SUSTAINABILITY REGULATIONS LANDSCAPE

Bacuti Annual Report, Edition 1

BACUTI

Solutions for a Cleaner Planet

CONTACT
WEBSITE: www.bacuti.com
EMAIL: hello@bacuti.com

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Table of Contents

INTRODUCTION

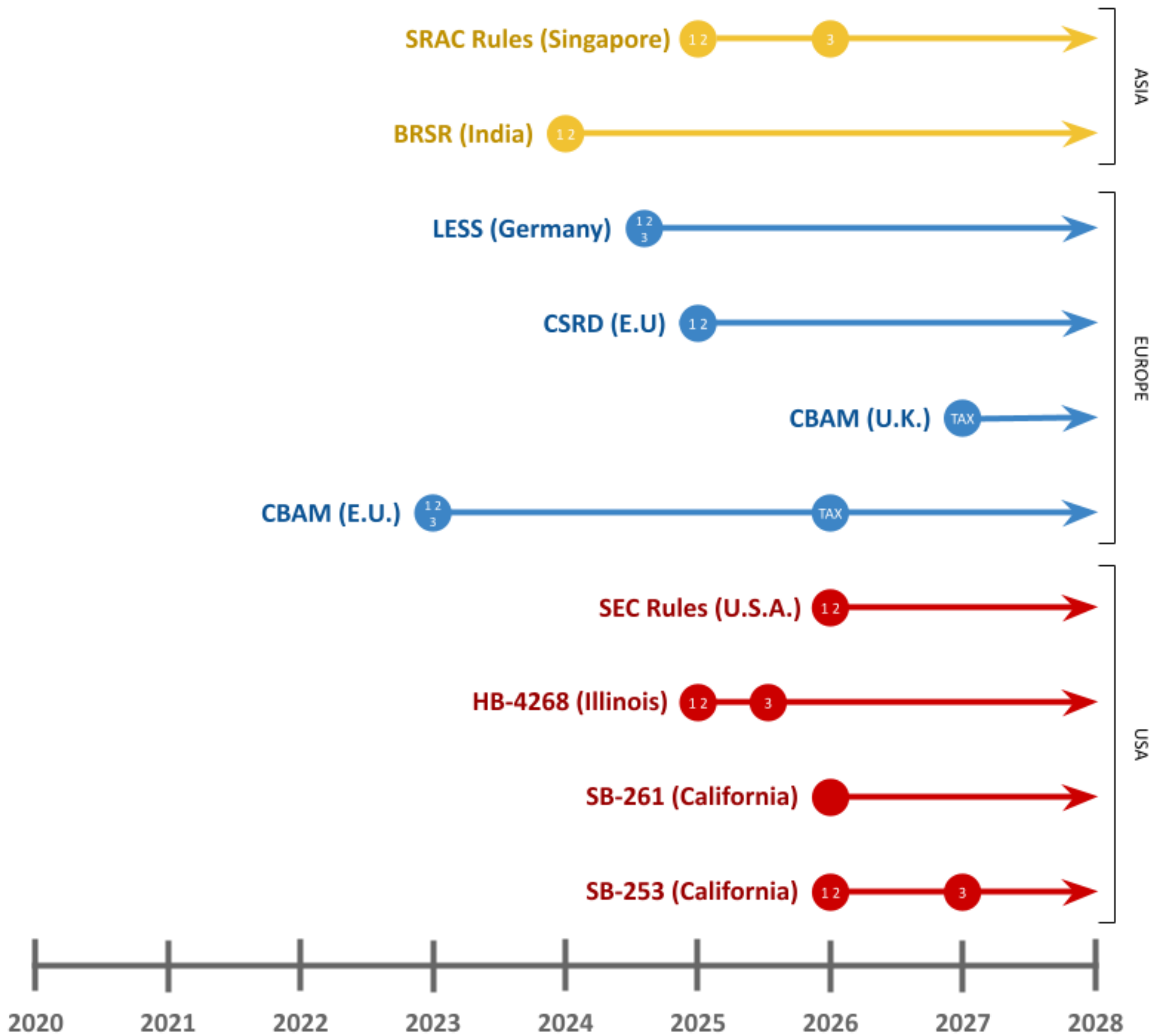
In the 21st century, as climate issues become more prevalent on a global scale, environmental impact has become a new component of corporate responsibility. Sustainability and carbon neutrality have become fundamental goals of governing bodies. In the United States, European Union, United Kingdom, and Asia, many new regulations' ESG reporting requirements are coming into effect over the next several years. These regulations are often staggered in accordance with various scopes of emissions.

- Scope 1 emissions are comprised of direct emissions from a company, such as on-site power production and industrial processes.
- Scope 2 emissions are those derived from external energy production which is purchased by a company.
- Scope 3 emissions are indirect emissions associated with a company by various means across the supply chain, such as the production of raw materials used in manufacturing and the transportation of produced goods. These upstream and downstream emissions can be difficult to report accurately when evaluations are conducted manually, so many regulations include a provision for scope 3 emissions reporting to begin later.

A substantial amount of ESG regulations worldwide will take effect by 2026, thus companies must adequately prepare to conduct sustainability evaluations and reporting with the necessary frameworks and standards. This document outlines a selection of the most important current and upcoming sustainability regulations that will affect companies during the next five years, as well as the types of companies affected, timelines of implementation, and the necessary reporting frameworks of each regulation.

TIMELINE OF SUSTAINABILITY REPORTING REGULATIONS

Starting with CBAM in 2023, many regulations that require companies to report their carbon emissions come into effect over the next few years. Each point on the timeline below represents the



implementation of a stage of legislation. 1, 2, and 3 denote a requirement to begin reporting the corresponding scope of emissions, TAX denotes the enactment of a carbon tax.

Top 10 Sustainability regulations

1. CBAM – Carbon Border Adjustment Mechanism (2023)

European Union

https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en

The CBAM is a carbon border tariff that will tax imports of products in several sectors which are known to be particularly carbon intensive: steel, aluminum, cement, electricity, fertilizers, and hydrogen. Prior to full implementation, the CBAM is undergoing a transitional phase that began in October 2023 and will conclude at the end of 2025. During this phase, importers of goods from the aforementioned sectors are required to produce a quarterly report on greenhouse gas emissions related to those imports. Following this transitional period in 2026, a carbon border tax will be introduced for these six sectors, proportional to tonnes of carbon dioxide emitted. Once surveying of the CBAM's results within the initial sectors is complete in 2030, the regulation will be expanded to apply to other industries in accordance with the EU Emissions Trading System.

2. BRSR – Business Responsibility and Sustainability Reporting (2023)

India

https://www.sebi.gov.in/legal/circulars/may-2021/business-responsibility-and-sustainability-reporting-by-listed-entities_50096.html

BRSR is a recent expansion of India's Business Responsibility Reporting regulation, which newly incorporates required sustainability reporting for listed entities in addition to typical yearly financial reporting. By standardizing the disclosure of this information, the Securities and Exchange Board of India aims to improve the accessibility and comparability of ESG metrics for investors. The top 1000 listed companies in India by market capitalization are affected by this regulation, which currently equates to companies worth a minimum of ₹ 2000 Crores[1]. Mandatory sustainability reporting began in 2023 and currently extends to scope 1 and scope 2 emissions; scope 3 emissions reporting is voluntary. Despite not being mandatory, many businesses consider it beneficial to evaluate scope 3 emissions to understand and improve energy efficiency and sustainability in their supply chains: 51 of the top 100 companies under BRSR elected to engage in voluntary scope 3 reporting for fiscal year 2023.

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[1] 1 Crore = 10 million

3. LESS – Low Emission Steel Standard (2024)

Germany
https://www.stahl-online.de/less/

In April 2024, the German Steel Federation introduced the Low Emission Steel Standard, which is uniquely a product-oriented sustainability regulation, targeting individual steel products based on their associated carbon emissions. LESS is the result of Germany's plan to decarbonize its steel industry and is a preliminary element in addressing the country's aim of becoming a carbon-neutral country by 2045. LESS implements a standardized carbon emissions calculation system for scope 1, 2, and upstream scope 3 emissions, and utilizes a six-stage classification system based on the intensity of carbon emissions attributed to products. LESS utilizes a specific methodology for calculating carbon emissions linked to individual products.

4. CSRD – Corporate Sustainability Reporting Directive (2025)

European Union
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022L2464

In January 2023, the E.U. enacted its Corporate Sustainability Reporting Directive (CSRD), which replaces the existing Non-Financial Reporting Directive (NFRD), greatly expanding the scope of necessary financial and ESG disclosures, as well as increasing the number of companies impacted. Companies which were subject to the terms of the NFRD will be required to report on scope 1 and 2 emissions under the CSRD in 2025 for fiscal year 2024. EU-based companies with two of three of €25 million in assets, €50 million in net turnover, and 250 employees will be affected, and non-European companies with subsidiaries meeting this criterion are required to comply as well. Companies not previously affected by the NFRD will need to begin emissions reporting in 2026 for the prior fiscal year. Reporting must be completed according to the European Sustainability Reporting Standard (ESRS), which is expected to be completed in 2024.

5. HB-4268 – Climate Corporate Accountability Act (2025)

Illinois

https://www.ilga.gov/legislation/103/HB/10300HB4268.htm

Passed in January 2024, this bill mirrors California's SB-253 regulation (discussed below) for companies that conduct business in the state of Illinois, with annual revenue greater than $1 billion per year. A key distinction is that Illinois' regulation will come into effect with an accelerated timeframe: mandatory annual reporting of scope 1 and 2 emissions for the prior fiscal year begins on January 1, 2025, and reporting of scope 3 emissions for that fiscal year is required within 180 days. Presently, the bill does not contain explicit provisions for financial penalties in the case of a violation, however it allows the state Attorney General to bring a civil action seeking civil penalties against violators.

6. SB-253 – Climate Corporate Data Accountability Act (2026)

California

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240SB253

Signed into law in October 2023, this bill requires that any companies, public or private, earning over $1 billion in yearly revenue that do business in California begin releasing an annual report of their scope 1, 2, and 3 emissions. Yearly reporting of scope 1 and 2 emissions is to begin in 2026 for the previous fiscal year, while reporting of scope 3 emissions starts in 2027. Reporting for this regulation is to be conducted using the Greenhouse Gas Protocol standard. This regulation will be administered and enforced by the State Air Resources Board, which is authorized to impose fines of up to $500,000 per year upon companies that fail to sufficiently comply with its terms. SB-253 is also referred to as Climate Corporate Data Accountability Act.

7. SB-261 – Climate Corporate Data Accountability Act (2026)

California

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240SB261

As an additional part of the CCDAA package, Senate Bill 261 requires that entities put out a disclosure of their climate-related financial risks and methods of addressing those risks on a biennial basis. This bill applies to all companies operating in California with yearly revenue amounting to at least $500 million, and mandatory reporting will universally begin on January 1, 2026, for the 2025 fiscal year. This regulation is aligned with the goals and methods of the Task Force on Climate-Related Financial Disclosures (TCFD) and companies will be required to report using the TCFD standard to comply with this bill. SB-261 is also referred to as Climate-Related Financial Risk Act.

8. SEC Enhancement and Standardization of Climate-Related Financial Disclosures (2026)

United States

https://www.sec.gov/files/rules/final/2024/33-11275.pdf

In March 2024, the US Securities and Exchanges Commission (SEC) approved final rules for mandating financial and ESG reporting for all companies listed in the United States. Companies with at least $700 million in public float are considered large, accelerated filers (LAFs) and begin reporting GHG emissions in 2026. Companies with $250-700 million in public float and $100 million in annual revenue are accelerated filers (AFs) and must begin reporting in 2028. Companies with under $75 million in public float or which generate under $100 million in revenue annually are small reporting companies and are not currently required to report on emissions.

As of April 2024, a stay has been placed on this regulation due to questions of jurisdiction: mandatory scope 1 and 2 emissions reporting is likely to move forward, however it is uncertain whether it is within the legal rights of the SEC to impose requirements on reporting for upstream and downstream emissions, thus the mandate for scope 3 emissions reporting may be removed.

9. SRAC/SGX/ACRA Rules (2026)

Singapore

https://www.sgxgroup.com/media-centre/20240228-climate-reporting-help-companies-ride-green-transition

The Singapore Exchange Regulation (SGX) and Accounting and Corporate Regulatory Authority (ACRA) jointly formed the Singapore Reporting Advisory Committee (SRAC) in 2023 and accepted the committee's recommendations for mandatory ESG reporting in February 2024. This regulation distinguishes between listed and unlisted companies in terms of its requirements and implementation timeline. All companies listed in Singapore will be mandated to begin reporting on scope 1 and 2 GHG emissions in 2026 for the previous fiscal year, and scope 3 emissions in 2027. Presently, only large unlisted companies will be affected, defined as companies with 1 billion SGD in annual revenue and 500 million SGD in assets. These companies will begin mandatory reporting of scope 1 and 2 emissions for in 2028 for fiscal year 2027. Reporting of scope 3 emissions for unlisted companies would begin no earlier than 2030, pending a review on the experience of currently reporting companies. Singapore will require companies to report according to the International Sustainability Standards Board (ISSB) standards.

10. CBAM – Carbon Border Adjustment Mechanism (2027)

United Kingdom

https://www.gov.uk/government/consultations/addressing-carbon-leakage-risk-to-support-decarbonisation/outcome/factsheet-uk-carbon-border-adjustment-mechanism

The UK does not fall under the jurisdiction of the European Union and is thus not subject to the EU's current CBAM regulations. However, the UK is implementing its own carbon border tax that emulates the EU's tariff, affecting a similar set of highly carbon intensive industries: aluminum, steel, ceramics, cement, hydrogen, fertilizers, and glass. Like the EU's CBAM, this regulation is product-oriented, levying a border tax on carbon emissions associated with the manufacturing and transportation of imported products. Upstream and downstream emissions across the value chain will need to be assessed and calculated in line with a specified methodology. Full implementation of the CBAM in the UK is expected by 2027.

SUMMARY

It is critical that companies maintain a continued awareness about the progression of new regulations. There are currently numerous jurisdictions worldwide where sustainability reporting regulations are in discussion, including but not limited to:

- US Office of Federal Sustainability, Federal Supplier Climate Risks and Resilience Proposed Rule – if implemented, it would require that federal contractors with over $50 million in contracts per year report on scope 1, 2, and 3 emissions.
- State of New York S897A – if passed, it would mandate annual scope 1, 2, and 3 emissions reporting for companies with $1 billion in revenue that conduct business in the state of New York.
- The Canadian Securities Administrators (CSA) and Canadian Sustainability Standards Board (CSSB) are currently developing the Canadian Sustainability Disclosure Standards (CSDS) with a possibility of enacting reporting requirements in the future.
- Japan, Australia, and other countries are presently in the early stages of discussion and exploration with regards to mandatory ESG reporting requirements for companies.

As the landscape of global sustainability regulations shifts and evolves, there are numerous regulations and standards that each company will be required to contend with. Environmental responsibility is a common thread in current and upcoming ESG regulations; however, the multitude of reporting standards and the granularity of scope 3 emissions reporting makes this an extensive issue that many companies may not be equipped to tackle.

Several of these regulations will come into force within the next two years, and over a dozen will come into force by the end of the decade. The complexity of the sustainability reporting issue is becoming exceedingly difficult to address using the established methods of consulting and manual evaluation, as these are not scalable for companies with a wide array of products. The most viable solution for this problem going forward will be utilizing software to conduct a product-level analysis and calculation of greenhouse gas emissions, thereby enabling efficient sharing of data and complying with scope 3 reporting regulations.

Appendix

Key Attributes of Regulations

Regulation	CBAM EU	BRSR	LESS	CSRD	HB-4268
Scope 1	2023	2023	2024	2025	2025
Scope 2	2023	2023	2024	2025	2025
Scope 3	2023	Voluntary	2024	No	2025
Financial Penalty	€10-50 per tonne CO_2	No	No	€18,750	Yes (unspecified)
Jurisdiction	Imports in 6 major sectors	Top 1000 companies	Steel imports	€50M revenue	$1B revenue
Product Level	Yes	No	Yes	No	No
Frequency	Quarterly	Annual	N/A	Annual	Annual
Governing Body	EU	SEBI	WV Stahl	EU	State of Illinois
Reporting Standard	CBAM	BRSR	LESS	ESRS	GHG Protocol
Website	link	link	link	link	link
Emissions Calculation Methodology	CBAM Methodology	Unspecified	LESS Methodology	Unspecified	Unspecified
Environmental	Yes	Yes	Yes	Yes	Yes
Social	No	Yes	No	Yes	No
Governance	No	Yes	No	No	No

Regulation	SB-253	SB-261	SEC	Singapore	CBAM UK
Scope 1	2026	N/A	2026	2026	2027
Scope 2	2026	N/A	2026	2026	2027
Scope 3	2027	N/A	In Debate	2027	No
Financial Penalty	$500,000	$50,000	Yes	Unspecified	Unspecified
Jurisdiction	$1B revenue	$500M revenue	Listed, $100M revenue	Listed companies	Imports in 7 major sectors
Product Level	No	N/A	No	No	Yes
Frequency	Annual	Biennial	Annual	Annual	Quarterly
Governing Body	State Air Resources Board	State Air Resources Board	SEC	SGX/ACRA	EU
Reporting Standard	GHG Protocol	TCFD	SEC	ISSB	Unspecified
Website	link	link	link	link	link
Emissions Calculation Methodology	Unspecified	Unspecified	Unspecified	Unspecified	Unspecified
Environmental	Yes	Yes	Yes	Yes	Yes
Social	No	No	Yes	No	No
Governance	No	Yes	Yes	No	No

About BACUTI

BACUTI offers a SaaS platform to calculate and report Product Emissions Footprint (PEF) including Scope 1, 2 and 3 accurately and cost effectively, share data securely across the entire supply chain and build realistic plans and forecasts. Certification workflow is integrated in the platform.

With BACUTI, customers get accurate emissions (Scope 1, 2 & 3) to meet their regulatory requirements (e..g., CBAM). Early adopters of CBAM compliance will have a competitive advantage serving EU customers. PEF estimation processes become cheaper & collaboration with customers improves. Furthermore, customers can grow revenue through value added services around sustainability. Overall, customers should see enhanced brand value due to better sustainability posture.

BACUTI offers a ML-based estimation tool to calculate product level emissions cost effectively and at scale, a secure enterprise platform to share fine-grained emissions data with selected partners without exposing IP, and a SaaS platform that automates reporting, certification, planning and forecasting makes BACUTI unique.

About the Author(s)

Nikhil Shah is a third-year environmental analysis student at Pitzer College interning as a policy researcher and content writer for BACUTI.

Rajesh Srinivasaraghavan is the co-founder of BACUTI. He has almost 30 years of experience in enterprise software, technology, consulting and business transformation.