartile of the Integrum ESG universe.
Performance Score = 3	The company's number of full-time equivalent employees, per unit of revenue, places it in the second quartile of the Integrum ESG universe.
Performance Score = 4	The company's number of full-time equivalent employees, per unit of revenue, places it in the top quartile of the Integrum ESG universe.



Resource security Total unrecycled waste produced (maps to SDG 12)	
Available Data	Amount of waste generated and/or discharged, percentage hazardous, percentage recycled (tonnes) Total waste generated by the company relative to revenue (Tonnes of waste generated per \$m revenue)
Awareness Score = 0	Waste generation is not acknowledged as an Impact issue by the company.
Awareness Score = 1	The company does have a waste management policy in place, but does not disclose its waste generation - even if it shows a general awareness of the UN Sustainable Development Goals.
Awareness Score = 2	The company has a policy in place to manage its waste and discloses its waste generation - it may not show alignment to the UN Sustainable Development Goal relevant to this metric (SDG 12), or it may not provide a breakdown by disposal type.
Awareness Score = 3	The company has a policy in place to manage its waste, discloses its waste generation and provides a breakdown by disposal type. The company also shows an awareness of the specific UN Sustainable Development Goal relevant to this metric (SDG 12), but does not have a target for waste output.
Awareness Score = 4	The company sets itself a waste target, has a waste management policy, discloses its waste generation and provides a breakdown by disposal type. The company also shows an awareness of the specific UN Sustainable Development Goals relevant to this metric (SDG 12).
Performance Score = 0	The company does not disclose the key number (mass of net waste generated) needed to assess its performance versus peers for this metric.
Performance Score = 1	The company's mass of net waste generated, per unit of revenue, places it in the bottom quartile of the Integrum ESG universe.
Performance Score = 2	The company's mass of net waste generated, per unit of revenue, places it in the third quartile of the Integrum ESG universe.
Performance Score = 3	The company's mass of net waste generated, per unit of revenue, places it in the bottom quartile of the Integrum ESG universe.
Performance Score = 4	The company's mass of net waste generated, per unit of revenue, places it in the top quartile of the Integrum ESG universe.



Healthy ecosystems Total fresh water usage (maps to SDGs 14 & 15)	
Available Data	The total amount of water withdrawn. If not disclosed by the company, then the total amount of water consumed (cubic metres) Total water withdrawn by the company relative to revenue (Cubic metres of water withdrawn per \$m revenue)
Awareness Score = 0	The company does not mention its water usage.
Awareness Score = 1	The company does have a water management policy, but does not disclose water usage - even if it shows a general awareness of the UN Sustainable Development Goals.
Awareness Score = 2	The company has a water management policy and discloses water usage - it may not show alignment to the UN Sustainable Development Goal relevant to this metric (SDGs 14, 15), or it may not provide a breakdown by water source.
Awareness Score = 3	The company has a water management policy, discloses water usage and provides a breakdown by water source. The company also shows an awareness of the specific UN Sustainable Development Goals relevant to this metric (SDGs 14, 15), but does not have a target for water usage.
Awareness Score = 4	The company the company sets itself a water target, has a water management policy, discloses water usage and provides a breakdown by water source. The company also shows an awareness of the specific UN Sustainable Development Goals relevant to this metric (SDGs 14,15).
Performance Score = 0	The company does not disclose the key number (total water usage) needed to assess its performance versus peers for this metric.
Performance Score = 1	The company's total water usage, per unit of revenue, places it in the bottom quartile of the Integrum ESG universe.
Performance Score = 2	The company's total water usage, per unit of revenue, places it in the third quartile of the Integrum ESG universe.
Performance Score = 3	The company's total water usage, per unit of revenue, places it in the second quartile of the Integrum ESG universe.
Performance Score = 4	The company's total water usage, per unit of revenue, places it in the top quartile of the Integrum ESG universe.



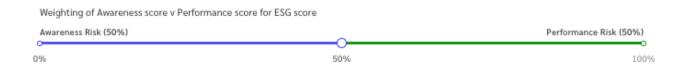
Climate Stability Total greenhouse gas scope 1 (direct) & scope 2 (indirect) emissions (maps to SDGs 9 & 13)	
Available Data	The total amount of Scope 1 & 2 GHG emissions (tonnes of CO2e).  Total emissions emitted by the company relative to revenue (tonnes of CO2e emitted per \$m revenue)
Awareness Score = 0	The company does not mention its GHG emissions.
Awareness Score = 1	The company has a policy in place to manage its greenhouse gas emissions, but does not disclose its total emissions - even if it shows a general awareness of the UN Sustainable Development Goals.
Awareness Score = 2	The company has a policy in place to manage its greenhouse gas emissions, and discloses its total emissions - it may not show alignment to the UN Sustainable Development Goal relevant to this metric (SDGs 9 or 13), or it may not give a breakdown of its emissions by scope.
Awareness Score = 3	The company has a policy in place to manage its greenhouse gas emissions, and discloses a breakdown of its emissions. The company also shows an awareness of the specific UN Sustainable Development Goals relevant to this metric (SDGs 9 or 13), but does not have a target for GHG emissions.
Awareness Score = 4	The company sets itself a target, has a policy in place to manage its greenhouse gas emissions, and discloses a breakdown of its emissions. The company also shows an awareness of the specific UN Sustainable Development Goals relevant to this metric (SDGs 9 or 13).
Performance Score = 0	The company does not disclose the key number (Scope 1 & 2 emissions) needed to assess its performance versus peers for this metric.
Performance Score = 1	The company's total emissions, per unit of revenue, places it in the bottom quartile of the Integrum ESG universe.
Performance Score = 2	The company's total emissions, per unit of revenue, places it in the third quartile of the Integrum ESG universe.
Performance Score = 3	The company's total emissions per unit of revenue, places it in the second quartile of the Integrum ESG universe.
Performance Score = 4	The company's total emissions, per unit of revenue, places it in the top quartile of the Integrum ESG universe.

# Company ESG Grade

Each material issue is equally weighted by default.

This is essentially because ISSB, whose materiality framework we deploy, does not suggest that any of the metrics it deems material for an industry are more important than others.

You however can customise the weighting given to each metric if you wish. The overall ESG raw risk score for each metric is then multiplied by the weighting of that metric, to generate the 'weighted ESG risk score' for each metric.



#### **Dimension & Total ESG Scores**

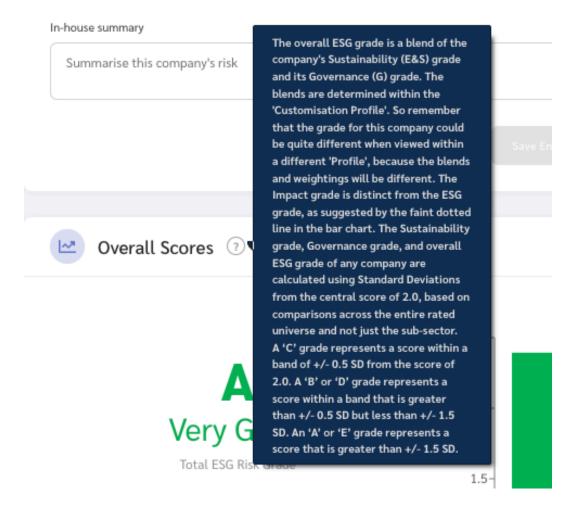
These weighted scores are then summed to give the total score for that dimension (sustainability, governance, or impact), on a scale of 0 to 4. The overall ESG score is, by default, comprised of the average of the sustainability and governance scores.

How are grades (A-E) calculated?

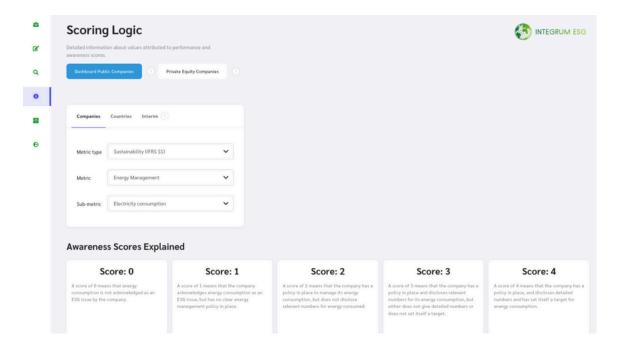
They are not a simple translation of the number score (0-4) into a letter grade (A-E). The grades are calculated using SD (Standard Deviations) from the central score on the 0-4 scale, which is 2. A 'C' grade represents a score within a band of +/- 0.5 SD from the central score of 2.

A 'B' or 'D' grade represents a score within a band that is greater than +/- 0.5 SD but less than +/- 1.5 SD. An 'A' or 'E' grade represents a score that is greater than +/- 1.5 SD.

These explanations are also visible on the Platform - either hover on any relevant tool tip:



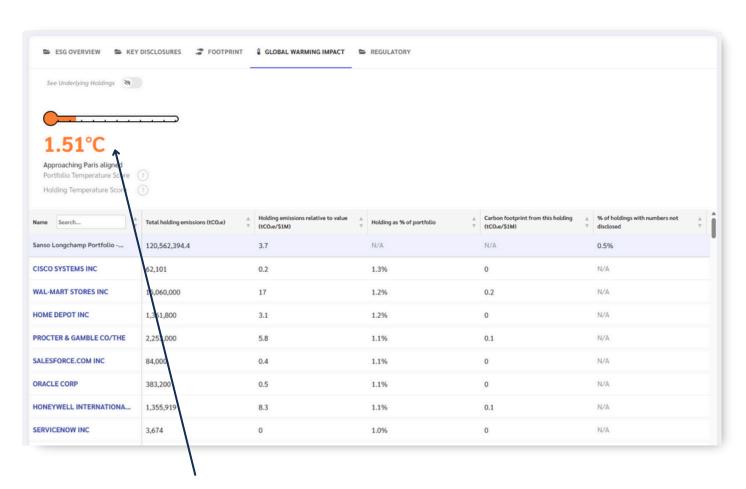
Or go to our 'Scoring Logic' page - here you can see the logic behind the Awareness Score and the Performance Score for any metric or submetric.



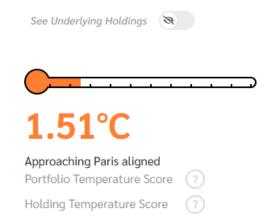


# **Implied Temperature Rise**

The Integrum ESG Platform calculates a temperature score for every fund and every company within any uploaded portfolio.



This value is the level of global warming - in degrees centigrade - that would be created if this portfolio represented the global economy.



For fund calculations, the structure is "flattened" and reweighted to reflect the exposure to individual holdings.

For example, if BP makes up 20% of a fund, and that fund accounts for 10% of the overall fund of funds, BP is assigned a reweighted portfolio weight of 2%. We then do the normal portfolio calculations.

For an individual company, the Implied Temperature Rise is calculated using a formula that estimates how the company's emissions trajectory compares to a global carbon budget, then translates that into a temperature alignment. The ITR is expressed in degrees Celsius and estimates the company's contribution to global warming if every company behaved similarly.

#### The formula used is:

ITR =  $\alpha \times (Carbon\ Intensity / (Revenue\ Intensity \times 1B)) \times Global\ GDP \times \theta \times Years\ to\ 2100 + \beta$ 

#### Where:

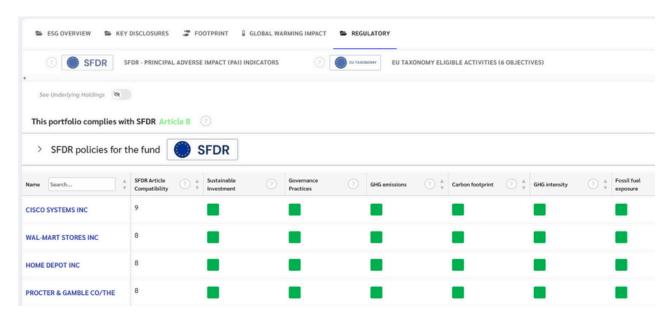
- Carbon Intensity = the company's carbon emissions (from the latest year) per \$1 million of enterprise value (or market cap).
- Revenue Intensity = the company's annual revenue divided by its enterprise value or market cap.
- $\alpha$ ,  $\beta$ ,  $\theta$  = Constants taken from the <u>Cambridge University Model</u>
- Global GDP = A fixed global GDP assumption used for scaling.
- Years to 2100 = The number of years from the current year until 2100, representing the analysis horizon.



# SFDR & PAIs

The SFDR legislation requires any fund marketed in Europe that aspires to Article 8 or Article 9 status to answer a specific set of questions on how ESG considerations are integrated into the management of the fund, but also to consider each holding against 14 mandatory PAIs – Principle Adverse Indicators.

Our Platform automatically maps every holding in your Portfolio against the 14 mandatory PAIs - and assigns your overall portfolio with an Article classification.



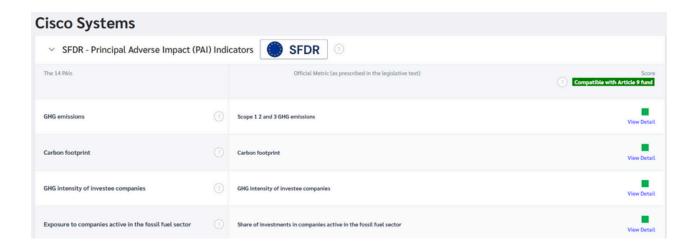
Many of the PAIs are directly comparable to data points already available on the Integrum ESG Platform. Where the precise data specified in the SFDR text isn't available, we have used relevant, applicable proxy data as per <u>Article 7(2)</u> of the SFDR legislation which allows for reasonable assumptions.

For example, the **PAI** 'unadjusted gender pay gap' needs to consider proxy data, simply because most companies around the world do not disclose their gender pay gap. Integrum ESG uses gender diversity in the workforce, and alignment to SDG 5, as proxy data, which we confidently argue captures whether harm is being done to the EU objective, which is in essence 'treating women in the workplace fairly'.

The data on the Integrum ESG Platform is taken from company disclosures.

When a company provides detail that we can use to assess any adverse sustainability impacts, this will be shown in a 'glass box'; a direct look-through to the company-level data.

A user can reveal a glass box containing the underlying data, and a reason for our assessment, by clicking 'view detail' on any company-level PAI.



We use a colour system to assess alignment with each PAI at the company level.





## PAI level colour system:

## Green: Good disclosure

This company is offering a reasonable-to-good level of disclosure with regards to this indicator and is not having any adverse impact on the underlying EU objective to which it relates.

## Yellow: Poor disclosure

Although this indicator is relevant for companies in this sector, this company does not sufficiently disclose the relevant metric. We regard this as poor disclosure, and think that if a company is an appropriate holding for an Article 8 or 9 fund, it should only have a minority of its PAIs marked as yellow.

## Red: Poor performance

This company is performing poorly with regards to this indicator – to the extent that it could be regarded as significantly harming the underlying EU objective.

## Grey: Not material

Neither we nor the ISSB regard this indicator as relevant for companies in this sector. We can therefore fairly assume that the company is not harming the underlying EU objective to which it relates.



In order to assess overall funds, we first assign Article 6/8/9 alignment at the holding/company level.

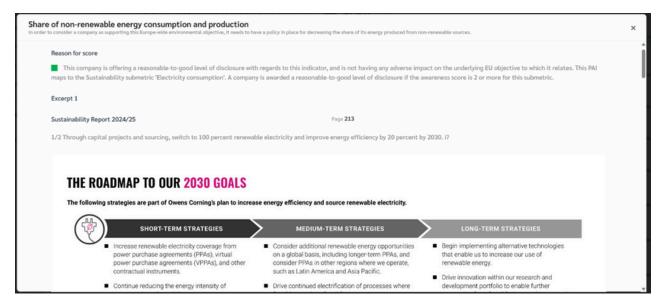
Although this is not required by the SFDR legislation, we regard it as an important 'bridge' between assessing PAIs at the holding level, and classifying the overall fund.

A company must have no more than 4 yellows or reds combined to be assigned Article 8 at the company level.

Our rationale is that an investee company should disclose data for a majority of the 14 PAIs, in order to comply with what is after all a 'Disclosure Requirement'.

Moreover, although the legislation does not preclude holdings in companies that are performing poorly with regards to a sustainability indicator, providing that the fund manager engages with the company, an Article 8 fund must 'promote' sustainability characteristics.

We have therefore concluded, unscientifically, that appropriate investee companies should not have more than 4 PAIs marked red. Furthermore, to be compatible, whilst the PAIs focus on sustainability objectives, there must be clear evidence that a company has good governance practices in place.

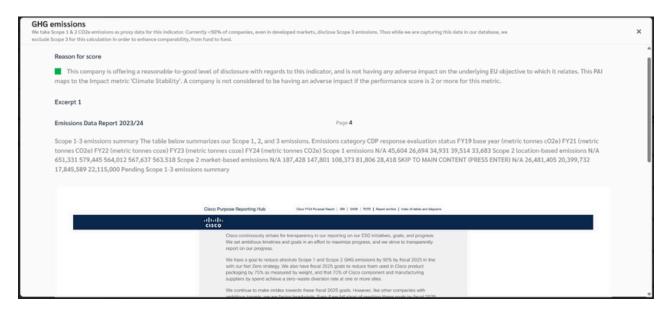




A company must have no yellows and no reds to be assigned Article 9 at the company level.

Our rationale is that an investee company should disclose data for a majority of the 14 PAIs, in order to comply with what is a 'Disclosure Requirement'. Moreover, an Article 9 fund must have sustainability as its 'objective'; it should only be targeting investments in companies that do no significant harm to the EU environmental and social objectives.

Therefore we will not classify any company with any PAIs marked red as suitable for an Article 9 fund. There is also a set of 12 specific sustainability objectives that a company must support if it is to be compatible with an Article 9 fund. Furthermore, to be compatible, whilst the PAIs focus on sustainability objectives, there must be clear evidence that a company has good governance practices in place.



If a company does not meet either of the classifications above, we classify it as Article 6.



PAI 1. GHG Emissions	
Available Data	Whether the company has a policy to manage its GHG emissions Whether the company shows a general awareness of the UN Sustainable Development Goals Whether the company shows a specific awareness of the UN Sustainable Development Goal 13 Whether the company has a quantified target for GHG emissions Scope 1 plus Scope 2 CO2e emissions in the year Scope 1 plus Scope 2 CO2e emissions in the year, relative to revenue Scope 1 emissions Scope 2 emissions Scope 3 emissions
No adverse impact and reasonable level of disclosure (green flag)	The company's Scope 1 & 2 greenhouse gas emissions, per unit of revenue, place it in at least the third quartile of its peer group.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company does not disclose the key number (tonnes of GHG emissions) needed to assess its performance versus peers for this metric
Evidence of possible adverse impact (red flag)	The company's Scope 1 & 2 greenhouse gas emissions, per unit of revenue, place it in the bottom quartile of its peer group.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



PAI 2. Carbon footprint	
Available Data	Whether the company has a policy to manage its GHG emissions Whether the company shows a general awareness of the UN Sustainable Development Goals Whether the company shows a specific awareness of the UN Sustainable Development Goal 13 Whether the company has a quantified target for GHG emissions Scope 1 plus Scope 2 CO2e emissions in the year Scope 1 plus Scope 2 CO2e emissions in the year, relative to revenue
No adverse impact and reasonable level of disclosure (green flag)	The company's Scope 1 & 2 greenhouse gas emissions, per unit of Enterprise Value, place it in at least the third quartile of its peer group.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company does not disclose the key number (tonnes of GHG emissions) needed to assess its performance versus peers for this metric
Evidence of possible adverse impact (red flag)	The company's Scope 1 & 2 greenhouse gas emissions, per unit of Enterprise Value, place it in the bottom quartile of its peer group.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



PAI 3. GHG intensity of investee companies	
Available Data	Whether the company has a policy to manage its GHG emissions Whether the company shows a general awareness of the UN Sustainable Development Goals Whether the company shows a specific awareness of the UN Sustainable Development Goal 13 Whether the company has a quantified target for GHG emissions Scope 1 plus Scope 2 CO2e emissions in the year Scope 1 plus Scope 2 CO2e emissions in the year, relative to revenue
No adverse impact and reasonable level of disclosure (green flag)	The company's Scope 1 & 2 greenhouse gas emissions, per unit of revenue, place it in at least the third quartile of its peer group.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company does not disclose the key number (tonnes of GHG emissions) needed to assess its performance versus peers for this metric
Evidence of possible adverse impact (red flag)	The company's Scope 1 & 2 greenhouse gas emissions, per unit of revenue, place it in the bottom quartile of its peer group.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



PAI 4. Exposure to companies active in the fossil fuel sector	
Available Data	Whether the company derives any revenues from selling, processing, or combusting fossil fuels.
No adverse impact and reasonable level of disclosure (green flag)	This company is not involved in the production of fossil fuels.
Failure to disclose, even though the issue is material to the company (yellow flag)	Not applicable
Evidence of possible adverse impact (red flag)	This company is active in the fossil fuel sector.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



PAI 5. Share of non-renewable energy consumption and production	
Available Data	Whether the company has a policy in place for managing electricity consumption Whether the company has a quantified target for electricity consumption Proportion of energy consumed that is from renewable sources Scope 1 plus Scope 2 CO2e emissions in the year Scope 1 plus Scope 2 CO2e emissions in the year, relative to revenue
No adverse impact and reasonable level of disclosure (green flag)	The company has at least a clear policy if not a target for improving the sustainability of its energy consumption.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company does not disclose its approach to energy consumption.
Evidence of possible adverse impact (red flag)	The company has no policy let alone a target for improving the sustainability of its energy consumption.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



PAI 6. Energy consumption intensity per high impact climate sector	
Available Data	Whether the company has a policy in place for managing electricity consumption Whether the company has a quantified target for electricity consumption Electricity consumed Electricity consumed per unit revenue Whether the company has a policy in place for managing fuel consumption Whether the company has a quantified target for fuel consumption Fuel consumed Fuel consumed per unit revenue
No adverse impact and reasonable level of disclosure (green flag)	The company's power consumption, per unit of revenue, places it in at least the third quartile of its peer group.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company does not disclose the key number (power consumption, in MWh or KJ) needed to assess its performance versus peers for this metric.
Evidence of possible adverse impact (red flag)	The company's power consumption, per unit of revenue, places it in the bottom quartile of its peer group.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



PAI 7. Activities negatively affecting biodiversity-sensitive areas	
Available Data	Whether the company has a policy to manage its compliance with environmental permits and regulations Whether the company has a quantified target to manage its compliance with environmental permits and regulations Number of incidents of non-compliance with environmental standards Whether the company has a policy to manage its compliance with water permits and regulations Whether the company has a quantified target to manage its compliance with water permits and regulations Number of incidents of non-compliance with water standards
No adverse impact and reasonable level of disclosure (green flag)	The company has at least a clear policy for complying with local environmental regulations, including water standards.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company does not disclose its approach or an awareness of complying with environmental regulations or water standards.
Evidence of possible adverse impact (red flag)	The company has no policy for complying with local environmental regulations, including water standards.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



PAI 8. Emissions to water	
Available Data	Whether the company has a policy to manage its water usage Whether the company has a quantified target to manage its water usage Whether the company shows a general awareness of the UN Sustainable Development Goals Whether the company shows a specific awareness of the UN Sustainable Development Goal 14 or 15 Whether the company has a policy to manage its compliance with water permits and regulations Whether the company has a quantified target to manage its compliance with water permits and regulations Number of incidents of non-compliance with water standards
No adverse impact and reasonable level of disclosure (green flag)	The company has at least a clear policy for managing water usage and wastewater.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company does not disclose its approach to managing water usage and wastewater.
Evidence of possible adverse impact (red flag)	The company has no policy for managing water usage and wastewater.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



PAI 9. Hazardous waste ratio	
Available Data	Whether the company has a policy to manage its waste Whether the company has a quantified target to manage its waste Mass of net waste generated Mass of net waste generated, relative to revenue Breakdown of waste pathways Whether the company shows a general awareness of the UN Sustainable Development Goals Whether the company shows a specific awareness of the UN Sustainable Development Goal 12
No adverse impact and reasonable level of disclosure (green flag)	The company's waste generation, per unit of revenue, places it in at least the third quartile of its peer group.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company does not disclose the key number (waste generation, by weight) needed to assess its performance versus peers for this metric
Evidence of possible adverse impact (red flag)	The company's waste generation, per unit of revenue, places it in the bottom quartile of its peer group.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



# PAI 10. Violations of UN Global Compact principles and Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises

Cooperation and Development (OECD) Guidelines for Multinational Enterprises	
Available Data	Overall Impact Score Whether the company acknowledges human rights as an ESG issue Whether the company has a policy to manage human rights issues Whether the company has a standardized / audited policy to manage human rights issues Whether the company has a target in place for managing human rights issues Whether the company acknowledges professional integrity, bribery and anticompetitive practice as an ESG issue Whether the company has a policy in place for professional integrity, bribery and anticompetitive practice Whether the company discloses penalties relating to professional integrity, bribery and anticompetitive practice Whether the company discloses a target for professional integrity, bribery and anticompetitive practice
No adverse impact and reasonable level of disclosure (green flag)	The company's overall score under the Cambridge Impact Framework is 2 or higher. This Framework reflects a company's alignment to the UNGC principles.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company shows no awareness of the UNGC Principles of SDGs, nor does it disclose any data points relevant to the Cambridge Impact Framework.
Evidence of possible adverse impact (red flag)	The company's overall score under the Cambridge Impact Framework is below 2. This Framework reflects a company's alignment to the UNGC principles.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



# PAI 11. Lack of processes and compliance mechanisms to monitor compliance with UN Global Compact principles and OECD Guidelines for Multinational Enterprises

Global Compact principles and OECD Guidelines for Multinational Enterprises	
Available Data	Overall Impact Score Whether the company shows a general awareness of the UN Sustainable Development Goals
No adverse impact and reasonable level of disclosure (green flag)	The company's overall score under the Cambridge Impact Framework is 2 or higher. This Framework reflects a company's alignment to the UNGC principles.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company shows no awareness of the UNGC Principles of SDGs, nor does it disclose any data points relevant to the Cambridge Impact Framework.
Evidence of possible adverse impact (red flag)	The company's overall score under the Cambridge Impact Framework is below 2. This Framework reflects a company's alignment to the UNGC principles.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



PAI 12. Unadjusted gender pay gap	
Available Data	Whether the company has a policy in place for ethnic or gender diversity Whether the company has an employee policy in place
No adverse impact and reasonable level of disclosure (green flag)	The company has at least a clear policy for managing gender diversity in its workforce.
Failure to disclose, even though the issue is material to the company (yellow flag)	The company shows no awareness of the need to manage gender diversity in its workforce.
Evidence of possible adverse impact (red flag)	The company has no clear policy for managing gender diversity in its workforce.
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.



PAI 13. Board ge	ender diversity	
Available Data	What % of the company's board directors are female?	
No adverse impact and reasonable level of disclosure (green flag)	Women constitute at least 20% of the company's Board, or do not disclose this figure.	
Failure to disclose, even though the issue is material to the company (yellow flag)	Not applicable	
Evidence of possible adverse impact (red flag)	Women constitute less than 20% of the company's Board.	
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.	



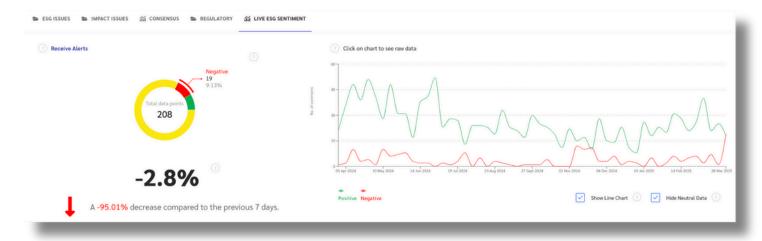
# PAI 14. Exposure to controversial weapons (anti-personnel mines, cluster munitions, chemical weapons and biological weapons)

chemical weapons and biological weapons)		
Available Data	Whether the company derives any revenues from weapons	
No adverse impact and reasonable level of disclosure (green flag)	This company is not involved in any way in the manufacture or retail of weapons.	
Failure to disclose, even though the issue is material to the company (yellow flag)	Not applicable	
Evidence of possible adverse impact (red flag)	This company is involved in the manufacture or retail of weapons.	
Indicator is not material to this company (grey flag)	Neither we nor ISSB regard this environmental or social indicator as relevant for the company - and one can therefore conclude there is no adverse impact.	

# Real-Time ESG Sentiment

ESG data can be backward-looking - that is why we supplement our fundamental analysis of company ESG data, with a real-time ESG sentiment analysis.

Our AI model analyses over 47,000 global news and social media sources, to alert you when sentiment around a company's ESG performance is shifting.



Our model operates in real time, continuously monitoring every public and private company in our database.

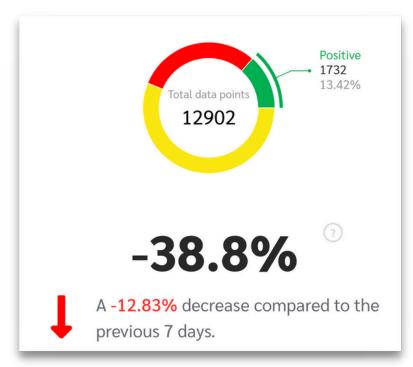
All stories that are picked up by our system are filtered for relevancy to the company, and then relevancy to a wide range of ESG metrics.

Companies are then given a 'sentiment' rating of **Positive**, **Negative** or **Neutral**.

Our Platform will alert you by email to a building story, before it blows into an ESG controversy.

The 'donut' illustrates the number of ESG-related comments made about this company in the past 7 days.

The total number over the past 7 days is shown in the centre of the donut.



This percentage number is the net sentiment score - the balance of positive over negative comments, while you can also see the rolling week-on-week change in ESG sentiment.

The graph shows the number of ESG-related comments about the company over the past year. You can choose to view this as a line chart, or a bar chart.



	Real-Time ESG Sentiment - Available Data & Explanation
Net Sentiment Score	This shows the 'Net Sentiment Score' over the past 7 days, and is updated in real time. It ignores neutral scores, and is then calculated as the percentage of the remaining non-neutral mentions that have positive sentiment minus the percentage with negative sentiment.
Total Comments	The total number of ESG-related comments made about this company and its brands in the past 7 days. The numbers update in near real-time. Each comment is scored for its sentiment, using a Natural Language Processing model (neutral, positive or negative).
Total Positive Comments	Total number of ESG-related comments which have been assigned a 'positive' sentiment score.
Total Negative Comments	Total number of ESG-related comments which have been assigned a 'negative' sentiment score.
Total Neutral Comments	Total number of ESG-related comments which have been assigned a 'neutral' sentiment score.
Article heading	The Article headings of the stories behind the overall sentiment score.
Full article text	The stories/'comments' behind the overall sentiment score.
URL	The URL links to the stories behind the overall sentiment score.

This data is updated every 15 minutes and can be taken by our clients as a feed through the API.

Thus the client can set the periodicity; you do not have to use the 7 day periodicity we use on our Platform.

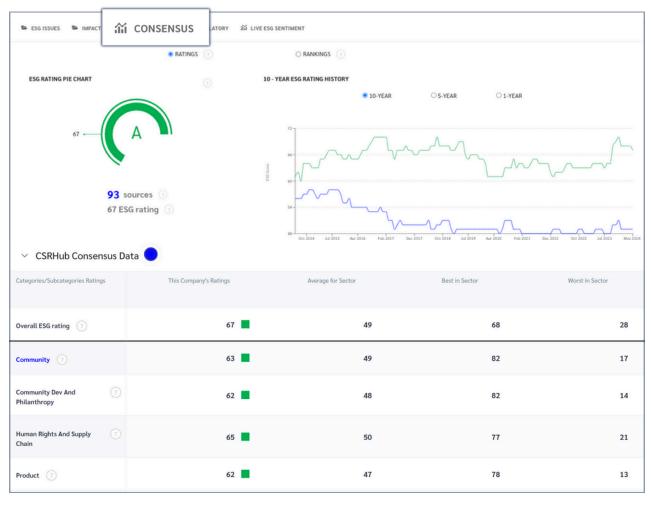


# **Consensus ESG Scores**

- 1.Introduction
- 2. Data Structure
- 3. Data Collection and Sources
- 4. Data Processing
- 5. Rating Rules
- 6. Conclusion

#### 1. Introduction

Integrum ESG now offers its clients a consensus ESG score (both an absolute rating and a relative ranking), provided by the data specialists CSRHub. Please contact us directly to request access to our 'consensus tab'.





#### 1.1 Brief overview of the methodology

This document explains the purpose, scope and methodology of the consensus score in detail. But for those wanting a short summary of the methodology:

- CSRHub, from whom we license the consensus score, collects ESG scores from a vast range of sources; from ESG ratings firms like MSCI and Sustainalytics, to specialist sources like CDP and Better World Companies
- For fully-rated companies, the score is drawn from an average of 13.5
  different sources. For some large companies, there may be well over 50
  sources, but most of these will only be assessing one aspect of the
  company's ESG performance, and will receive a lower weight as a result
- The metrics being scored are mapped, where possible, to one of 12 ESG subcategories
- After assessing the distribution of scores for that metric from that source, the scores are recalibrated to 0-100 scores. Any identified systematic biases from a particular source are also removed through recalibration
- Scores are excluded if there is an insufficient number of scores that map to the subcategory or an insufficient range of sources
- Scores from the 12 subcategories are then averaged and escalated to 4 categories (Environment, Community, Employees & Governance). In order to derive an overall consensus score, these 4 categories are weighted according to the consensus of CSRHub platform users – but the weightings are broadly equal for each
- The overall consensus score is expressed in two ways; as an absolute rating (0-100), and a relative percentile ranking (0-100) which expresses how the company is rated relative to peers. (A ranking of 100 means it has the best ESG rating within its industry and country.)
- We also express the 0-100 consensus scores as an A-E grade



#### 1.2 <u>Purpose of consensus tab</u>

The objective of the Integrum ESG consensus tab is to offer an indicative 'consensus opinion' on how a wide range of ESG analysis and ratings firms currently assess any given company.

A) Many investors find the 'consensus earnings estimate' for a company a very valuable data point. It indicates what the capital markets have currently 'priced in' for a company's securities. Provided by CSRHub, this ESG Consensus Score (out of 100, and also calibrated to an A-E Grade) attempts to provide a similar datapoint for investors.

B) Moreover, it will give investors the opportunity to compare the Integrum ESG A-E Grade on a company against the ESG grade given to that company by a range of other ESG rating providers/organisations, that arguably influences the capital markets more than Integrum ESG currently does.

#### 1.3 <u>Coverage</u>

CSRHub publishes data on over 50,000 entities (public and private companies and other organizations) across more than 150 countries and more than 130 industries. For some companies in the CSRHub system, there is only one source of data, or information on only a few of the subcategories. Such companies will not receive a Consensus Rating. Of the >50,000 companies which have published data, approximately half have achieved Full Ratings. For the rest of the companies in the system, we and CSRHub believe there is sufficient data to compute 'Partial Ratings' (data on one or more of the twelve subcategories), across some or all twelve subcategories for more than 10,000 companies. We explain later how the decision is made whether to publish partial ratings vs full ratings vs not publishing ratings at all.

CSRHub covers public companies, private companies, government organisations, and not-for-profit organisations.

CSRHub classifies companies into industries based loosely on the North American Industry Classification System (NAICS) with some additions. You can see these industry groupings <u>here.</u>



## 2.1 <u>Twelve subcategories</u>

CSRHub's framework contains 12 subcategories of ratings and rankings. Each of the 4 categories of Community, Employees, Governance, and Environment contains 3 subcategories. The 12 subcategories are:

Category/ Sub- category	Description	
Community	Covers human rights, supply chain, product quality & safety, product sustainability, community development, philanthropy	
Community Dev & Philanthropy	Topics: company community citizenship through charitable giving, donations of goods, volunteerism of staff time; protecting public health (e.g., avoidance of industrial accidents); managing the social impacts of its operations on local communities; land use and building design impact on the local economy and ecosystem.	
Human Rights & Supply Chain	Topics: company commitment to respecting fundamental human rights convention; ability to maintain its licence to operate by supporting freedom of association and excluding child, forced or compulsory labour; transparency in overseas sourcing disclosure and monitoring; relationship with and respect for the human rights of indigenous peoples near its proposed or current operations.	
Product	Topics: the responsibility of a company for the development, design, and management of its products and services and their impacts on customers and society at large; capacity to reduce environmental costs, create new market opportunities through new sustainable technologies or processes, and produce or market goods and services that enhance the health and quality of life for consumers; the integrity of a company's products and sales practices, including their labelling and marketing, social impacts and end-of-life disposition; product safety and quality and the company's response to problems with safety and quality.	
Employees	Covers diversity, labour rights, treatment of unions, compensation, benefits, training, health, worker safety	
Compensation & Benefits	Topics: a company's capacity to increase its workforce loyalty and productivity through rewarding, fair, and equal compensation and financial benefits; benefits that engage employees and improve worker development; longterm employment growth and stability by promotion practices, lay-off practices, and relations with retired employees.	



Diversity & Labor Rights	Topics: workplace policies and practices covering fair and non-discriminatory treatment of employees, and its diversity policies; labour-management relations and participation by employees, National Labor Relations Board (NLRB) violations or patterns of anti-union practice, conformance to internationally recognized worker rights, as defined in the basic conventions of the International Labor Organization (ILO); ability to maintain diversity, provide equal opportunities regardless of gender, age, ethnicity, religion or sexual orientation, and promote work-life balance.	
Training, Safety & Health	Topics: a company's effectiveness in providing a healthy and safe workplace; accident and safety performance, as well as job training, safety standards and training, and employee-management safety teams; programs to support the health, well-being and productivity of all employees; workplace policies and programs that boost employee morale, workplace productivity, company policies and practices to engage employees, and worker development.	
Environment	Covers environmental policy, environmental reporting, waste management, resource management, energy use, climate change policies & performance.	
Energy & Climate Change	Topics: a company's effectiveness in addressing climate change through appropriate policies and strategies, energy-efficient operations, and the development of renewable energy and other alternative environmental technologies; energy use, emissions to air of CO2 and other Greenhouse Gas Emissions (GHG).	
Environment Policy & Reporting	Topics: a company's policies and intention to reduce the environmental impact of a company and its value stream to levels that are healthy for the company and for the environment, now and in the future; environmental reporting performance, adherence to environmental reporting standards such as the Global Reporting Initiative, and compliance with investor, regulatory and stakeholders' requests for transparency; breaches of regulator limits and accidental releases.	
Resource Management	Topics: how efficiently resources are used in manufacturing and delivering products and services, including those of a company's suppliers; capacity to reduce the use of materials, energy or water, and to find more efficient solutions by improving its supply chain management; environmental performance relative to production size and is monitored by the production-related Eco Intensity Ratios (EIRs) for water and energy defined as resource consumption per produced or released unit; raw materials and packaging materials for production and related processes and packaging of products; waste and recycling performance; proportion of waste recycled of the total waste; management of operations to benefit the local airshed and watershed, and how the company impacts land use and local ecological stability; consumption of drinking water, industrial water and steam.	

Governance	Covers leadership ethics, board composition, executive compensation, transparency & reporting, stakeholder treatment.	
Board	Topics: a company's effectiveness in following best practices in corporate governance principles related to board membership, independent decision making through experienced, diverse and independent board members, effectiveness toward following best practices related to board activities and functions, and board committee structure and composition; provision of competitive and proportionate management compensation and its ability to incentivise executives and board members to achieve both financial and extra-financial targets.	
Leadership Ethics	Topics: how a company manages its relationships with its various stakeholders, including investors, customers, communities, and regulators; effectiveness in treating its shareholders equitably; culture of ethical decision making; commitment and effectiveness toward the vision of integrating social and environmental aspects into the overall core strategy; whether sustainability principles are integrated from the top down into the day-to-day operations of the company.	
Transparency & Reporting	Topics: alignment of corporate policies and practices with sustainability goals; management of the corporation transparency to stakeholders; engagement of employees in the management of the company; compliance of sustainability reports with standards such as the Global Reporting Initiative, AccountAbility (AA1000) and other standards, and are these reports made publicly available; whether the company provides a list of its major stakeholders and how it engages with them; whether the company is a signatory of the Global Compact and other leading global entities; assurance (3rd party audit) of the accuracy, completeness, and reliability of its Sustainability or Corporate Social Responsibility reports.	



#### 2.3 Data elements

CSRHub maps each element of data they gather from a source into one or more of the 12 subcategories. These data elements then provide entity-specific data values (or "element values").

For example, consider from the table below, the first data element for the 'Energy & Climate Change' subcategory for Walmart:

- Data source = Science Based Targets Initiative
- Data element = Net-Zero Committed
- Data value = Yes

Data source	Element name	Element value	Date
Science Based Targets Initiative	Net-Zero Committed	Yes	Apr 2023
Corporate Climate Action Transparency Index (CATI)	CATI Score	34.4	Nov 2023
Climate Action 100+ Assessments for 2020	TCFD Disclosure	Partial	Mar 2023

## 3. Data Collection and Sources

CSRHub has aggregated more than 600 million data values from 945 sources overall. These sources include SRI / ESG analysis and ratings firms, Non-Governmental Organizations (NGOs) such as foundations, associations, union groups, activist groups, government databases, research reports, and input from CSRHub users. For a detailed list of their data sources, you can view the data sources page <u>here</u>.

Their best-known ESG sources include S&P Global, Institutional Shareholder Services (ISS), MSCI (ESG Intangible Value Assessment, ESG Impact Monitor, and ESG Carbon Metrics), Sustainalytics, Trucost ESG Analysis, Integrum ESG, Ideal Ratings, Arabesque S-Ray, Covalence, and Moody's.

Some examples of their niche sources include Ethical Consumer Boycotts List, Global Union Burma List, EPA Transport Data, and Great Place to Work.

Of these 945 sources however, only 299 are currently 'Active' as of August 2024, and therefore being used for the current consensus sources. But while many sources are no longer actively tracking a company, they were historically used in the ratings of a company (and our consensus tab does show how a company's consensus ranking has changed over time). For instance, Walmart has a total of 324 sources used over its ratings history, but only 92 of these are used in the current ratings set, as of August 2024. Ratings are updated approximately once a month as data sources are changed or updated.

For the entities with either partial or full ratings, the average number of active sources used is 9.54 as of August 2024, albeit this number continues to gradually increase.

Below is an example of what the data sources look like using the 'Product' subcategory, for the company Walmart:

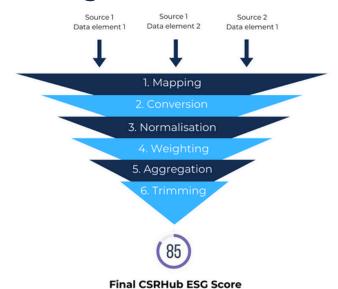
Data source	Element name	Element value	Date
3BL Media 100 Best Corporate Citizens 2022Full Results	Stakeholders & Society	**	Nov 2022
Act Analytics	scores	**	Jun 2022
Barron's Top 100 Sustainable 2023	Rank	21	Jan 2023
Better World Companies	Better World product rating	F	Mar 2022
Brand Finance 2021-22	BSI	**	Apr 2022
Brand Finance 2021-22	Brand Rating	AAA-	Apr 2022
Brand Finance 2022-23	BSI	**	Jul 2023
Brand Finance 2022-23	Brand Rating	9	Mar 2023
CDP Scores 2022	2022 OVERALL SCORE - CATTLE PRODUCTS	**	May 2023
CDP Scores 2022	2022 OVERALL SCORE - PALM OIL		May 2023
CDP Scores 2022	2022 OVERALL SCORE - SOY	**	May 2023
CDP Scores 2022	2022 OVERALL SCORE - Timber	**	May 2023
CDP Scores 2022	2022 Overall Score Climate Change	**	May 2023
Corporate Human Rights Benchmark 2022	CHRD Rating	9.5	Oct 2022
Corporate Human Rights Benchmark 2023	CHRD Rating	18.5	Oct 2023

(\*\* indicates that this source does not allow its original data to be shown to users who do not have a direct subscription to that source.)

Note that each source utilised by CSRHub tracks a different universe of companies, or different regions or industries, and so no single source provides data on more than 60% of CSRHub's universe of entities.



## 4. Data Processing



#### 4.1 Mapping

Each data value gathered from a source is mapped to one or more of the 12 subcategories. Sources track different topics in different ways, e.g a company's charity and community performance can be measured by considering how much money it contributed to charities, or by considering the number of volunteering hours the company gave last year. Both are valid assessments of an ESG metric however, so both are mapped to the same subcategory. Of course, mapping such a spread of sources to 12 subcategories will usually require a 'best fit' rather than a 'perfect fit' approach.

#### 4.2 Conversion

Each source is then converted into a rating, at the subcategory level, on a 0 to 100 scale (100 = maximum positive rating). This is multi-step and mathematically non-trivial problem, as different sources have their own measurement methodology and final rating. Some sources give companies a numerical score (e.g., between 0.0 and 1.0), others use "+" or "-" signs, and others only a relative ranking (e.g., "Top 50" or "Best Performing"). CSRHub therefore needs to convert each of these into a numerical value within a 0-100 rating scale, so that it can be combined with other data values.

To achieve this, CSRHub will take the source's score distribution and, on a company-by-company basis, will map it to a consistent score distribution by fitting to a Beta distribution. The beta distribution is a suitable model for the random behaviour of percentages and proportions, and is often used as a flexible way of dealing with uncertainty.



For binary values (such as 'Yes', 'No' answers), they are given an initial score (such as Yes=75, No=25), which is then compared to all the other data elements in that subcategory, and a final score is recalibrated as part of the weight optimization process conducted on those other data element scores.

#### 4.3 Normalisation

CSRHub then compares the scores from different data sources for the same company. This helps to determine if a source has a rating bias that needs adjusting (because it is systematically harsh or lenient when rating companies).

#### 4.4 Weighting

#### 4.4.1 Source weight

CSRHub's weighting process gives higher importance to ratings that closely align with the consensus. Their system compares each metric score ('element value') from each source with the corresponding element values from all other sources across all rated entities to discover an optimum set of weightings.

Some sources tend to agree with the consensus of all other sources, whilst others more often diverge from consensus. MSCI's scores for example are consensual, whereas Sustainalytics' scores are idiosyncratic. CSRHub's model gives a higher weight to the sources that are closer to consensus. Moreover, some sources provide multiple data elements within a category, so these sources are given additional weight compared to those which only provide one data element.

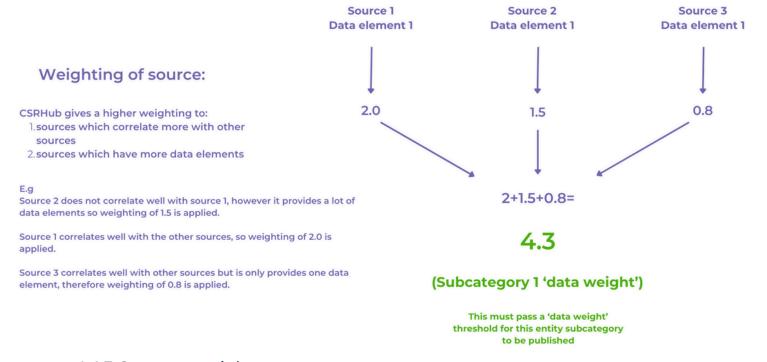
Some of CSRHub's major sources have double weight; other sources have one third weight. Major sources can be defined as those that have teams of analysts on their staff, a written methodology, a defined frequency of update, and are at least somewhat well known (have authority). CSRHub has found that sources such as MSCI, Ideal Ratings, B Corp, Sigwatch, ISS, and Integrum ESG have well defined data elements with regular distributions. Major sources may cover as few as 500 entities and may offer us as few as five data elements per entity.

A source's weight can change depending on the subcategory within which the data element is being used; for instance, CDP will have a higher weight in an Environmental subcategory than it will in a Governance subcategory.

#### 4.4.2 Subcategory 'data weight'

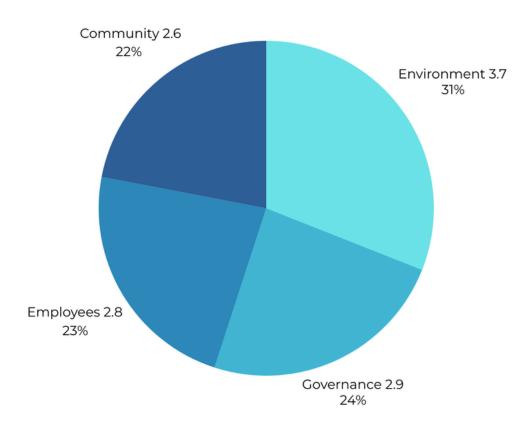
An entity subcategory is given a 'data weight' value. The exact total of data weight depends on:

- 1. How many sources CSRHub have contributing to the entity subcategory (more sources results in more weight)
- 2. How many data elements a source offers on the subcategory (some sources offer multiple data elements that CSRHub can map to a single subcategory, which results in more weight)
- 3. How the individual sources have been weighted by CSRHub (as mentioned in 4.4.1).



#### 4.4.3 Category weights

The default weight for each of the four categories is based on 'consensus weightings', which are the weightings that best represent the weightings selected by users of the CSRHub platform. These weightings are:



#### 4.5 Aggregation

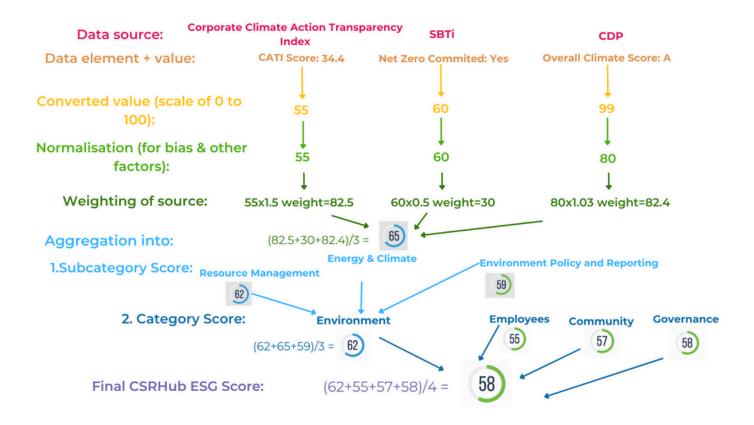
Once CSRHub has assigned weights to the sources, it then combines all the available data on a company and generates ratings. First the data elements and values are aggregated at the subcategory level, and then these subcategory ratings are aggregated to the overall company level, and also shown at the category level.

### 4.6 Trimming

Ratings are dropped when there is not enough information.

There are currently >19,000 companies where there is not enough information, called "not rated entities". These companies do have data sources so CSRHub users can see that expert opinions are starting to be generated regarding their sustainability.

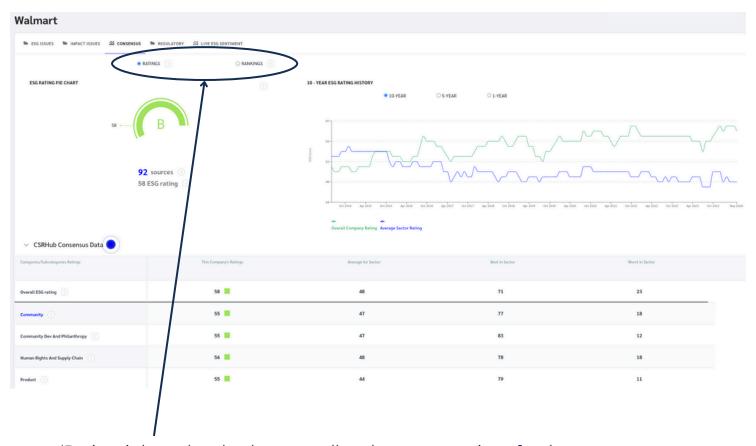
The below graphic illustrates an example of the steps to obtain the final CSRHub score from the initial data source. The example takes 'Energy & Climate' as the example subcategory and does not use actual values, it is merely illustrative and could not of course be used to reverse engineer the CSRHub product. Moreover, it is important to note that the conversion and normalisation algorithms, and the source weightings, are all dynamic – that is to say they are likely to alter over time as the model is continuously optimised.



### 4.7 Assigning of industry and country benchmarks

CSRHub gathers contact information, a description of the company's business, and the location of its website to assign industry and country averages against which to benchmark the company. You can see how the industry benchmark rating has moved over time, alongside the movement in the company rating over time, on the Integrum ESG consensus tab.

#### 4.8 Final rating example



'Ratings' show the absolute overall and category ratings for the company.

The 'Percentile Rankings' allow you to compare where a company's ratings lie relative to other companies in the same industry and country. For example, if there were only 5 companies in the same industry with ratings 20, 25, 50, 55, and 80, the company with rating 20 is percentile ranking 0%, company with rating 25 has percentile ranking 25%, company with rating 50 has percentile ranking 50%, 55 has percentile ranking 75%, and 80 has percentile ranking 100.

Thus the consensus rating is absolute, and the ranking is relative to industry peers. The graphic below uses the company Walmart, from early 2024, as an example.

Here are the absolute 'ratings':

Categories/Subcategories Ratings	This Company's Ratings
Overall ESG rating	58
Community	55
Community Dev And Philanthropy	56
Human Rights And Supply Chain	56
Product ①	54
Employees ?	57
Compensation And Benefits 7	56
Diversity And Labor Rights	55
Training, Health And Safety	59
Environment 7	61

Here are the relative 'percentile rankings':

Categories/Subcategories Rankings	This Company's Rankings
Overall ESG ranking	88
Community ①	81
Community Dev And Philanthropy	81
Human Rights And Supply Chain	79
Product 7	80
Employees ?	75
Compensation And Benefits   (7)	74
Diversity And Labor Rights	70
Training, Health And Safety	81



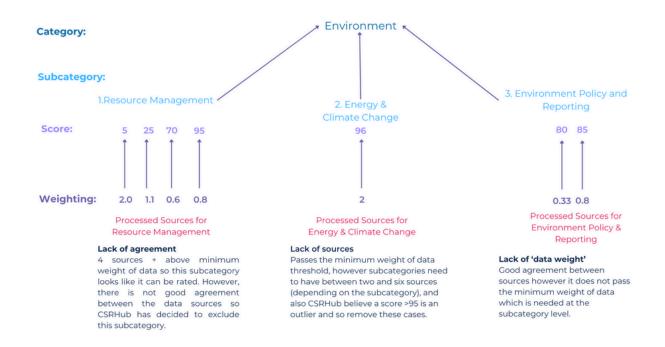
# 5. Rating Rules

#### 5.1 Requirements to rate a subcategory

To rate a subcategory, CSRHub requires:

- 1.A minimum number of sources between two and six sources for each subcategory (it ranges depending upon a variety of circumstances, but for instance CSRHub only requires 2 sources if they are major sources which provide many data elements, such as Ideal Ratings or Integrum ESG, but would need closer to 6 sources if they were not considered a major source).
- 2.A minimum amount of data measured in terms of "data weight".
- 3.An agreement between sources if there is not good agreement between the data sources within a subcategory, or if the resulting score is extreme (e.g. 0 or 100), CSRHub may exclude the result. Extreme subcategory ratings above 95 or below 5will be filtered out, as CSRHub believe it is likely that such scores (near-perfect or completely bad) are underpinned by poor-quality data.

The graphic below illustrates three examples of where a subcategory score would be supressed on the grounds of insufficient overall data quality.





#### 5.2 Requirements to rate a category

For a category to be rated, there must be an overall rating for at least one of the three subcategories within that category. CSRHub will suppress a category rating if it does not have enough weight in the subcategories underneath it to produce a reliable score.

A category must also not have an extreme score, as this is an indication of suspect assessments by the underlying sources. – The score thresholds at the category level are anything over 85 or below 15.

#### 5.3 Requirements to achieve a full rating

To offer a full rating, CSRHub requires:

- 1. Ratings for all four categories
- 2. Ratings for at least 5 subcategories (so at least one category must have at least 2 rated subcategories within it)
- 3. Enough total 'data weight' across all subcategories
- 4. Enough total sources the entity should have at least one broad, well-established source and at least three additional narrower sources, or at least seven narrow sources. Some sources report across several thousand companies, which enables CSRHub to normalise their input and remove any biases. By combining input from at least three other sources, CSRHub ensures that no single voice is the sole determinant of an entity's overall rating.

### 5.4 Requirements to achieve a partial weighting

Partial ratings exist when an entity does not have enough sources to receive a rating on every category, but there is sufficient data to publish ratings on some of the subcategories, or at least one category.

Companies will show as partially rated if they do not pass the requirements mentioned above to achieve a full rating but have some subcategories which can be rated. Partial ratings are included in CSRHub's average ratings for industries and countries, as well as the counts of the number of companies in a country or industry.



## 6. Conclusion

Integrum ESG chose to partner with CSRHub to provide clients with an ESG consensus rating, because it is confident that CSRHub has built the most comprehensive dataset and most scientific methodology for corporate ESG consensus signals.

Users of the Integrum ESG Platform with the appropriate subscription can see all this consensus data on the consensus tab of the company view. Users can toggle between the absolute ratings and relative rankings, change the time perjods, and review the subcategory scores to understand how consensus views a company's performance in each of the E,S and G categories. As is the case across the Integrum ESG Platform, a user can hover on any of the numerous 'tooltips' to see a simple explanation of the data point it refers to.