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[ww] DATENSERVICE

International Financial Standards Conference (22.11.2023)

**The 20-year evolution towards global ESG standards
and their benefits for capital markets**

**Dr. Axel Hesse
Managing Director
SD-M[®] GmbH, Frankfurt**

SD-M 
SUSTAINABLE DEVELOPMENT MANAGEMENT

Since 2003: Mandatory reporting of **RELEVANT** ESG indicators in EU Accounting Directives

MODERNISATION DIRECTIVE 2003/51/EC:
Account Directive 78/660/EEC is hereby amended as follows:

“The annual report shall include [...]

To the extent necessary for an understanding of the company's development, performance or position,
the analysis shall include both financial and, where appropriate, non-financial key performance indicators RELEVANT to the particular business, including information relating to environmental and employee matters”

2004: §§ 289; 315 HGB (German Commercial Code)

STUDIE

DAS KLIMA WANDELT SICH

INTEGRATION VON KLIMACHANGEN UND -RISIKEN
IN DIE FINANZBERICHTERSTATTUNG

Axel Hesse, SD-M

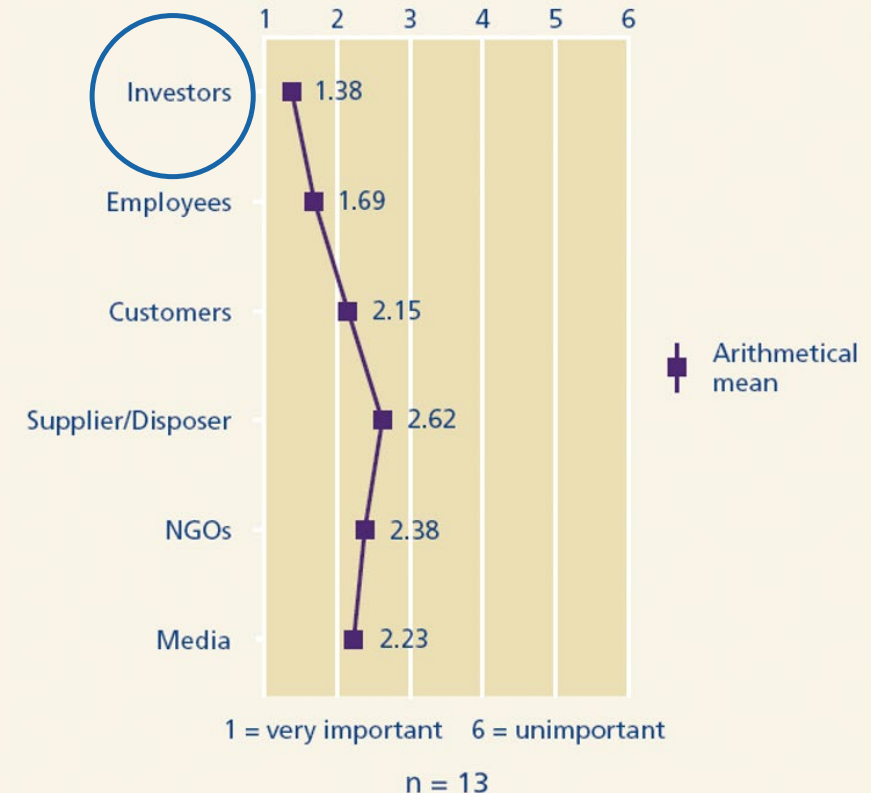


2003/2004

Investors remain the most important target group also for Sustainable Development KPIs (SD-KPIs) in annual / management reports (empirical results for DAX-30 companies)



Question 4 – For which target group does your company mainly conceive non-financial sustainability KPIs in the financial report?



2006

Empirical survey of relevant investors and analysts covering SD-KPIs

Open question:

“Which are the

- up to **three most important**

- **sector-specific SD-KPIs**

- **for the business development, the position and the expected development of**

- **ten different sectors?”**

Less is more!

Deloitte.

Extra-Financial Issues

Sustained added value.

Information demand of investors and analysts for sector-specific “Sustainable Development Key Performance Indicators” (SD-KPIs) in Management Commentaries (MCs) of German companies

Audit, Tax, Consulting, Corporate Finance.

2007

SD-KPI most important criteria in "Best annual report" competition (manager magazin)

Ranking	Company	Total number of points for reporting on SD-KPIs
1.	SolarWorld	67%
2.	TUI	64%
3.	BASF	58%
4.	Norddeutsche Affinerie	54%
5.	ABN AMRO	53%
6.	Munich Re	52%
6.	Shell	52%
7.	GlaxoSmithKline	45%



Prof. Dr. Dr. h.c. Jörg Baetge

for three SD-KPIs	(1) report on SD-KPIs (20%)	(2) economic importance (20%)	(3) quantitative indications (20%)	(4) trend analysis (20%)	(5) bench- marking (20%)	weighted sum (100%)
SD-KPI 1 (40%)						
SD-KPI 2 (30%)						
SD-KPI 3 (30%)						
weighted sum (100%)						

Deloitte.

Extra-Financial Issues

Best Practice for SD-KPIs

Examples of good use of Sustainable Development Key Performance Indicators (SD-KPIs) in management reports 2006

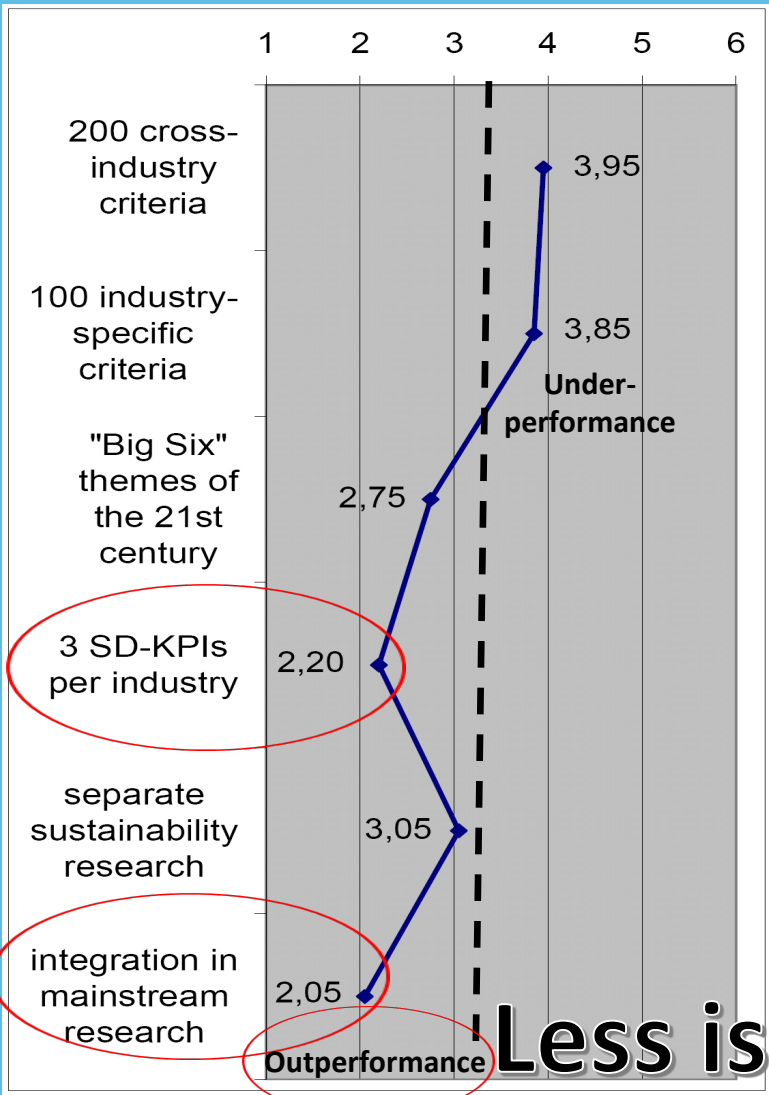
A study by Prof. Dr. Dr. h.c. Jörg Baetge
(University of Münster)
and Dr. Axel Hesse (SD-M)
for Deloitte



Audit. Tax. Consulting. Corporate Finance.

2008

Which of these approaches to sustainability research do you believe will lead to risk-adjusted out- or underperformance in the future?



Survey of leading European pensions funds

Assets: € 460 billion

- ABP (NL)
- AP1 (SWE)
- AP4 (SWE)
- BTPS (Hermes, UK)
- Ethos (CH)
- ERAFP (FR)
- FRR (FR)
- MetallRente (GER)
- PGGM (NL)
- USS (UK)

Less is more!



LONG-TERM AND SUSTAINABLE PENSION INVESTMENTS

A STUDY OF LEADING EUROPEAN PENSION FUNDS

ON BEHALF OF ASSET4 AND THE GERMAN FEDERAL ENVIRONMENT MINISTRY

CREATED BY DR. AXEL HESSE (SD-M)

MAY 2008

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

2008

SD-KPI Standard 2010-2015:

1st global standard for material ESG KPIs

- **Consensus among global investors and analysts (Japan, Europe, North America) who influenced assets of € 2 trillion**
 - **3 most RELEVANT ESG indicators in**
 - **68 GICS industries** (Global Industry Classification Standard)
 - **% weighting per SD-KPI 1, 2, 3 per industry**
-
- on behalf of the German Environment Ministry:
SD-KPIs “minimum reporting requirement”
in annual reports
 - **Association of Public Auditors in Germany (IDW)**
recommended SD-KPIs to EU commission for
concretisation of EU accounting directives

SD-KPI STANDARD 2010-2015

Sustainable Development Key Performance Indicators (SD-KPIs):
Minimum reporting standard for relevant sustainability information
in annual reports / management commentaries of 68 industries

Developed by Dr. Axel Hesse (SD-M*)
on behalf of the German Federal Environment Ministry
with participations of:

SD-M SUSTAINABLE DEVELOPMENT MANAGEMENT

Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

2010

Sustainable Accounting Standards Board (SASB)

- **2011: Discussions with Harvard University about SD-KPIs**
- **identify ESG issues most relevant to financial performance**
- **2012: Launch of SASB; regional focus: USA**
- **2016: first SASB Standards were launched**
- **77 industries**
- **up to 10 ESG topics and 30 indicators per sector**



AUTOMOBILES
Sustainability Accounting Standard

(2011) 2012-2016

Table 1. Sustainability Disclosure Topics & Accounting Metrics

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE
Product Safety	Percentage of vehicle models rated by NCAP programs with an overall 5-star safety rating, by region	Quantitative	Percentage (%)	TR-AU-250a.1
	Number of safety-related defect complaints, percentage investigated	Quantitative	Number, Percentage (%)	TR-AU-250a.2
	Number of vehicles recalled ²	Quantitative	Number	TR-AU-250a.3
Labor Practices	Percentage of active workforce covered under collective bargaining agreements	Quantitative	Percentage (%)	TR-AU-310a.1
	(1) Number of work stoppages and (2) total days idle ³	Quantitative	Number, Days idle	TR-AU-310a.2
Fuel Economy & Use-phase Emissions	Sales-weighted average passenger fleet fuel economy, by region	Quantitative	Mpg, L/km, gCO ₂ /km, km/L	TR-AU-410a.1
	Number of (1) zero emission vehicles (ZEV), (2) hybrid vehicles, and (3) plug-in hybrid vehicles sold	Quantitative	Number	TR-AU-410a.2
	Discussion of strategy for managing fleet fuel economy and emissions risks and opportunities	Discussion and Analysis	n/a	TR-AU-410a.3
Materials Sourcing	Description of the management of risks associated with the use of critical materials	Discussion and Analysis	n/a	TR-AU-440a.1
Materials Efficiency & Recycling	Total amount of waste from manufacturing, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	TR-AU-440b.1
	Weight of end-of-life material recovered, percentage recycled	Quantitative	Metric tons (t), Percentage (%)	TR-AU-440b.2
	Average recyclability of vehicles sold ⁴	Quantitative	Percentage (%) by sales-weighted metric tons (t)	TR-AU-440b.3

SD-KPI Standard 2016-2021

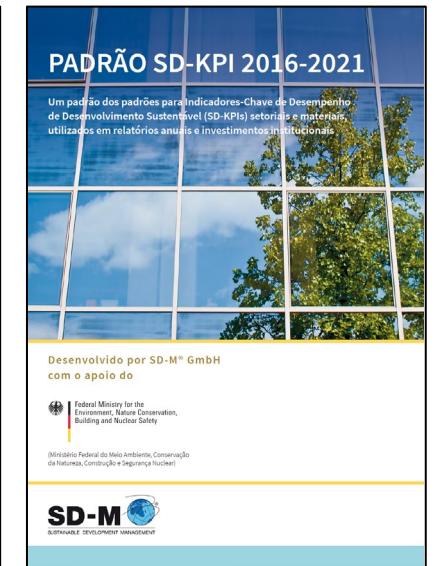
- 3 most RELEVANT ESG indicators in
- 68 GICS industries
- % weighting per SD-KPI 1, 2, 3 per industry

- supported by SASB & German Environment Ministry

- revised by SASB's Technical Director:
SASB found “a high degree of overlap” in SD-KPI analysis and the SASB standards and appreciates the SD-KPI approach as well as how SD-M® “ranked and prioritized topics for each industry.”

- Copyrighted Global Standard of Standards

- English, Japanese, Chinese, Arabic, Russian, Brazilian versions



2016

Brochure „Material for business development and financial performance“ including SD-KPI examples




Wesentlich für Geschäftstätigkeit und Finanzperformance

Bedeutsamste nichtfinanzielle Leistungsindikatoren in der nichtfinanziellen Erklärung gemäß § 289c HGB



published after NFRD („CSR-Richtlinie-Umsetzungsgesetz“)

2017

Bedeutsamste Sustainable Development Key Performance Indicators (SD-KPIs) gemäß SD-KPI Standard 2016–2021

Branche	SD-KPI 1	SD-KPI 2	SD-KPI 3
ENERGIESEKTOR			
Energiezubehör und -dienste	Gesundheits- und Sicherheitsperformance	Treibhausgas-effizienz der Produktion	Wirtschaftsethikvorfälle und Vorsorgemaßnahmen
Erdöl, Erdgas und nicht erneuerbare Brennstoffe	Treibhausgas-effizienz der Produktion	Betriebsunfälle und Vorsorgemaßnahmen	Treibhausgasemissionen der Produkte und Reserven
ROH-, HILFS- UND BETRIEBSSTOFFE			
Chemie	Betriebsunfälle sowie Gesundheits- und Sicherheitsperformance	Treibhausgas-effizienz der Produktion	Anteil nachhaltiger ggü. gefährlichen Produkten
Baustoffe	Energieeffizienz der Produktion	Treibhausgas-effizienz der Produktion	Gesundheits- und Sicherheitsperformance
Behälter und Verpackung	Treibhausgas- und Energieeffizienz der Produktion	Anteil recycelten bzw. nachhaltigen Rohstoffeinsatzes	–
Metalle und Bergbau	Auditabdeckung mit Umweltmanagementsystem und dessen Performance	Gesundheits- und Sicherheitsperformance	Beziehungen zu lokalen Gemeinden
Papier- und Forstprodukte	Treibhausgas-effizienz der Produktion	Anteil recycelten bzw. nachhaltigen Rohstoffeinsatzes	Wasserintensität
INDUSTRIE			
Luftfahrt und Verteidigung	Wirtschaftsethikvorfälle und Vorsorgemaßnahmen	Treibstoffeffizienz in der Nutzungsphase	Exposition gegenüber kontroversen Waffen
Baumaterialien	Management gefährlicher Chemikalien in Produkten	Treibhausgas-effizienz der Produktion	Anteil an Produkten mit „Design for Environment“- / Umwelt-Label
Bau- und Ingenieurwesen	Anteil an Dienstleistungen mit „Design for Environment“- / Umwelt-Label	Gesundheits- und Sicherheitsperformance	Strukturelle Integrität und Sicherheit der Dienstleistungen
Elektrische Geräte	Anteil an Produkten mit „Design for Environment“- / Umwelt-Label	Treibhausgas-effizienz der Produktion	Anteil kritischer und Konfliktmaterialien
Maschinen	Energie- und Treibhausgas-effizienz in der Nutzungsphase	Treibhausgas-effizienz der Produktion	Anteil wiederverwendeter Produkte / gefährlicher Abfälle

German Federal Financial Supervisory Authority (BaFin) has referenced SD-KPI Standard 2016-2021

3 Strategies of supervised entities [...]

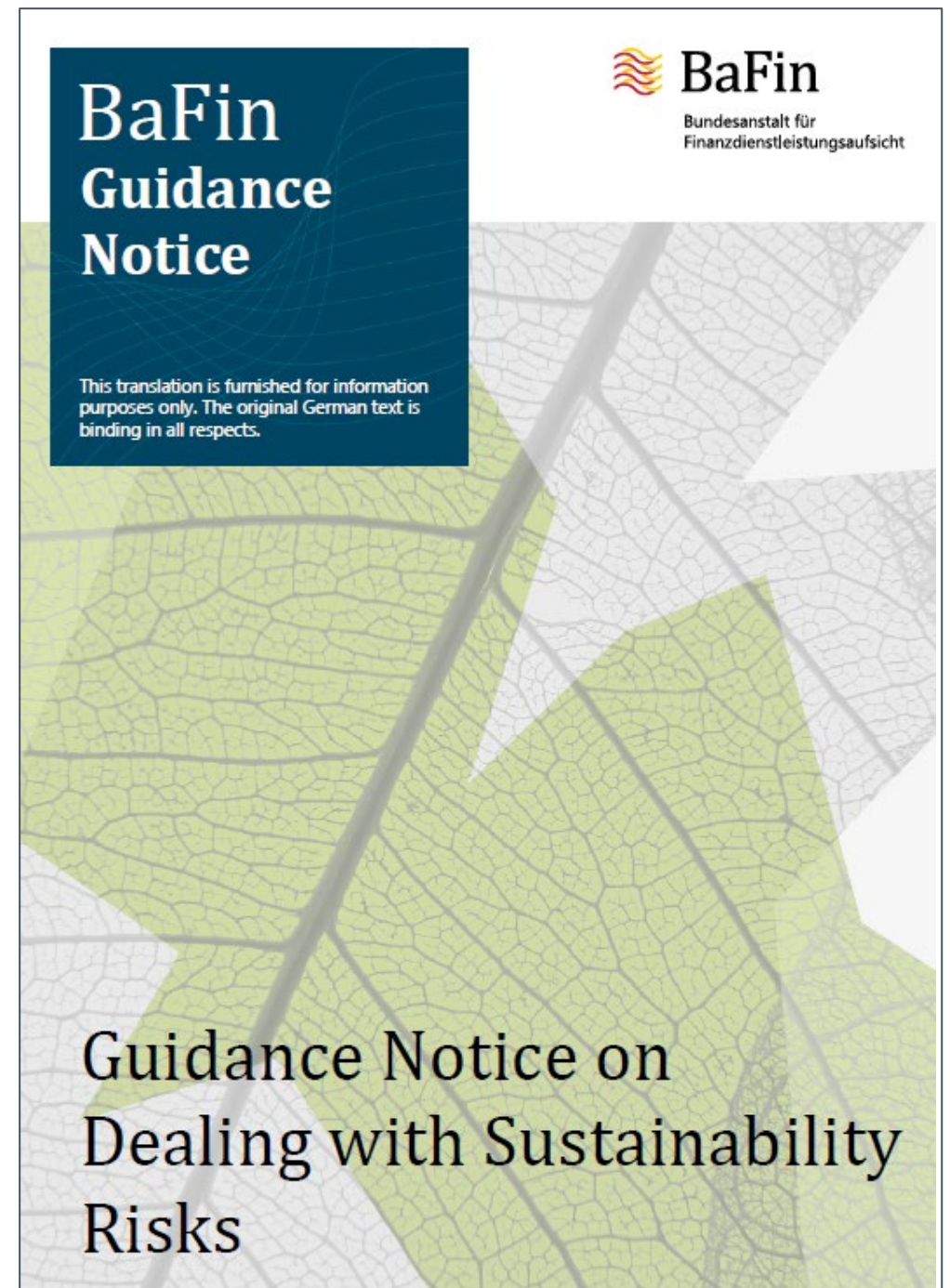
3.1.2 If entities have voluntarily agreed to abide by **external sustainability standards**, or to implement recommendations, these **should be reflected in inhouse strategies and organisational guidelines**.

E.g.: “Principles for Responsible Banking”, “Principles for Responsible Investment”, “Principles for Sustainable Insurance”, recommendations of the “Task Force on Climate-related Financial Disclosures”, the German Sustainability Code (Nachhaltigkeitskodex), the **SD-KPI Standard 2016-2021**

3.2.2 **Which business areas are exposed to a transition risk? Is the risk material?** Should the affected areas be continued, scaled back or adapted? [...]

E.g.: [...] **requirements for counterparties to comply with the disclosure recommendations** of the Task Force on Climate-related Financial Disclosures (TCFD), the EU Commission’s guidelines on nonfinancial reporting, the Sustainability Code or the **SD-KPI Standard 2016-2021**.

2019



German Sustainability Code (DNK) referred to the SD-KPI Standard as a supplement for industry-specific material issues

Materiality analysis

The SD-KPI standard, which defines three particularly significant sustainability risks for 68 different industries (so-called Sustainable Development Key Performance Indicators [SD-KPIs]), also provides guidance. It was created by SD-M[®] on behalf of the Federal Ministry for the Environment (see www.sd-kpi.com/en/sd-kpi-standards.html).

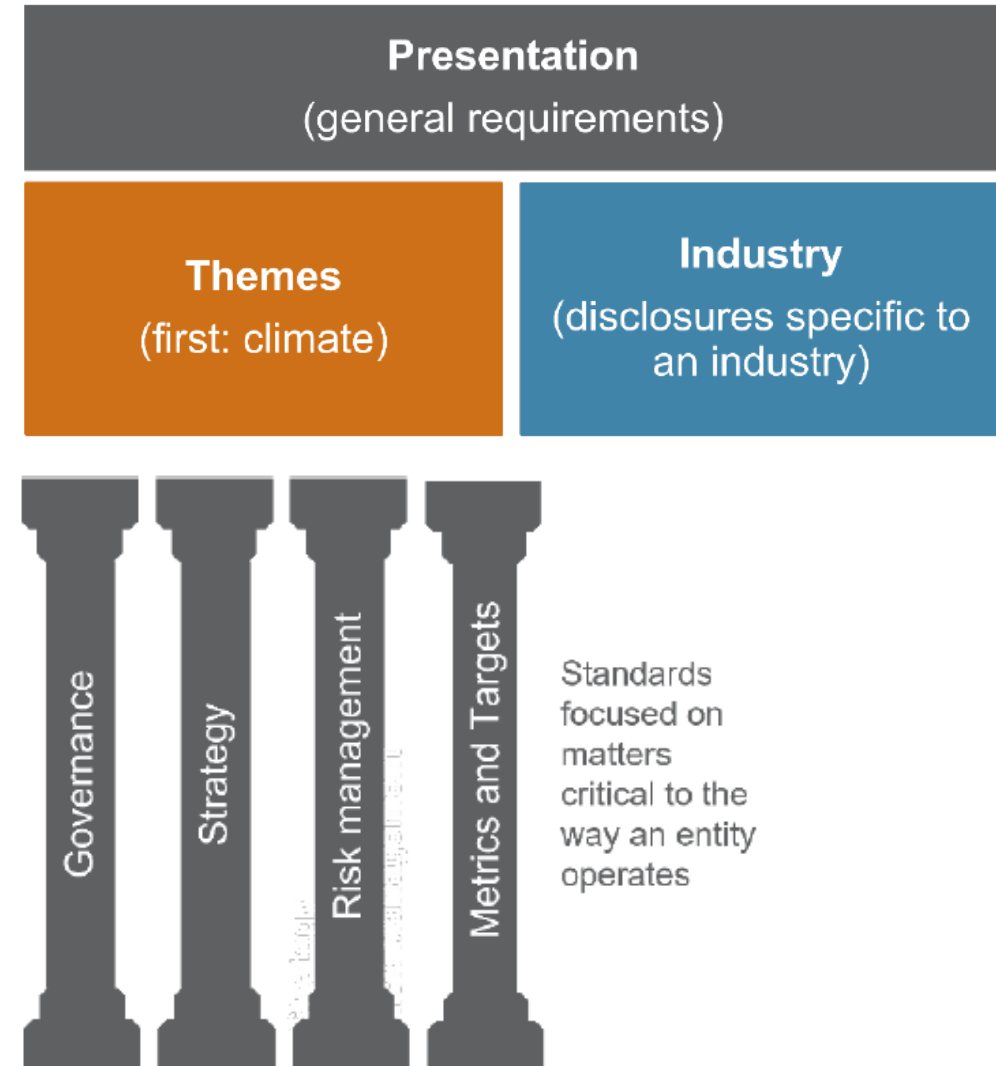
2020



IFRS Foundation: International Sustainability Standards Board (ISSB)

- On 3 November 2021, IFRS Foundation Trustees announced creation of ISSB to develop a **comprehensive global baseline** of sustainability-related disclosure standards
- material information for its primary users (i.e., existing and potential investors, lenders and other creditors), which could affect the enterprise value (amount, timing and certainty of future cash flows).
- HQ: Frankfurt; Chair Emmanuel Faber; Co-Chair Sue Lloyd

Figure 1: Architecture of Standards



2021

June 2023

IFRS S1

IFRS[®] Sustainability Disclosure Standard

General Requirements for Disclosure of Sustainability-related Financial Information

The objective of IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information* is to require an entity to disclose information about its sustainability-related risks and opportunities that is useful to primary users of general purpose financial reports in making decisions relating to providing resources to the entity.¹

Materiality

An entity shall disclose material information about the sustainability-related risks and opportunities that could reasonably be expected to affect the entity's prospects.

IFRS SUSTAINABILITY DISCLOSURE STANDARD S1 GENERAL REQUIREMENTS FOR DISCLOSURE OF SUSTAINABILITY-RELATED FINANCIAL INFORMATION

OBJECTIVE	1
SCOPE	5
CONCEPTUAL FOUNDATIONS	10
Fair presentation	11
Materiality	17
Reporting entity	20
Connected information	21
CORE CONTENT	25
Governance	26
Strategy	28
Risk management	43
Metrics and targets	45
GENERAL REQUIREMENTS	54
Sources of guidance	54
Location of disclosures	60
Timing of reporting	64
Comparative information	70
Statement of compliance	72
JUDGEMENTS, UNCERTAINTIES AND ERRORS	74
Judgements	74
Measurement uncertainty	77
Errors	83

2023

June 2023

IFRS S2

IFRS[®] Sustainability Disclosure Standard

Climate-related Disclosures

The objective of IFRS S2 *Climate-related Disclosures* is to require an entity to disclose information about its *climate-related risks and opportunities* that is useful to *primary users of general purpose financial reports* in making decisions relating to providing resources to the entity.¹

This Standard applies to:

- (a) climate-related risks to which the entity is exposed, which are:
 - (i) *climate-related physical risks*; and
 - (ii) *climate-related transition risks*; and
- (b) climate-related opportunities available to the entity.

Climate-related risks and opportunities that could not reasonably be expected to affect an entity's prospects are outside the scope of this Standard.

IFRS SUSTAINABILITY DISCLOSURE STANDARD S2 *CLIMATE-RELATED DISCLOSURES*

OBJECTIVE	1
SCOPE	3
CORE CONTENT	5
Governance	5
Strategy	8
Risk management	24
Metrics and targets	27

APPENDICES

- A Defined terms
- B Application guidance
- C Effective date and transition

APPROVAL BY THE ISSB OF IFRS S2 ISSUED IN JUNE 2023

FOR THE ACCOMPANYING GUIDANCE LISTED BELOW, SEE PART B OF THIS EDITION

ILLUSTRATIVE GUIDANCE

ILLUSTRATIVE EXAMPLES

INDUSTRY-BASED GUIDANCE ON IMPLEMENTING IFRS S2

FOR THE BASIS FOR CONCLUSIONS, SEE PART C OF THIS EDITION

BASIS FOR CONCLUSIONS

IFRS Foundation: International Sustainability Standards Board (ISSB)



May 2023

Exposure Draft

IFRS® Sustainability Disclosure Standard

Methodology for Enhancing the International Applicability of the SASB® Standards and SASB Standards Taxonomy Updates

Comments to be received by 9 August 2023

In connection with the International Applicability of SASB Standards Project, blackline documents detailing revisions to the SASB Standards have been published on SASB.org.

These revisions do not substantially alter the SASB Standards' structure or intent.

The revisions will not be final until ratified and issued by the ISSB, anticipated in **December 2023**

With **over 3,000 companies in more than 70 jurisdictions**, including **74% of the S&P Global 1200 Index**, **already applying the SASB Standards**, this initiative aims to ensure their ongoing effectiveness in supporting industry-specific sustainability disclosures.

2023

European Sustainability Reporting Standards: Structure of the ESRS sustainability statement

Mandatory for large companies
 > 250 employees
 > 25 million € balance sheet
 > 50 million € turnover

Part of the management report	ESRS codification	Title
1. General information	ESRS 2	<i>General disclosures</i> , including information provided under the Application Requirements of topical ESRS listed in ESRS 2 Appendix C.
2. Environmental information	<i>Not applicable</i>	<i>Disclosures pursuant to Article 8 of Regulation (EU) 2020/852 (Taxonomy Regulation)</i>
	ESRS E1	<i>Climate change</i>
	ESRS E2	<i>Pollution</i>
	ESRS E3	<i>Water and marine resources</i>
	ESRS E4	<i>Biodiversity and ecosystems</i>
	ESRS E5	<i>Resource use and circular economy</i>
3. Social information	ESRS S1	<i>Own workforce</i>
	ESRS S2	<i>Workers in the value chain</i>
	ESRS S3	<i>Affected communities</i>
	ESRS S4	<i>Consumers and end-users</i>
4. Governance information	ESRS G1	<i>Business conduct</i>

2023

ESRS 2: General Disclosures

Objective

1. Basis for preparation

Disclosure Requirement BP-1 – General basis for preparation of sustainability statements

Disclosure Requirement BP-2 – Disclosures in relation to specific circumstances

2. Governance

Disclosure Requirement GOV-1 – The role of the administrative, management and supervisory bodies

Disclosure Requirement GOV-2 – Information provided to and sustainability matters addressed by the undertaking's administrative, management and supervisory bodies

Disclosure Requirement GOV-3 - Integration of sustainability-related performance in incentive schemes

Disclosure Requirement GOV-4 - Statement on due diligence

Disclosure Requirement GOV-5 - Risk management and internal controls over sustainability reporting

3. Strategy

Disclosure Requirement SBM-1 – Strategy, business model and value chain

Disclosure Requirement SBM-2 – Interests and views of stakeholders

Disclosure Requirement SBM-3 - **Material impacts, risks and opportunities and their interaction with strategy and business model**

2023

ESRS 2: General Disclosures

4. Impact, risk and opportunity management

4.1 Disclosures on the **materiality assessment process**

Disclosure Requirement IRO-1 - Description of the processes to **identify and assess material impacts, risks and opportunities**

Disclosure Requirement IRO-2 – Disclosure requirements in ESRS covered by the undertaking's sustainability statement

4.2 Minimum disclosure requirement on policies and actions

Minimum disclosure requirement - Policies MDR-P – Policies adopted to manage material sustainability matters

Minimum disclosure requirement - Actions MDR-A – Actions and resources in relation to material sustainability matters

5. Metrics and targets

Minimum disclosure requirement – Metrics MDR-M – Metrics in relation to material sustainability matters

Minimum disclosure requirement – Targets MDR-T – Tracking effectiveness of policies and actions through targets

10 Topical ESRS with 93 Sub-(sub-)topics

Topical ESRS	Sustainability matters covered in topical ESRS		
	Topic	Sub-topic	Sub-sub-topics
ESRS E1	Climate change	<ul style="list-style-type: none"> Climate change adaptation Climate change mitigation Energy 	
ESRS E2	Pollution	<ul style="list-style-type: none"> Pollution of air Pollution of water Pollution of soil Pollution of living organisms and food resources Substances of concern Substances of very high concern Microplastics 	
ESRS E3	Water and marine resources	<ul style="list-style-type: none"> Water Marine resources 	<ul style="list-style-type: none"> Water consumption Water withdrawals Water discharges Water discharges in the oceans Extraction and use of marine resources
ESRS E4	Biodiversity and ecosystems	<ul style="list-style-type: none"> Direct impact drivers of biodiversity loss 	<ul style="list-style-type: none"> Climate Change Land-use change, fresh water-use change and sea-use change Direct exploitation Invasive alien species Pollution Others
		<ul style="list-style-type: none"> Impacts on the state of species 	Examples: <ul style="list-style-type: none"> Species population size Species global extinction risk
		<ul style="list-style-type: none"> Impacts on the extent and condition of ecosystems 	Examples: <ul style="list-style-type: none"> Land degradation Desertification Soil sealing
		<ul style="list-style-type: none"> Impacts and dependencies on ecosystem services 	

2023

10 Topical ESRS with 93 Sub-(sub-)topics

2023

Topical ESRS	Sustainability matters covered in topical ESRS		
	Topic	Sub-topic	Sub-sub-topics
ESRS E5	Circular economy	<ul style="list-style-type: none"> Resources inflows, including resource use Resource outflows related to products and services Waste 	
ESRS S1	Own workforce	<ul style="list-style-type: none"> Working conditions 	<ul style="list-style-type: none"> Secure employment Working time Adequate wages Social dialogue Freedom of association, the existence of works councils and the information, consultation and participation rights of workers Collective bargaining, including rate of workers covered by collective agreements Work-life balance Health and safety
		<ul style="list-style-type: none"> Equal treatment and opportunities for all 	<ul style="list-style-type: none"> Gender equality and equal pay for work of equal value Training and skills development Employment and inclusion of persons with disabilities Measures against violence and harassment in the workplace Diversity
		<ul style="list-style-type: none"> Other work-related rights 	<ul style="list-style-type: none"> Child labour Forced labour Adequate housing Privacy
ESRS S2	Workers in the value chain	<ul style="list-style-type: none"> Working conditions 	<ul style="list-style-type: none"> Secure employment Working time Adequate wages Social dialogue Freedom of association, including the existence of work councils Collective bargaining Work-life balance Health and safety
		<ul style="list-style-type: none"> Equal treatment and opportunities for all 	<ul style="list-style-type: none"> Gender equality and equal pay for work of equal value Training and skills development The employment and inclusion of persons with disabilities Measures against violence and harassment in the workplace Diversity
		<ul style="list-style-type: none"> Other work-related rights 	<ul style="list-style-type: none"> Child labour Forced labour Adequate housing Water and sanitation Privacy

10 Topical ESRS with 93 Sub-(sub-)topics

Topical ESRS	Sustainability matters covered in topical ESRS		
	Topic	Sub-topic	Sub-sub-topics
ESRS S3	Affected communities	<ul style="list-style-type: none"> Communities' economic, social and cultural rights 	<ul style="list-style-type: none"> Adequate housing Adequate food Water and sanitation Land-related impacts Security-related impacts
		<ul style="list-style-type: none"> Communities' civil and political rights 	<ul style="list-style-type: none"> Freedom of expression Freedom of assembly Impacts on human rights defenders
		<ul style="list-style-type: none"> Rights of indigenous peoples 	<ul style="list-style-type: none"> Free, prior and informed consent Self-determination Cultural rights
ESRS S4	Consumers and end-users	<ul style="list-style-type: none"> Information-related impacts for consumers and/or end-users 	<ul style="list-style-type: none"> Privacy Freedom of expression Access to (quality) information
		<ul style="list-style-type: none"> Personal safety of consumers and/or end-users 	<ul style="list-style-type: none"> Health and safety Security of a person Protection of children
		<ul style="list-style-type: none"> Social inclusion of consumers and/or end-users 	<ul style="list-style-type: none"> Non-discrimination Access to products and services Responsible marketing practices
ESRS G1	Business conduct	<ul style="list-style-type: none"> Corporate culture Protection of whistle-blowers Animal welfare Political engagement Management of relationships with suppliers including payment practices 	
		<ul style="list-style-type: none"> Corruption and bribery 	<ul style="list-style-type: none"> Prevention and detection including training Incidents

2023

Comparison of the three Standards

Use SD-KPI/SASB(ISSB)
for materiality analysis!

	SD-KPI Standards	SASB(ISSB)	CSRD/ESRS
Target Group	Investors, lenders, other creditors	Investors, lenders, other creditors	All Stakeholders
Materiality	Financial	Financial	Double Materiality
Number of Topics	3 high degree of overlap with SASB	3-9	10 Topics; 93 Sub-(sub-)topics subject to materiality analysis
Number of ESG KPIs	3-9 per industry Less is more!	3-24 per industry	1.159 data points
Sector-specific	68 Industries	77 Industries	postponed from June 2024 to June 2026; impacts, risk, opportunities NOT covered by topicals standards
Region	Global	ISSB will be the 'comprehensive global baseline' of sustainability disclosures for capital markets	Europe (+ large non-EU subsidiaries from 2028)
Standard setter/Regulator	SD-M, BMU, BaFin ref., DNK ref.	IFRS Foundation	EU commission / EFRAG
Mandatory	recommended for materiality analysis (of ESG risks) and as a „minimum reporting requirement“	to be endorsed by countries (so far: Australia, Brazil, Canada, Hong Kong, Japan, Kalifornien, Malaysia, New Zealand, Nigeria, Singapore, Taiwan, UK); G7 decision 12/2022; IOSCO called on 130 member jurisdictions to consider ISSB	in the EU

Benefits for capital markets? – Historical proxy data is already available

SD-KPInform®: 2 Databases for standardised material ESG KPIs

- Collaborations of SD-M with **Sustainalytics/Morningstar & imug rating/Moody's ESG**
- **13,000 companies** worldwide are evaluated according to the SD-KPI Standards
- Scores for SD-KPI 1, 2, 3 and accumulated SD-KPIntegration® Score evaluated between 0-100 percent
- **Historical SD-KPInform® databases could be used as a proxy for historical SASB (ISSB) data**
("a high degree of overlap" in SD-KPI analysis and the SASB standards)
- **Databases with a 14-year history (2009-2023) could be used for backtesting in asset management & credit portfolios**
- **Clients: asset managers, banks, index providers, data providers**



SUSTAINALYTICS

a Morningstar company

imug rating
by Ethifinance

MOODY'S
ESG Solutions

SD-M 
SUSTAINABLE DEVELOPMENT MANAGEMENT

Benefits for capital markets? – Proof for financial materiality of standardised ESG KPIs

SD-KPIndex® Methodology: Tilting conventional standard indices with standardised ESG KPIs

Indices for Sustainability Transition (no exclusions, just over-/underweighting)

SD-KPIntegration® Score	Overweighting / underweighting of the conventional index components
0,00% - 20%	-50%
20,01% - 40%	-25%
40,01% - 60%	0%
60,01% - 80%	+25%
80,01%-100%	+50%

Article 6 SFDR (EU) 2019/2088:

1. Financial market participants shall include descriptions of the following in pre-contractual disclosures:

- (a) the manner in which sustainability risks are integrated into their investment decisions; and
- (b) **the results of the assessment of the likely impacts of sustainability risks on the returns of the financial products they make available.**

Benefits for capital markets? – Proof for financial materiality of standardised ESG KPIs

SD-KPIndex® family

- EURO iSTOXX 50 SD-KPI
- iSTOXX Europe 50 SD-KPI
- iSTOXX Europe 600 SD-KPI

- S&P 500 SD-KPI Strategies

- iBoxx SD-KPI EUR Corporates / Financial / Non-Financial
- iBoxx SD-KPI USD Corporates / Financial / Non-Financial
- iBoxx SD-KPI GBP Corporates / Financial / Non-Financial

- **All SD-KPIndices show long-term outperformance against the standard index with small tracking errors**

STOXX | QONTIGO



S&P Global

Outperformance of iSTOXX Europe 600 SD-KPI Index

Risk and return figures¹

Index returns	Return (%)					Annualized return (%)				
	Last month	YTD	1Y	3Y	5Y	Last month	YTD	1Y	3Y	5Y
iSTOXX Europe 600 SD-KPI Index	7.6	-7.7	-1.4	24.9	36.6	N/A	N/A	-1.4	7.8	6.5
STOXX Europe 600 Index	7.8	-7.9	-2.1	23.7	35.3	N/A	N/A	-2.1	7.4	6.3
Index volatility and risk	Annualized volatility (%)					Annualized Sharpe ratio ²				
iSTOXX Europe 600 SD-KPI Index	17.3	21.0	18.0	20.4	17.4	N/A	N/A	-0.1	0.4	0.4
STOXX Europe 600 Index	17.7	21.2	18.1	20.6	17.5	N/A	N/A	-0.1	0.4	0.4
Index to benchmark	Correlation					Tracking error (%)				
iSTOXX Europe 600 SD-KPI Index	1.0	1.0	1.0	1.0	1.0	0.5	0.4	0.4	0.4	0.4
Index to benchmark	Beta					Annualized information ratio				
iSTOXX Europe 600 SD-KPI Index	1.0	1.0	1.0	1.0	1.0	-3.8	1.0	1.7	0.8	0.5

¹ For information on data calculation, please refer to STOXX [calculation reference guide](#).

² Based on EURIBOR1M

(EUR, gross return), all data as of Jul. 29, 2022



STOXX Ltd. is part of Qontigo



intalcon alpha for
impact

Outperforming S&P 500 by applying Systematic Strategies & SD-KPIs

SD-KPI generate more Alpha & Return

ALPHA	+0.40%
RETURN	+0.28%
VOLATILITY	+0.08%
SHARPE RATIO	+0.02
MAX DRAWDOWN	-3.70%

*all values (except max drawdown) annualized
since September 2009*

Index Performance – iBoxx SD-KPI EUR Indices (Corporate Bonds)

Performance Metric	iBoxx SD-KPI EUR Corporates	iBoxx € Corporates	iBoxx SD-KPI EUR Financials	iBoxx € Financials	iBoxx SD-KPI EUR Non-Financials	iBoxx € Non-Financials
February 2013-December 2022						
Annualized Return (%)	0.80	0.74	0.94	0.88	0.69	0.64
Volatility (%)	2.85	2.84	2.68	2.68	3.04	3.03
Sharpe Ratio	0.28	0.26	0.35	0.33	0.23	0.21
Tracking Error (%)	0.04		0.05		0.06	
Maximum Drawdown (%)	-17.8	-18.0	-17.0	-17.2	-18.4	-18.5
Maximum Drawdown Date	Oct. 21, 2022	Oct. 21, 2022	Oct 21, 2022	Oct 21, 2022	Oct 21, 2022	Oct 21, 2022
February 2013-February 2020						
Annualized Return (%)	3.23	3.19	3.25	3.23	3.22	3.16
Volatility (%)	1.98	1.97	1.78	1.77	2.18	2.17
Sharpe Ratio	1.64	1.62	1.83	1.83	1.47	1.46
Tracking Error (%)	0.03		0.03	0.00	0.05	0.00
Maximum Drawdown (%)	-3.72	-3.7	-3.2	-3.1	-4.3	-4.4
Maximum Drawdown Date	Sept. 29, 2015	Sept. 29, 2015	July 10, 2015	July 10, 2015	Sept. 29, 2015	Sept. 29, 2015



S&P Global



TCBT VanEck iBoxx EUR Corporates UCITS ETF



Fund Details

Base Currency	EUR
Inception Date	14 April 2011
Domicile	The Netherlands
Net Assets	€33.6M
Shares Outstanding	2,108,390
Total Expense Ratio	0.15%
Product Structure	Physical (Full Replication)
UCITS Compliant	Yes
Rebalance Frequency	Quarterly
Distribution Frequency	Quarterly

Fund Description

30 September 2023

The VanEck iBoxx EUR Corporates UCITS ETF is a UCITS-compliant exchange-traded fund that invests in a portfolio of bond securities with the aim of providing investment returns that closely track the performance of the Markit iBoxx EUR Liquid Corporates Index.

Performance History* (%)

Month End as of 30 Sep 2023	1 MO*	3 MO*	YTD*	1 YR	3 YR	5 YR	10 YR	INCEPTION	ETF
ETF	-1.31	-0.33	2.19	2.81	-4.07	-1.09	0.56		1.52
IBXXELTR (Index)	-1.30	-0.29	2.27	2.85	-4.02	-1.01	0.67		1.72

Index data up to 28th February 2022 EOD reflects index data of the Markit iBoxx EUR Liquid Corporates Index (IB8A). From 1st March 2022 onwards, the index data reflects that of the Fund's underlying index, the **iBoxx SD-KPI EUR Liquid Corporates Index (IBXXELTR)**. Index history which includes periods prior to the index change shows a blended performance and is not intended for third party use.

Next step banking: ESG Standards for counterparty and credit risk analysis



EBA Report on management and supervision of ESG risks for credit institutions and investment firms (EBA/REP/2021/18)

3. Quantitative and qualitative indicators, metrics and methods to assess ESG risks

3.2 Methodological approaches for assessing and evaluating ESG risks

3.2.3 Exposure Method

“A key step towards making ESG ratings and evaluations more comparable, transparent and hence more effective, is a standardisation of the relevance and importance of different ESG factors for the various industries and companies.”



Minimum Requirements for Risk Management (MaRisk), version of 29.06.2023

BTO 1 Credit business

BTO 1.2 Requirements relating to credit business processes

4 The aspects that are significant for the counterparty default risk of a credit exposure must be identified and assessed, whereby the intensity of these activities depends on the risk content of the exposure. **Sector** and, where applicable, **country risks as well as the impact of ESG risks must be taken into account** in an appropriate manner. When assessing the impact of ESG risks, an appropriately long period of time must be selected.

6 Depending on the risk content of the lending transactions, the risks of an exposure must be assessed using risk classification procedures both **as part of the lending decision and in regular or ad hoc assessments. The effects of ESG risks must be taken into account appropriately.** The risk classification must be reviewed annually.

What is the correlation between the risk-adjusted outperformance effect of SD-KPI integration in corporate bond portfolios and the probability of default (PD) in credit portfolios?

Conclusion: Global ESG standards and their benefits for capital markets

- **ISSB/SASB** will prevail as a 'comprehensive global baseline' for financially material ESG disclosure
- **Industry-specific standards like SD-KPI / SASB Standards** are key for financial materiality
- **Less is more: 3-9 standardised material ESG KPIs per industry** are sufficient for steering of equity, corporate bond & credit portfolios
- **Banks and asset managers could already start using 14 years of historical data** for globally standardised material ESG KPIs
- **Integration of standardised material ESG KPIs into mainstream equity, corporate bonds and credit portfolios have led to risk-adjusted outperformance effects in the long-term**



Thank you for your attention!

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