



WE MEAN
BUSINESS
COALITION



HARNESSING THE POWER OF DEMAND: DESIGN PRINCIPLES FOR DEMAND SIGNAL INITIATIVES

JULY 2022

CLIMATE GROUP

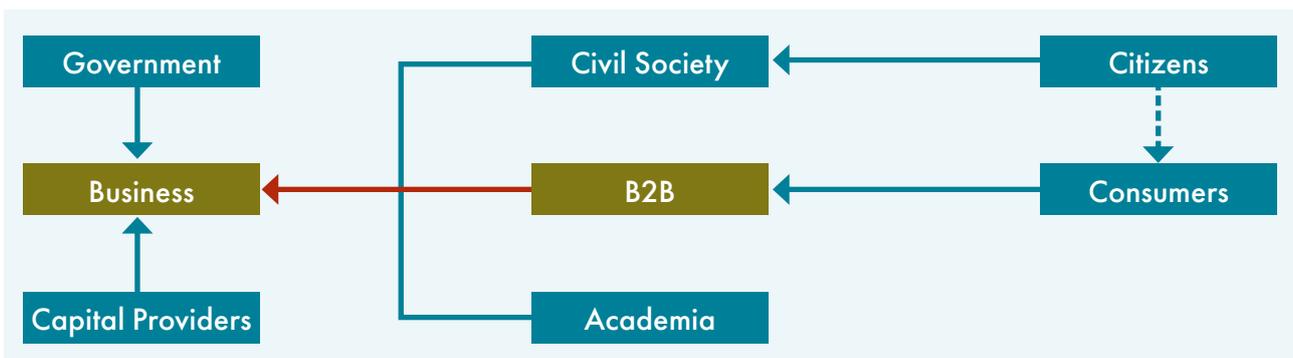


WHAT IS A DEMAND SIGNAL INITIATIVE?

New analysis from the We Mean Business Coalition looks at harnessing the power of demand for decarbonization solutions through **demand signal initiatives** as a driver for the transition to net zero.

Demand signal initiatives are defined as different types of campaigns, alliances, and other actions that aim at getting companies and public procurement bodies to commit to purchasing net-zero products, services, and energy.

A strong demand signal demonstrates the need for policy changes and provides suppliers and investors with the confidence to invest in the development and use of the net-zero solutions.



Demand signal initiatives aim at accelerating the scale-up, commercialization and wider use of net-zero technologies and solutions. As more and more companies set net zero targets and work to implement emissions reductions, they are faced with challenges linked to their supply chains. Companies have found that they must engage with their suppliers to source lower carbon goods and services. At the same time, many upstream companies face challenges in reducing their emissions at the pace needed to stay below 1.5 °C.

A key lever to accelerate change across the supply chain has been for companies to aggregate their buying power by committing collectively to purchasing decarbonized products and services. This promotes new investments and transformation on the supply side by sending a clear signal that there is demand in the market. For the private sector, early market seeding campaigns for low Technology Readiness Levels (TRL) net-zero products and solutions; and broad demand campaigns for the adoption of high TRL net-zero products and solutions which are currently in inadequate supply, can help accelerate scaling the demand and adoption of the

net-zero products and solutions. Governments are also large purchasers and have started to signal their demand for decarbonized products. Green Public procurement efforts that target national and subnational policies and standards, have an important role in creating demand for net-zero products especially for infrastructure and construction related products, such as steel and concrete. Thus, demand side initiatives aggregate and leverage Business to Business (B2B) customers to prompt business to act. Demand side initiatives also target other key stakeholders such as governments who can influence business.

WHY DO WE NEED THESE INITIATIVES NOW?

Reducing global GHG emissions to **net zero by 2050** is consistent with efforts to limit the long-term increase in average global temperatures to 1.5°C. Achieving this goal calls for nothing less than a complete transformation of how we produce, transport, and consume goods & energy as well as improve the capacity of nature to draw down emissions.

As more companies set net-zero targets and work to reduce emissions, many face challenges linked to the limited supply of net zero compatible products and energy. There is an urgent need for developing, commercializing, and rolling out innovative low-carbon solutions. It is estimated¹ that around **50% of the technologies needed to reach net-zero emissions by 2050 are still under development.**

The required scale of change naturally varies between different sectors, with e.g. the steel industry among those needing the most radical emission reductions; in a cost effective 1.5°C pathway, steel sector emissions need to **fall by at least 50% by 2030 and by 95% by 2050, compared to 2020 levels.**²

The overall goal of these initiatives is to create demand signals powerful enough to incentivise investment into manufacture of net-zero products. Many demand signal initiatives already exist, but they do not cover all emission-intensive sectors and sub-sectors.

THE PRACTICAL STEPS FOR SETTING UP A DEMAND SIGNAL INITIATIVE

1. Identify and clearly scope the **market gap** to avoid overlap with other initiatives. Could collaboration or merging between initiatives add value?
2. Define a clear **objective and theory of change**. Plan all actions to reflect this theory of change.
3. Gather a **critical mass**. Target large, global companies, organizations with a high emissions reduction potential, first-movers and influencers. Aim for C-level engagement to ensure buy in.

Focus actions on:

- Demonstrating a business case for action and added value of the initiative,
 - Facilitating peer-learning and collaboration,
 - Aggregating the voice of initiative members,
 - Facilitating actual implementation of commitments, and
 - Leveraging the power of aggregated demand by influencing the supply chain, policy makers and investors.
4. **Collaborate** based on the determined objective and theory of change. Consider collaboration with other initiatives and organizations with similar objectives, upstream companies (supply chain), downstream companies, and local partners. Consider possibilities to create a **joint center of expertise** to serve multiple initiatives.
 5. Base the **impact assessment indicators and monitoring** practices on the objective and theory of change.

1. First Movers Coalition, <https://www.weforum.org/first-movers-coalition>

2. Yu, S., Lehne, J., Blahut, N., & Charles, M. (2021). 1.5°C Steel: Decarbonizing the Steel Sector in Paris-Compatible Pathways. https://9ij4025ol53byww26jdkao0x-wpengine.netdna-ssl.com/wp-content/uploads/1.5C-Steel-Report_E3G-PNNL-1.pdf

WHO IS THE AUDIENCE FOR DEMAND SIGNAL INITIATIVES?

Demand signal initiatives aim to influence the whole value chain and operating environment of low-carbon solutions from technology suppliers and demand creators to policy makers and the finance sector. To become a member of a demand signal initiative, companies or governmental bodies need to make a public commitment to a specific net-zero related action or announcement defined by the initiative (for example to procure 100% net-zero steel by 2050 or to purchase 100% renewable electricity).

Initiative structures are often built around NGOs or non-profit organizations who act as hosts of the initiatives. Initiatives typically collaborate with a wide range of other stakeholders.

TARGET AUDIENCES:



Public sector actors and policy makers are key to the development of environmental and policy frameworks needed for the net-zero transition through the national and sectoral target-setting. Instruments used by these actors include public procurement requirements and legislative changes (e.g., bans of emissions intensive products or technologies). Other strategies include financial instruments or price signals and funding and support for developing or investing in net-zero solutions and carbon-pricing.



Private companies that make their commitments and roadmaps to reduce emissions from their operations and their supply chains. The commitments are driven by factors including regulation or other public sector actions, changes in customer demand as well as recognizing opportunities for competitive advantage and improved business cases.



The finance sector overall and investors increasingly recognize the risks and opportunities related to the green transition and set climate-related requirements or targets for their investment portfolios. The mechanisms and drivers are interlinked and can be mutually reinforcing, with policy actors e.g., defining green taxonomies³ for the finance sector, and finance sector forerunners showcasing success stories where profit meets green/low-carbon impact.



Supply chain initiatives help companies collaborate along the supply chain to decarbonize operations. The increasing focus on efforts to decarbonize supply chains is driven by risk management considerations and increases in client inquiries and requirements related to the sustainability of the whole supply chain and management of Scope 3 emissions.



Both private and public innovation and research work to develop new solutions with lower GHG emissions. Developing, piloting, and successfully scaling up low/no-carbon products and services requires smooth private-public sector collaboration. Essential for scaling the necessary climate solutions is understanding the maturity of and optimal timing and role of public-private partnerships, as well as the optimal role of public finance for blending and mobilizing private expertise and finance.

WHERE ARE DEMAND SIGNAL INITIATIVES MOST SUCCESSFUL?

- In regions where there is adequate political momentum for a net-zero transition, supporting the objectives of the initiative.
- For sectors/processes with high emission reduction potential, and in which there is not yet enough supply of low-carbon solutions.
- For sectors with a group of leadership companies (with strong brands) who are championing or ready to champion action in this area.
- When the initiatives are technology neutral, letting specific technology choices be made by the markets/suppliers to efficiently meet demand.
- When they build a focused alliance, which includes supply chains also from the Global South⁴, that aligns with the concept and ambition of the initiative.

3. See e.g. [EU taxonomy](#) for sustainable activities and [FoSDA](#) for an international overview of taxonomies

4. http://www.fc-ssc.org/en/partnership_program/south_south_countries



CASE STUDY

SSAB has produced the world's first fossil-free steel and made a trial delivery to a customer. Credit: SSAB/ssab.com

Industry: Steel

Gaps:

The production of steel is very emission-intensive: the global steel industry represents approximately 8% of global CO₂ emissions. Net-zero steel is still an emerging technology, with large-scale production anticipated to be available in the coming years.

Opportunities:

Progress in this field is quick, as seven out of the ten largest steel producing countries have initiated at least one low-carbon steel project.⁵ Sweden-based SSAB aims to be the first steel company in the world to bring fossil-free steel to the market in 2026, using its HYBRIT technology based on fossil-free electricity and hydrogen. This technology is expected to reduce the emissions of steelmaking by approximately 90%.⁶

Demand signal initiatives:

The steel industry is already quite well represented in demand signal initiatives, with two global steel-focused initiatives, SteelZero and Responsible Steel, which also cooperate with each other. In addition, the First Movers Coalition also works with the steel sector, together with many other emerging technology sectors such as shipping and aviation.

Lessons learned from steel initiatives to date

Important lessons from the SteelZero initiative have been that the level of awareness and support that the prospective demand side members need to make the commitment to net-zero by 2050 is higher than expected, and the concrete outputs and reports that the initiative provides are very important to the members. The initiative also facilitates alignment on definitions and standards and provides members with demand side tracking and guidance tools.

Another key lesson is that trusted relationships need to be built to make it work, especially because the technology (for net-zero steel) is still emerging and not yet available in the market at this point (before 2026).⁷ Developing these deeper relationships will be particularly critical in geographies such as China, which represent approximately 50% of global steel production.

5. <https://www.industrytransition.org/insights/g7-green-steel-production/>

6. <https://www.ssab.com/fossil-free-steel/hybrit-a-new-revolutionary-steelmaking-technology>

7. Interview with SteelZero 13.12.2021

WHAT ARE SOME EXAMPLES OF DEMAND SIGNAL INITIATIVES?

Type	Name	Led/coordinated by	Description
Green public procurement campaign	Industrial Deep Decarbonisation Initiative	UNIDO	A cross-country initiative co-led by the UK and India, aimed at scaling green public procurement by setting the standards for policies and data in steel & concrete.
Broad demand campaign	SteelZero	Climate Group	A global initiative that brings together leading organizations to speed up the transition to a net-zero steel industry. Organizations that join SteelZero make a public commitment to procure 100% net zero steel by 2050 and an interim commitment to procuring 50% of its steel requirement by 2030.
Broad demand campaign	Responsible Steel	ResponsibleSteel Secretariat	The first global multi-stakeholder standard and certification program for the steel industry. The initiative has members from all parts of the steel supply chain, including steel producers, civil society and downstream users. Technical partner for SteelZero.
Broad demand campaign	Concrete Action for Climate	Mission Possible Partnership	A coalition of organizations, steered by Mission Possible Partnership, that support the objective of delivering net-zero concrete to the world by 2050. The initiative focuses on areas that require cross-industry and multistakeholder collaboration, such as standard setting and demand creation.
Broad demand campaign	ConcreteZero	Climate Group	A global initiative for speeding up the transition to a net-zero concrete industry, with full supply commercially available across all regions of the world by 2050.
Broad demand campaign	EP100	Climate Group	EP100 is a global initiative bringing together over 120 energy smart businesses committed to measuring and reporting on energy efficiency improvements. Energy efficiency is essential as it can deliver over 40% of the reduction in energy related emissions needed to achieve global climate goals. Taking energy efficiency from the boiler room to the boardroom, members are reducing emissions whilst improving competitiveness.
Broad demand campaign	EV100	Climate Group	Global initiative boosting companies to switch their owned and contracted fleets to electric vehicles (EV) and installing charging infrastructure for employees and customers by 2030. Additionally, the initiative drives engagement and dialogue with governments and manufacturers to address the remaining barriers to EV uptake and infrastructure roll-out.
Broad demand campaign	RE100	Climate Group	Global corporate renewable energy initiative bringing together large and ambitious businesses committed to 100% renewable electricity with the ultimate goal of policy changes to facilitate the use of renewable energy.
Early market seeding campaign	Cargo Owners Zero Emission Vessel Initiative	Led by cargo owners and facilitated by the Aspen Institute	Collaboration platform for maritime freight customers for accelerating decarbonization in the field. Aims to undertake concrete collective action on decarbonization – targeting net-zero carbon maritime freight by 2040.
Early market seeding campaign	First Movers Coalition	World Economic Forum	A public-private partnership between the US State Department, through Special Presidential Envoy for Climate John Kerry and the World Economic Forum and is supported by the US Department of Commerce. Aims to unlock the untapped potential of emerging technologies needed to decarbonize the world by 2050.

ACKNOWLEDGEMENTS

WMBC would like to thank Gaia Consultancy for carrying out the research and interviews that this summary is based on. We would also like to thank Climate Group and Mission Possible Partnership for their contributions to this study.