BACUTI

Solutions for a Cleaner Planet

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SUSTAINABILITY REGULATIONS LANDSCAPE

BACUTI Annual Report, Edition 2

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Introduction

The global regulatory landscape for sustainability reporting and climate disclosure has undergone unprecedented transformation during 2024-2025, creating both opportunities and challenges for manufacturing companies worldwide. This period has been marked by a complex interplay of regulatory advancement and retreat, with some jurisdictions strengthening their sustainability requirements while others have stepped back from previously established frameworks. The divergent approaches across different regions have created a fragmented compliance environment that demands sophisticated strategic planning from multinational manufacturers.

The most significant development has been the stark contrast between jurisdictions moving forward with mandatory climate disclosure requirements and those abandoning previously adopted frameworks. While the European Union continues to implement its comprehensive sustainability reporting directive and carbon border adjustment mechanism, the United States has seen a notable retreat from federal climate disclosure requirements. This regulatory divergence is forcing manufacturers to develop region-specific compliance strategies while maintaining operational efficiency across their global supply chains. The implications extend beyond mere reporting requirements, affecting capital allocation, supply chain design, and long-term strategic planning for companies operating in multiple jurisdictions.

Global Sustainability Regulatory Changes 2024-2025

1. US SEC Climate Disclosure Rules - Adopted Then Abandoned

The Securities and Exchange Commission's climate disclosure journey represents one of the most significant regulatory reversals in recent corporate reporting history. The SEC adopted landmark climate disclosure rules on March 6, 2024, which would have required thousands of publicly traded companies to disclose detailed information about climate-related risks, governance processes, and greenhouse gas emissions. The rules were designed to standardize climate-related disclosures and provide investors with material information for making informed decisions about climate risks and opportunities.

However, the regulatory landscape shifted dramatically following legal challenges and political changes. On April 4, 2024, less than a month after adopting the rules, the SEC issued an order staying the implementation to facilitate judicial review of pending legal challenges. The situation took a definitive turn when on March 27, 2025, the US SEC withdrew its legal defense of the previously adopted climate disclosure rules on March 27, 2025, in response to legal challenges and a shift in administrative priorities. This action effectively halts their immediate implementation and signals a retreat from federal climate disclosure requirements in the near term. Consequently, companies are increasingly focusing on state-level mandates, particularly California's SB 253 and SB 261. While these California laws were enacted in October 2024, their implementation has faced calls for delays, with the California Air Resources Board (CARB) now tasked with finalizing rules for SB 253 by July 1, 2025. The first reporting for Scope 1 and 2 emissions under SB 253 is still anticipated for fiscal year 2025 (reporting in 2026), and Scope 3 for fiscal year 2026 (reporting in 2027)."

Official Source: https://www.sec.gov/newsroom (SEC official announcements)
Manufacturing Implications:
Regulatory Uncertainty: US manufacturers face continued uncertainty about climate disclosure requirements as the regulatory landscape remains in flux, requiring flexible compliance strategies that can adapt to potential future changes while maintaining investor confidence.
State vs Federal Divergence: With federal rules abandoned, manufacturers must navigate a complex patchwork of state-level requirements, particularly California's stringent standards, creating compliance challenges for companies operating across multiple states.

2. California Climate Disclosure Laws (SB 253 & SB 261) - Implementation Delayed

California has positioned itself as a leader in climate disclosure requirements, implementing comprehensive legislation that goes beyond federal standards. SB 253, known as the Climate Corporate Data Accountability Act, establishes mandatory greenhouse gas emissions reporting requirements for large companies doing business in California. The law requires companies with annual revenues exceeding $1 billion to publicly disclose their Scope 1, 2, and 3 emissions, with reporting beginning in 2026 for emissions data from 2025. SB 261, the Climate-Related Financial Risk Act, complements this by requiring companies with revenues over $500 million to prepare and publish climate-related financial risk reports.

The implementation timeline has been adjusted through SB 219, which extended the deadline for finalizing regulations to July 1, 2025, providing additional time for the California Air Resources Board to develop detailed implementation guidance. This delay acknowledges the complexity of establishing comprehensive emissions tracking and reporting systems, particularly for Scope 3 emissions that encompass entire value chains.

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

Comprehensive Supply Chain Reporting: Manufacturers must develop sophisticated systems to track and report emissions across their entire value chain, including upstream and downstream activities, requiring unprecedented collaboration with suppliers and customers.

Financial Risk Assessment: Companies must conduct detailed assessments of how climate change could impact their business operations, supply chains, and market conditions, potentially affecting their access to capital, insurance coverage, and investor confidence.

3. China's Sustainability Disclosure Standards - Trial Version Released

China's approach to sustainability disclosure represents a significant step toward mandatory corporate sustainability reporting in the world's second-largest economy. On December 17, 2024, Chinese regulatory authorities released a trial version of "Sustainability Disclosure Standards for Enterprises," signaling the country's commitment to aligning with global sustainability reporting trends while maintaining characteristics suited to the Chinese market context. This development reflects China's broader environmental policy objectives, including its commitment to achieving carbon neutrality by 2060.

The trial standards are expected to evolve based on feedback from market participants and implementation experience, with full mandatory requirements likely to follow. The standards emphasize both environmental and social dimensions of sustainability, reflecting China's focus on sustainable development as a national priority.

Official Source: China Securities Regulatory Commission announcements

Manufacturing Implications:

Market Access Requirements: Manufacturers operating in China or seeking to enter Chinese markets must prepare for comprehensive sustainability disclosure requirements that could become prerequisites for regulatory approvals, market access, and business licensing.

Supply Chain Transparency: Chinese sustainability standards may require enhanced transparency and documentation from international manufacturers supplying to Chinese markets, potentially affecting global supply chain structures and sourcing decisions.

4. Australian Climate Disclosure Act - Effective January 2025

Australia's climate disclosure legislation demonstrates a rapid transition from policy development to implementation, with the law taking effect in January 2025 for the current financial year. The legislation, passed in August 2024, requires large listed and unlisted businesses to report climate-related information based on International Sustainability Standards Board (ISSB) standards, starting with the 2024-2025 financial year. This represents one of the fastest regulatory implementations of climate disclosure requirements globally.

The Australian approach emphasizes alignment with international standards while providing practical implementation guidance for companies transitioning to mandatory climate reporting. The law includes provisions for phased expansion, with coverage extending to additional entity types by 2027-2028.

Official Source: Australian Treasury official announcements

Manufacturing Implications:

Immediate Compliance Requirement: Australian manufacturers and multinational companies with significant Australian operations must begin ISSB-aligned climate reporting immediately, requiring rapid development of data collection, analysis, and reporting capabilities.

Phased Expansion Risk: Companies must prepare for broader industry coverage by 2027-2028, necessitating scalable reporting systems that can accommodate expanding requirements and potentially smaller subsidiary entities.

5. EU Carbon Border Adjustment Mechanism (CBAM) - Transition to Financial Obligations

The European Union's Carbon Border Adjustment Mechanism represents a groundbreaking approach to addressing carbon leakage and maintaining the integrity of the EU's carbon pricing system. The CBAM transitional period runs until December 31, 2025, during which importers must report emissions data for covered products without financial obligations. From January 1, 2026, importers will face actual financial obligations, purchasing CBAM certificates corresponding to the carbon content of their imported goods. The mechanism initially covers cement, iron and steel, aluminum, fertilizers, electricity, and hydrogen, with plans for expansion to additional sectors. The inclusion of organic chemicals and polymers has been postponed until 2026, with further expansion expected by 2030. The carbon pricing will be linked to EU ETS allowance prices, ensuring equivalent treatment between EU and non-EU producers.

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

Manufacturing Implications:

Direct Carbon Pricing Impact: Companies importing covered goods into the EU will face direct carbon costs from 2026, requiring immediate adjustments to pricing models, supplier evaluation criteria, and investment in low-carbon production technologies.

Competitive Disadvantage Risk: Non-EU manufacturers may lose competitive advantage in EU markets unless they can demonstrate low-carbon production methods, potentially necessitating significant capital investments in cleaner technologies and renewable energy sources.

6. UK Carbon Border Adjustment Mechanism - Implementation from 2027

The United Kingdom's decision to implement its own Carbon Border Adjustment Mechanism from 2027 creates a parallel system to the EU's CBAM, potentially covering similar sectors but with distinct methodologies and requirements. The UK's approach reflects its post-Brexit regulatory independence while maintaining alignment with global climate policy objectives. The mechanism is designed to protect UK industries from carbon leakage while supporting the country's net-zero emissions target by 2050.

The UK CBAM is expected to cover the same sectors as the EU system initially, including cement, iron and steel, aluminum, fertilizers, electricity, and hydrogen. However, the specific implementation details, carbon accounting methodologies, and administrative procedures may differ significantly from the EU approach.

Official Source: UK Government CBAM consultation documents
Manufacturing Implications:
Dual Compliance Burden: Manufacturers exporting to both EU and UK markets must develop capabilities to manage two separate carbon border adjustment systems, each with distinct requirements, timelines, and administrative procedures.
Supply Chain Restructuring: Companies may need to develop differentiated supply chains optimized for each market's carbon pricing mechanisms, potentially requiring separate production facilities or supplier networks to minimize carbon costs.

7. Corporate Sustainability Reporting Directive (CSRD) - First Reporting Wave

The European Union's Corporate Sustainability Reporting Directive represents the most comprehensive sustainability reporting framework globally, requiring detailed disclosures across environmental, social, and governance dimensions. The first wave of companies subject to CSRD must report using European Sustainability Reporting Standards (ESRS) for financial years starting in 2024, with first reports published in 2025. This affects approximately 50,000 companies across the EU, significantly expanding the scope beyond the previous Non-Financial Reporting Directive.

CSRD introduces the concept of double materiality, requiring companies to assess both how sustainability issues affect their business performance and how their business activities impact society and the environment. The directive also mandates third-party assurance of sustainability information, elevating the credibility and reliability of reported data.

Official Source: https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

Manufacturing Implications:

Comprehensive ESG Integration: Large manufacturers must integrate sustainability considerations into all business decisions, strategic planning processes, and operational procedures, requiring fundamental changes to governance structures and decision-making frameworks.

Double Materiality Assessment: Companies must conduct extensive stakeholder engagement to assess both inward and outward impacts, requiring sophisticated stakeholder mapping, engagement processes, and impact measurement methodologies.

8. UAE Federal Decree-Law No. (11) of 2024 on Climate Change Effects Reduction

The United Arab Emirates has established comprehensive climate legislation through Federal Decree-Law No. (11) of 2024 on the Reduction of Climate Change Effects, which takes effect on May 30, 2025. This landmark legislation strengthens the UAE's climate leadership position by creating a robust regulatory framework that supports the country's Net Zero 2050 strategy and establishes mandatory requirements for climate action across all sectors of the economy. The law empowers the Ministry of Climate Change and Environment (MOCCAE) to enforce emission reduction measures and creates binding obligations for both public and private entities.

The Decree establishes specific legal obligations for public and private entities to measure, report, and reduce their greenhouse gas emissions, with enforceable penalties for non-compliance. The law mandates comprehensive emissions management including measurement, reporting, reduction targets, adoption of carbon offsetting mechanisms, and sector-wide accountability. This framework goes beyond voluntary commitments to establish legal requirements for climate action, emphasizing the critical role of research and development, technological innovation, and sustainable business practices in achieving national climate objectives.

Official Source: UAE Ministry of Climate Change and Environment; UAE Federal Legislation Portal

Manufacturing Implications:

Mandatory Compliance Framework: Manufacturing companies operating in the UAE must develop comprehensive emissions management systems that meet specific legal requirements, including measurement, reporting, and reduction obligations with enforceable penalties for non-compliance, requiring investment in emissions monitoring systems and reduction technologies.

Innovation and Competitive Advantages: The law's emphasis on research and development creates opportunities for government support and incentives for companies investing in sustainable technology development, potentially providing significant competitive advantages for early adopters of clean technologies in the regional market.

9. Middle East ESG Reporting Expansion Across Gulf Markets

The broader Middle East region has experienced significant expansion in ESG reporting requirements during 2024, with multiple stock exchanges implementing comprehensive sustainability disclosure frameworks. The Muscat Stock Exchange (MSX) launched voluntary ESG disclosure guidelines in 2023, with mandatory sustainability reporting expected to be implemented by 2025. MSX issued ESG disclosure guidelines for public joint stock companies, encouraging voluntary reporting of 2023 activities, with mandatory reporting of 2024 activity to commence in 2025.

This regional expansion reflects broader trends in sustainable finance and corporate governance across Gulf Cooperation Council (GCC) countries. Saudi Arabia's Capital Market Authority has established comprehensive ESG reporting requirements for publicly listed companies, including mandatory publication of non-financial ESG reports. A 2024 PwC survey found that four in five executives in the region now report having formal sustainability strategies in place, while leadership resistance to ESG initiatives has plummeted by almost half.

Official Source: Regional stock exchange ESG guidance documents; Muscat Stock Exchange ESG Guidelines; Saudi Arabia's Tadawul ESG framework

Manufacturing Implications:

Regional Standardization Requirements: Listed manufacturers across Gulf markets must develop standardized ESG reporting capabilities that can accommodate different exchange requirements while maintaining consistency in data collection, performance measurement, and disclosure systems.

Enhanced Capital Market Access: The expansion of ESG reporting requirements creates opportunities for improved access to international capital markets and sustainable finance instruments, but requires genuine improvements in sustainability performance rather than merely enhanced reporting capabilities.

10. EU Sustainability Regulation Simplification Package

The European Commission's adoption of sustainability regulation simplification proposals on February 26, 2025, represents a recognition of the compliance burden created by overlapping sustainability requirements. The simplification package aims to reduce administrative costs and streamline compliance processes while maintaining the essential objectives of sustainability reporting and due diligence requirements. This initiative responds to concerns from businesses about the complexity and cost of complying with multiple, sometimes overlapping sustainability regulations.

The simplification efforts may include reduced reporting requirements for certain company categories, streamlined data collection processes, and better coordination between different sustainability reporting frameworks. However, the core requirements for transparency and accountability are expected to remain intact.

Official Source: European Commission sustainability policy announcements
Manufacturing Implications:
Compliance Cost Reduction Potential: Simplification efforts may reduce administrative burden and compliance costs for manufacturers subject to multiple EU sustainability regulations, allowing resources to be redirected toward actual sustainability improvements rather than administrative compliance.
Strategic Planning Uncertainty: Companies must maintain flexibility in their sustainability strategies and reporting systems as regulations continue to evolve, requiring adaptable frameworks that can accommodate both current and future regulatory requirements.

11. Canada's Sustainability Disclosure Standards (CSDS)

The Canadian Sustainability Standards Board published Canada's Sustainability Disclosure Standards on December 18, 2024, establishing a framework largely aligned with International Sustainability Standards Board (ISSB) standards while incorporating specific provisions for the Canadian market context. The CSDS includes extended transition reliefs, particularly for complex reporting requirements such as Scope 3 emissions measurement, recognizing the practical challenges companies face in implementing comprehensive sustainability reporting systems.

The Canadian approach balances international alignment with practical implementation considerations, providing companies with longer transition periods for the most challenging aspects of sustainability reporting while maintaining consistency with global standards for investor comparability.
Official Source: https://www.cssb-nccdd.ca/ (Canadian Sustainability Standards Board)
Manufacturing Implications:
Extended Implementation Timeline: Canadian manufacturers benefit from longer transition periods for complex reporting requirements, particularly Scope 3 emissions measurement, allowing time to develop sophisticated supply chain engagement and data collection systems.

North American Alignment: CSDS alignment with ISSB standards facilitates consistency for manufacturers operating across North American markets while maintaining regional flexibility to address specific Canadian market conditions and regulatory requirements.

12 India's GEI

India's Draft Greenhouse Gases Emissions Intensity (GEI) Target Rules, 2025, were notified by the Ministry of Environment, Forest and Climate Change on April 16, 2025, establishing mandatory emissions reduction targets as part of India's climate strategy. These draft rules aim to reduce India's emissions intensity of Gross Domestic Product by 45% by 2030, supporting India's Paris Agreement commitments.

The draft guidelines are designed to operationalize India's Carbon Credit Trading Scheme (CCTS), 2023, using baseline emissions set for FY 2023-24, with targets for FY 2025-26 and 2026-27. The sector focus covers 282 industrial units across four sectors: cement, aluminum, pulp & paper, and chlor-alkali.

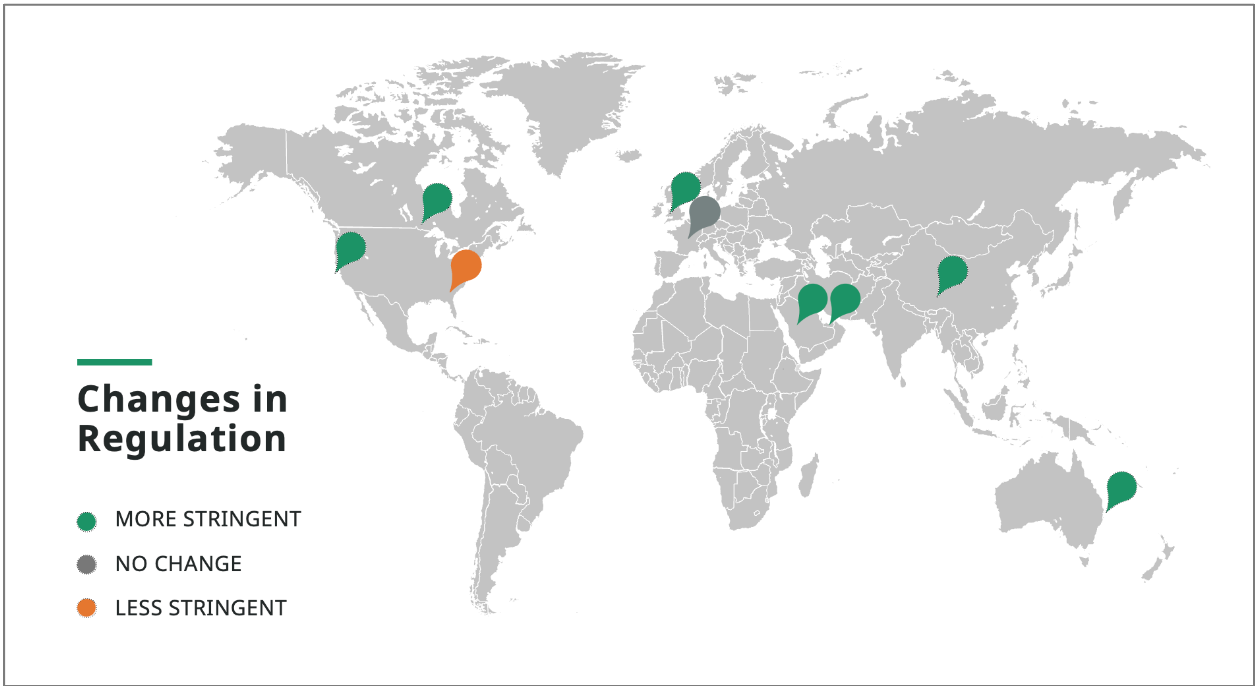
Under the proposed compliance mechanism, industries can earn tradable carbon credits for exceeding targets, while violators may face penalties from the Central Pollution Control Board. The Bureau of Energy Efficiency (Ministry of Power) manages market oversight.

Manufacturing Implications:

- **Financial Impact & Compliance Costs**: Companies must invest in cleaner technologies, energy efficiency measures, or purchase carbon credits to meet mandatory targets. Those failing to comply face penalties from the Central Pollution Control Board, making adherence essential for operational continuity.
- **Revenue Generation Opportunities**: Industries surpassing targets acquire tradable carbon credits, creating new revenue streams for early adopters of green technologies. Companies can monetize their emission reduction efforts through India's carbon credit trading system.
- **Strategic Planning & Competitive Positioning**: Manufacturing firms must integrate GEI targets into long-term business planning, with emissions intensity becoming a key performance indicator. Companies achieving lower emissions intensity will gain competitive advantages in domestic and international markets, especially with emerging carbon border adjustments globally.

SUMMARY

The 2024-2025 period has been transformative for global sustainability regulation, characterized by both significant advances and notable retreats in mandatory disclosure requirements. The regulatory landscape has become increasingly fragmented, with jurisdictions taking divergent approaches that reflect different political priorities, economic conditions, and stakeholder expectations. This fragmentation creates both challenges and opportunities for manufacturing companies seeking to maintain competitive advantage while meeting diverse regulatory requirements.



The most significant trend has been the emergence of carbon pricing mechanisms that directly impact international trade, particularly the EU's Carbon Border Adjustment Mechanism and the UK's planned parallel system. These mechanisms represent a fundamental shift from voluntary sustainability initiatives to mandatory economic consequences for carbon-intensive production methods. Simultaneously, comprehensive sustainability reporting requirements in jurisdictions like the EU, Australia, and various Middle Eastern markets are creating new standards for corporate transparency and accountability.

For manufacturing companies, the key strategic imperative is developing flexible, scalable systems that can accommodate diverse regulatory requirements while supporting continuous improvement in actual sustainability performance. Success in this environment requires not just compliance with reporting requirements, but genuine transformation of business models, supply chains, and operational practices to achieve sustainable competitive advantage in an increasingly carbon-constrained global economy.

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.

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