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A CLIMATE ALLIANCE FOR INDUSTRY TRANSFORMATION

A VISION FOR THE G7 “CLIMATE CLUB”

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Executive summary

G7 leaders recently committed to establishing a “Climate Club”¹ by the end of 2022. While more international coordination on industrial decarbonisation should be welcomed, the idea currently lacks focus, clarity and a vision for a way forward.

This briefing sets out a vision for operationalising the three pillars in the G7’s proposal, within the framing of a more inclusive climate “alliance”. The vision aims to address the gaps and risks in the international industrial decarbonisation landscape. The climate alliance should seek to:

- > Converge on average emissions intensity milestones for industrial sectors, ultimately paving the way for the adoption of common minimum CO₂ performance requirements.
- > Promote the adoption of national policies to facilitate the ramp-up of demand for and supply of green industrial products, including low-carbon technology deployment in industrialised developing economies.
- > Establish principles of “fair play” on industrial decarbonisation (such as for carbon leakage measures, green subsidies and market access).
- > Reflect the voices, different starting points and circumstances of ambitious developing countries across all activities.
- > Adopt a governance structure that strengthens and complements, rather than duplicates, the existing landscape of industrial initiatives.

¹ G7, 28 June 2022, [G7 Statement on Climate Club](#)



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Context

In June, G7 leaders committed to establishing an “open, cooperative international Climate Club” by the end of 2022. As a signal of leading by example and decarbonising their industries, this is a welcome development. However, as currently formulated, the idea still lacks sufficient focus and clarity to become successful and attract broad interest to join it, including from developing countries. Its framing (“a club”) is still too exclusive and antagonises potential member countries – framing it as a climate alliance would be more inclusive.²

Nevertheless, the proposal offers a unique opportunity to address the need for greater international coordination on industrial decarbonisation.³ While there has been some progress, critical gaps remain in international climate governance of industry decarbonisation. Given the political capital already invested and the lessons learned, governments should work to improve the G7 proposal, rather than start again from scratch.

Gaps and risks in international collaboration for industry decarbonisation need to be addressed

Since the G7 summit in June, important progress has been made in other fora on facilitating the decarbonisation of heavy industry:

- > The Glasgow Breakthrough Agenda launched its first Annual Report⁴, aimed at strengthening international collaboration through an annual process.
- > Mission Innovation⁵ launched a Net Zero Industries mission that announced at least 50 large-scale demonstration projects by 2030.
- > The USA and Saudi Arabia joined the Industrial Deep Decarbonization Initiative (IDDI)⁶ joining the governments of the UK, Canada, UAE, India and Germany. In September 2022, IDDI released a new global Green Public Procurement Pledge.⁷

² See E3G, 2022, **Can climate clubs accelerate industrial decarbonisation?** and Agora Energiewende, 2022, **Turning the climate club into an effective alliance for the global industrial transition**

³ Oberthür et al., 2021, **Global governance for the decarbonisation of energy-intensive industries: Great potential underexploited**

⁴ IEA, IRENA and UN Climate Change High Level Champions, 2022, **The Breakthrough Agenda Report 2022**

⁵ Mission Innovation, 2022, **Net Zero Industries Mission**

⁶ IDDI, 21 Sept. 2022, **UN-led coalition to release targets to cut carbon from public construction projects**

⁷ These pledges are based on definitions and embedded carbon accounting methodologies proposed by the International Energy Agency (IEA).



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While these are welcome developments, they require the backing of ambitious national policies to actually deliver on the stated objectives. To enable such policies and create trust among countries, other issues still need addressing.

- > First-mover countries' concerns about carbon leakage⁸ must be addressed. Doing so, and achieving climate neutrality, requires economic incentives provided by the emergence of global green product markets and tightening constraints on trade in dirty goods over time. This will also incentivise reluctant but capable countries to act.
- > Tendencies towards protectionism in green industrial policy must be held in check. Green protectionism is useful for initially enticing national public spending to support clean technologies but will end up delaying the transition and increasing costs. Green industrial policy must be bound by fair rules and processes to preserve a multilateral approach to climate change. Guaranteeing a minimum level of openness of new green product markets to all countries and non-discrimination between domestic and foreign producers of green products is essential for global-scale decarbonisation.

The climate alliance has the potential to be the political vehicle that addresses these issues, enabling member countries to implement the necessary ambitious policies to accelerate industrial decarbonisation globally.

Improving the G7 proposal through pragmatic and focused implementation

An open and inclusive international climate alliance of high ambition nations – as proposed by the G7 in Elmau – is a good starting point. The three pillars⁹ on which it is built – converging on ambition, sectoral cooperation, and engagement with developing countries – are a useful foundation for accelerating emission reductions in industry. But each pillar must be given more precision, focus and pragmatism to be implementable. To achieve this, the climate alliance must:

- > Set narrow aims initially, focusing on cooperation on industrial decarbonisation.

⁸ Carbon leakage can occur when economic activities are displaced, or investment or consumption patterns change, for reasons of costs related to climate policies. This could directly or indirectly cause greenhouse gas emissions to be displaced to other countries with no or laxer emissions constraints in place.

⁹ G7, 28 June 2022, [G7 Statement on Climate Club](#)



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- > Provide a way out of the carbon leakage prisoners' dilemma while safeguarding ambition.
 - > Provide a pathway for convergence of national sectoral CO₂ performance, aiming to eventually introduce product requirements based on CO₂ intensity.
 - > Reflect the voices, different starting points and circumstances of ambitious developing countries across all activities.
 - > Build on and strengthen existing clean industry initiatives, including in the private sector, by leveraging governments' policy-making capacity to de-risk demonstration projects, provide key infrastructure and create lead markets.

Kickstarting action under each of the G7's three pillars

Pillar 1: Incentivising high ambition and mitigating carbon leakage

The climate alliance should:

1. Seek convergence on milestones for reducing average emissions intensity in key industrial sectors in each member country (short to medium term).¹⁰
2. Reduce and ultimately mitigate the risk of carbon leakage more broadly through the adoption of common CO₂ performance standards for industrial products (medium to long term).
3. Drive forward a process to set principles of "fair play" on industrial decarbonisation, such as for carbon leakage measures, green subsidies and market access (short to medium term).

Members of the alliance need to coordinate national industrial decarbonisation goals or milestones¹¹, to track progress against them, and to converge on them gradually and equitably. Where differences in starting points between members are large (for example between developed and least developed countries), convergence of average sectoral CO₂ performance should be envisioned as an iterative process. Even large, industrialised emerging countries would require

¹⁰ This would be based on common emission measuring standards and product definitions agreed under pillar 2.

¹¹ While initially these could be relative to countries' starting points, ultimately these would have to be absolute common milestones for the different groups of members of the alliance

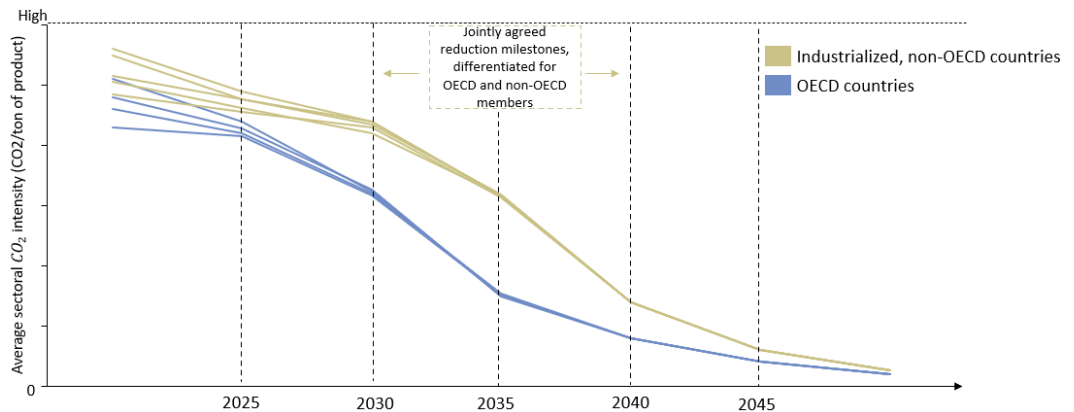


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slightly more time than OECD countries to converge due to the scale of the challenges they face. Progress could be monitored by the Glasgow Breakthrough annual process and via relevant UNFCCC processes.¹² This iterative process is visualised in **Error! Reference source not found.**

Figure 1. Illustrative visualisation of how climate alliance members’ CO₂ intensity performance might converge over time around interim milestones.



Such an approach requires defining what a credible and ambitious commitment would entail, and how these can differ depending on levels of development. A commonly endorsed pathway, such as outlined in the IEA’s Net Zero Heavy Industry Report¹³ or the Breakthrough Agenda Report¹⁴ could be used for this purpose.¹⁵

Alliance members should be free to use whatever policies are appropriate to meet these emissions intensity milestones based on their national circumstances. Seeking convergence on specific policy tools (such as carbon pricing), is currently unrealistic for technical, legal and political reasons.

¹² Commitments could be embedded in future pledges under revised Nationally Determined Contributions (NDCs) or the UNFCCC mitigation work programme. Commitments need to be followed by corresponding national policy.

¹³ IEA, 2022, **Achieving Net Zero Heavy Industry Sectors in G7 Members**

¹⁴ IEA, IRENA and UN Climate Change High Level Champions, 2022, **The Breakthrough Agenda Report 2022**

¹⁵ These reports propose pathways on the basis of near zero technology deployment goals and average sectoral emissions intensity targets per unit of crude steel or concrete or cement. For example, based on these reports, the alliance might agree that OECD countries adopt an across-the-board goal of, say, –35% Scope 2 (direct and indirect electricity and heat) emissions reductions per tonne of production of crude steel and per m³ of concrete or cement by 2030. A –95% goal could then be adopted for 2050 or 2060 depending on the development status of the country. Of course, a decision would need to be made on where in the value chain (material or product) to put the goal and how to deal with recycled vs. primary products.



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Given the resulting variation in policy approaches, a risk of carbon leakage will remain,¹⁶ which will have to be addressed at the national level. In the medium to long term, members of the alliance could gradually ban the sale of products above the agreed and declining performance thresholds. This cannot be achieved in the short run given the need to scale up green technology markets and support the transition in developing and emerging economies before a critical mass of countries are able to meet the thresholds.¹⁷ The adoption of these CO₂ product requirements for market access in the medium to long run will also help mitigate against free riding by club members.

To build the necessary level of trust among members of the alliance to commit to this iterative process, principles of “fair play” need to be agreed in areas where tension might occur, or is already occurring, in the short to medium term.¹⁸ This includes the use of green subsidies, market access rules, carbon leakage policies such as border carbon adjustments, and free allocation of emissions credits in emissions trading systems. To this end, the climate alliance should drive forward a process to set globally applicable principles for fair, environmentally robust and non-discriminatory industry decarbonisation policy. Fair play is not only a moral obligation, it also determines the legitimacy and efficacy of the alliance, as protectionist tendencies would hinder the overall efficiency of industrial decarbonisation globally.¹⁹ The climate alliance would make a major contribution by resolving these challenges.

¹⁶ While convergence on sectoral performance milestones and CO₂ product requirements will help mitigate this risk eventually, the mix of policy instruments (e.g. carbon pricing vs. subsidies) chosen to achieve these milestones will still lead to residual risks of carbon leakage between members of the alliance.

¹⁷ Ultimately, this convergence on CO₂ intensity requirements offers a way out of the ‘carbon leakage prisoner’s dilemma’ countries currently find themselves in. In the interim, however, significant cost differences will still occur. National carbon leakage measures will be required, also between members of the alliance. Moreover, some level of national green industrial policy is warranted, but needs limits.

¹⁸ Reuters, 3 November 2022, [EU in talks with U.S. over new IRA law trade issues](#)

¹⁹ The climate alliance will not be able to “solve” all existing environmental or climate-related trade issues, but it could still contribute to some of the issues around industry and help pave the way for other more far-reaching political dialogue on climate and trade issues. Eventually, such a dialogue would need to include major producing and trading economies, such as China, the United States, the EU, India and Japan – together representing over 75% of global trade in the most relevant commodities. The climate alliance could seek to establish and support such a dialogue in parallel to broader discussions.



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Pillar 2: Sectoral cooperation

To ramp up the market for green industrial products, climate alliance members should:

1. Commit to establish common definitions of near zero and low-carbon materials and embedded carbon reporting standards.
2. Adopt ambitious national policies to create demand for near zero emissions products.

To meet this market demand, climate alliance members should:

1. Adopt pledges and accompanying national policies to push near zero emissions technologies into the market.
2. Announce funding opportunities and economic instruments, such as tax credits or carbon contracts for difference²⁰ to stimulate the production of low-carbon products.

This pillar should focus on market creation for near zero and low-emissions basic materials. Governments in the alliance should loosely coordinate announcements and implementation for missing market-starter policies on the demand and supply side of the market. This would create positive spillovers for global industrial transformation through economies of scale.

On-the-ground regulatory and financing policies are required to actually deliver a business case for investments at scale. The climate alliance should seek to fill the policy gap that exists in other initiatives, such as Mission Innovation, the First Movers Coalition, and IDDI. The set of products should start narrow – building on the areas that are the most advanced (such as steel and concrete) – and could expand over time.

Members would ideally set national embodied carbon regulations for industrial and, eventually, end-products, for example through green public procurement. Membership should not be conditional on adopting specific policies, however. Wherever possible, the alliance should seek to build on and strengthen existing

²⁰ CCfDs are an innovative financing tool which can stabilise revenue streams and mitigate risks for investors. They eliminate the volatility and uncertainty regarding the carbon price by pre-agreeing CO₂ strike-prices with developers.



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international initiatives, such as the pledges on public procurement developed by the IDDI. In creating these lead markets, members of the alliance should not discriminate between domestic and foreign products of equivalent emissions performance.

Alliance members will need to establish common definitions for near zero and low-carbon materials, as well as common reporting standards, to enable the use of trade restrictive measures for carbon-intensive materials in the medium to long term. Again, this process should build on the existing work of the IEA and IDDI, while also seeking to align other processes.²¹

In tandem, the deployment of near zero emissions industrial technologies needs to speed up to help meet the demand created, and to help overcome supply side barriers such as infrastructure, clean energy availability, and financial risks for first movers. National policies can take the form of milestones for commercial scale deployment of near zero emission technologies.

Funding and economic activities should build on Mission Innovation's Net Zero Industries work and the First Movers Coalition,²² allowing the private sector to present promising projects and business models to governments. Governments in the climate alliance would then match those project proposals they wish to support, among others, with appropriate domestic policy instruments to create a business case for the overarching deployment goals.²³

²¹ For example, methodologies developed for the EU Carbon Border Adjustment Mechanism, the EU–US Global Arrangement on Sustainable Steel and Aluminium, and private sector initiatives such as Responsible Steel.

²² [First Movers Coalition](#) website

²³ This process of supporting the deployment of first low-carbon production sites is of course up to the members' prerogative. However, it critically needs to be accompanied by the process described under pillar 1, by which agreed rules of fair play on carbon leakage protection and green subsidies are established, and pillar 3, by which developing countries are supported in their industrial transition.



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Pillar 3: Inclusivity and engagement with developing countries

Inclusivity and support for developing countries should not be seen as a separate pillar or “add-on” to the alliance, but as an integral element of the entire agenda. To do so, the climate alliance should:

1. Seek to include ambitious developing countries, especially the largest industrial producers and those already involved in industrial decarbonisation initiatives.
2. Support clean technology deployment in developing country members by creating “clean product buyer” alliances or projects.
3. Support pragmatic and proven capacity building activities to accelerate industrial decarbonisation, working through appropriately skilled international organisations.

Today, close to 70% of steel, aluminium and basic chemicals production occurs in non-OECD countries, which will also see the highest future growth. To be effective, the alliance needs to attract the membership of large developing countries. Several developing and emerging countries are already involved in various initiatives, for example in Glasgow Breakthroughs, India as a leading member in IDDI, and China in Mission Innovation.

However, in addition to activities mentioned under pillars 1 and 2, the climate alliance should recognise the inherent limitations and different starting points in industrial decarbonisation. Committing to fair play principles will be key in ensuring the diffusion of green technology, a crucial prerequisite to accelerating the transition globally. The alliance should also develop mechanisms to tie production in developing economies into green global value chains. This would help create a business case for technology investments in developing countries by sending a guaranteed demand signal. Establishing “clean buyer alliances” could be one potential avenue with precedent.²⁴

²⁴ H2Global – a model used in Germany to acquire clean hydrogen derivatives regardless of location of production – could perhaps serve as a model to be adapted for this mechanism. However, it may also need to start at a smaller and more “project by project” scale. In turn, bilateral arrangements could be negotiated, potentially combining early-stage project capex financing or guarantees from the donor and recipient governments, with the above-mentioned contractual arrangements from the future seller and buyer. Thus, industry in both developed and developing countries would benefit from the greening of global value chains, while private sector finance could be leveraged with minimal public investments.



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A platform for dialogue with developing countries should be established, which could focus on identifying the conditions to accelerate industrial decarbonisation in participating developing countries. This could be run by UNIDO, with funding from climate alliance members. This work might include a range of actions, including the development of sectoral roadmaps (building on the work done by the Leadership Group for Industry Transition (LeadIT)²⁵, for example), better data and reporting tools on emissions, policy knowledge transfer, local innovation competitions, or clean infrastructure planning.

Governance and communication

The work program outlined above is realistic, will lead to tangible benefits for industrial transition globally, be attractive for prospective members from both developed and developing countries, and fulfil the conditions outlined in the G7 statement. However, for it to work it will be important to get the communication and governance of the alliance right.

Governance

While G7 members have thus far acted as a useful incubator, the alliance needs to be housed and administered elsewhere when established. The G7 does not have the necessary secretarial capacity, nor would it be a good venue to attract broad membership and avoid the perception of an alliance of advanced economies seeking to introduce protectionist measures.

The alliance should seek to avoid duplication and build off existing initiatives that understand the details of the relevant topics, have secretariats in place and have experience in dealing with international diplomacy. The alliance itself would be a high-level political coalition of governments that helps make the most relevant initiatives to its agenda more ambitious and effective. While setting the agenda, it could outsource technical implementation to the most relevant existing initiative for each topic. The alliance would in turn add value to these initiatives by making ambitious policy pledges (and enacting them) to help these initiatives deliver on their objectives.

The most relevant and promising initiatives for implementing the agenda described above are summarised in Figure 2 (next page). To legitimise the creation of such a political grouping, and given its objectives and focus on industry, the alliance should seek to encompass most if not all (leading)

²⁵ [Leadership group for industry transition website](#)



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members of the existing industry initiatives, as well as the majority of industrialised developed and developing countries.

The alliance could perhaps meet once per year, for example on the side of the Clean Energy Ministerial or UNFCCC Conference of the Parties (COP), providing a moment to take stock of progress made and announce new policy commitments or sub-initiatives to fill identified gaps.

Figure 1: Initiatives and processes relevant to the work programme of the alliance

Breakthrough Agenda (supported by IEA) <i>Overarching</i>		
Climate alliance <i>Ambitious implementation and participation in initiatives through national policies Identify and initiate missing gaps in collaborative agenda</i>		
Pillar 1 Converging on ambition and defining fair play	Pillar 2 Sectoral coordination: making scalable green markets	Pillar 3 Building capacity and investments in developing countries
Ambition convergence Lead: governments in the alliance Related processes: UNFCCC (NDC cycle & Mitigation Work Programme); Responsible Steel; LeadIT; CEM; G7/20	Demand side Lead: IDDI & FMC Related processes: SteelZero; GSA; new clean product buyers' alliances	Lead: new forum to be set up (possibly UNIDO-led) Funding: alliance members + future public-private buyers alliances Related process: LeadIT, CEM, International Climate Finance Institutions; Article 6 of the PA
Trade and fair play Lead: new dialogue to be set up Related processes: WTO; Coalition of Trade Ministers on Climate; OECD; GSA; G7/20	Supply side Lead: MI Related processes: new clean product buyers' alliances	

Communication and building momentum

To succeed, the communication around the climate club idea needs to drastically improve. For countries to sign up to this initiative, it is key to put forward a limited number of clear and concrete objectives (as outlined above), making the implications and requirements of joining clear.

The name climate “club” needs to be dropped. It has been a source of both confusion and contention, clearly conflicting with the stated goal of inclusiveness and eschewing protectionism. An alternative such as “industrial climate cooperation alliance” or “industrial decarbonisation coalition” should be used instead.

To maintain momentum, the specific action agenda of the climate alliance and its reinforced focus on industry should be announced as soon as possible. A charter



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should be drawn up, outlining the value-add, aims and organisational structure of the alliance, and setting out an action plan for the next few years and the obligations that new members need to be meet.

About E3G

E3G is an independent climate change think tank with a global outlook. We work on the frontier of the climate landscape, tackling the barriers and advancing the solutions to a safe climate. Our goal is to translate climate politics, economics and policies into action.

E3G builds broad-based coalitions to deliver a safe climate, working closely with like-minded partners in government, politics, civil society, science, the media, public interest foundations and elsewhere to leverage change.

More information is available at www.e3g.org

About Agora Industry

Agora Industry is a division of Agora Energiewende that develops strategies and instruments for climate-neutral industrial transformation – in Germany, the EU and globally. Agora Industry works independently of economic and partisan interests. Its only commitment is to climate action.

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