### THE GREEN TRANSITION FROM AN ECONOMIC PERSPECTIVE

### **CIRCULAR ECONOMY AND SUSTAINABILITY REPORTING:** FROM VOLUNTARY SUSTAINABILITY REPORTING TO MANDATORY

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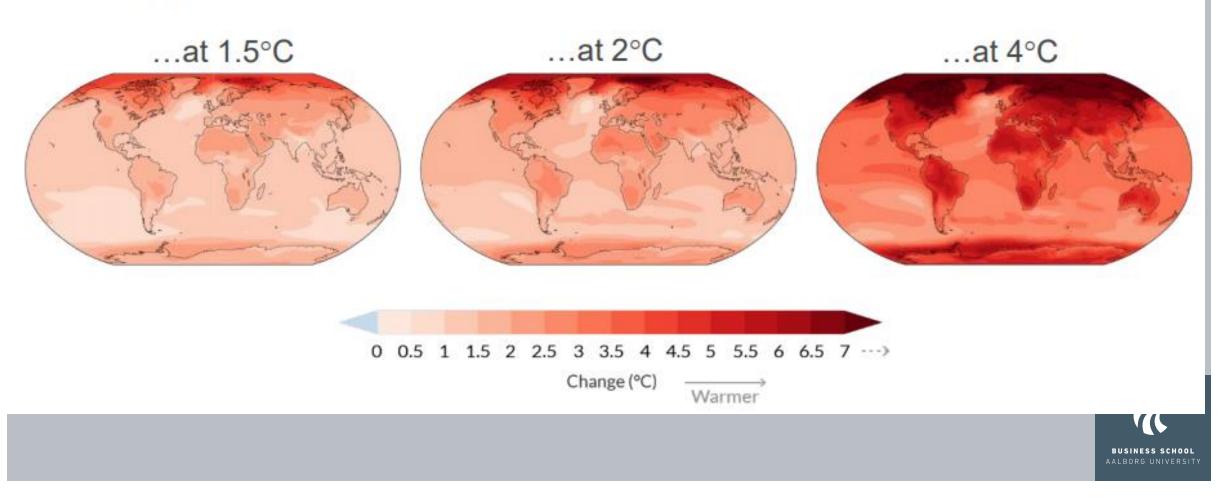
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## THE CLIMATE CHANGE EMERGENCY

Simulated changes...



## **CLIMATE CHANGE RISKS**

- Physical and transition risks will materialise in the future.
- These risks will affect households, businesses and governments, across all industries and geographies.
  - The magnitude and nature of these risks will be determined by actions taken today.

| Physic                                 |  | <2 °C   |                     | 3 °C   | 5 °C   |  |  |
|--|--|---|---------------------|--|--|--|--|
|  | Physical impacts   |   | 2 °C                |  |  |  |  |
| 222                                    | Sea-Level Rise (cm)  | 0.3-0.6 m   | 0.4-0.8 m           | 0.4-0.9 m  | 0.5-1.7 m  |  |  |
| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | Coastal assets to defend (\$tn)  | \$10.2tn  | \$11.7tn            | \$14.6tn   | \$27.5tn   |  |  |
| Ň                                      | Chance of ice-free Arctic summer   | 1 in 30   | 1 in 6              | 4 in 6 (63%)   | 6 in 6 (100%)  |  |  |
| Ò                                      | Tropical cyclones: Fewer (#cat 1-5)<br>Stronger (# cat 4-5)<br>Wetter (total rain) | -1%<br>+24%*<br>+6%   | -6%<br>+16%<br>+12% | -16%<br>+28%<br>+18%   | Unknown<br>+55%<br>+35%  |  |  |
| $\langle , , \rangle $                 | Frequency of extreme rainfall  | +17%  | +36%                | +70%   | +150%  |  |  |
| <u> A</u>                              | Increase in wildfire extent  | x1.4  | x1.6                | x2.0   | x2.6   |  |  |
| ш <b>Г</b>                             | People facing extreme heatwaves  | x22   | x27                 | ×80  | ×300   |  |  |
| ☀                                      | Land area hospitable to malaria  | +12%  | +18%                | +29%   | +46%   |  |  |
| Economic impacts                       |  |   |                     |  |  |  |  |
| ådl                                    | Global GDP impact (2018: \$80tn)   | -10%  | -13%                | -23%   | -45%   |  |  |
| 122                                    | Stranded assets  | Transition: fossil fuel<br>assets (supply, power,<br>transport, industry) |                     | Mixed: some fossil fuel<br>assets mothballed, some<br>physical stranding | Physical: uninhabitable<br>zones, agriculture, water-<br>intense industry, lost<br>tourism etc |  |  |
| Â                                      | Food supply  | Changing diets, some<br>yield loss in tropics                             |                     | 24% yield loss   | 60% yield loss, 60%<br>demand increase   |  |  |
| ф.                                     | Insurance opportunities  | New low-carbon assets<br>and infrastructure<br>investment (e.g. CCS)      |                     | Increasing demand to<br>manage growing risks                             | Minimal: recession,<br>tensions, high and<br>unpredictable risks                               |  |  |

The data used in this infographic is sourced from IPCC data and other sources as listed in the Bibliography (incl Raftery et al, Schlosser et al, Jevrejeva et al, Knuston et al, Turco et al, Huang et al, Pretis et al, and Burke, Hsiang & Miguel)

# **CHANGING THE AGENDA**



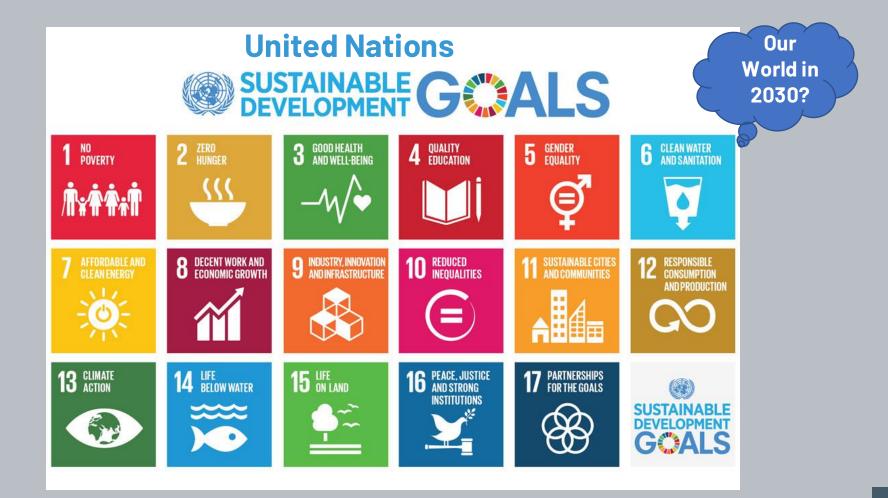














The circular economy model: less raw material, less waste, fewer emissions



## CIRCULAR ECONOMY (CE)

"A CIRCULAR ECONOMY IS AN ECONOMIC MODEL AIMED AT ELIMINATING WASTE AND PROMOTING THE CONTINUAL USE OF RESOURCES. IT FOCUSES ON DESIGNING PRODUCTS, SYSTEMS, AND SERVICES TO MAXIMIZE RESOURCE EFFICIENCY AND MINIMIZE ENVIRONMENTAL IMPACT."

Linear vs. Circular Economy

Linear Economy: Take → Make → Dispose

**Circular Economy**: Make  $\rightarrow$  Use  $\rightarrow$  Recycle  $\rightarrow$  Remake



# LIMITATIONS OF FINANCIAL REPORTING

- **Do not provide sufficient insight** into risks other than financial risks.
- Have problems managing intangible assets (intellectual knowledge, quality of human resources, changes in reputation, organizational culture, outdated products, changes in legislation).
- **Do not capture externalities** for which the company may or may not be held responsible.



| The following are the financial statements of the parent company Alpha plc, a subsidiary company B | leta |
|--|------|
| and an associate company Gamma.  |      |

#### Statements of financial position as at 31 December 20X9

|                                | Alpha     | Beta    | Gamma   |
|--------------------------------|-----------|---------|---------|
| ASSETS                         | £         | £       | £       |
| Non-current assets             |           |         |         |
| Land at cost                   | 540,000   | 256,500 | 202,500 |
| Investment in Beta             | 216,000   |         |         |
| Investment in Gamma            | 156,600   |         |         |
| Current assets                 |           |         |         |
| Inventories                    | 62,000    | 54,000  | 135,000 |
| Trade receivables              | 108,000   | 72,900  | 91,800  |
| Dividend receivable from Beta  | 10,800    |         |         |
| Dividend receivable from Gamma | 1,620     |         |         |
| Current account – Beta         | 10,800    |         |         |
| Current account – Gamma        | 13,500    |         |         |
| Cash                           | 237,600   | 62,100  | 67,500  |
| Total current assets           | 544,320   | 189,000 | 294,300 |
| Total assets                   | 1,456,920 | 445,500 | 496,800 |
| EQUITY AND LIABILITIES         |           |         |         |
| £1 shares                      | 540,000   | 67,500  | 27,000  |
| Retained earnings              | 769,500   | 329,400 | 391,500 |
|                                | 1,309,500 | 396,900 | 418,500 |
| Current liabilities            |           |         |         |
| Trade payables                 | 93,420    | 24,300  | 59,400  |
| Dividends payable              | 54,000    | 13,500  | 5,400   |
| Current account – Alpha        |           | 10,800  | 13,500  |
| Total equity and liabilities   | 1,456,920 | 445,500 | 496,800 |



## SUSTAINABILITY REPORTING

"SUSTAINABILITY REPORTING IS THE PROCESS OF DISCLOSING A COMPANY'S ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) IMPACTS TO STAKEHOLDERS. IT PROVIDES TRANSPARENCY ABOUT THE ORGANIZATION'S CONTRIBUTION TO SUSTAINABLE DEVELOPMENT."

#### Key Elements of Sustainability Reporting

#### **1.Environmental**

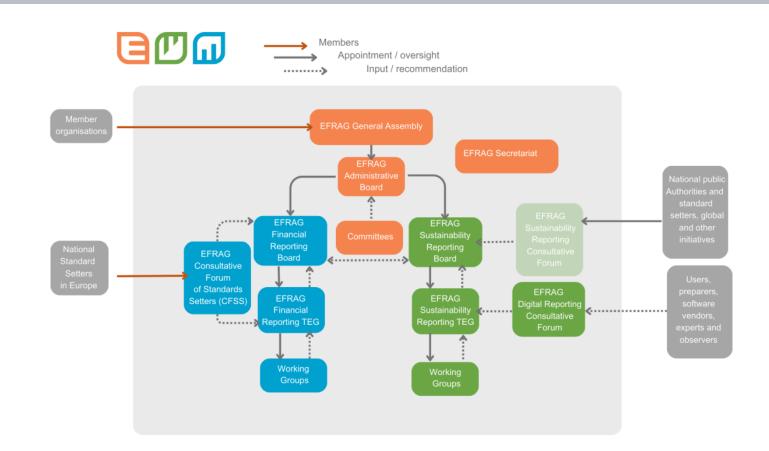
 Climate change, resource use, waste, and pollution.

#### 2.Social

• Labor practices, diversity, community engagement, and human rights.

#### **3.Governance**

Ethics, compliance, transparency, and board composition.

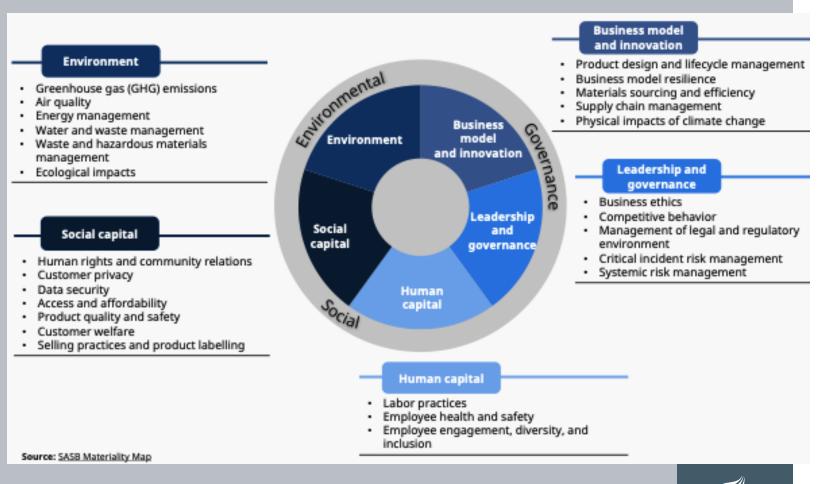


# What is ESG reporting?

WHEN WE THINK OF ESG, MANY PEOPLE THINK ABOUT CLIMATE, BUT IT IS MORE THAN THAT.

THIS DIAGRAM ILLUSTRATES THE BREADTH OF TOPICS THAT ESG COVERS. THESE TOPICS INTERACT WITH ALL ASPECTS OF A BUSINESS AND HOW IT OPERATES.

A BUSINESS WOULD ONLY REPORT ON THE ESG TOPICS AND KPIS THAT ARE MATERIAL TO THE BUSINESS AND WITH CONSIDERATION GIVEN TO WHAT IS TYPICALLY CONSIDERED MATERIAL IN ITS INDUSTRY.





## THE FIELD OF SUSTAINABILITY REPORTING IS RAPIDLY EVOLVING AND PRESENTS SEVERAL CHALLENGES



#### LACK OF STANDARDIZATION

With multiple frameworks and guidelines for sustainability reporting, companies may find it challenging to choose the most suitable one for their operations. This lack of standardization may lead to inconsistencies in data collection and reporting, making it difficult to compare sustainability performance across companies.



#### **CHANGING REGULATIONS**

Governments and regulatory bodies are increasingly mandating sustainability reporting, leading to a constantly changing regulatory landscape. This can be particularly challenging for companies operating in multiple jurisdictions, as they must comply with different reporting requirements and adapt to changing regulations.



#### EVOLVING STAKEHOLDER EXPECTATIONS

Stakeholders, including investors, customers, employees, and communities, are becoming more vocal in their demand for sustainability disclosures. Companies may face challenges in meeting these expectations, particularly as stakeholder priorities and interests continue to evolve.

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## THE FIELD OF SUSTAINABILITY REPORTING IS RAPIDLY EVOLVING AND PRESENTS SEVERAL CHALLENGES



#### **DATA MANAGEMENT & ANALYSIS**

Collecting and analyzing sustainability data can be complex and resource-intensive, particularly for companies with complex supply chains. Additionally, companies must ensure the accuracy and reliability of their data to avoid reputational risks and potential legal liabilities.



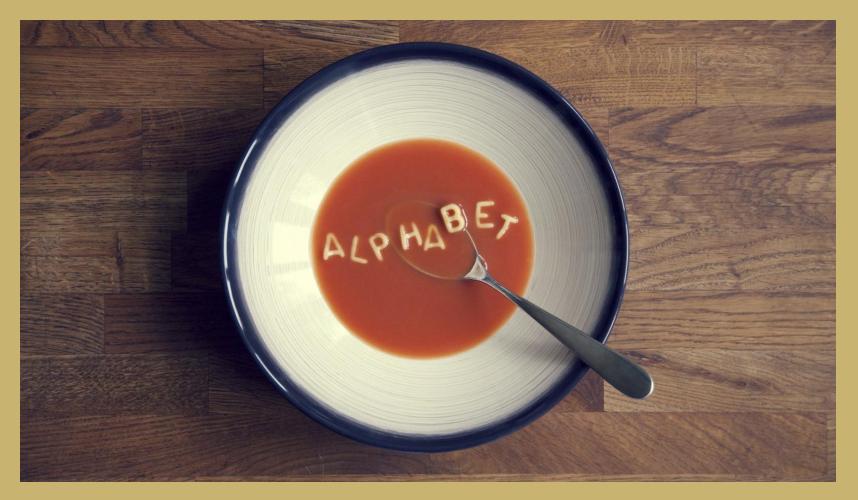
#### INTEGRATION WITH BUSINESS STRATEGY

To maximize the value of sustainability reporting, companies must integrate it with their overall business strategy. This may involve aligning sustainability goals with core business objectives, engaging stakeholders in the reporting process, and integrating sustainability considerations into decision-making at all levels of the organization. Achieving this level of integration requires significant effort and commitment from company leadership.



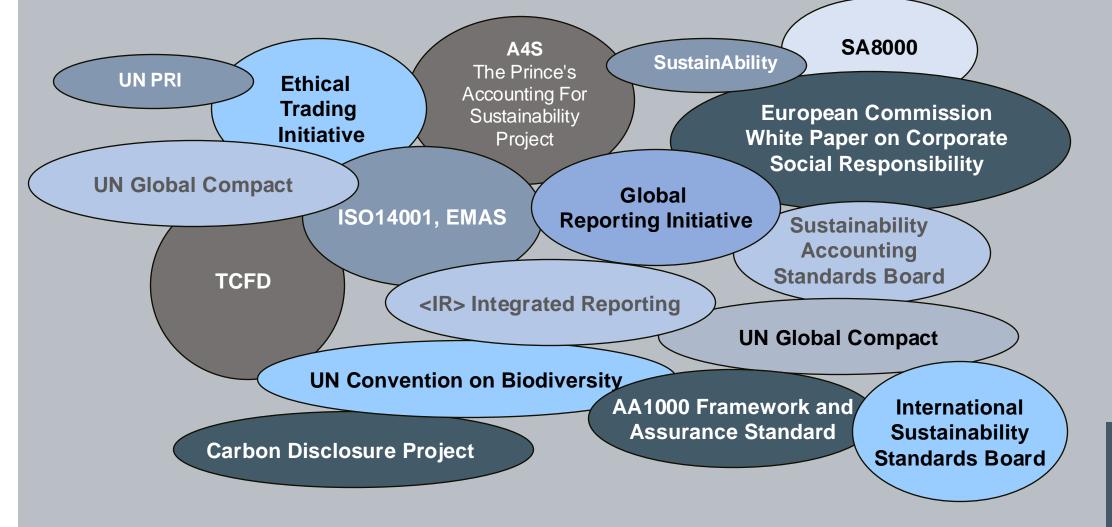
# **THE ACRONYM SOUP**

CONTAINING NUMEROUS SUSTAINABILITY FRAMEWORKS, STANDARDS, GUIDELINES AND REGULATION





## MATURING OF SUSTAINABILITY FRAMEWORKS, STANDARDS, GUIDELINES AND REGULATION



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# **SUSTAINABILITY REPORTING**

### **ENTERING THE ARENA**





## **ESRS MANDATORY STANDARDS**

|                           | STRUCTL  | IRE OF THE EUROPE  | EAN SUS   | TAINABILITY REPOR                              | RTING ST | FANDARDS (ESRS)  |  |  |
|---------------------------|--|--|-----------|--|----------|--|--|--|
| SECTOR-AGNOSTIC STANDARDS |  |  |           |  |          | SECTOR-SPECIFIC STANDARDS  |  |  |
|                           | Cross-cutting standards<br>ESRS 1<br>General information Gen |  |           | ESRS 2<br>eneral disclosures                   |          | Sector-specific standards  |  |  |
|                           | T<br>Environment<br>ESRS E1<br>Climate change                | opic-specific cross-sector<br>Social<br>ESRS S1<br>Own workforce         | standards | S<br>Governance<br>ESRS G1<br>Business conduct |          | <ul> <li>The already published first set<br/>of ESRS covers the sector-<br/>agnostic standards</li> <li>These are divided into cross-</li> </ul> |  |  |
|                           | ESRS E2<br>Pollution   | ESRS S2<br>Workers in the value chain<br>ESRS S3<br>Affected communities |           |  |          | cutting standards and topic-<br>specific standards   |  |  |
| ,                         | ESRS E3<br>Nater & marine resources                          |  |           |  |          | <ul> <li>In the future, sector-specific<br/>standards will be published as<br/>well</li> </ul>   |  |  |
| E                         | ESRS E4<br>Biodiversity & ecosystems<br>Customers &          |  | rs        |  |          |  |  |  |
|                           | ESRS E5<br>Resource use &<br>Circular economy                |  |           |  |          |  |  |  |

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# FAST MERGERS & CONSOLIDATIONS

#### June 2021

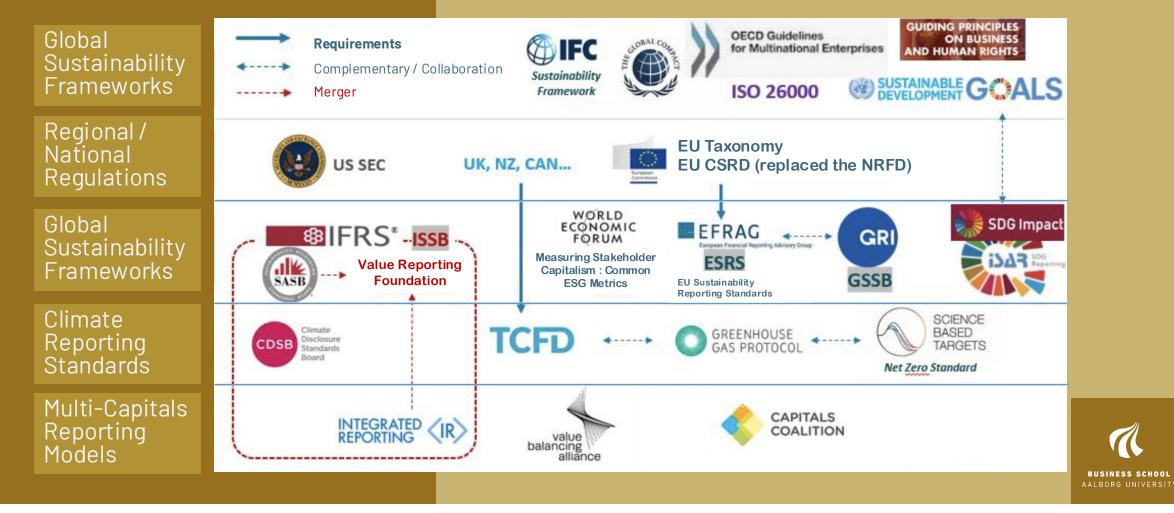
The International Integrated Reporting Council (IIRC) and SASB combined in June 2021 to form the Value Reporting Foundation (VRF).

#### November 2021

The International Financial Reporting Standards (IFRS) Foundation created the International Sustainability Standards Board (ISSB). The ISSB consolidated the VRF and the Climate Disclosures Standards Board (CDSB) to develop global sustainability disclosure standards.

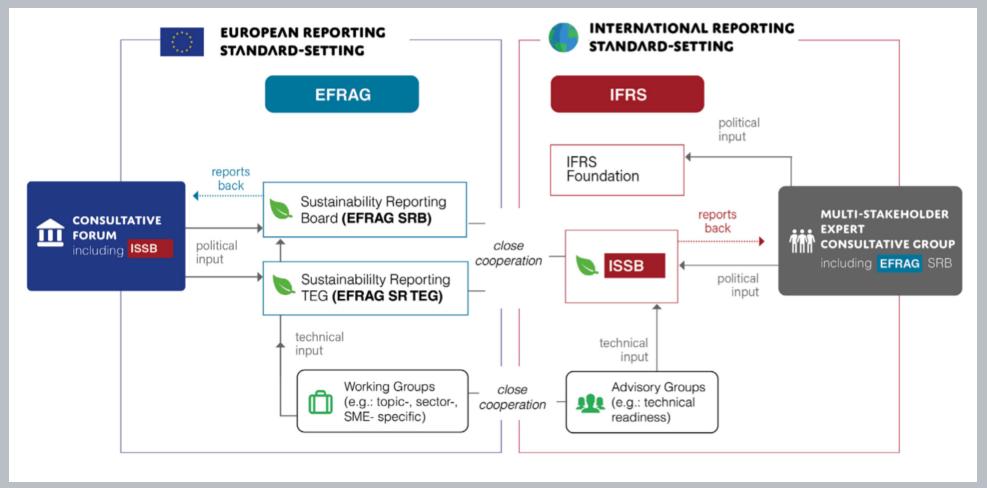


# COLLABORATION & MERGERS





## A CONSTRUCTIVE TWO-WAY COOPERATION TO SUSTAINABILITY REPORTING STANDARD-SETTING





# STANDARDISATION OF CLIMATE-RELATED FINANCIAL DISCLOSURES

## • November 2021:

Establishment of the International Sustainability Standards Board (ISSB) with the aim to 'deliver a comprehensive global baseline of sustainability-related disclosure standards that provide investors and other capital market participants with information about companies' sustainability-related risks and opportunities to help them make informed decisions' (IFRS 2022).

## March 2022:

Release of Exposure Drafts IFRS S1 'General Requirements for Disclosure of Sustainability-related Financial Information' and IFRS S2 'Climate-related Disclosures'.

### June 2023:

Expected release of the final versions of IFRS S1 and IFRS S2 (effective date Jan 2024)



## **STANDARDISATION OF CLIMATE-RELATED FINANCIAL DISCLOSURES**



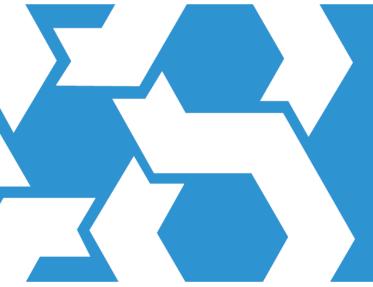
International Sustainability Standards Board

ED/2022/S2



**Exposure Draft** IFRS® Sustainability Disclosure Standard

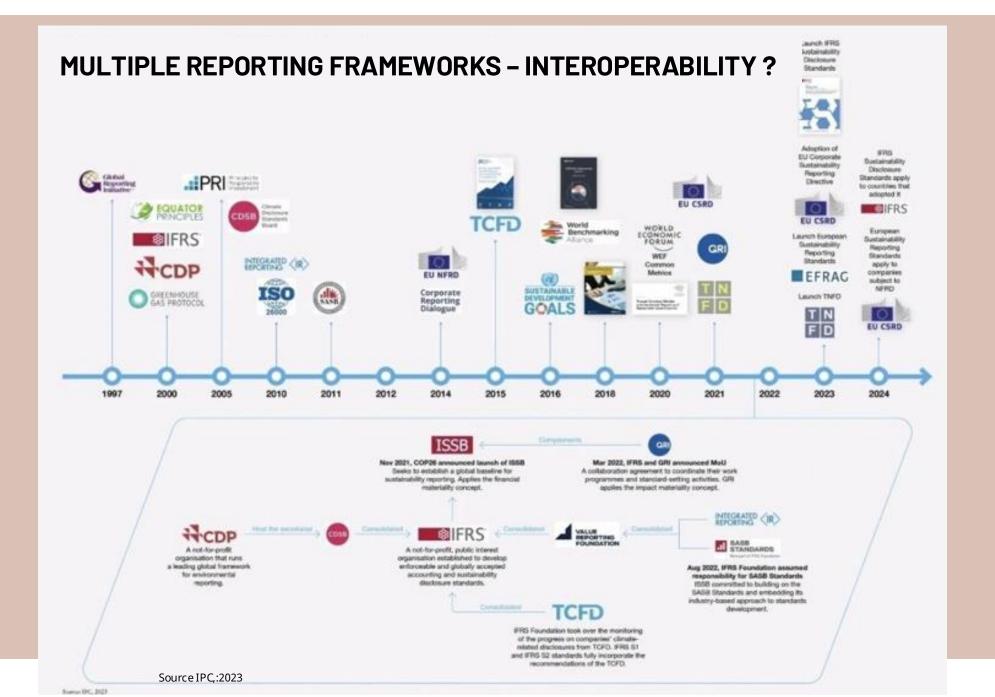
[Draft] IFRS S2 Climate-related Disclosures Appendix B Industry-based disclosure requirements Comments to be received by 29 July 2022



International Sustainability Standards Board

ED/2022/S2







## HARMONISED SUSTAINABILITY REPORTING OPPORTUNITIES



# INCREASED TRANSPARENCY & ACCOUNTABILITY

Sustainability reporting standards promote transparency and accountability by requiring companies to disclose their environmental, social, and governance (ESG) performance. This enables stakeholders to make more informed decisions about the companies they invest in, work for, or purchase from.





#### IMPROVED COMPARABILTY

Harmonized sustainability reporting standards make it easier for stakeholders to compare the ESG performance of different companies. This creates a level playing field, enabling investors, consumers, and other stakeholders to make more informed decisions based on comparable ESG data.

#### **BETTER RISK MANAGEMENT**

Sustainability reporting standards can help companies identify and manage ESG risks more effectively. By providing a structured framework for reporting on ESG issues, companies can identify potential risks and take steps to mitigate them before they become material.



## HARMONISED SUSTAINABILITY REPORTING OPPORTUNITIES



### ENHANCED STAKEHOLDER ENGAGEMENT

Sustainability reporting standards promote transparency and accountability by requiring companies to disclose their environmental, social, and governance (ESG) performance. This enables stakeholders to make more informed decisions about the companies they invest in, work for, or purchase from.



#### INNOVATION

Sustainability reporting standards can drive innovation by encouraging companies to develop new products, services, and business models that address ESG challenges. This can help companies stay ahead of the curve and capture new market opportunities.



## **FURTHER READING**



https://www.efrag.org/lab6



https://www.routledge.com/Accounting-for-Sustainability/Rimmel/p/book/9780367478957 RESEARCH HANDBOOK ON Sustainability Reporting



Edited by Gunnar Rimmel • Güler Aras Diogenis Baboukardos • Joanna Krasodomska Christian Nielsen • Frank Schiemann





https://www.e-elgar.com/shop/gbp/researchhandbook-on-sustainability-reporting-9781035316250.html?srsltid=AfmB0op3Msx4njHk mAPiQSWV2BUml\_oeNon0AebeN1w9g4hVb60L6v GS

## **QUESTIONS?** GUNNARR@BUSINESS.AAU.DK