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Governing net zero: the conveyor belt

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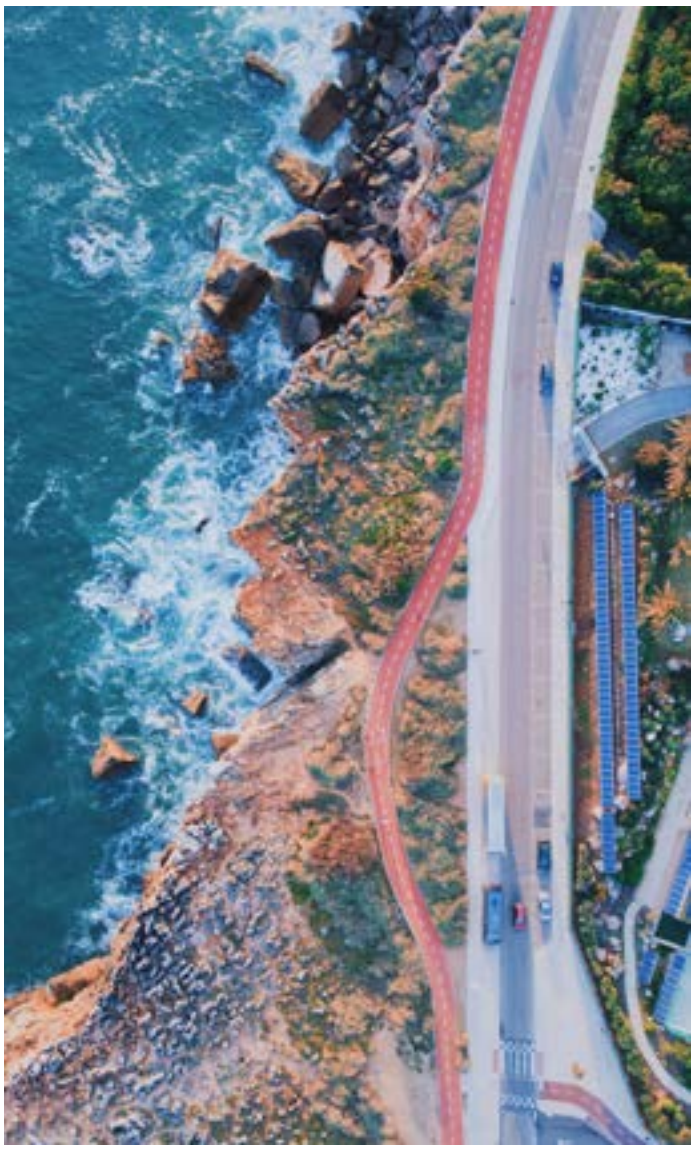
Introduction

"Net zero" has gone from a scientific concept, to a demand of fringe activists, to a mainstream organizing principle for mitigation in record time. After COP26, at least 90% of the global economy is covered by some kind of net zero pledge.



But having reached the "end of the beginning" of net zero—a near-universal commitment to the destination climate science says we need to arrive at by the middle of the century—a more difficult phase emerges. A concept describing a global outcome must be operationalized for individual countries, regions, cities, sectors, and companies. Pledges must become binding pathways with sufficient short-term action to be credible. As Paris Agreement architect Laurence Tubiana put it at COP26, greenwashing is the new, and perhaps more insidious form of climate denialism.

The next phase of net zero therefore requires building political power to shift rules and institutions that drive change; it requires governance. What could an effective net zero governance system look like?

Voluntary governance has grown enormously, but faces limits

To date, governance of net zero has been largely voluntary. Companies, cities, regions, and investors have increasingly set targets through initiatives like the Science Based Targets Initiative, Cities Race to Zero, the Net Zero Asset Owners Alliance, or similar efforts. These initiatives aim both to mobilize commitments and to set quality standards. Some are robust, often when led by a credible NGO or a UN agency. Others are not; my favourite example of the latter is the Canadian tar sands producers net zero alliance.

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Those non-state actor initiatives that meet a threshold of robustness criteria, as judged by an independent expert peer review group (which I chair), have been allowed to join the UN Race to Zero campaign, which seeks to promote "upward convergence" toward the frontier of best practice. Its criteria include setting a target to reach net zero (or better) emissions by at least the middle of the century, to contribute a fair share to halving emissions this decade, to do so without allowing offsets to delay or substitute for decarbonization, to publish annual progress, etc. More than half of the initiatives that have applied have not been admitted, and all the current members are reviewed annually.

At COP26, UN Secretary-General Antonio Guterres announced that he will form an expert group to assess the integrity of non-state actor net zero pledges, bringing further high-level scrutiny to the robustness of net zero commitments by business, finance, cities, and other actors (terms of reference to be released).

In contrast, national governments have not yet agreed any standards for their own net zero pledges. However, experts have suggested benchmarks on which to judge, and the Carbon Neutrality Coalition is examining how to operationalize them.

While these voluntary initiatives are not binding, nor are they toothless. For entities facing pro-climate consumers, investors, citizens, or courts, these "soft" governance schemes leverage market and reputational power, and can influence legal outcomes. For example, this summer a Dutch court ruled that Shell had to increase its short-term action under its net zero, citing, amongst other sources, a summary of the consultations the UN Race to Zero campaign held on what best practice looks like.

In many sectors and jurisdictions, these are powerful forces—but not everywhere. To create a safe climate we need decarbonization not just in California or Holland, but also in Texas and Saudi Arabia. Not just in tech companies or retailers, but also in oil and gas firms and cement makers. Voluntary efforts alone are unlikely to get us there, especially as climate politics gets more existential.

A need for standards and regulations – how do we get there?

Encouragingly, we now see moves to make net zero mandatory. At COP26 the UK announced it will require transition plans from all listed companies, and has said bidding for large government contracts will depend on net zero alignment. Spain's climate law requires corporate climate action plans for large companies. Proposal for mandatory disclosure of climate risk are being considered by US financial regulators, and a new International Sustainability Standards Board has been created to align corporate disclosures globally. Under China's "1+N" framework, regulators are devising carbon peaking and neutrality pathways for all major sectors, which will shape the targets set for firms, provinces, and cities alike in forthcoming planning cycles.

There are also significant new moves to incorporate net zero into the international standard setting system. In September the International Organization for Standardization (known as ISO) announced it would review all of its 24,000 standards for alignment with the Paris Agreement. Though voluntary, these standards are woven into the fabric of the global economy, covering everything from bars of steel, to computer plugs, to carbon accounting systems. At COP26 the ISO, along with the British Standards Institute (one of its member national standards bodies), announced a collaboration with Race to Zero to pursue a new family of net zero standards.

So is the solution simply to make net zero transition pathways based in robust climate science mandatory across the entire world? Obviously yes. But that answer immediately raises the question of how we get from here to there. There are two difficulties.

First, the possibility and quality of regulation depend on the balance of power between pro- and anti-climate interest groups in a given jurisdiction, and in too many places this ratio still tilts toward the latter. Even in the European Union, a critical regulatory decision around what counts as 'green' investment is considering whether to include, perplexingly, gas, against the arguments of some net zero investor groups.

Moreover, even when regulation is strong on paper, it requires state capacity and resources to be implemented effectively. To wit, illegal deforestation is one of the largest drivers of climate change today. For many countries, cities, regions, and companies, particularly in the Global South, the barrier to robust net zero pathways is capacity as much as will.

Ultimately there is no substitute for building an enduring pro-climate political consensus in all countries that makes net zero the law of the land globally, and ensuring states have adequate capacity to enforce those laws. But given the urgent need to reduce emissions, the real question is: what kind of net zero governance system could create conditions that push toward that outcome as quickly as possible? The Taskforce on Climate-related Financial Disclosures offers a salient example, where disclosure of climate risks began as a voluntary process, was then elevated and refined by the G20 through the Financial Stability Board, and now is increasingly becoming a mandatory requirement in national regulations.

Second, operationalizing net zero will be a dynamic, multi-decade process characterized by significant uncertainty. Climate models can give us scenarios describing what kinds of macro pathways will lead to what degree of climate change, but there is no scientific answer on the single "right" path to net zero for a given country, sector, company, city, or region. Some things can and should be ruled out. For example, we must dramatically reduce emissions during this decade, not wait until later; we can't rely on offsets to substitute for or delay emissions reductions. But at a more granular scale, no one today can know exactly what mix of technologies, rules, behavioural shifts and other changes can deliver a net zero world by the middle of the century. What's more, these "how" questions are profoundly political, entailing sharp distributional and moral trade-offs. There are many paths to net zero, each with different costs and benefits to different countries, sectors, and communities. Within the boundaries of what science deems robust, there are many choices to be made.

"Analysis paralysis" cannot delay action. We know the most important things to do now, even if we don't know every step to 2050. But this uncertainty means that governance of net zero needs to be adaptive and dynamic. We need a system that encourages experimentation and learns as it goes. Regulation that is too static (e.g. locking in a system that is too tilted to the needs of current interest groups) risks creating unintended barriers to achieving net zero in the decades to come.

So while ultimately we will need binding rules around net zero, to get there we need a governance system that helps us shift the bounds of political feasibility while also remaining dynamic. We need to continuously push forward the frontier of best practice while also scaling best practice globally and making it as binding as possible. What could that look like?

A governance conveyor belt for net zero

No single "governance technology" is by itself likely to deliver net zero on the timescale we need. Instead, we should think about a governance "ecosystem" that links voluntary initiatives, UN orchestration efforts, the standard-setting system, and regulations. Each of these has strengths and weaknesses, as outlined in Table 1.

Moving from the top to the bottom of Table 1, a trade-off emerges. More voluntary initiatives have the advantage of greater flexibility. When they are designed around scientific principles, they can achieve a very high-level of quality, pushing forward the frontier of best practice. Of course, they can also be very weak and amount to little more than greenwashing (cf. the tar sands example above). Separating the strong from the weak, and therefore consolidating the frontier of best practice, is therefore a critical function that processes like the Race to Zero and the UN Secretary General's panel can add to orchestrate the heterogenous landscape of voluntary initiatives.

But these approaches of course suffer from the limits of voluntarism. They lack power to compel alignment from those who do not sign up, and can only exert reputational pressure on those who do. Moving down the table, standards and regulations have more power to coerce, but come with their own limits. ISO standards are decided through consensus-based committees of experts from national standards bodies. That process is powerful because it can align expectations and ultimately create voluntary but influential rules across the world economy. But precisely for this reason, international standards reflect the views of a wide range of interests, including incumbent industries. Helpfully, standards have a built-in review and update process, but each iteration will take time.

Regulations, in turn, can be very binding, whether at the sub-national, national, or intergovernmental (e.g. EU) level. But they will likely be mixed in terms of robustness. Where pro-climate interests are able to exercise power, we may find strong outcomes. In other jurisdictions, particularly those heavily reliant on fossil fuels, prospects for strong rules are dim. At the same time, laws tend to change slowly, or rely on circumstantial windows of opportunity around elections or key moments. Relying only on regulation will therefore create a patchwork of outcomes that will be difficult to update and may provide little additional leverage in the most emissions-heavy jurisdictions.

Table 1: Strengths and weaknesses of different governance approaches to net zero

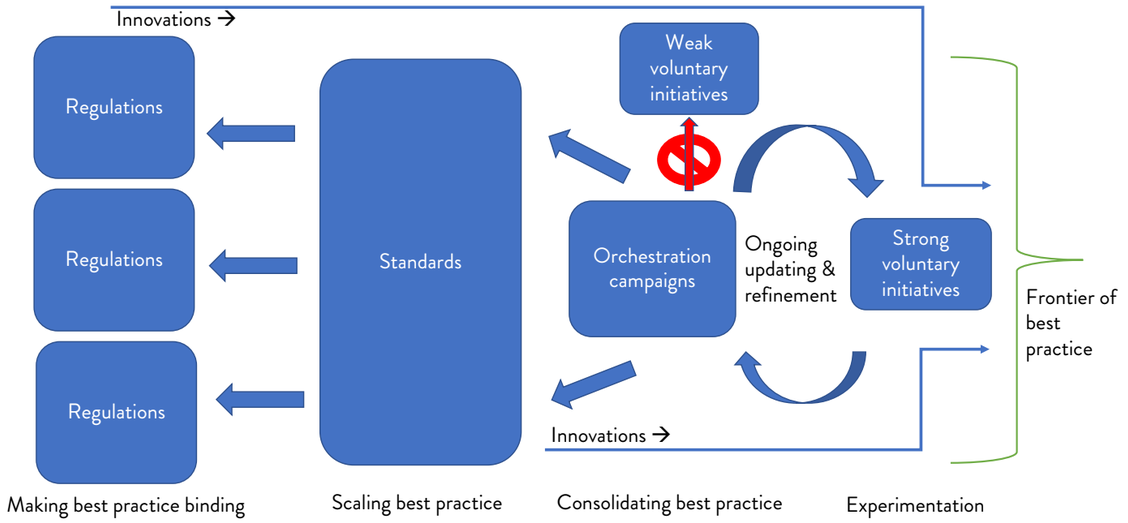
Governance	Strengths	Weaknesses
Private voluntary initiatives (e.g. SBTI)	• Promote experimentation, push forward frontier of best practice. • When designed by pro-climate actors (e.g. scientific NGOs), can achieve high quality. When not, can be low quality. • Easy to ratchet in line with changing science / opportunities.	• Hard to compel laggards (rely on reputational pressure, market pressure). • Limited geographic reach (currently). • Limits to scale.
Orchestrated campaigns (e.g. Race to Zero)	• Can steer private initiatives toward common (higher) standards. • Include wider range of stake-holders. • Consolidate frontier of best practice.	• Still voluntary (but stronger reputational pressure). • Greater scale, but still limits.
Standards (e.g. ISO)	• Global scale. • More binding (still voluntary). • Influence regulation and litiga-tion. • Uses commercial auditing / accountability system. • Influence trade rules (technical cooperation can put guardrails on climate-trade tensions).	• Voluntary (stronger market pressure). • Slow to create / update. • Global consensus process --> Less influence for pro-climate voices than private/orchestrat-ed initiatives.
Regulation	• More binding (but in practice varies and is dependent on balance of power between pro/ anti-climate interest groups). • Can compel laggards.	• Vulnerable to lobbying and regulatory capture --> Will be strongest in countries with-out significant carbon interest groups. • Slow to create / update. • Fragmented across jurisdic-tions.

Given these trade-offs, an effective governance ecosystem should aim to marry the high quality and flexibility obtainable toward the top of the table with the scale and bindingness delivered by elements toward the bottom of the table. And it should be dynamic, pushing forward the frontier of best practice and progressively scaling it and making it more binding. If hard rules everywhere are the ultimate goal, a fit for purpose governance system should provide a process for moving toward that outcome.

Imagine a governance conveyor belt, as outlined in Figure 1. At the right side of the figure, voluntary initiatives like Science Based Targets are experimenting and updating, pushing forward the frontier of what is possible. Orchestration initiatives, in turn, work to curate and consolidate this frontier, ensuring alignment to the requirements of climate science and weeding out greenwashing. In parallel, standard setting bodies consider the best practices emerging from these leadership groups and seek to write rules that scale globally. Though consensus based, these technical committees of standard setters will be able to point to the frontier of best practice. This process of scaling will also expose new challenges that can be fed back up to the voluntary initiatives and the UN orchestrators. At the same time, governments will be making laws and regulations. Advocates for stronger rules at the national level will be able to point to international best practices as a benchmark for success, and businesses will plead for rules that align to international standards. Both of these forces will exert upward pressure on national rule making above and beyond what pro-climate advocates could achieve in isolation.

Perhaps most importantly, this conveyor belt is not a "one off" occurrence. It is a system that runs for the next several decades until global net zero is achieved.

Figure 1: A "conveyor belt" governance system for net zero over the next decades



What next?

The elements of this ecosystem already exist or are emerging. We have a number of strong initiatives helping to forge the frontier of best practice. The Race to Zero has already begun to curate and consolidate the frontier of best practice, and the UN Secretary-General's new committee can bring new heft to these efforts. The world of standard setting is rapidly diving into the net zero challenge, and national regulations are forming in some places. Each element now needs to grow stronger at speed.

This brief focuses on governance, but of course none of the dynamics described above occur in isolation. They are embedded in a larger ecosystem of climate action that includes activists, data platforms, sector-specific initiatives and networks, and many other elements. Within this larger landscape, the processes through which we make and enforce collective rules—governance—will be key to the next phase of the path to net zero.