Executive summary

- Increased importance of policies and regulations in shaping the ESG space and driving global agenda

- Shift from previously voluntary towards mandatory ESG disclosure requirements to address transparency needs of stakeholder groups

- Continuous extension of scope to ensure full coverage of entire ESG spectrum but continued prevalence of climate

- Recommendations of Task-Force for Climate Related Disclosure (TCFD) emerged as global baseline for climate disclosure

- Standard setters (such as ISSB or EFRAG) leverage TCFD as a backbone to formulate their customized requirements

- Hence, suggestion to use TCFD’s key pillars on 1) Governance, 2) Strategy, 3) Risk Management and 4) Metrics & Targets to prepare for climate disclosure
Rapidly growing ESG requirements....

....with consequences in case of non-compliance

- **Regulatory penalties**, e.g., fines like 2% of annual global turnover and civil liability of management positions
- **Restricted access to capital**, e.g., via regulatory restrictions on banks or through banks internal ESG criteria
- **Complication of business relationships** e.g., ESG criteria or demands for self-commitments
- **Reputational damage** triggering loss of e.g., demand, advertising contracts, partnerships, brand and stock value

Source: BCG research

![Diagram showing selected examples of ESG regulations and guidelines](image)
### Shift from voluntary towards mandatory ESG disclosure though requirements differ by geography

<table>
<thead>
<tr>
<th>Source</th>
<th>Mandatory</th>
<th>Scope</th>
<th>Materiality</th>
<th>Standards</th>
<th>Estimated Companies Impacted</th>
<th>First Reports</th>
<th>Total GDP covered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Corporate Sustainability Reporting Directive (CSRD)</strong></td>
<td>✓</td>
<td>Sustainability</td>
<td>✓</td>
<td>Must use ESRS</td>
<td>50,000</td>
<td>2025</td>
<td>$16.8T</td>
</tr>
<tr>
<td><strong>SEC Enhancement &amp; Standardization of Climate-Related Disclosures</strong></td>
<td>✓</td>
<td>Climate Change</td>
<td>✓</td>
<td>No standards referenced</td>
<td>3,300+</td>
<td>2026</td>
<td>$25.4T</td>
</tr>
<tr>
<td><strong>Three Climate Disclosure Laws – Emissions, Risk and Offsets</strong></td>
<td>✓</td>
<td>Climate Change</td>
<td>✓</td>
<td>No standards referenced</td>
<td>10,000+</td>
<td>2026</td>
<td>$3.6T</td>
</tr>
<tr>
<td><strong>Sustainability Reporting Guidelines for Listed Companies (BSE, SSE, SZHE)</strong></td>
<td>✓</td>
<td>Sustainability</td>
<td>✓</td>
<td>No standards referenced</td>
<td>450</td>
<td>2026</td>
<td>$18T</td>
</tr>
<tr>
<td><strong>Financial Services Agency (FSA) 1st stage mandatory sustainability disclosure</strong></td>
<td>✓</td>
<td>Climate Change</td>
<td>✓</td>
<td>ISSB transitioning to SSBJ</td>
<td>4,000</td>
<td>TBD</td>
<td>$4.3T</td>
</tr>
<tr>
<td><strong>Business Responsibility and Sustainability Reporting (BRSR)</strong></td>
<td>✓</td>
<td>Sustainability</td>
<td>✓</td>
<td>No standards referenced</td>
<td>1,000</td>
<td>2023</td>
<td>$3.4T</td>
</tr>
</tbody>
</table>

**Non-exhaustive**

- **Commonalities:**
  - Phased over time, depending on company size and type (e.g., listed or not)
  - The double materiality assessment involves reporting from two angles: how ESG-related issues affect the company; and how the company’s own actions affect people and the environment.

Source: 2022 GDP from World Bank (in USD) 1. Phased over time, depending on company size and type (e.g., listed or not) 2. The double materiality assessment involves reporting from two angles: how ESG-related issues affect the company; and how the company’s own actions affect people and the environment.
Standard setters have been leveraging TCFD as a backbone to formulate their customized requirements

TCFD
In effect in some jurisdictions (UK, Canada, Singapore) & in proposal stage in others (Australia, Hong Kong)

European Union
CSRD & ESRS
CSRD: in effect from 2024 (first report in early 2025), ESRS: final standards draft adopted by EC in July '23

ISSB - IFRS Sustainability Standards (S1 & S2)
Final standards published

SEC (Enhancement & Standardization of Climate-Related Disclosures)
Released in Mar. '24, phased-in implementation from FY 2026 (with 2025 data)

China Sustainability Reporting Guidelines
Proposed in Feb. '24, Expected implementation from FY 2025

TCFD aligned regulations proposed by over 35 jurisdictions, requiring disclosures across all the four pillars of TCFD framework—Governance, Strategy, Risk Management and Metric & Target.

CSRD defines a uniform sustainable disclosure standard in accordance with Taxonomy Regulation under which SMEs and listed companies must disclose information-for ESG reporting as per ESRS standards and following the “double materiality” principle.

S1 covers disclosure about sustainability risks and opportunities across an entity’s value chain

S2 covers climate risks and opportunities on the entity’s enterprise value and strategy to manage and mitigate risks.

SEC require US public companies and foreign private issuers to make climate-disclosures in their SEC periodic reports and registration statements – closely following TCFD.

Guidelines released by Chinese stock exchanges require listed companies, requiring larger-cap and dual-listed issuers to begin mandatory disclosure on a broad range of ESG topics including TCFD aligned climate disclosures.

Source: BCG analysis
TCFD released climate-related financial disclosure recommendations in 2017. ISSB released S1 and S2 built on TCFD. Since 2024 FSB handed over the responsibility of monitoring of companies' progress on climate disclosures to ISSB.

TCFD emerged as the de facto standard for climate disclosure globally.

Disclosing along TCFD encourages businesses to consider climate (risk) comprehensively;

Decision-processes, actual strategies and business targets potentially need adjustment.

TCFD aligned disclosures are becoming a legal requirement in many countries:

- New Zealand: Financial Sector (Climate-related) Amendment Bill
- European Union: Corporate Sustainability Reporting Directive
- United Kingdom: Mandatory Climate Disclosures (MCD)
- USA: Proposed Rules to Enhance and Standardize Climate-Related Disclosures

... many others
### Key differences of other climate regulations vs TCFD

<table>
<thead>
<tr>
<th>Reporting themes</th>
<th>TCFD Disclosures</th>
<th>EU CSRD-ESRS E1</th>
<th>ISSB¹ S2</th>
<th>SEC Climate Rules</th>
<th>Sust. Reporting Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td>Broadly consistent with TCFD</td>
<td>How climate &amp; opportunities (R&amp;O) are reflected in company's terms of reference</td>
<td>Climate-expertise of board and management</td>
<td>Disclosure for both sustainability and climate governance</td>
<td></td>
</tr>
<tr>
<td>Strategy</td>
<td>No conditions on reporting of scenario analysis</td>
<td>No conditions on scenario analysis</td>
<td>Scenario analysis conditional – disclosure of financial impact assessment under each scenario</td>
<td>Disclosure for emission reduction mechanism, measures; does not specify COs and RECs</td>
<td></td>
</tr>
<tr>
<td>Risk management</td>
<td>Broadly consistent with TCFD framework</td>
<td>Additional disclosures like input parameters for risk analysis, scenario analysis and opportunities assessment</td>
<td>How customer/counterparty preferences, changes in technology and market prices are considered in assessing potential transition risks</td>
<td>Broadly consistent with TCFD framework</td>
<td></td>
</tr>
<tr>
<td>Metrics and Targets</td>
<td>Scope 3 required</td>
<td>Scope 3 required</td>
<td>Scope 3 not required</td>
<td>Scope 3 optional</td>
<td></td>
</tr>
</tbody>
</table>

1. ISSB standards are being adopted in UK, Brazil, Mexico, Canada, China, Singapore, Hong Kong, Japan, Singapore, Taiwan, Malaysia, Australia, New Zealand Source: TCFD, ISSB S2; ESRS; US SEC Climate Disclosure Rules; China Sustainability Reporting Guidelines; BCG analysis
Key facts

• In April 2015, the FSB established an industry-led Taskforce, the TCFD to develop voluntary climate-related financial disclosures that would be useful to investors and others in understanding material risks – the final recommendations were released in June 2017

• The regulation has since been adopted by 8+ jurisdictions including EU, UK, Switzerland, Hong Kong, Singapore, Japan, New Zealand, Canada and Brazil

• The implementation roadmap calls for increased disclosure and standardization as expectations mature

• It recommends creating multiple climate scenarios and disclosing the inputs into these scenarios covering parameters and assumptions, analytical choices and business impact

Taskforce on Climate related Financial Disclosures (TCFD)

Level: International

Final type of document: Recommendations by the Taskforce

Parties addressed: All entities globally

Author: Financial Stability Board

ESG risks addressed: ESG

TCFD disclosures have four key components

Governance
• Disclose the organization’s governance around climate related risks and opportunities

Strategy
• Disclose the actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning where such information is material

Risk management
• Disclose how the organization identifies, assesses, and manages climate-related risks

Metrics/targets
• Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material
Key facts

• **CSRD replaces the existing NFRD** by requiring more detailed ESG data for disclosure and covering more companies
• Will come into effect from **2025 onwards (data for FY 2024)**
• **Aim: data availability improvement** re. sustainability risks for companies as well as their activities' effects on the environment
• Reporting according to the new European Sustainability Reporting Standards (ESRS) general and sector specific standards
• Based on the principle of "**double materiality**"²
• Mandatory to **disclose in Management Report within annual report**
• For firms already covered by EU NFRD¹, mandatory reporting from **2025** (for FY 2024); all other eligible EU firms from **2026** (for FY 2025), eligible non-EU companies to report from **2029** (for FYs starting in 2028)

Content

• **Companies affected**
  - All corporate entities in the EU, meeting at least 2 the following criteria: €20M+ assets; €40M+ turnover; €250+ employees
  - From FY 2028: Non-EU companies with €150 M+ in EU turnover and 1+ EU subsidiary/branch
• The **additional reporting requirements** under CSRD include the following:
  - New provisions on companies’ strategy, targets and engagement of board and management, including information on the resilience towards different climate-related scenarios
  - Disclosures on the main adverse impacts linked to the company and their value chain, as well as the process to identify the reported information
  - Information on intangibles including social, human and intellectual capital
  - Inclusion of forward-looking and retrospective information, covering different time-horizons
  - Alignment towards Sustainable Finance Disclosure Regulation (SFDR) and the EU Taxonomy Regulation
• Requires the **audit** (assurance)³ of reported information
• Companies must **digitally ‘tag’** the reported information to make it machine readable and feed into the European single access point

1. Non-Financial Reporting Directive; 2. Companies shall disclose information on how sustainability matters affect them as well as how the company impacts society and the environment; 3. Audit will require limited assurance once CSRD starts to be effective and aims for reasonable assurance by 2028 (same assurance as for financial information)
Zoom: European Union’s CSRD/ESRS amongst the most ambitious ESG disclosure standards given breadth and depth of requirements...

<table>
<thead>
<tr>
<th>ESG topic areas from CSRD/ESRS</th>
<th>DR Type¹</th>
<th>Governance</th>
<th>Strategy</th>
<th>IRO² mgnt. (incl. Policies, Processes, Actions)</th>
<th>Metrics</th>
<th>General disclosures</th>
<th>Targets</th>
<th>(Sample of DR per topic, not exhaustive)</th>
<th>DR Metrics²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate change</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>• Gross Scopes 1-3 GHG Emissions</td>
<td>5/12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• GHG removals and mitigation</td>
<td></td>
</tr>
<tr>
<td>Pollution</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>• Pollution of air, water and soil</td>
<td>3/7</td>
</tr>
<tr>
<td>Water &amp; marine resources</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>• Water consumption</td>
<td>2/6</td>
</tr>
<tr>
<td>Biodiversity &amp; ecosystems</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>• Impact metrics related to biodiversity and ecosystems</td>
<td>2/8</td>
</tr>
<tr>
<td>Resource use &amp; circular economy</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>• Resource outflows</td>
<td>3/7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Resource inflows</td>
<td></td>
</tr>
<tr>
<td>Own workforce</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>• Social protection</td>
<td>12/19</td>
</tr>
<tr>
<td>Workers in the value chain</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>• Policies related to value chain workers</td>
<td>-/7</td>
</tr>
<tr>
<td>Affected communities</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>• Processes for engaging with affected communities about impacts</td>
<td>-/7</td>
</tr>
<tr>
<td>Consumers &amp; end-users</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>• Interests and views of stakeholders</td>
<td>-/7</td>
</tr>
<tr>
<td>Business conduct</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>• Payment practices</td>
<td>3/8</td>
</tr>
<tr>
<td>ESRS 2</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>• Statement on due diligence</td>
<td>-/12</td>
</tr>
</tbody>
</table>

1. The overview shown represents a rough classification of Disclosure Requirements - within the categories, individual DRs can vary per topics; 2. CSRD/ESRS contains 100 DRs of which 30 DRs of metrics type can be scoped out of reporting requirement through the information materiality filter in addition to the materiality filtering; 3. Impacts, Risks and Opportunities management; ESRS = European Sustainability Reporting Standards; CSRD = Corporate Sustainability Reporting Directive; DR = Disclosure Requirements; Source: BCG analysis
IFRS S2 Climate Disclosure Standard

**Level:** International

**Final type of document:** Reporting Standard

**Parties addressed:** All organizations

**Author:** International Sustainability Standards Board (ISSB)

**ESG risks addressed:** ESG

**Objectives:**
- to assess the effects of significant climate-related risks and opportunities on the entity’s enterprise value;
- to understand how the entity’s use of resources, and corresponding inputs, activities, outputs and outcomes support the entity’s response to and strategy for managing its significant climate-related risks and opportunities
- to evaluate the entity’s ability to adapt its planning, business model and operations to significant climate-related risks and opportunities

**Scope:**
- Climate-related risks the entity is exposed to, including but not restricted to:
  - physical risks from climate change
  - risks associated with the transition to a lower-carbon economy
- Climate-related opportunities available to the entity.

**Key elements of the recommended disclosure under TCFD include the following:**

**Governance**
- Understand the governance processes, controls and procedures used to monitor and manage -related risks and opportunities

**Strategy**
- Actual and potential impacts of climate-related opportunities and risks on business model, strategy, cash flows and cost of capital

**Risk management**
- Processes used to identify, assess and manage climate-related risks

**Metrics/targets**
- Metrics/targets used to measure, monitor and manage relevant climate-related opportunities and risks
Enhancement and Standardization of Climate-Related Disclosures

Key facts

- Final regulation adopted on March 2024
- Requires U.S. public companies and foreign private issuers to present detailed climate disclosures in their SEC periodic reports and registration statements
- Applies to all SEC reporting companies and also those with no publicly listed equity securities
- Based largely on TCFD disclosure framework, Scope 3 disclosures not required
- Compliance would be phased in, with reporting for large accelerated filers beginning in FY 2025, followed by accelerated and non-accelerated filers in 2026 and smaller reporting and emerging growth companies in 2027

Content

Key provisions of the rule include the following:

- Disclosure of GHG emissions (both in absolute terms, not including offsets, and in terms of intensity in relation to business scale) that cover Scope 1, Scope 2 and -if material or if the company has set targets or goals
- Third-party attestation for Scope 1 and Scope 2 GHG emissions disclosures
- Disclosure of climate transition plan, internal carbon price, climate targets or goals adopted by the company, and progress against such plan, targets and goals
- Disclosure of climate-related risks over the short, medium and long term and their impacts on business activities
- Disclosure of qualitative and quantitative climate risk and historical impact in the notes to a company’s audited financial statements, disclosure to be presented if the aggregated impact is 1% or more of the total line item
- Disclosure of corporate governance of climate-related risks and risk management processes

Level: EU

Final type of document: Regulation

Parties addressed: All entities reporting to SEC

Author: US SEC

ESG risks addressed: ESG
# Sustainability Reporting Guidelines

**Level:** China

**Final type of document:** Draft Guidelines

**Parties addressed:** Listed Companies

**Author:** Shanghai, Shenzhen, and Beijing Stock Exchanges

**ESG risks addressed:** ESG

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### Key facts

- **Draft guidelines released on February 2024** by all the three exchanges individually
- **Beginning in 2026,** large listed companies on these exchanges to report **FY 2025 sustainability data** on a mandatory basis
- Reporting is **mandatory** for companies listed on the SSE 180, STAR 50, SZSE 100, and ChiNext indices, as well as those **listed both in China and overseas,** are **mandated** to report
- Reporting is **voluntary** for companies listed on Beijing Stock Exchange (houses SMEs)
- Likely to affect around **500 companies** (representing 50% of listed market value)
- Recommends “**double materiality**” approach

### Content

- Requires disclosure on Scope 1, 2 GHG emissions. **Scope 3 disclosure optional**
- Reporting requirements encompass four “core content” topics, i.e. **governance,** **strategy,** **impact,** **risk & opportunity management,** and **indicators & goals**
- ESG disclosures cover **climate change,** ecosystem, biodiversity, circular economy, energy use, supply chain security, rural revitalization, anti-corruption and bribery
- Recommends **climate scenario** analysis and **third-party verification** on reported data
A phased approach is recommended; given regulatory uncertainties and potential updates:

- **First phase** targets existing, mandatory KPIs for initial reporting.
- **Second phase**, for optional KPIs (e.g., three-year phase-in covering value chain KPIs for CSRD).

While initial phases might require manual administration for timely reporting, the next phases should rely on an automated process.

**Double Materiality Assessment**
- for relevant frameworks, e.g. CSRD, Sustainability Reporting Guidelines, BRSR

**Gap analysis**
- to assess disclosure readiness and develop target picture

**Implementation**
- based on a roadmap and matrix project organization

**Data-driven approach** involves:
- Identifying relevant ESG themes
- Conducting materiality surveys and stakeholder interviews, for a preliminary framing of the materiality matrix
- Analyzing internal data and benchmark of peers
- Refining material topics to produce the final report

**Assessment is an opportunity to capture stakeholders’ perspectives on ESG**

**Findings should inform the implementation roadmap & broader strategies, and help identify future investment areas**

**Examine latest sustainability report against future requirements to identify reporting gaps and verify data availability** (incl. through systematic KPI analysis)

**Enforce measures** to address potential issues, incl. ESG reporting system solutions, and the design of a future governance model

**Double Materiality Assessment** for relevant frameworks, e.g. CSRD, Sustainability Reporting Guidelines, BRSR.
Zoom on Double materiality matrix Methodology: Matrix should cover the entire value chain and by fed by surveys, interviews and data analysis

Double Materiality Matrix
• Visualization capturing the ESG topics that have the highest business impact as well as external impact, used to inform strategy setting
• Functionality built in to review stakeholder group matrices

Impact to the Business scoring (Y-Axis)
• Score measuring the impact that ESG topics have on company’s financial performance and operations

External impact scoring (X-Axis)
• Score measuring the external impact that company has on its environment, people, and the economy via ESG topics

Illustrative inputs
Internal Stakeholder 1
• Financial impact of ESG on Company
• External impact of Company

Internal Stakeholder 2
• External impact of Company

External Stakeholders
• External impact of Company

Calculations & Weighting
Materiality Matrix Model
• Survey data coded numerically 1-5 with a composite impact score created for each question by stakeholder
• Weighting mechanism applied to create average score for each factors with distinct weights applied to each stakeholder type

Intermediate output

Final output

Double Materiality Assessment should cover entire value chain and leverage both internal data + benchmark of peers

Source: BCG
5 elements...

- **Setting targets**
  - Develop comprehensive KPIs encompassing environmental, social, and governance aspects
  - Start with existing ESG targets as mandated by regulation in place
  - Anticipate expected regulation evolution, including in respect to carbon accounting

- **Leveraging opportunities**
  - View regulation as an opportunity to expand business beyond compliance
  - Use systematic data analysis to uncover new business opportunities
  - Develop platform ecosystems for better customer engagement and integration of innovative solutions

- **Establishing governance structures**
  - Establish robust governance structures to institutionalize ESG reporting
  - Foster comprehensive ESG coverage and compliance through a unified organizational approach
  - Streamline reporting and enhance accuracy with integrated IT support

- **Adopting a portfolio perspective**
  - Adopt a value chain approach
  - Comply with regulatory frameworks and directives requiring broad sustainability assessments
  - Prepare early for complex data and methodological demands of expanded ESG criteria

- **Expanding data capabilities**
  - Enhance data capabilities to meet requirements effectively
  - Establish a clear ESG reporting framework to address upcoming obligations
  - Integrate tool-based solutions for managing complex and dispersed data points
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