

SUMMARY FOR POLICYMAKERS

# Race to the Top for Climate

Building a cooperative agenda for a globally inter-operable US-EU clean economy transition



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## About the Project

This report is part of the project **"Race to the top for climate: building a cooperative US-EU agenda for a globally inter-operable clean economy transition"**, which is made possible through the funding and support of the Environmental Defense Fund (EDF). The project explores how US and EU industrial decarbonization policy can be designed to optimize interoperability and enable an international race to the top for the greening of the heavy industry.

Through a co-creative exercise, "Race to the top" seeks to provide actionable knowledge and help establish the foundations for longer-term EU-US stakeholder dialogue on industrial decarbonization policy.

Find out more about the project and our latest events and publications at <https://climatestrategies.org/projects/race-to-the-top/>

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## About Reform Institute

The Reform Institute is an independent think tank based in Poland. It supports the continuous improvement of formulation, implementation, monitoring and evaluation of public policies in Poland, Europe and globally.

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## Authors

Maciej Lipiński, Anna Sands, Aneta Stefańczyk, Aleksander Śniegocki, Adrianna Wrona, with contributions from Agnieszka Czaplicka-Kotas, Kamil Laskowski and Zofia Wetmańska.

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## Project management

Julie-Anne Hogbin, Inés H Jiménez Rodríguez, Adriana Chavarría-Flores (Climate Strategies), Agnieszka Boratyńska (Reform Institute)

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# 1 Introduction

Recent years have seen a push for industrial decarbonization on both sides of the Atlantic. In the US, the Inflation Reduction Act (IRA) introduced a big shift by launching significant subsidies and tax credits for the green transition. The EU announced its own Green Deal Industrial Plan in response, and Ursula von der Leyen (recently appointed for a second term as European Commission President) has promised to accelerate EU efforts in this field. The Commission President pledged a new Clean Industrial Deal within the first 100 days of her second mandate, and aims to put forward an Industrial Decarbonization Accelerator Act which would channel investment to support lead markets for cleantech industries.

This phenomenon spans beyond the Atlantic. Industrial policy has experienced a revival across the world - particularly when aligned with large purposes, such as the green transition. Indeed, across many cases, industrial policy has been proven as a politically viable strategy to enhance climate action. Greater climate ambition is of course welcome, however, this strategy is not without risks. These result, foremost, from

striking an uneven balance between distinct (yet often conflated) policy agendas: industrial decarbonization, and the capturing of emerging cleantech markets. This is true of the IRA, which includes local content requirements in its tax incentives and favors companies with production processes in the US (or in countries with a trade agreement with the US). Such provisions risk channeling the industrial transition towards narrowly defined national interests, concentrating investment in regions with the highest state subsidies and doubling down on zero-sum politics – leading, ultimately, to a *race to the bottom* for clean industry.

It is also important to acknowledge that, for developing countries without the capacity to compete on state subsidies, such a race can severely hinder their leapfrogging into clean industrialization. A more open approach is needed, allowing new actors to integrate into the global cleantech supply chains rather than supporting the parallel development of unsustainable, low-carbon industrial enclaves.



Credit: [Unsplash / Daniel Moqvist](#)

In contrast, a system designed to prioritize the successful delivery of global industrial decarbonization could bolster *a race to the top* with an international perspective: developing markets in the locations with the most relevant capabilities and conditions, and leveraging efficiencies and collaboration. Such a vision will need to leverage national and regional politics, as well as address the priorities of workers and consumers across different countries; furthermore, it would have to do so in ways stimulating healthy competition.

The EU-US relationship has potential to pilot the development of a more cooperative agenda on industrial decarbonization. The project *“Race to the Top for Climate: Building a cooperative agenda for a globally inter-operable US-EU clean economy transition”* has aimed to chart a way forward for transatlantic collaboration in this shifting landscape, exploring the productive space to enhance both regions’ ability to collaborate on the decarbonization of hard-to-abate industrial sectors.

Drawing from the project’s full report, this summary outlines its key findings and recommendations on the policy areas with particular potential to improve transatlantic alignment. The study finds that current efforts might benefit from sidelining the reconciliation of contentious issues, such as carbon pricing. Instead, a “softer” path to alignment could be pursued. This path would prioritize cooperation on short-term “carrots” (such as the push and pull for industrial cleantech) and long-term “sticks” (such as the harmonization of standards that could form a basis for carbon requirements). It could also expand the scope of cooperation from technologies already within the purview of transatlantic initiatives - such as hydrogen, Carbon Capture and Storage (CCS), and Carbon Capture and Utilization (CCU) – to include more systemic shifts, such as circular economy solutions and electrification.

This “soft” policy alignment is consistent with the existing ecosystem of transatlantic links, and can withstand the evolving political landscape across the Atlantic. Efforts could be directed toward strengthening these existing initiatives, rather than reinventing the system. In addition, many of these initiatives include actors beyond the US and the EU, and show that transatlantic

cooperation can positively impact industrial decarbonization worldwide.

The research is supported by input from stakeholders and experts, as well as by the analysis of case studies of transatlantic cooperation attempts. This has helped to extract best practices and lessons learned, and to provide policy recommendations for a globally inter-operable clean energy transition in industry – i.e., one that is:

- Compatible with domestic efforts to deliver a clean economy;
- Mutually beneficial;
- Effective in decarbonizing the industrial sector;
- A good foundation for a global transition.

The assessment follows a dynamic policy mix approach, categorizing policy tools based on the development stage of the clean technologies they target. This has revealed key differences in how the EU and US scale clean solutions and phase out emissions-intensive processes. Policies are classified as:

1. Supporting supply (**supply push**), thus stimulating the initial phase of development of new clean solutions.
2. Creating a **cross-cutting price signal**, which could be used to promote and scale up their deployment.
3. Building up the demand for green goods (**demand pull**), to create the market for new technologies.
4. Ensuring **systemic enablers** are in place, to help the technology achieve scale.

The report also assesses technology-specific policies, covering crucial solutions for industrial decarbonization: circular economy practices, clean hydrogen and derivatives, CCS and CCU, electrification, and bioenergy. The focus is on public sector initiatives and dialogues involving various stakeholders, rather than private sector exchanges.

## Policy instrument classification approach applied in the study

Increasing market share and decreasing marginal costs of clean solutions →

Instrument type		R&D, pilots	Lead markets for cleantech	Cleantech scale-up	Phase-out of polluting tech
<b>Supply push</b>	R&D support	✓			
	First of a Kind (FOAK) subsidies (e.g., EU Innovation Fund)	✓	✓		
	Sectoral subsidies (e.g., CCfD, FIT)		✓	✓	
<b>Cross-cutting price signal</b>	Comprehensive tax credits (e.g., IRA)		✓	✓	
	Carbon price (e.g., EU ETS)		✓	✓	✓
<b>Demand pull</b>	Green public procurement		✓	✓	✓
	Obligations for private sector buyers		✓	✓	✓
	Information tools (e.g., LCA)		✓	✓	✓
	Standards (carbon requirements)				✓
<b>Systemic enablers</b>	Sustainable finance		✓	✓	✓
	Just transition policies			✓	✓

✓ stronger role    ✓ weaker role    white: no role

Source: Reform Institute



Credit: Unsplash / Ant Rozetsky

## 2 The current state of transatlantic industrial decarbonization links: why a shift from price signals to a broader policy mix is needed

Hitherto, the public debate on transatlantic initiatives for industrial decarbonization has largely focused on the stalled Global Arrangement on Sustainable Steel and Aluminum (GASSA). The negotiations intended to find a common approach to steel and aluminum imports, yet faced an impasse on the issue of carbon pricing. The US's proposed approach to steel and aluminum tariffs proved ultimately incompatible with the EU's system – and, particularly, with its painstakingly negotiated Carbon Border Adjustment Mechanism (CBAM).

The CBAM complements the EU Emissions Trading Scheme (EU ETS)<sup>1</sup> by introducing an equivalent carbon price which applies to the imports of selected goods from outside the EU. It aims to prevent carbon leakage, particularly for EU sectors that will face higher costs once their free allocation of emission allowances is phased out (including cement, steel, and aluminum, amongst others).<sup>2</sup> Conversely, the US does not currently have a federal carbon pricing scheme. Hitherto, its approach to steel and aluminum imports has been to apply 'national security' tariffs on pertinent products from all third countries.

In line with this approach, the US insisted that an exemption to the EU's CBAM be included in GASSA negotiations - which the EU could not accept, as it would jeopardize the arduously negotiated compromise reached between EU countries on this measure. The deadlock on GASSA therefore reflects fundamentally different (and politically sensitive) approaches to decarbonization. Both approaches (the EU's carbon pricing approach, and the US's focus on prioritizing domestic production) depend on difficult political compromises, which can very easily be undermined.

While not focused on industrial decarbonization per se, negotiations around the Critical Minerals Agreement are another example of how attempts to harmonize green industrial policies across the Atlantic can face significant polit-

ical headwinds. These negotiations sought to address the comprehensive tax credits afforded under the IRA, which do not currently apply to EU-based cleantech companies. Tax credits of this kind are a way of providing broad price signals encouraging the use of technologies that reduce carbon emissions. This means that such negotiations suffer from some of the same challenges as carbon pricing: both sides need to agree on how to apply them to the products imported from the other party.

There are, however, many other avenues for transatlantic cooperation that bypass this deadlock. These platforms tend to focus on supply push or demand pull initiatives - such as R&D coordination, or the creation of common standards for green technologies and greening public procurement.

- The Trade and Technology Council (TTC), which includes EU Commissioners and US Secretaries of State, shows potential as a space for regular high-level communication on a broad range of topics on industrial decarbonization, including the prevention of potential conflicts.
- The Clean Energy Ministerial Industrial Deep Decarbonization Initiative (CEM IDDI) offers an example of deeper cooperation on harmonization of standards related to green public procurement, which is already producing concrete results.
- The Climate Club (launched by Germany's G7 presidency in 2022, and relaunched in 2023 as an initiative extending beyond the G7) provides an example of an initiative that has evolved from a narrow focus on carbon pricing towards broader cooperation on industrial decarbonization - a direction of travel likely to apply to other spaces for US-EU cooperation as well.

1 'Scope of the EU Emissions Trading System', accessed 30 July 2024, [https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/scope-eu-emissions-trading-system\\_en](https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/scope-eu-emissions-trading-system_en)

2 'Carbon Border Adjustment Mechanism', accessed 30 July 2024, [https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism\\_en](https://taxation-customs.ec.europa.eu/carbon-border-adjustment-mechanism_en).

Together with other platforms described in the report, this existing ecosystem of initiatives provides a good foundation for strengthening transatlantic cooperation.

The table below provides an overview of the existing relevant platforms and a classification of their policies and projects according to mar-

ket functions. It shows that, while the initiatives that have sought to achieve coordination on a cross-cutting price signal have faced difficulty, there are many existing initiatives focusing on other types of policies. The analysis of chapters 5 and 6 of the project report, summarized below, show why these types of policies offer the most potential for deeper US and EU cooperation.

Process/dialogue platform	Supply push	Cross-cutting price signal	Demand pull	Systemic enablers
Global Arrangement on Sustainable Steel and Aluminum (GASSA)	✓	✓ (progress stalled)	✓	
Critical Minerals Agreement (CMA)		✓		
<b>Dialogue Platforms</b>				
<b>Dialogue involving the US and the European Commission</b>				
Trade and Technology Council (TTC)	✓		✓	
<b>Dialogue involving the US, the European Commission, and the EU Member States</b>				
Mission Innovation	✓			
IRENA collaborative framework	✓			✓
IEA Working Party on Industry Decarbonization (WPID)	✓		✓	
IEA Hydrogen Technology Collaboration	✓		✓	
International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE)	✓		✓	
The Hydrogen Valley Platform (Mission Innovation)	✓			
Clean Energy Ministerial Hydrogen Initiative	✓			
Climate Club			✓	✓
<b>Dialogue involving the US and EU Member States</b>				
Clean Energy Ministerial Industrial Deep Decarbonization Initiative (IDDI)	✓		✓	
Clean Energy Ministerial CCUS Initiative	✓			✓
Leadership Group for Industry Transition (LeadIT)	✓			
Greening Government Initiative (GGI)			✓	
G7 Industrial Decarbonization Agenda	✓	✓	✓	✓



## Key areas for improving transatlantic collaboration on overarching industrial decarbonization policies

Among the overarching policy instruments, the strongest transatlantic connections exist in the areas of R&D and information tools. They could therefore provide a strong base for other areas of cooperation. Multistakeholder platforms for dialogue and collaboration already exist for R&D and information tools, which can be expanded to include new fields of technology and standardization efforts.

Demand-pull policies (green public procurement) and standards show a growing potential for improvement, as policy efforts are gradually intensifying on both sides and economic incentives for alignment are becoming more visible. Arguably, the same could be said of price signaling tools (tax credits, carbon pricing) – here, however, diverging political visions hinder progress in the near future.

This brief summarizes the analysis and recommendations on policies which are rated as having a good improvement potential. The full analysis of all policies can be found in the full project report.

### Research & Development

#### Comparison of the EU and US R&D policies

- Both the EU and US offer numerous R&D funding opportunities for industrial decarbonization (primarily through grants, which is appropriate due to the high risk of early innovation stages).
- The EU faces a challenge in unifying its fragmented innovation environment, as Member States tend to act more as competitors than collaborators.
- Having a more integrated national economy, the US counts with more consistent support for public and private innovators, especially during the transition from R&D to demonstration and deployment.
- Both the EU and US systems are complex to navigate for beneficiaries, though assistance is often available.

#### Assessment of the current state of transatlantic links in overarching industrial decarbonization policies, and their potential for improvement

Policy instrument	Current state	Improvement potential
Research & Development	Good	Good
FOAK and sectoral subsidies	Poor	Moderate
Green public procurement	Moderate	Good
Comprehensive tax credits	Poor	Poor
Carbon pricing	Poor	Poor
Information tools	Good	Good
Standards	Poor	Good
Just transition policies	Poor	Moderate

Source: Reform Institute

### The state of transatlantic interactions in R&D

EU and US endeavors are bolstered by a rich landscape of transatlantic collaborations and dialogues. There are at least 10 transatlantic programs supporting R&D for industrial decarbonization today, and addressing a variety of actors and priorities. Initiatives such as Mission Innovation<sup>3</sup> and the IRENA Collaborative Frameworks<sup>4</sup> are wide-reaching and influential; furthermore, they often include partner countries and non-state stakeholders.

Yet several gaps, overlaps, and conflicts still exist. Direct cooperation programs such as the TTC do not focus specifically on industry; a more dedicated approach is therefore necessary. Furthermore, existing platforms tend to prioritize economic competitiveness, while sustainability and decarbonization perspectives are often lacking. Hydrogen is overrepresented in most existing bodies,<sup>5</sup> compared to other technologies and approaches such as circular economy

practices, advanced manufacturing technologies, or other low-carbon fuels.

Reviewing the management of these programs (as well as other R&D initiatives) can help to avoid duplication, leverage mutual strengths, and efficiently utilize available funding and expertise. Additionally, pursuing alignment in the adoption of common technology standards across existing R&D cooperation programs can provide a clear roadmap for innovators and public institutions.

### Recommendations for strengthening transatlantic links in R&D

The R&D area of transatlantic collaboration displays a wide array of platforms for dialogue, engaging multiple stakeholders and approaches to industrial decarbonization. While this forms a positive landscape, several actions could further enhance the effectiveness and efficiency of joint decarbonization efforts.

## Recommendations for improving transatlantic links in R&D

Strengthen	Expand	Add
<ul style="list-style-type: none"> <li>Review existing programs to avoid duplication, leverage mutual strengths, and utilize funding and expertise efficiently.</li> <li>Foster the adoption of common standards across the different R&amp;D programs.</li> </ul>	<ul style="list-style-type: none"> <li>Expand Research &amp; Development into technologies beyond hydrogen, such as other low-carbon fuels and advanced manufacturing.</li> <li>Increase funding opportunities in existing programs to cover a wider range of decarbonization technologies.</li> </ul>	<ul style="list-style-type: none"> <li>Introduce initiatives within the Trade and Technology Council specifically targeting industrial decarbonization.</li> <li>Establish new initiatives focusing on complementary measures for decarbonizing industry, such as circular economy principles and carbon-neutral manufacturing processes.</li> <li>Develop a cohesive framework in programs like the TTC to align their objectives with environmental sustainability and decarbonization.</li> </ul>

Source: Reform Institute

3 'Mission Innovation', Mission Innovation, accessed 9 July 2024, <https://mission-innovation.net/>.

4 'Collaborative Frameworks', accessed 9 July 2024, <https://www.irena.org/How-we-work/Collaborative-frameworks>.

5 'IEA Hydrogen TCP - Research & Innovation in Hydrogen Technologies', IEA Hydrogen TCP, accessed 17 July 2024, <https://www.ieahydrogen.org/>.

'Home International Partnership for Hydrogen & Fuel Cells in the Economy', iphe, accessed 18 July 2024, <https://www.iphe.net>.

'H2Valleys | Mission Innovation Hydrogen Valley Platform', accessed 18 July 2024, <https://h2v.eu/>.

## Green public procurement

### Comparison of the EU and the US green public procurement programs

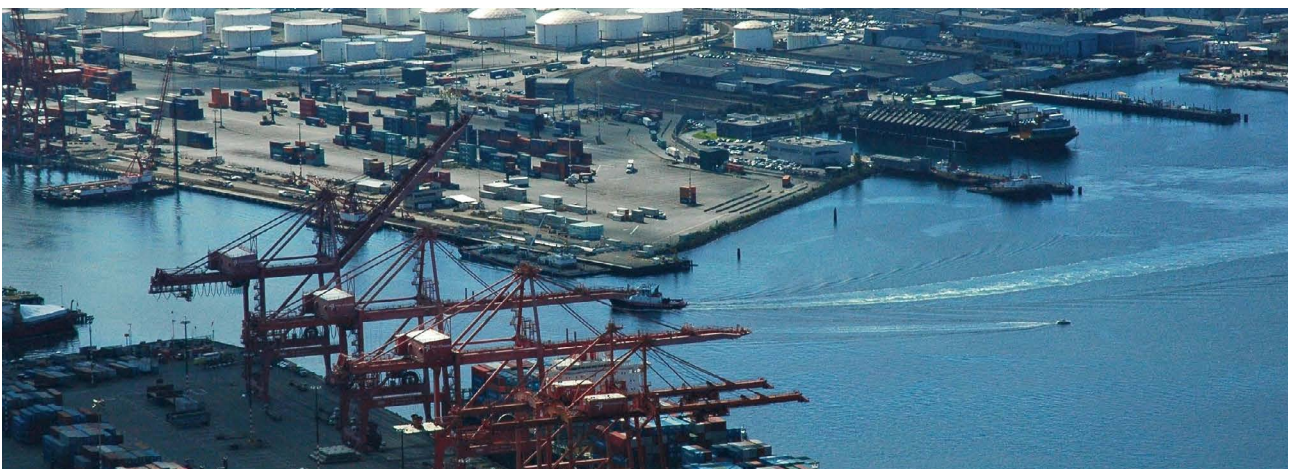
- The EU currently lacks a mandatory Green Public Procurement (GPP) system; however, new regulations (e.g. the Net-Zero Industry Act) and policy reviews are likely to turn existing criteria and guidelines into a more comprehensive set of rules.<sup>6</sup> The EU encourages green procurement through life-cycle analysis and energy efficiency principles.
- The US has introduced several measures under the IRA to reduce greenhouse gas (GHG) emissions from materials and products, particularly in construction, with substantial financial backing from federal agencies.
- The US GPP framework seems more robust and coordinated than the EU's, with specific funding programs and incentives linked to low-carbon materials and domestic manufacturing requirements. However, the framework is recent and it remains to be seen how it will work in practice.
- While the US approach integrates local content requirements with GPP and provides concrete financing<sup>7</sup> (therefore promoting domestic industry), the EU framework lacks such strong local content elements. This is a source of friction between the two regions and may impact global cooperation on clean technology.

### The state of transatlantic links in green public procurement

The current state of transatlantic cooperation on green public procurement is assessed as moderate, hindered by local content concerns as well as by a lack of dedicated platforms to facilitate US-EU alignment. While both regions have developed regulatory standards, existing green public procurement programs have yet to show significant results. The absence of specific platforms for dialogue between the US and the European Commission limits progress, while high-level initiatives like the Climate Club focus more on policy promotion than technical standards. A dedicated platform to foster collaboration and address specific challenges would be crucial for future improvement.

### Recommendations for strengthening transatlantic links in green public procurement

While both sides recognize the role of green public procurement in decarbonizing industry, existing programs have yet to show significant results. No platforms for direct collaboration exist today, and dialogue is therefore limited. The issues of local production support, market access for third countries, and other technical challenges are key obstacles for progress in this field.



Credit: [Unsplash / Wonderlane](#)

6 Ursula von der Leyen, Political Guidelines for the Next European Commission 2024–2029, [https://commission.europa.eu/document/download/e6cd4328-673c-4e7a-8683-f63ffb2cf648\\_en](https://commission.europa.eu/document/download/e6cd4328-673c-4e7a-8683-f63ffb2cf648_en)

7 US EPA – Reducing Embodied Carbon of Construction Materials through the Inflation Reduction Act', <https://www.epa.gov/greenerproducts/reducing-embodied-carbon-construction-materials-through-inflation-reduction-act>, accessed 30 July 2024.

## Recommendations for improving transatlantic links in green public procurement

### Strengthen

- Enhance dialogue between the US government and the European Commission.
- Foster communication strategies within and between initiatives for better alignment and understanding.

### Expand

- Expand the scope of existing initiatives to cover more sectors and aspects of green procurement.
- Build on the EU GPP program and US Public Procurement rules to seek alignment where possible and mitigate contents issues where necessary (primarily, local content)
- Explore the possibilities of involving other partners in GPP dialogue and initiatives (e.g., Japan, UK, USMCA members).

### Add

- Develop a more definite internal position on green public procurement within the EU regarding issues of local content and common binding rules.
- Introduce dedicated forums for direct dialogue between the US government and the European Commission.
- Establish technical platforms to address specific transatlantic challenges in green public procurement in industry decarbonization.
- Introduce mechanisms for developing universal standards in green public procurement.
- Develop strategies to balance varying needs and approaches among US and EU states.

Source: Reform Institute



Credit: Unsplash / Eric Wang

## Information tools

### Comparison of the EU and the US policies on information tools

- Information tools in both the EU and US aim to influence buyer decisions by providing details on product sustainability and performance, thus driving demand for more sustainable products.
- The EU is developing several tools to enhance product transparency and circularity, such as Ecodesign rules,<sup>8</sup> the Energy label,<sup>9</sup> and Digital Product Passports. Standards and methodologies are still evolving.
- The US has various consumer labels, managed by the Environmental Protection Agency (EPA)<sup>10</sup> and other entities. Yet they lack uniformity and binding standards, which hampers reliability and transparency.
- Supported by relevant IRA provisions, the US' Federal Buy Clean Initiative<sup>11</sup> focuses on precise methodologies for measuring embodied carbon in construction materials. However, a unified approach is still in development.

### The state of transatlantic interactions in information tools

The state of US-EU cooperation on information tools for industrial decarbonization is good, with current efforts focused on the development of

standards, methodologies, and labels to promote sustainability. Yet there is significant potential for improvement, particularly by ensuring the reliability and uniformity of these tools. This suggests a need for stronger collaboration and alignment of standards. A key gap is the absence of a dedicated platform for direct US-EU cooperation. While current platforms (e.g., the G7 Industrial Decarbonization Agenda and the CEM Industrial Deep Decarbonization Initiative) could help set standards, there remain risks of misalignment due to diverse memberships, highlighting the need for coordinated efforts.

### Recommendations for strengthening transatlantic links in information tools

Information tools hold significant potential for deepening collaboration, with current platforms focused on the development of technology standards. Nevertheless, the risk of misalignment suggests that a dedicated US-EU platform for direct collaboration on information tools would be beneficial. Similarly to R&D, several current initiatives focus on technologies related to hydrogen, CCS, and CCU – yet greater attention to alternative decarbonization technologies like circular economy principles would be advantageous.

### Recommendations for improving transatlantic links in information tools

Strengthen	Expand	Add
<ul style="list-style-type: none"> <li>• Align the work of multiple platforms aiming to set technology and emissions standards (TTC, IPHE, G7 IDA).</li> <li>• Leverage platforms such as LeadIT and GGI, which can facilitate international collaboration across many diverse countries.</li> </ul>	<ul style="list-style-type: none"> <li>• Expand cooperation on alternative decarbonization technologies, such as advanced manufacturing and circular economy principles.</li> </ul>	<ul style="list-style-type: none"> <li>• Create direct EU-US platform for cooperating on information tools.</li> <li>• For the European Commission, consider joining the Clean Energy Ministerial IDDI.</li> </ul>

Source: Reform Institute

8 Ecodesign for Sustainable Products Regulation - European Commission', accessed 28 August 2024, [https://commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/sustainable-products/ecodesign-sustainable-products-regulation\\_en](https://commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/sustainable-products/ecodesign-sustainable-products-regulation_en)

9 Understanding the Energy Label - European Commission', accessed 31 July 2024, [https://energy-efficient-products.ec.europa.eu/ecodesign-and-energy-label/understanding-energy-label\\_en](https://energy-efficient-products.ec.europa.eu/ecodesign-and-energy-label/understanding-energy-label_en)

10 US EPA, Buying Green for Consumers. <https://www.epa.gov/greenerproducts/buying-green-consumers>

11 'Federal Buy Clean Initiative | Office of the Federal Chief Sustainability Officer', accessed 28 August 2024, <https://www.sustainability.gov/buyclean/#abouttaskforce>

## Standards (carbon requirements)

### Comparison of the EU and the US standards (carbon requirements) policies

- Product Carbon Requirements (PCRs) regulate the maximum emission intensity of materials and products, aiming to limit the sale of carbon-intensive items. They are proposed as a complement to carbon pricing regimes and tariffs to prevent carbon leakage.
- PCRs face controversy due to potential protectionism, non-compliance with WTO rules, and administrative burdens. They are seen as a later-stage policy to be introduced after lead markets for greener technologies are established.
- Neither the US nor the EU have a comprehensive PCR framework, but both regions are developing relevant standards. The EU has existing tools like CBAM and Green Procurement guidelines, while the US is advancing standards through initiatives like the Federal Buy Clean Initiative and the Greenhouse Gas Reporting Program (GHGRP).
- The introduction of PCRs would need to navigate WTO regulations to avoid controversies similar to those related to CBAM.

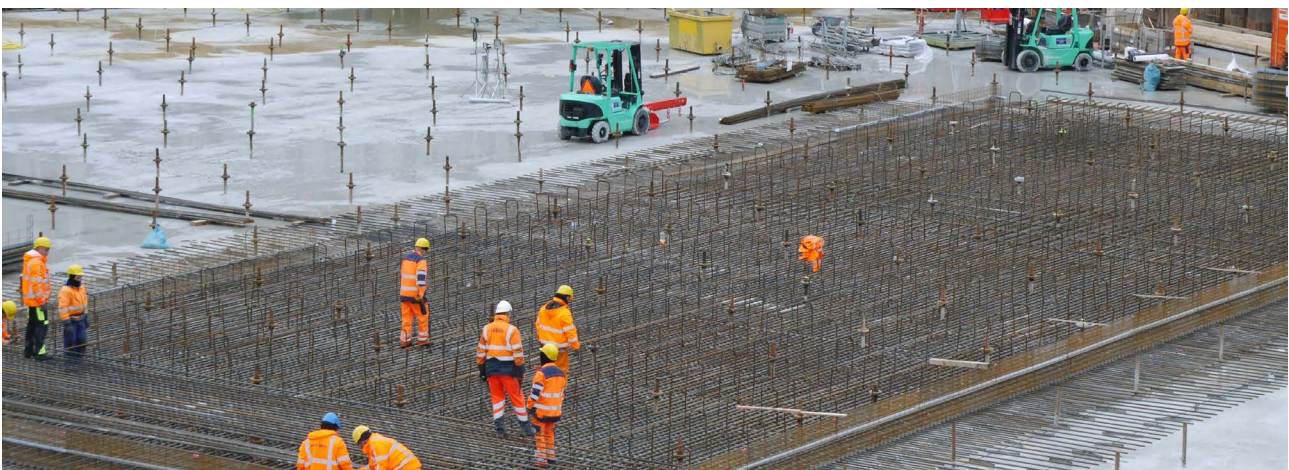
### The state of transatlantic interactions in standards (carbon requirements)

Despite the current lack of prioritization in transatlantic dialogue, the emergence of the EU's CBAM and the US's Federal Buy Clean Initiative signals a growing need for standardization in product carbon requirements (PCRs). The on-

going US-EU tensions over CBAM and industrial subsidies highlight the urgency of discussions on common carbon standards. Focusing on steel and aluminum could offer a practical path forward, addressing the challenges of differing production technologies between the US and the EU. A flexible, technology-agnostic approach could bridge these differences. The Trade and Technology Council, rather than the stalling GASSA negotiations, might provide a way to progress on the issue. Overall, and while transatlantic collaboration on PCRs is currently underdeveloped, the foundational policies currently in place offer significant potential for future alignment and cooperation.

### Recommendations for strengthening transatlantic links in standards (carbon requirements)

Building on exchanges in adjacent policy areas (in particular green public procurement and information tools), the US and the EU should establish communication and collaboration channels for early consultation, dispute prevention, and eventual alignment of standards, starting with key goods and materials (e.g. steel, aluminum, cement). Such collaboration should help create long-term predictability on the direction of the clean transition for heavy industry – and, more particularly, on the development of markets for clean materials. Such approach can be further extended to include other trade partners, facilitating global transition on the sectoral level.



Credit: Unsplash / Fons Heijnsbroek

## Key areas for improving transatlantic collaboration on technology-specific industrial decarbonization policies

The current dialogue on technology-specific policies – the circular economy, hydrogen and derivatives, CCS and CCU, industrial electrification, and bioenergy - is imbalanced in favor of hydrogen and carbon capture technologies. To enhance US-EU collaboration on industrial decarbonization technologies, a strategic focus on expanding and creating new initiatives is key. This includes the harmonization of policies and standards to build a unified framework for sustainable practices across technologies. Joint R&D and Public-Private Partnerships can be strengthened to drive innovation and support

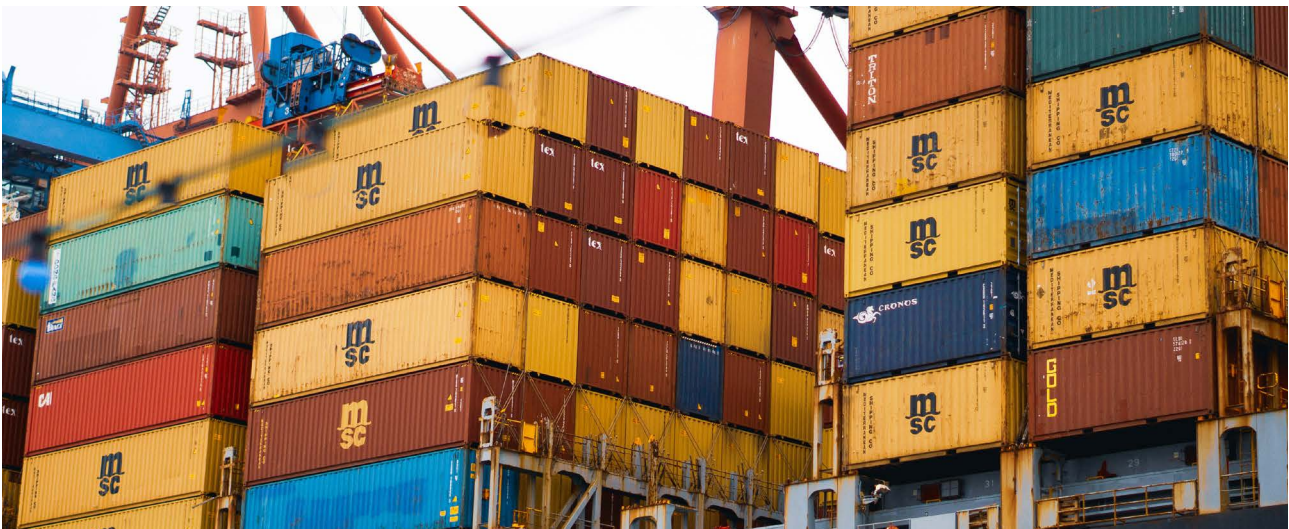
financing. Additionally, knowledge sharing and support financing can be bolstered through the expansion of international commitments, the development of decarbonization benchmarks, and the establishment of innovation hubs to support grassroots innovation.

This brief summarizes the analysis and recommendations on policies which are rated as having a good improvement potential. The full analysis of all policies can be found in the project report.

### Assessment of the current state of transatlantic links in industrial decarbonization technologies, and their potential for improvement

Technology	Current state	Improvement potential
Circular economy	Poor	Good
Hydrogen and derivatives	Good	Moderate
CCU/CCS	Moderate	Moderate
Industrial electrification	Moderate	Good
Bioenergy	Poor	Moderate

Source: Reform Institute



Credit: Unsplash / Elis Garvey

## Circular economy

### Comparison of EU and US policies on circular economy

- The EU's approach to circular economy practices focuses on the comprehensive Circular Economy Action Plan 2.0 (CEAP 2.0), which includes: recycling targets, reuse, consumer awareness, and circular business models. However, progress may be limited due to challenges at the Member State level.<sup>12</sup>
- The US approach is more fragmented: it relies on federal investments as well as the EPA's Circular Economy Strategy Series, and focuses more on technology and infrastructure than on a unified circular economy agenda.
- While the EU emphasizes regulatory frameworks and mandatory targets, the US prioritizes financing and infrastructure development, with varying sectoral strategies for construction, plastics, and vehicles.
- The EU aims to address plastics through new legislation for recyclable packaging, waste shipment bans, and mandates on post-consumer waste in vehicles.<sup>13</sup> The US has only recently introduced a comprehensive plastics strategy and focuses more on research and infrastructure.
- For vehicles, the EU's CEAP 2.0 includes measures for secondary steel and digital passports.<sup>14</sup> The US focuses on battery manufacturing and recycling under the Bipartisan Infrastructure Law rather than on end-of-life vehicle recycling.

### The state of transatlantic links in circular economy

The current state of US-EU cooperation on circular economy practices for industrial decarbonization is limited, but holds significant potential for improvement. Opportunities for growth include shared innovation projects, the alignment of trade policies, and the use of existing multilateral forums to synchronize policies (e.g., talks on the UNEP's Global Plastics Treaty). Transatlantic cooperation can also drive the global adoption of circular economy solutions through a range of efforts - such as expanding joint research platforms, creating innovation hubs, and developing common standards for recycling and product design. Strengthening demand-pull instruments and sustainable finance initiatives will further support these efforts, positioning the US and EU as global leaders in industrial decarbonization.

### Recommendations for strengthening transatlantic links in circular economy policies

To enhance US-EU collaboration on circular economy policies, efforts can be directed towards bridging regulatory gaps, aligning standards, and focusing on value chains of mutual interest. It is also crucial to expand partnerships to include more stakeholders, as well as to intensify leadership on global commitments. The establishment of transatlantic innovation hubs can drive further progress by supporting startups, enhancing knowledge exchange, and improving funding access. Collaboration can also be strengthened through coordinated policies mandating circularity adoption, as well as platforms for shared criteria and practices.



Credit: [Unsplash / Glenov Brankovic](#)

12 EEA, Accelerating the circular economy in Europe — State and outlook 2024, EEA Report 13/2023; Luxembourg Publications Office of the European Union.

13 Plastic Waste: a European strategy to protect the planet, defend our citizens and empower our industries', accessed 30 July 2024,, [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_18\\_5](https://ec.europa.eu/commission/presscorner/detail/en/IP_18_5)

14 WEF, Closing the Loop on Automotive Steel: A Policy Agenda, 2023. [https://www3.weforum.org/docs/WEF\\_Closing\\_Loop\\_Automotive\\_Steel\\_2023.pdf](https://www3.weforum.org/docs/WEF_Closing_Loop_Automotive_Steel_2023.pdf)



## Recommendations for improving transatlantic links in circular economy practices

Strengthen	Expand	Add
<ul style="list-style-type: none"> <li>• Bridge the gap between the robustness of US and EU regulations.</li> <li>• Establish cooperation around value chains of common interest, seeking alignment of standards.</li> </ul>	<ul style="list-style-type: none"> <li>• Broaden the scope of international partnerships to include more stakeholders from various sectors.</li> <li>• Expand efforts to lead global commitments and set benchmarks for circularity.</li> </ul>	<ul style="list-style-type: none"> <li>• Establish transatlantic innovation hubs to support startups and companies developing circular economy, electrification, and bioenergy solutions, facilitating knowledge exchange and access to funding.</li> <li>• Introduce coordinated policies, including obligations for the public and private sector to encourage the adoption of circularity.</li> <li>• Create dedicated platforms for dialogue focused on developing common circularity criteria, policies, and practices.</li> </ul>

Source: Reform Institute

## Electrification

### Comparison of EU and US policies on industrial electrification

- European institutions emphasize the importance of industrial electrification for the European Green Deal goals, as is reflected in the 'Fit for 55' package and the targets for renewable energy in industry under the Revised Renewable Energy Directive.<sup>15</sup>
- The EU strategy on energy system integration supports industrial electrification by promoting excess heat, heat pumps, and renewable hydrogen use. The Energy Efficiency Directive introduces stricter energy targets, mandates energy audits, and enforces the "energy efficiency first" principle, increasing pressure on industrial modernization.<sup>16</sup>
- The US aims for 100% carbon-free electricity by 2035 and net-zero emissions by 2050, with industrial energy consumption accounting for about 25% of national use and GHG emissions.<sup>17</sup>
- The IRA dedicates USD 360 billion to clean energy, supporting industrial electrification through co-located clean power generation.

### The state of transatlantic links in industrial electrification

Overall, the current state of transatlantic cooperation in industrial electrification is assessed as moderate. While both sides recognize its importance for decarbonization targets, there is a lack of extensive collaborative frameworks. The potential for future improvement lies in the leveraging of existing platforms (such as the TTC, IRENA, and Mission Innovation), which offers opportunities for sharing best practices. The First Movers Coalition encourages commitments from US and EU companies to adopt green technologies, including electrification. Future collaboration could focus on advancing green technology, reducing emissions, and developing sustainable industrial practices. Strengthening links in these areas could accelerate innovation in electrification technologies and align international efforts towards a decarbonized industrial sector.

### Recommendations for strengthening transatlantic links in electrification

In order to bolster transatlantic collaboration in the development of industrial electrification technologies, efforts can be directed towards achieving consensus on common targets and

15 'Renewable Energy: Council Adopts New Rules', Consilium, accessed 28 August 2024, <https://www.consilium.europa.eu/en/press/press-releases/2023/10/09/renewable-energy-council-adopts-new-rules/>

16 Energy Efficiency Directive', accessed 28 August 2024, [https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-directive\\_en](https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-directive_en)

17 EPA, Sources of Greenhouse Gas Emissions <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

standards. Expanding the scope of international partnerships - potentially through mechanisms like the IRENA Collaborative Framework, as well as the establishment of transatlantic innovation hubs - could bring a wider array of stakeholders into the fold and provide support to startups and companies in the field.

## Recommendations for improving transatlantic links in electrification

### Strengthen

- Seek agreement regarding common targets and standards for industrial electrification.

### Expand

- Broaden the scope of international partnerships to include more stakeholders from various sectors, e.g., via the IRENA Collaborative Framework.

### Add

- Establish transatlantic innovation hubs to support startups and companies developing solutions in electrification and related technologies, facilitating knowledge exchange and access to funding.
- Create dedicated platforms for dialogue focused on developing common criteria, policies, and practices.

Source: Reform Institute



Credit: Unsplash / Shane McLendon

This report is part of the project '**Race to the Top for Climate: Building a cooperative agenda for a globally inter-operable clean economy transition**', which is made possible through the funding and support of the Environmental Defense Fund (EDF).

Find out more about the project and our latest events and publications at <https://climatestrategies.org/projects/race-to-the-top/>

**Authors:** Maciej Lipiński, Anna Sands, Aneta Stefańczyk, Aleksander Śniegocki, Adrianna Wrona with contributions from Agnieszka Czaplicka-Kotas, Kamil Laskowski and Zofia Wetmańska.

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