



Integrated Ratio Guideline

ESG and Combined
Financial & Non-financial Ratios

2017 version

First published December 2017

Published by: Center for ESG Research, Scion DTU, Diplomvej 377, 2800 Lyngby, Denmark

www.esgresearch.dk

© 2017 Center for ESG Research

All rights reserved. No part of this guideline may be reprinted, reproduced, or utilised in any form or by any electronic, mechanical, or other means, without permission in writing from the publisher.

The development of content of this guideline has been supported by FSR's Studie- og Understøttelsesfond.

Layout & print by: Fladså Grafisk, Næstved, Denmark
Printed on recycled paper: Cyclus Offset paper

ISBN: 978-87-970262-1-2

EAN: 9788797026212

Integrated Ratio Guideline

ESG and Combined Financial & Non-financial Ratios

2017 version

Preface

Today, there are no standardised non-financial ratios - or ESG ratios (Environmental, Social and Governance) as they are called in investor circles - nor any integrated ratios, which is the term for mixing financial and non-financial indicators when calculating ratios. This makes it difficult for users of financial statements, such as investors, banks, assets managers, and insurers, to use the extra information that stems from ESG data directly in their analyses of performance and risk profiles of companies.

In the following, a suggestion for new standard ESG and integrated ratios and notes will be defined. The basis for the selection of indicators is a combination of the recently published ESG reporting guidelines from the London Stock Exchange, incl. FTSE Russell's recommendations of generic indicators and the Nasdaq Nordic & Baltic, combined with the research results from a study that was performed in 2016 for UNCTAD/ISAR and investigated which ESG indicators the world's 100 largest listed companies report on, investors ask for, and that supports UN's 17 Sustainable Development Goals. The combination of these three indicator-lists and principles, together with the general financial indicators in the 2015 Nordic Edition of 'Recommendation & Financial Ratios' constitute the gross list of indicators, which may be included in the ESG and integrated ratios. Only formula-based indicators are included; thus, binary indicators are not included, and simple counted indicators are only included in the suggestions for standard notes. Some of the ratios have already been included as ESG ratios in the CFA Society Denmark's first digital formula database, launched in the autumn of 2017 - if this is the case, these are indicated in the references.¹ The definitions of the financial concepts used in the integrated ratios in this guideline can also be found in the 2015 Nordic Edition of 'Recommendation & Financial Ratios' or the digital formula database.

This guideline is not a replacement of existing financial, non-financial, or integrated reporting frameworks, but rather a guideline on how to use the data that has already been published in accordance with these frameworks.

This guideline includes the definitions, ratios, and standard notes that were deemed useful and valuable by the end of 2017 by the Center for ESG Research. But as time goes by, and when both data producers and data users are more accustomed to the thought of ESG and integrated ratios, you may invent new ratios, alterations to the suggested ratios, or the standard notes. It may also be that you find a new base for updates to the included indicators, which you think we should consider for the next version. We much appreciate such suggestions, thus, please contact us at info@esgresearch.dk.

The Center for ESG Research hopes that companies as well as financial analysts and investors will find much value in following and using the ratios and note-standards of this guideline.

Best regards,

Center for ESG Research, 15.12.2017

Jane Thostrup Jagd
CEO, Lead Researcher

Birgitte Mogensen
Chairman

¹ You can find the CFAs' ratio database here: <https://www.keyratios.org>.
Some formulas are developed by: Jagd, J.T. (2015) Investor Oriented Corporate Social Responsibility Reporting, Routledge, NY

Table of Contents:

- Overall ESG accounting principles: 8
 - Definitions and concepts..... 9
 - Environmental data 9
 - 1.01 CO₂e Scope 1 9
 - 1.02 CO₂e Scope 2.....10
 - 1.03 Total Energy.....10
 - 1.04 Renewable Energy Share11
 - 1.05 Production Quantities11
 - 1.06 CO₂e per Production Quantity11
 - 1.07 Water per Production Quantity12
 - 1.08 Waste per Production Quantity12
 - Social data12
 - 2.01 Number of Full-Time Equivalentents (FTEs).....12
 - 2.02 Temporary Workers13
 - 2.03 Full-Time Workforce.....13
 - 2.04 Gender Diversity.....13
 - 2.05 Temporary Worker Ratio14
 - 2.06 Leavers14
 - 2.07 Employee Turnover Ratio.....14
 - 2.08 Training Hours per FTE.....15
 - Governance data.....15
 - 3.01 Attendance Rate at Board Meetings15
 - 3.02 Attendance Rate at Audit Committee Meetings.....15
- Integrated Ratios16
 - Profitability ratios16
 - 4.01 Carbon Intensity16
 - 4.02 BlackRock’s Efficiency Improvement16
 - 4.03 Return on CO₂e16
 - 4.04 Cash Flow from CO₂e17
 - 4.05 Sales per Employee17
 - 4.06 EBITA per Employee.....17
 - 4.07 Added Value per Employee17
 - 4.08 Employee Expenses/Sales.....18
 - 4.09 EBITDA-to-Gross Profit/Loss per Employee.....18
 - 4.10 Direct Society Contribution18
 - 4.11 CEO Pay Ratio18
 - 4.12 Gender Pay Ratio19

Risk ratios.....	19
5.01 Reviewed F-score.....	19
5.02 Penalties per Corrupt Employee.....	20
Price-related ratios.....	20
6.01 P/CO ₂ e per Share.....	20
6.02 P/Water per Share.....	20
6.03 P/Waste per Share.....	20
6.04 Compensation Value.....	21
Appendix 1: Suggestions for Standard Notes.....	21
Simple Standard ESG Note.....	22
Integrated Note.....	26
Compensation per member/Remuneration note.....	30
List of abbreviations:.....	31

Overall ESG accounting principles:

To secure that the ESG data is useful and comparable for the investors, and at the very least integrable with the financial data, which contextualises the ESG data, ESG reporting needs to respect and apply some overarching data principles.

- The used ESG accounting principles must be published
- The ESG data boundaries and consolidation rules must be aligned with the financial rules used - e.g. IFRS - as the integrated ratios will otherwise make no sense
- The ESG data must at least coincide with the financial annual reporting cycle
- Data must be provided both as raw data and as normalised data
- Data must be reliable, therefore it should be externally assured
- Data must be balanced and objective - and both provide the favourable and unfavourable information
- Data should be accessible for the users - thus, use of standard notes is recommended. See appendix.

Definitions and concepts

In the following, formula-based ESG base data is defined – divided into E, S, and G. ESG data that are simple counting data are not included here, but are included in the notes in the appendix.

Environmental data

1.01 CO₂e Scope 1

Formula	<p>Emissions are calculated for each combusted fuel/material – e.g.:</p> $CH_4 = \sum (\text{combusted fuel type} * CH_4 \text{ conversion factor per fuel type})_{\text{per fuel type}}$ <p>When all emissions are calculated, they are normalised to CO₂e:</p> $CO_2e = CO_2 + (25 * CH_4) + (298 * N_2O) + (22,800 * SF_6) + (\text{GWP factor} * HFC) + (\text{GWP factor} * PFC) + (17,200 * NF_3)$
Unit	Metric tonnes
Explanation	<p>Scope 1 emissions: Direct emissions resulting from the company's own combustion of fuels and materials.</p> <p>Most often CO₂e are not measured, but calculated, based on quantitative data on combusted fuels/materials, such as: oil, gas, diesel, gasoline, kerosene, coal, biomass, and others. The combusted fuels/materials are multiplied with converters for emissions of the 7 Kyoto gases: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆), and nitrogen trifluoride (NF₃). Since these gases have different Global Warming Potential (GWP), each gas is subsequently normalised to CO₂ equivalents (CO₂e) by multiplying each gas with their individual GWP factor.</p>
References	<p>CFA Ratio database: https://www.keyratios.org/esg-key-figures</p> <p>GWPs: https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html</p> <p>GHG protocol: http://www.ghgprotocol.org/corporate-standard</p> <p>CDP: CC8.2 + CC11.3</p> <p>GRI: 305-1 + 302-1</p>

1.02 CO₂e Scope 2

Formula	<p>Emissions are calculated per country per bought MWh of electricity, and/or GJ of district heating/cooling - e.g.:</p> $CH_4 = \sum (\text{bought MWh or GJ} * CH_4 \text{ conversion factor per country})_{\text{per country}}$ <p>When all emissions are calculated, they are normalised to CO₂e:</p> $CO_{2e} = CO_2 + (25 * CH_4) + (298 * N_2O)$
Unit	Metric tonnes
Explanation	<p>Scope 2 emissions: indirect emissions resulting from the energy used to produce electricity, district heating, or district cooling, which the company has purchased for its use.</p> <p>The scope 2 emissions are in principle calculated as scope 1 emissions, though typically not covering all Kyoto-gases. Be aware, the use of electricity, district heating, and district cooling must be collected per country, as there are significant differences in the emissions of CO₂e, therefore the converters are different per country.</p> <p>If the company is buying renewable energy (wind, solar, geothermal, etc.), then, in principle, there are no emissions from these sources, thus these do not impact on scope 2.</p> <p>If the company is selling electricity, this should not be deducted from the bought electricity, but can be reported additionally.</p>
References	<p>CFA Ratio database: https://www.keyratios.org/esg-key-figures</p> <p>GWPs: https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html</p> <p>GHG protocol: http://www.ghgprotocol.org/corporate-standard</p> <p>CDP: CC8.3 + CC11.2</p> <p>GRI: 305-2 + 301-1</p>

1.03 Total Energy

Formula	$\text{Energy} = \sum (\text{combusted fuel type (t)} * \text{power factor per fuel type})_{\text{per fuel type}} + (\text{used electricity (incl. renewable energy)})(\text{MWh}) * 3,6) + (\text{used district heating/cooling including renewable sources of heating/cooling (GJ)})$
Unit	GJ
Explanation	<p>Energy is, as emissions, typically calculated based on consumptions multiplied with converters. The consumed energy must be added from both scope 1 and scope 2 sources, but must additionally also contain energy from renewable energies.</p>
References	<p>CFA Ratio database: https://www.keyratios.org/esg-key-figures</p> <p>CDP: CC11.3 + CC3.1d</p> <p>GRI: 302-1</p>

1.04 Renewable Energy Share

Formula	Renewable Energy Share = (Renewable Energy/Total Energy) * 100
Unit	%
Explanation	How much of the total energy consumed is from renewable energy sources? Sometimes this is also measured as renewable energy vs non-renewable energy, but then the intensity is impossible to measure for those companies with full renewable energy sources.
References	CFA Ratio database: https://www.keyratios.org/esg-key-figures

1.05 Production Quantities

Formula	Production Quantities = Sum of quantities driving the revenue
Unit	Quantity
Explanation	Production quantities are used to establish a context for many financial and non-financial data, whereby it is possible to perform peer-reviews. Thus, the important part is that the financial data boundaries and consolidation rules are also applied to the quantities to ensure comparability.
References	CDP: CC12.3 GRI: 102-7

1.06 CO₂e per Production Quantity

Formula	CO ₂ e per Production Quantity = (CO ₂ e Scope 1 + Scope 2)/Production Quantity
Unit	Metric tonnes per unit
Explanation	How much emission is caused by one produced unit? Sometimes this is also measured against FTEs or size of premises in m ² .
References	CDP: CC12.3 GRI: 102-7

1.07 Water per Production Quantity

Formula	Water per Production Quantity = Water consumed/Production Quantity
Unit	m ³ per unit
Explanation	How much water one produced unit uses? Sometimes this is also measured against FTEs or size of premises in m ² Water consumption is the gross amount of consumption, therefore cleaned/purified spill-water cannot be deducted, but can be reported separately.
References	CDP: W1.2a GRI: 303-1

1.08 Waste per Production Quantity

Formula	Waste per Production Quantity = Waste/Production Quantity
Unit	Metric tonnes per unit
Explanation	How much waste one produced unit causes? Sometimes this is also measured against FTEs or size of premises in m ² .
References	GRI: 306-2

Social data

2.01 Number of Full-Time Equivalentents (FTEs)

Formula	$\text{FTEs} = \sum (\text{total number of compensated hours/norm hours for a full-time employee})_{\text{per country}}$
Unit	FTEs
Explanation	FTEs should be comparable with the gross staff cost before potential capitalisation, hence compensated hours drive the number of FTEs. Norm hours vary per country; hence FTEs should be calculated per country, and then consolidated to company data. Temporary workers should not be included in FTEs, as the compensation of these is not included in staff cost.
References	CFA Ratio database: https://www.keyratios.org/definitions-and-concepts GRI: 102-7

2.02 Temporary Workers

Formula	Temporary Workers = Σ (total number of compensated hours of temporary workers/norm hours for a full-time employee) <small>per country</small>
Unit	FTEs
Explanation	Temporary Workers should be comparable with the gross temporary worker cost before potential capitalisation, hence compensated hours drive the number of Temporary Workers. As for FTEs, Temporary Workers should be calculated per country, and then consolidated to company data. When judging whether a temporary work is performed as a service or by a temporary worker, the IFRS 16 rules for leasing is reused.
References	CFA Ratio database: https://www.keyratios.org/esg-key-figures GRI: 102-8

2.03 Full-Time Workforce

Formula	Full-Time Workforce = FTEs + Temporary Workers
Unit	FTEs
Explanation	To be able to measure the full-time workforce the work performed is requiring, both directly hired and temporary workers need to be considered.
References	CFA Ratio database: https://www.keyratios.org/esg-key-figures GRI: 102-7 + 102.8

2.04 Gender Diversity

Formula	Gender diversity = (Women FTEs + Women Temporary Workers)/(Full-Time Workforce)
Unit	%
Explanation	Gender diversity is calculated both for the FTEs and for the Temporary Workers - and then summarised to show whether there are any gender diversity issues per contract type and/or in total for the workforce.
References	CFA Ratio database: https://www.keyratios.org/esg-key-figures GRI: 102-7

2.05 Temporary Worker Ratio

Formula	Temporary Worker Ratio = (Temporary Workers/Full-Time Workforce) * 100
Unit	%
Explanation	This ratio shows how many of the company’s workers are hired on temporary contracts.
References	CFA Ratio database: https://www.keyratios.org/esg-key-figures GRI: 102-8

2.06 Leavers

Formula	Leavers = $\sum \left(\text{FTE-value last year}_{\text{per leaving old employee}} + \text{FTE-value this year}_{\text{per leaving new employee}} \right)$
Unit	FTEs
Explanation	Leavers should be segregated between voluntary and involuntary leavers. Included in involuntary leavers are also retirements. Leavers should be normalised to FTEs, thus the leaving persons FTE-value last year is used. If the person was hired this year, it is only the FTE-value the employee has contributed in this year that is to be included.
References	CFA Ratio database: https://www.keyratios.org/esg-key-figures GRI: 401-1

2.07 Employee Turnover Ratio

Formula	Employee Turnover Ratio = ((Voluntary + Involuntary Leavers)/FTEs) * 100
Unit	%
Explanation	Employee Turnover Ratio is calculated both for voluntary and involuntary leavers. In particular, the Voluntary Turnover Ratio is interesting, as it shows how successful the company is in holding on to its employees.
References	CFA Ratio database: https://www.keyratios.org/esg-key-figures GRI: 401-1

2.08 Training Hours per FTE

Formula	Training Hours per FTE = Training hours/FTEs
Unit	Hours
Explanation	The number of training hours that have been used to train the FTEs. The training hours should be separated between internal and external hours, since there are different evidence-possibilities between the two. If training is also performed for Temporary Workers, this could also be provided as additional information, and a Training Hours per Temporary Worker and the Total Workforce can be calculated additionally.
References	GRI: 404-1

Governance data

3.01 Attendance Rate at Board Meetings

Formula	$\text{Attendance Rate at Board Meetings} = \left(\frac{\sum \text{Number of board meetings attended}_{\text{per board member}}}{(\text{Number of board meetings} * \text{Number of Board Members})} \right) * 100$
Unit	%
Explanation	Measure the activity level of the board members.
References	CFA Ratio database: https://www.keyratios.org/esg-key-figures OECD: V.3

3.02 Attendance Rate at Audit Committee Meetings

Formula	$\text{Attendance Rate at Audit Committee Meetings} = \left(\frac{\sum \text{Number of Audit Committee meetings attended}_{\text{per AC member}}}{(\text{Number of Audit Committee meetings} * \text{Number of Audit Committee members})} \right) * 100$
Unit	%
Explanation	Measure the activity level of the AC-members.
References	OECD: V.3

Integrated Ratios

In the following, a range of integrated ratios consisting of at least one financial and one non-financial element is defined.

Profitability ratios

4.01 Carbon Intensity

Formula	$\text{Carbon Intensity} = (\text{CO}_2\text{e Scope 1} + \text{Scope 2})/\text{Revenue}$
Unit	CO ₂ e
Explanation	How much carbon a company emits per revenue.

4.02 BlackRock's Efficiency Improvement

Formula	$\text{BlackRock's Efficiency Improvement} = ((\text{Carbon Intensity})_{t-1} - (\text{Carbon Intensity})_t) * \text{Return on Equity}$
Unit	CO ₂ e
Explanation	Carbon intensity development by Return on Equity in percentage. A positive outcome indicates it has been possible to both reduce carbon per the activity and gain a return on investors' capital. This is a low-carbon transition ratio, showing the integrated profitability of being able to transfer the company's methods of working to lower emission production and at the same time generate revenue and profit. Take care, if both the Carbon Intensity development and the Return on Equity are negative, then the result will be invalid.
References	BlackRock, Adapting portfolios to climate change: https://www.blackrock.com/investing/literature/whitepaper/bii-climate-change-2016-us.pdf

4.03 Return on CO₂e

Formula	$\text{Return on CO}_2\text{e} = (\text{Profit/Loss for the Period} / (\text{CO}_2\text{e Scope 1} + \text{Scope 2})) * 100$
Unit	%
Explanation	How much profit is earned per emitted CO ₂ e.

4.04 Cash Flow from CO₂e

Formula	Cash Flow from CO ₂ e = CFFO / (CO ₂ e Scope 1 + Scope 2)
Unit	Monetary unit
Explanation	The company's cash flow from operations per emitted CO ₂ e.

4.05 Sales per Employee

Formula	Sales per Employee = Sales / (Full-Time Workforce)
Unit	Monetary unit
Explanation	A measure of a company's employees' productivity. Full-Time Workforce is used as the denominator to cater to different contract types. Care should be applied due to different degrees of outsourcing.
References	CFA Ratio database: https://www.keyratios.org/general-ratios-industry-service-business

4.06 EBITA per Employee

Formula	EBITA per Employee = EBITA / (Full-Time Workforce)
Unit	Monetary unit
Explanation	Shows the average operating profit per employee. Please see comments under Sales per Employee.
References	CFA Ratio database: https://www.keyratios.org/general-ratios-industry-service-business

4.07 Added Value per Employee

Formula	Added Value per Employee = Added Value / (Full-Time Workforce)
Unit	Monetary unit
Explanation	Added Value = EBITDA + employee expenses + cost of temporary workers. This ratio is mostly used to illustrate a company's productivity gains over time and is less suitable for comparing different companies' current levels.
References	CFA Ratio database: https://www.keyratios.org/general-ratios-industry-service-business

4.08 Employee Expenses/Sales

Formula	$\text{Employee Expenses/Sales} = ((\text{Employee Expenses} + \text{Temporary Workers Expenses})/\text{Sales}) * 100$
Unit	%
Explanation	Shows the percentage of sales used for payment of employee expenses and temporary worker expenses. Care should still be applied due to different degrees of outsourcing.
References	CFA Ratio database: https://www.keyratios.org/general-ratios-industry-service-business

4.09 EBITDA-to-Gross Profit/Loss per Employee

Formula	$\text{EBITDA-to-Gross Profit/Loss per Employee} = (\text{Gross Profit/Loss} - \text{EBITDA})/\text{Full-Time Workforce}$
Unit	Monetary unit
Explanation	The return on investment per employee, which is especially relevant for commercial companies with a stable gross margin and many full-time and temporary employees, for example builder merchants.
References	CFA Ratio database: https://www.keyratios.org/general-ratios-industry-service-business

4.10 Direct Society Contribution

Formula	$\text{Direct Society Contribution} = \text{Donations} + \text{Direct Taxes} + \text{Direct Customs} + \text{Direct Charges}$
Unit	Monetary unit
Explanation	The direct contribution to society. Be aware that VAT and other indirect taxes are not to be included here, but can be provided additionally. Donations cannot stem from the owning foundation as it is not part of the company.

4.11 CEO Pay Ratio

Formula	$\text{CEO Pay Ratio} = \text{CEO Compensation}/\text{Median Staff Salary}$
Unit	Times
Explanation	How many times the median staff salary can be covered by the CEO compensation as a proxy for social equality. Be aware, this ratio can be difficult to use for comparative analyses of companies with different geographical spread of employees, due to different local wage levels.

4.12 Gender Pay Ratio

Formula	Gender Pay Ratio = Median Male Salary/Median Female Salary
Unit	Times
Explanation	Gender equality of remuneration. Be aware this ratio can be difficult to use for the companies with different gender spread of job categories.

Risk ratios

5.01 Reviewed F-score

Formula	<p>Return on Assets is positive => 1; Return on Assets = (Profit/loss for the period)/Total Assets</p> <p>CFFO is positive => 1</p> <p>Return on Assets - Return on Assetst-1 is positive=> 1</p> <p>CFFO/total assets - Return on Assets is positive => 1</p> <p>Long Term debt_{t-1} - Long Term debt is positive => 1</p> <p>Current Ratio - Current Ratio_{t-1} is positive => 1; Current ratio = Current Assets/Current Liabilities</p> <p>Outstanding Shares_{t-1} - Outstanding Shares is 0 or positive => 1</p> <p>Gross Margin - Gross Margin_{t-1} is positive => 1</p> <p>(Sales/Assets) - (Sales/Assets_{t-1}) is positive => 1</p> <p>The result of these 9 statements is added up = F-score</p> <p>Reviewed F-score = F-score * Attendance Rate at Audit Committee Meetings</p>
Unit	#
Explanation	<p>The Piotroski F-score is used to evaluate a stock's financial strength. Traditionally, a company is considered strong with a score of 8-9 and weak if 0-2. Corporate Knights do not allow corporates with an F-score less than 5 to be evaluated on their rankings of companies' performance, as they are considered as financially weak.</p> <p>In this version, the Financial Health is also considered with regards to the activity level of the members of the Audit Committee. Thus, this ratio is only useful, if it is believed that the Audit Committee and its members' activities have any impact on the data quality.</p> <p>The Reviewed F-score can be used in combination with P/E and P/CO₂e per Share to identify the best price per earning per share with the least risk profile</p>
References	Corporate Knights' methodology: http://www.corporateknights.com/wp-content/uploads/2017/01/2017-Global-100_Methodology-Final.pdf

5.02 Penalties per Corrupt Employee

Formula	Penalties per Corrupt Employee = (cost of fines, penalties or settlements in relation to corruption) / (number of staff disciplined or dismissed due to non-compliance with anti-corruption policies)
Unit	Monetary unit
Explanation	This ratio measures the penalty cost of having corrupt employees. This ratio aims to ensure employees are sanctioned for violating the anti-corruption policies.

Price-related ratios

6.01 P/CO₂e per Share

Formula	$P/CO_2e \text{ per Share} = \text{Price per Share} / ((CO_2e \text{ Scope 1} + \text{Scope 2}) / \text{numbers of shares})$
Unit	Monetary unit
Explanation	This is a counterpart to Price Earning (P/E) – and when combined, it gives the investor the opportunity to see the carbon pollution-risk profile integrated with the financial earning profile. This is the simplest form of showing the pollution risk profile of a share. In time – when better and more robust reporting is available – we will be able to integrate the financial value of CO ₂ e, water, and waste, whereby a simple Pollution per Share can be derived.

6.02 P/Water per Share

Formula	$P/\text{Water per Share} = \text{Price per Share} / (\text{Total Water Consumption} / \text{numbers of shares})$
Unit	Monetary unit
Explanation	This is a counterpart to Price Earning (P/E) – and when combined, it gives the investor an opportunity to see the water consumption risk profile integrated with the financial earning profile. See also P/CO ₂ e.

6.03 P/Waste per Share

Formula	$P/\text{Waste per Share} = \text{Price per Share} / (\text{Waste} / \text{numbers of shares})$
Unit	Monetary unit
Explanation	This is a counterpart to Price Earning (P/E) – and when combined, it gives the investor an opportunity to see the waste pollution-risk profile integrated with the financial earning profile. See also P/CO ₂ e.

6.04 Compensation Value

Formula	Compensation Value = (Enterprise Value - Enterprise Value _{t-1})/Total board & exec. compensation
Unit	Monetary value
Explanation	The enterprise value of compensation. Be aware, it is assumed that the cost for the compensation is assigned to the year it is related, regardless of when it is paid out.

Appendix 1: Suggestions for Standard Notes

To make it easy for the analyst to find the data needed to perform the integrated analyses, the data should be easy to find. That requires standard notes* – and here are three simple standard notes, which all companies – regardless of business and geography – can use; the only requirement is that the company has employees.

The standard note can be both a simple ESG note, where the data are provided under the E, S, and G. See the first note. But it could also be an integrated note that builds on the suggested ESG-indicators in this guideline, combined with the IIRC principles for an integrated note showing the input-activities-output-outcome divided by ESG-‘capitals’. The logic of the integrated note follows the IFRS-logic that the result is the residual of the change of the change of the balance sheet (the input to the output). See the second note. Both standard notes apply the overall principle of providing both raw and normalised data. The notes can easily be extended to also cover the budget, forecast, or targets per indicator or ratio, for instance in an additional column after Year 5. Finally, a standard note for compensation per member of the board and executives, also known as a remuneration note, is included. This note can be used both for actual and for suggestions for future remuneration to be debated and voted on at the AGM.

The notes do not include binary indicators.

The data in the notes cover a range of themes:

Environmental	Social	Governance	Integrated profitability, risk, or share price-based ratios
CO ₂ e	FTEs per management layer and per gender	Board and AC activity	Carbon Profitability
Renewable Energy	Gender equality	Board Gender Diversity	Employee Profitability
Water	Temporary FTEs	Board Age Diversity	Financial Health
Waste	Employee Turnover Rate	Compensation	Corruption Risks
Production Quantities	Employee Training Hours	Anti-Corruption	Pollution per Share
	Donations		Compensation Value

* Concepts developed by Jagd (2015) Investor Oriented Corporate Social Responsibility Reporting, Routledge, NY.

Simple Standard ESG Note

Simple Standard ESG Note	Unit	Ref	Year 1	Year 2	Year 3	Year 4	Year 5
Environmental data							
Use of oil	t	1.01					
Use of gas	t	1.01					
Use of diesel	t	1.01					
Use of gasoline	t	1.01					
Use of kerosene	t	1.01					
Use of coal	t	1.01					
Use of biomass	t	1.01					
Use of other combustions	t	1.01					
Use of electricity	GJ	1.02					
Use of district heating	GJ	1.02					
Use of district cooling	GJ	1.02					
CO ₂ e scope 1	t	1.01					
CO ₂ e scope 2	t	1.02					
CO ₂ e total	t						
Use of renewable energy sources	GJ	1.03					
Energy	GJ	1.03					
Renewable energy share	%	1.04					
Water consumption total	m ³	1.07					
Waste total	t	1.08					
Quantities of production	#	1.05					
CO ₂ e per quantity	t	1.06					
Water consumption per quantity	m ³	1.07					
Waste per quantity	t	1.08					
Social data:							
Corporate Presidents and Vice Presidents (women%)	FTEs (%)	2.01+					
		2.04					
Directors (women%)	FTEs (%)	2.01+					
		2.04					
Managers (women%)	FTEs (%)	2.01+					
		2.04					
Other employees (women%)	FTEs (%)	2.01+					
		2.04					

Simple Standard ESG Note	Unit	Ref	Year 1	Year 2	Year 3	Year 4	Year 5
Total employees (women%)	FTEs (%)	2.01+ 2.32					
Median staff cost, women	Monetary unit	4.12					
Median staff cost, men	Monetary unit	4.12					
Median staff cost	Monetary unit						
Gender pay ratio	times	4.12					
Temporary FTEs (Women%)	FTEs (%)	2.02					
Full-Time Workforce (women%)	FTEs (%)	2.03+ 2.04					
Temporary worker ratio	%	2.05					
Staff cost	Monetary unit	4.07					
Cost of temporary workers	Monetary unit	4.07					
Cost of full workforce	Monetary unit	4.07					
Number of voluntary leavers	FTEs	2.06					
Number of involuntary leavers	FTEs	2.06					
Leavers	FTEs	2.06					
Voluntary turnover ratio	%	2.07					
Employee turnover ratio	%	2.07					
Employee training hours	hours	2.08					
Employee training hours per FTE	hours	2.08					
No. of human rights violation cases, primo	#						
No. of human rights violation cases, filed	#						
No. of human rights violation cases, resolved	#						
No. of human rights violation cases, convictions/settlements	#						
No. of human rights violation cases, ultimo	#						

Simple Standard ESG Note	Unit	Ref	Year 1	Year 2	Year 3	Year 4	Year 5
Donations, per SDG	Monetary unit	4.10					
Donations, political	Monetary unit	4.10					
Donations, other	Monetary unit	4.10					
Donations total	Monetary unit	4.10					
Direct society contribution	Monetary unit	4.10					
Governance data:							
Number of board meetings	#	3.01					
Attendance rate, board meetings	%	3.01					
Size of the board incl. employee representatives (women%)	#(%)						
Size of the board excl. employee representatives (women%)	#(%)						
Board members, x - 35 years	#						
Board members, 36 - x - 50 years	#						
Board members, 51 - x - 65 years	#						
Board members, 66 years and above	#						
Number of Audit Committee meetings	#	3.02					
Attendance rate, Audit Committee meetings	%	3.02					
Compensation total	Monetary unit	6.04					
CEO pay ratio	t	4.11					
Cost of fines, penalties or settlements in relation to corruption	Monetary unit	5.02					
Number of staff disciplined or dismissed due to non-compliance with anti-corruption policies	#	5.02					
Profitability data:							
Carbon profitability:							
Carbon Intensity	CO ₂ e	4.01					

Simple Standard ESG Note	Unit	Ref	Year 1	Year 2	Year 3	Year 4	Year 5
BlackRock's Efficiency Improvement	CO ₂ e	4.02					
Return on CO ₂ e	%	4.03					
Cash Flow from CO ₂ e	Monetary unit	4.04					
Employee profitability:							
Sales per Employee	Monetary unit	4.05					
EBITA per Employee	Monetary unit	4.06					
Added Value per Employee	Monetary unit	4.07					
Employee Expenses/Sales	%	4.08					
EBITDA-to-Gross Profit/Loss per Employee	Monetary unit	4.09					
Risk ratios:							
Reviewed F-score	#	5.01					
Penalties per Corrupt Employee	Monetary unit	5.02					
Price-related ratios:							
P/CO ₂ e per Share	Monetary unit	6.01					
P/Water per Share	Monetary unit	6.02					
P/Waste per Share	Monetary unit	6.03					
Compensation Value	Monetary unit	6.04					

Integrated Note

Integrated Note	Unit	Ref.	Year 1	Year 2	Year 3	Year 4	Year 5
Input data:							
Total assets, primo	Monetary unit						
Equity, primo	Monetary unit						
Total liabilities, primo	Monetary unit						
Share price, primo	Monetary unit						
Number of shares, primo	#	6.01					
Capital injections	Monetary unit						
Loans granted from others	Monetary unit						
Customer payments	Monetary unit						
Divestitures	Monetary unit						
Net financial income	Monetary unit						
Use of oil	t	1.01					
Use of gas	t	1.01					
Use of diesel	t	1.01					
Use of gasoline	t	1.01					
Use of kerosene	t	1.01					
Use of coal	t	1.01					
Use of biomass	t	1.01					
Use of other combustions	t	1.01					
Use of electricity	GJ	1.02					
Use of district heating	GJ	1.02					
Use of district cooling	GJ	1.02					
Use of renewable energy sources	GJ	1.03					
Water consumption total	m ³	1.07					
Corporate Presidents and Vice Presidents (women%)	FTEs (%)	2.01+ 2.04					
Directors (women%)	FTEs (%)	2.01+ 2.04					
Managers (women%)	FTEs (%)	2.01+ 2.04					
Other employees (women%)	FTEs (%)	2.01+ 2.04					
Total employees (women%)	FTEs (%)	2.01+ 2.04					
Median staff cost, women	Monetary unit	4.12					

Integrated Note	Unit	Ref.	Year 1	Year 2	Year 3	Year 4	Year 5
Median staff cost, men	Monetary unit	4.12					
Median staff cost	Monetary unit						
Gender pay ratio	t	4.12					
Temporary FTEs (Women%)	FTEs (%)	2.02					
Full-Time Workforce (women%)	FTEs (%)	2.03+ 2.04					
Temporary Worker ratio	%	2.05					
Number of voluntary leavers	FTEs	2.06					
Number of involuntary leavers	FTEs	2.06					
Leavers	FTEs	2.06					
Voluntary turnover ratio	%	2.07					
Employee turnover ratio	%	2.07					
Employee training hours	hours	2.08					
Employee training hours per FTE	hours	2.08					
No. of human rights violation cases, primo	#						
No. of human rights violation cases, filed	#						
Number of board meetings	#	3.01					
Attendance rate, board meetings	%	3.01					
Size of the board incl. employee representatives (women%)	#(%)						
Size of the board excl. employee representatives (women%)	#(%)						
Board members, x - 35 years	#						
Board members, 36 - x - 50 years	#						
Board members, 51 - x - 65 years	#						
Board members, 66 years and above	#						
Number of Audit Committee meetings	#	3.02					

Integrated Note	Unit	Ref.	Year 1	Year 2	Year 3	Year 4	Year 5
Attendance rate, Audit Committee meetings	%	3.02					
Compensation total	Monetary unit	6.04					
CEO pay ratio	t	4.11					
Output data							
Total assets, ultimo	Monetary unit						
Equity, ultimo	Monetary unit						
Total liabilities, ultimo	Monetary unit						
Number of shares, ultimo	#	6.01					
Quantities of production	#	1.05					
CO ₂ e scope 1	t	1.01					
CO ₂ e scope 2	t	1.02					
CO ₂ e total	t						
CO ₂ e per quantity	t	1.06					
Water consumption per quantity	m ³	1.07					
Waste total	t	1.08					
Waste per quantity	t	1.08					
No. of human rights violation cases, ultimo	#						
Outcome and impact data							
Net result before minorities	Monetary unit						
Share price, ultimo	Monetary unit						
Staff cost	Monetary unit	4.07					
Cost of temporary workers	Monetary unit	4.07					
Cost of full workforce	Monetary unit	4.07					
Taxes paid	Monetary unit	4.10					
Vendor payments	Monetary unit						
Dividends paid	Monetary unit						

Integrated Note	Unit	Ref.	Year 1	Year 2	Year 3	Year 4	Year 5
Repaid loans or loans granted to others	Monetary unit						
Investments	Monetary unit						
Cost of fines, penalties or settlements in relation to corruption	Monetary unit	5.02					
Number of staff disciplined or dismissed due to non-compliance with anti-corruption policies	#	5.02					
Energy	GJ	1.03					
Renewable energy share	%	1.04					
No of human rights violation cases, resolved	#						
No of human rights violation cases, convictions/settlements	#						
No. of human rights violation cases, ultimo	#						
Donations, per SDG	Monetary unit						
Donations, political	Monetary unit						
Donations, other	Monetary unit						
Donations total	Monetary unit						
Direct society contribution	Monetary unit	4.10					
Carbon profitability:							
Carbon Intensity	CO ₂ e	4.01					
BlackRock's Efficiency Improvement	CO ₂ e	4.02					
Return on CO ₂ e	%	4.03					
Cash Flow from CO ₂ e	Monetary unit	4.04					
Employee profitability:							
Sales per Employee	Monetary unit	4.05					
EBITA per Employee	Monetary unit	4.06					

Integrated Note	Unit	Ref.	Year 1	Year 2	Year 3	Year 4	Year 5
Added Value per Employee	Monetary unit	4.07					
Employee Expenses/Sales	%	4.08					
EBITDA-to-Gross Profit/Loss per Employee	Monetary unit	4.09					
Risk ratios:							
Reviewed F-score	#	5.01					
Penalties per Corrupt Employee	Monetary unit	5.02					
Price-related ratios:							
P/CO ₂ e per share	Monetary unit	6.01					
P/Water per share	Monetary unit	6.02					
P/Waste per share	Monetary unit	6.03					
Compensation value	Monetary unit	6.04					

Compensation per member/Remuneration note

Remuneration note (6.04)	Fixed salary/ fee	Bonus	Pension	Stock options	Severance	Non-monetary benefits	Total
Chairman							
Board member A							
Board member Z							
Employee elected A							
Employee elected Z							
Total board compensation							
CEO							
CFO							
CXO A							
CXO Z							
Total executive compensation							
Total compensation							

List of abbreviations:

AC = Audit Committee

AGM = Annual General Meeting

CDP = Carbon Disclosure Project

CEO = Chief Executive Officer

CFA = Chartered Financial Analyst

CFFO = Cash Flow from Operations

CFO = Chief Financial Officer

EBITA = Earnings, before Interest, Tax and Amortisation

EBITDA = Earnings, before Interest, Tax, Depreciation and Amortisation

ESG = Environmental, Social and Governance

GRI = Global Reporting Initiative

IFRS = International Financial Reporting Standards

IIRC = International Integrated Reporting Council

SDG = Sustainable Development Goals

VAT = Value Added Taxes

Center for
ESG Research

Center for ESG Research
Scion DTU - Research & Tech Park
Diplomvej 377
2800 Lyngby
Denmark

+45 29 37 17 69
www.esgresearch.dk

ISBN: 978-87-970262-1-2