



For the attention of Government Leaders:

Today, heavy industry (aluminium, cement, chemicals and steel) and transportation (aviation and shipping) represent nearly 30% of global emissions¹. Reaching net zero in these sectors is possible, but requires transformational changes, including the commercialisation and rapid deployment of deep decarbonisation technologies as well as a significant increase in energy and materials efficiency. Due to long lifetimes of industrial assets, these sectors are particularly at risk of carbon lock in.

Although the pipeline of clean industrial projects is growing, they are struggling to reach Final Investment Decision (FID), which is when companies start putting shovels in the ground. Of an estimated 700 commercial-scale plants that need to be operational by 2030 to align with a net-zero 1.5C compliant pathway, only [136](#) have progressed beyond FID². It is increasingly evident that uncertainty over the scale of demand for low- and near-zero-carbon materials, chemicals and fuels is constraining investment. Buyers are not yet entering long-term offtake agreements in sufficient volumes, in large part due to the current higher price of low- and near-zero-carbon commodities compared to carbon-intensive equivalents.

In recent years, funding programmes in several of the world's largest economies have been developed to support deployment of clean industry solutions. Voluntary corporate commitment initiatives³ have been put in place to stimulate initial demand for new clean technologies. While necessary and welcome, additional efforts are urgently needed to scale low- and near-zero-carbon commodity markets and unlock the next wave of industrial projects. Government policies are required to both further stimulate supply and to structurally embed higher volumes of demand for low- and near-zero-carbon materials, chemicals and fuels. With increased economies of scale and a more certain policy trajectory, we expect costs to drop over time as a result, and early-mover countries to benefit from their industrial leadership in new clean technologies.

We urge all governments to strengthen their policy frameworks between COP29 and COP30 to stimulate additional demand for low- and near-zero-carbon materials, chemicals and fuels. Governments should align their overall policy frameworks with a 1.5°C compliant pathway. The following key policy measures have the greatest potential to scale demand for low- and near-zero-carbon commodities, impact the investment case for clean industry, and lead to material emissions reductions by 2030. As with any government policy, the exact mix of measures, and their specific design will need to be tailored to the national context, considering local social, economic, and environmental circumstances and detailed impact assessments. Governments will need to pay attention to ensuring a just transition that protects vulnerable communities.

For chemicals and long-distance transportation fuels, the priority is to gradually ramp up use of clean hydrogen and its derivatives (as chemical and fertiliser feedstocks and as fuels), and truly sustainable bio-based feedstocks and fuels over time, as increased volumes drive cost reduction. Key measures include:

- Supporting the implementation and strengthening of **mandatory global fuel standards and carbon pricing mechanisms**, including supporting the adoption of such measures at the International Maritime Organization (IMO) and the strengthening of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) to further incentivise Sustainable Aviation Fuel (SAF).
- In sectors where global carbon pricing mechanisms are not yet on the horizon, **implementing such measures domestically**, and taking appropriate steps to mitigate the risk of carbon leakage to avoid market distortion effects.
- Setting and enforcing **mandatory quotas** that become stricter over time for the use of clean hydrogen, ammonia, methanol, and SAF.

For materials, such as aluminium, cement and steel, the priority is to establish and scale lead markets for low- and near-zero-carbon commodities that can effectively support early clean industrial projects. Key measures include:

- Implementing effective **carbon pricing**, signposted in advance to create market predictability and reaching a level that makes low- and near-zero-carbon materials competitive with carbon-intensive alternatives, while taking appropriate steps to avoid the risk of carbon leakage and market distortion effects.
- Setting **mandatory targets for low- and near-zero-carbon materials in public procurement**, especially for cement and concrete and for steel, being more ambitious for specific large projects. An important vehicle that governments can leverage to coordinate and drive these efforts is the Industrial Deep Decarbonisation Initiative's [Green Public Procurement Pledge](#).
- Setting stringent, and progressively tightening, **limits on whole life carbon (including embodied carbon) emissions in product standards** – for instance for automotives and white goods – and building codes, while incentivising durability, resilience, efficient use and circularity of materials and products.
- Setting **mandatory quotas** for low- and near-zero-carbon materials usage in specific sectors (e.g. automotives and white goods), with a progressive increase of the mandated shares, to create lead markets.

Across these sectors, key measures include:

- Helping bridge the remaining gap between the price of green commodities and the willingness to pay of potential buyers through **subsidies** (e.g. tax credits) to support downstream sectors where small cost increases could have a social impact like agriculture.
- Implementing policies that reduce offtake risks and help bridge the price gap for the next wave of projects, for instance through **contracts for difference or market intermediaries** like H2Global.



To underpin these measures, it is also critical that governments establish and employ robust standards for low- and near- zero-emissions products, including emissions accounting methodologies, product definitions, and accompanying certification schemes⁴. These should be based on international best practices and would ideally be harmonised (or at least allow for interoperability), particularly for globally traded commodities.

Especially where no global regulator is in place⁵, inter-governmental collaboration to drive parallel uptake of similar sets of measures across different geographies can make the implementation of many of these policies more effective. We encourage inter-governmental collaboration via the Breakthrough Agenda and other relevant fora to coordinate these efforts.

The window of opportunity for heavy industry and transport sectors to get back on a 1.5°C-aligned trajectory is closing fast. Leading companies across these value chains have demonstrated climate leadership and made first commercial-scale projects possible. Now is the time for policy frameworks that stimulate demand for low- and near-zero-carbon commodities to unlock further progress.

Endnotes

- 1 As a share of scope 1 and 2 emissions from energy, industry, buildings, transport and fugitive fossil fuel emissions. Excluding land use, land-use change and forestry. Based on 2020 figures this roughly breaks down by sector as follows: steel 9%, cement 8%, shipping 3%, chemicals 3%, aluminium 2%, and aviation 2%. This letter focuses on a subset of the chemicals sector: namely ammonia, methanol and derivative products like ammonia fertilisers. Together, these account for around 2% of emissions.
- 2 Based on Mission Possible Partnership's [Global Project Tracker](#).
- 3 Such as the [First Movers Coalition](#), [Steel Zero](#), [Concrete Zero](#), [Zero Emission Maritime Buyers Alliance](#), [Sustainable Aviation Buyers Alliance](#) and [Race to Zero](#).
- 4 A summary of the standards landscape across these sectors can be found [here](#).
- 5 In the international aviation and maritime spaces, global regulators (International Maritime Organization and International Civil Aviation Organization) are in place.



The following coalitions endorse this statement:

Alliance for Industry Decarbonisation
Ammonia Energy Association
Glasgow Financial Alliance for Net Zero
Global Cement and Concrete Association
Global Renewables Alliance

The following organisations endorse this statement:

Climateworks Centre
Energy Transitions Commission
Global Maritime Forum
Green Hydrogen Organisation
ResponsibleSteel Secretariat
Rocky Mountain Institute
Smart Freight Centre
SteelZero and ConcreteZero,
ClimateGroup
United Nations Foundation
We Mean Business Coalition
World Wide Fund for Nature –
WWF International
United Nations Industrial Development
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The following companies endorse this statement:

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