



2021–2031 Map of the Decade:
Building Climate-Positive
Organizations | Introduction



VANTAGE

BUILDING CLIMATE-POSITIVE ORGANIZATIONS

Five Principles for Transformation

INSTITUTE FOR THE FUTURE



About our 2021–2031 Map of the Decade

Every year, IFTF produces a Map of the Decade to examine emerging challenges and opportunities that organizations need to understand to help them plan for long-term success.

Our 2021-2031 Map of the Decade is called *Building Climate-Positive Organizations*. The map, in a series of four deep-dive forecasts, is designed to help your organization identify opportunities for transformation that you can act on today to become climate-positive.

Building Climate- Positive Organizations

What's a climate-positive organization? It's one that works aggressively to cut carbon emissions to zero quickly as possible. But a climate-positive organization doesn't stop there. It also improves the health and resiliency of the environmental systems that all life on Earth depends on by removing more carbon than it produces.

The climate crisis will be perhaps the most important force of the next several decades—and the decisions we make in the 2020s will be critical to our ability to shape our long-term future. The climate crisis demands that we act with urgency in a time of unprecedented challenge and complexity, and it means we have to think in a longer-term timeframe than we usually do.

IFTF Vantage Map of the Decade

This Map of the Decade research is designed to help you think systematically through the climate crisis and where it fits into your organization's strategic planning. It's also designed to help you think through what you need to do to build a climate-positive organization for the long-term.

Launched exclusively for IFTF Vantage partners in May 2021, you are now invited to explore this critical research:

- **An introductory presentation (this report)** of this year's research and introducing the 5 principles of climate-positive organizations.
- **A deep-dive presentation** documenting 4 opportunities for transformation across technology, economics, social, and governance.
- **A replicable toolkit** and facilitation process for identifying your organization's future vision for becoming climate-positive, which includes six future visions of how climate-positive organizations will position and differentiate themselves in the coming decade.

5 Principles of Climate Positive Organizations

Climate change is an existential emergency. We see the damage it wreaks on our planet, our health, and our economies, every day in the news and from personal experience.

Traditional forms of crisis response won't give us a future worth living in. But things aren't hopeless. Climate-positive organizations are rising to the challenges, adapting to new forces when they arise, sharing responsibility and collaborating with competitors for climate action, addressing inequity to yield positive climate results, and accepting stewardship of a complex dynamic system extending from the ocean floor to the upper atmosphere. These organizations will play an outsized role in stabilizing and even reversing a yearly global temperature rise that threatens every form of life.

This report explores the five principles that climate-positive organizations should consider when making long-term strategic plans:

- 1 | **Distribute** responsibility for climate action
- 2 | **Pursue** positive sum strategies
- 3 | **Address** systemic injustices
- 4 | **Employ** polymorphic strategies
- 5 | **Adopt** an ethos of stewardship

Setting the Context: The Information-Action Gap

This isn't a new challenge

If the challenge is enormous, it isn't new. Eunice Newton Foote first identified the link between atmospheric gas and temperature in a scientific paper in 1856, a finding replicated numerous times throughout the decades. By the late 1970s, as Nathaniel Rich highlights in the book *Losing Earth*, "Nearly everything we understand about global warming was understood in 1979." David Wallace-Wells, author of *The Uninhabitable Earth*, notes that despite everything we've known about the climate crisis for the last several decades, and despite an international climate framework dating back to 1992, we've put more than half of global emissions into the atmosphere in the past 25-30 years.

On the Heat in the Sun's Rays.

ART. XXXI.—*Circumstances affecting the Heat of the Sun's Rays ;*
by EUNICE FOOTE.

(Read before the American Association, August 23d, 1856.)

MY investigations have had for their object to determine the different circumstances that affect the thermal action of the rays of light that proceed from the sun.

Several results have been obtained.

From distant problem to present-day reality

Until recently, the climate crisis was a distant problem. We knew the earth was warming, but we weren't suffering from the effects. It remained an abstract question about the kind of world we wanted to leave our children—important but hardly the most urgent issue on most organizations' agendas. Besides, the costs involved to avert a far-off problem would be immediate and immense.

But the impacts of climate change are no longer distant and abstract. They are here now, setting records for hurricanes, wildfires, and more. Kristina Dahl, a climate scientist for the Union of Concerned Scientists, described the most recent year's climate by asking a simple, if terrifying, question: "How many times can we say 'unprecedented?'"

The simple answer is that if we fail to act, we'll say "unprecedented" every year from now on.

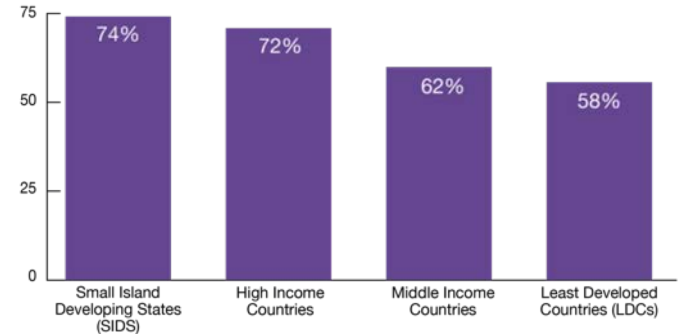


Public demands for action are growing...

Public opinion has shifted as the crisis has worsened. For example, Pew Research has been surveying people across 23 countries about their attitudes on the climate crisis. Across the countries they surveyed, the median percent rating climate as a significant threat has increased from 56 to 67 percent in just a few years.

Concern around the climate crisis continues to grow. In January of this year, the United Nations and Oxford University teamed up on a survey of 1.2 million people worldwide. Among those surveyed, 64 percent described climate change as a “crisis.” Of those who described the climate as a crisis, 59 percent said that the best way to respond would be by doing “everything necessary, urgently.”

Percent who would describe climate change as a “global emergency”



...and organizations are responding

Leaders of all kinds increasingly feel this sense of urgency. National governments like the United Kingdom and Japan and subnational governments like the state of California have accelerated bans on selling new internal combustion engine cars to move toward net-zero targets rapidly. Policymakers are increasingly investing in clean energy and climate adaptation strategies as part of their post-pandemic stimulus efforts—an approach that President Biden frequently sums up by saying, “when I think of climate change, I think of one word: Jobs.”

Likewise, business leaders are transitioning from fearing climate action costs to fearing the costs of climate inaction. For example, in an article for the World Economic Forum, Bain’s chairperson described sustainability as “the new digital,” arguing that it will produce the same kind of “disrupt or be disrupted” dynamic that the digital revolution produced in the last two decades. Citing the rapid growth of plant-based burgers and electric cars, she adds that, “Just as with digital, sustainability is shifting profit pools to open up multibillion-dollar industries.”

Business as usual won't work in a collective crisis

As clean tech investor Ramez Naam told IFTF, companies working on carbon-neutral processes for concrete and steel “don’t look like an Airbnb or Google.” They don’t have online companies’ “high margins, network effects, and virtuous cycle platforms.”

In contrast to digital innovation, our most significant sources of emissions—electricity, transport, heat, industry, agriculture, and land use—all involve physical goods, infrastructure, and raw materials that cannot easily be substituted, digitized, or remade overnight.

What’s more, says Naam, addressing climate change by developing and deploying massive machinery to capture carbon doesn’t make money. “It’s always going to cost you something to do carbon capture. Who’s going to pay for it? Are governments going to pay for it, are consumers going to pay for it? That missing business model piece, I think, is really hard.”

This is why a purely competitive lens will be insufficient to address a collective crisis.

Toward climate-positive organizations

Climate-positive organizations acknowledge that the task ahead goes beyond reducing environmental harms. They work aggressively to become zero-emission as quickly as possible, with the goal of eventually becoming negative-emission by removing more carbon from the atmosphere than they produce.

Building climate-positive organizations represents an opportunity to innovate, create new products and services, and imagine new kinds of well-paid jobs. In pursuing these opportunities, however, we can't ignore the much more significant and challenging questions that we'll need to grapple with and rapidly address to navigate the climate crisis.

Climate-positive organizations embrace five fundamental principles that we'll explore in depth in the pages that follow. These principles provide a framework of long-term strategies for organizations to leading the transformation. These organizations must address the challenges of the crisis and improve the underlying systemic conditions that allowed the crisis to emerge.

Plotting a course: Toward Climate-Positive Organizations

This year's Map of the Decade, *Toward Climate-Positive Organizations*, provides foresight research into the technological, economic, governance, and social levers that will enable organizations to become climate-positive. It also provides a process for you to set long-term goals and work back to the present.

To use this map, you can start by assessing your current climate strategy as belonging to one of four categories:

- **Resisting** organizations are uninterested in acting or actively hesitant to act.
- **Reacting** organizations attempt to keep up with their competitors, mainly for defensive reasons.
- **Exploring** organizations are looking to innovate around sustainability as a growth opportunity.
- **Leading** organizations recognize that the climate crisis is an existential threat and act accordingly.

As you work with the research in this year's Map of the Decade, challenge yourself to identify long-term goals—and actions you can take today—to move toward becoming a leading organization.



Toward Climate-Positive Organizations: 5 Principles for Transformation

The five principles of climate-positive organizations provide a framework of long-term strategies for organizations to leading the transformation. These organizations must address the challenges of the crisis and improve the underlying systemic conditions that allowed the crisis to emerge.

Each of these principles highlights an overall approach for embedding climate-positive thinking and strategy into your work. These principles are supported by signals of change, which are early indicators that point toward more significant possibilities. Each signal includes a description of **WHAT** is emerging and a **SO WHAT** description that highlights why this is important.

Following these principles, this document provides an overview of the rest of the Map of the Decade and a process for you to chart your long-term strategy toward building a climate-positive organization.

Toward climate-positive organizations

5 principles for transformation

**Distribute
Responsibility
for Climate
Action**

**Pursue
Positive Sum
Strategies**

**Address
Systemic
Injustices**

**Employ
Polymorphic
Strategies**

**Adopt a
Stewardship
Mindset**

PRINCIPLE 1

Distribute Responsibility for Climate Action

Sustainability has traditionally been a matter of corporate social responsibility, an organizational function about which most employees need not worry. Over the next decade, responsibility for climate-positive strategies will move to the center of organizational strategy. As this takes place, organizational leaders will need to build a sense of psychological standing, or a sense of ownership and responsibility for acting on a problem. This will ensure that everyone in an organization sees mitigating the climate crisis as a fundamental part of their role. This principle does not simply suggest an expansion of roles, but a shift in mindset around responsibilities and new ways to measure success.

Signal:

The American Medical Association Advocates for Climate Health Curriculum

WHAT: A growing group of physicians is developing standardized curricula for teaching medical students to understand and mitigate the impacts of the climate crisis on human health. One emerging framework identifies three categories of education:

- Harms to health exacerbated by the climate crisis.
- Treatment guidelines for medical conditions exacerbated by the climate crisis.
- Delivery system outages exacerbated by the climate crisis.

SO WHAT: In recognizing the impacts of the climate crisis on health outcomes, physician groups are expanding their sense of responsibility from treating the individual patient to mitigating health risks in the system. As one group advocating for changes writes in the *Journal of the American Association of Medical Colleges*, “By presenting the health, including mental health, basis for climate change mitigation and adaptation measures, physicians can help encourage policies that safeguard the health of patients.”



Signal:

Emerging leaders have different expectations for corporate responsibility

WHAT: A Nuremberg Institute for Market Decisions survey found that young “leaders of tomorrow” believed improving society should be a corporation’s top priority, while generating profits should be eighth. The older cohort in the survey said generating profits for shareholders should be the top priority.

SO WHAT: The findings are consistent with the re-emergence of employee activism, which is increasingly pressuring corporate executives to take greater responsibility for the external impacts of their work. As these kinds of pressures intensify, organizations that do not actively pursue climate-positive strategies risk being left behind. Climate-positive organizations will need to prioritize climate action to attract the next generation of leaders.



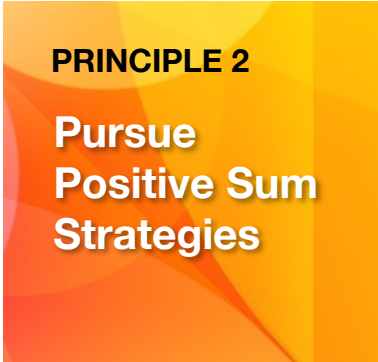
Signal:

Giving leaders a personal stake in meeting environmental targets

WHAT: Apple and Chipotle recently announced plans to tie executive bonus formulas to hitting Environmental, Social, and Corporate Governance (ESG) targets.

SO WHAT: ESG-based compensation formulas will incentivize executive leaders to meet responsibility metrics and climate targets. Because environmental goals tend to require slower, more sustained effort, this shift will encourage leaders to focus on longer-term organizational management. Such measures will also reinforce the idea—across large organizations—that climate positivity is a core goal of the organization rather than a nice-but-optional objective.





PRINCIPLE 2

Pursue Positive Sum Strategies

As the climate crisis unfolds, organizations must create internal urgency to act and check basic assumptions about self-interest, competition, and collaboration. They'll address the climate crisis with the understanding that risks threaten to destabilize entire categories of activity rather than individual entities. Because of this, organizations can't approach climate strategies solely with their bottom lines in mind. They must face the systemic challenges of the climate crisis by pooling efforts and sharing resources via pre-competitive collaboration to create positive rather than negative externalities.

Signal:

Multi-solving provides a strategy for creating cascading benefits

WHAT: Systems thinkers often look for cascading actions: events or leverage points that trigger multiple subsequent effects. One way to address the climate crisis is through what Beth Sawin, co-director of Climate Interactive calls “multi-solving.” In contrast to negative cascades, multi-solving works to “weave together” as many solutions as possible into positive cascades. For example, Sawin cites the Baltimore Orchard Project, a community-based, edible tree planting effort. It has immediate benefits like providing food, mobilizing the community, and providing shade while also addressing longer-term climate issues.

SO WHAT: In contrast to negative cascades, Sawin argues that organizations can consciously look for opportunities to multi-solve and create positive cascades that address immediate concerns while improving the longer-term health of the organization and system within which it operates.



Signal:
**Pre-competitive solutions
emerge to strengthen
food supply chains**

WHAT: The Sustainable Vanilla Initiative is a pre-competitive collaboration aimed at strengthening the food production system. With 28 large purchasers—representing 70 percent of the market for vanilla beans—involved in the effort, participants share the cost of investing in better wages and product improvements to ensure the supply chain's long-term viability.

SO WHAT: Commodities like vanilla face the potential for various disruptions, including weather events and social unrest—and these kinds of pre-competitive projects aim to protect against these risks by strengthening the overall supply chain and system.



Signal:

Ford and McDonald's partner to turn coffee husks into car parts

WHAT: Ford and McDonald's have initiated an unusual partnership in which the automaker receives the food giant's leftover coffee husks, which are a byproduct of the roasting process. Ford then turns this waste stream into headlight parts, which are lighter, more durable, and require less energy to produce than traditional parts.

SO WHAT: This partnership points toward more extensive opportunities to think beyond traditional industry or supply chain boundaries. Both companies hope more partnerships to divert food waste streams into car parts will help meet their longer-term sustainability plans.

DOUBLE SHOT OF SUSTAINABILITY: FORD AND MCDONALD'S COLLABORATE TO CONVERT COFFEE BEAN SKIN INTO CAR PARTS

DEC 4, 2019 | CHICAGO AND DEARBORN



PRINCIPLE 3

Address Systemic Injustices

As organizations look to decarbonize and reinvent their core operations, it will be critical to adopt an equity-focused approach as part of these efforts. Structural racism and inequality already place some communities and neighborhoods at higher risk of environmental pollution and other harm. As the climate crisis intensifies, it will disproportionately impact more impoverished communities and people of color, threatening to exacerbate existing disparities. Organizations will have the opportunity to adopt strategies that mitigate the climate crisis while also addressing systemic inequities. Because of these dynamics, taking action on the frontlines of the climate crisis is inherently connected to confronting systemic injustices and their costs.

Signal:

Redlined neighborhoods show lasting impacts of racism

WHAT: As part of its response to the Great Depression, the U.S. federal government developed a set of loan programs that gave white Americans access to mortgages that were largely unavailable to people of color, a practice known as redlining. In recent years, researchers have begun to examine the lingering climate impacts of these practices and found that redlined neighborhoods are significantly hotter and more at risk today because of systematic underinvestment over many decades. For example, one study found that redlined neighborhoods are, on average, 2.6 degrees Celsius hotter than non-redlined neighborhoods.

SO WHAT: Although redlining has been illegal since the 1970s, the effects of the practice continue today. These effects include persistent issues—such as discomfort and higher pollution levels—which put residents of these neighborhoods at greater risk during emergencies. For example, during heatwaves, each degree of increased temperature increases mortality risk. This kind of research serves as a reminder that by viewing systemic inequalities and climate change as fundamentally interconnected, organizations can develop initiatives that pursue multiple positive goals simultaneously.



Signal:

Linking reforestation to broader justice initiatives

WHAT: Access to trees is a subtle but critical climate and equity issue. A lack of trees makes neighborhoods hotter, less pleasant, and puts residents more at risk of climate-related health issues. Recognizing this, TAZO Tea and American Forests formed TAZO Tree Corps to increase urban tree planting in BIPOC (Black, Indigenous, and people of color) communities. In addition to the climate and health benefits, the company also hopes it will create jobs in these communities.

SO WHAT: Projects like the TAZO Tree Corps generate multiple benefits by connecting climate action to social justice initiatives. In particular, these benefits can be designed to improve communities placed at the greatest risk due to the climate crisis.



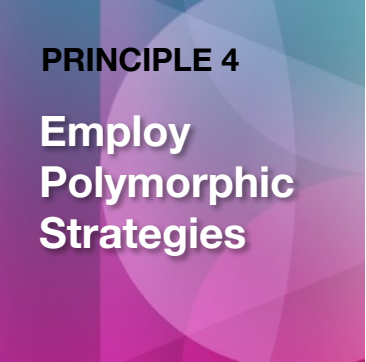
Signal:

Improving education for girls ranked as one of the best strategies for reducing emissions

WHAT: According to Project Drawdown's 100 most effective activities for reducing greenhouse gas emissions, educating girls is the 6th most effective strategy, and family planning is 7th, ahead of activities such as building solar farms. The Brookings Institute sees three connections between climate and girls' education: "advancing her reproductive health and rights, fostering girls' climate leadership and pro-environmental decision-making, and developing girls' green skills for green jobs." The Brookings paper also notes that few countries include girls' education as part of their climate crisis plans despite this link.

SO WHAT: These studies highlight the intersectional nature of the climate crisis and the multiple benefits of focusing on improving equity as part of a climate strategy. As author and activist Katharine K. Wilkinson recently told IFTF, empowering girls is "a problem of fairness, but it is also a problem of efficacy. Suppressing the participation of fully half the world's brainpower and change-making capacity simply sets us up for failure."





PRINCIPLE 4

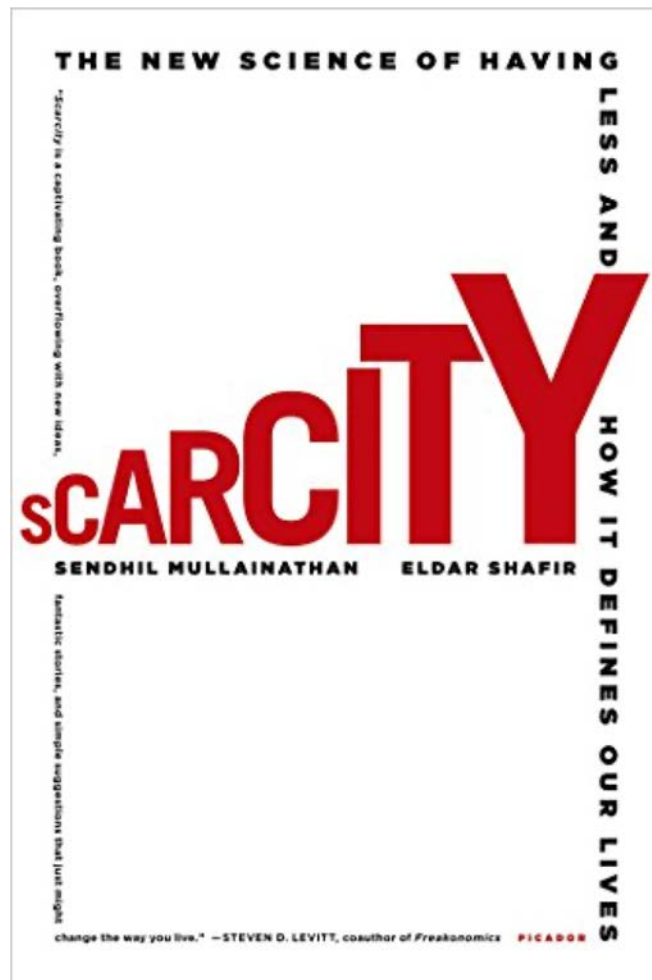
Employ Polymorphic Strategies

No matter how rapidly we decarbonize, we will be facing decades of worsening conditions, which NATO's Secretary General recently described as a "crisis multiplier." This dynamic will favor organizations that can adopt strategies to shift forms and approaches rapidly to meet the demands of external change. It will also punish organizations that pursue a single path toward efficiency. These polymorphic approaches will build on current efforts to create more resilient organizations, but they will go beyond resilience by focusing on intentionally pursuing flexible strategies that enable growth amidst disruption.

Signal: Strategically designing slack into organizations improves performance

WHAT: In the book *Scarcity: The New Science of Having Less and How it Defines Our Lives*, authors Sendhil Mullainathan and Eldar Shafir highlight a hospital system that was performing poorly due to overscheduled operating rooms. By intentionally leaving one room unscheduled to provide slack in the system, the hospital was able to decrease staff overtime and increase the number of operations they performed.

SO WHAT: Because the climate crisis will create unpredictable disasters, external environmental factors threaten to erode organizational performance. As a result, consciously designing slack into organizational processes will enable them to adapt constantly.



Signal: Nanofactory enables flexible production

WHAT: Unilever is developing a nanofactory designed to fit inside a shipping container that hints at the potential for more adaptive approaches to production. It provides a means to produce small-batch or experimental products without retooling larger production factories. It also can be moved easily to different locations to fill supply gaps. Individual units can also be linked together to form a larger production facility.

SO WHAT: Augmenting traditional large-scale factories with small-scale manufacturing enables manufacturers to adapt their product lines quickly to meet shifting conditions and to prepare for unexpected risks. It also enables them to test out new concepts more rapidly and effectively, and it hints at the kind of polymorphic strategies that organizations can apply to different aspects of their businesses.

How our engineers fitted a factory into a 40-foot container

Our innovative 'nano factory' will enable us to be more flexible and agile in our production capability, particularly in terms of testing new products and responding quickly to changes in consumer demand.

Signal: Repurposing wind turbine blades

WHAT: Recognizing that thousands of wind turbine blades are nearing a point when they will need to be decommissioned, the Re-Wind network has developed a pilot project to turn old wind turbines into a pedestrian bridge in Ireland. The project's lead, Angela Nagle, to create an entire market for recycling the large machines.

SO WHAT: Creating circular supply chains will involve creative approaches to taking in old materials and imagining new ways to repurpose them. Thinking creatively about reusing materials will be critical to developing polymorphic strategies.



PRINCIPLE 5

Adopt a Stewardship Mindset

Climate-positive organizations will employ polymorphic strategies that consider expansive time horizons. Adopting a stewardship mindset will be critical to achieving this balance of flexibility and longer horizon planning. A stewardship mindset challenges leaders to reimagine their role within an organization as being responsible for not just present-day stakeholders but also future stakeholders. By making decisions with future stakeholders in mind, organizations necessarily have to rebalance their understandings of profit and loss as well as their understanding of which costs are truly external.

Signal: Fiduciaries push for environmental stewardship

WHAT: Rebecca Henderson, a professor at the Harvard Business School and author of *Reimagining Capitalism* notes that roughly two-thirds of assets under management in the U.S. are invested in index funds with exposure to not just the entire stock market but also to planetary risks. As she argues, “Their owners cannot diversify away from the risks that accelerating rates of environmental degradation and inequality present to the entire economy. The best way to improve their performance is to improve the performance of the economy as a whole.” A related statement from investment firm Vanguard notes that its index funds have an “indefinite horizon” that is increasingly driving the firm to view financial and environmental stewardship as interconnected.

SO WHAT: These top-down pressures are likely to intensify as the climate crisis worsens. This will create new demands on organizations to rethink their boundaries and encourage stewardship models that incorporate environmental factors.



Vanguard Investment Stewardship Insights

Why climate change matters to long-term investors

Signal:**Food companies lead industry-wide push for soil health to ensure long-term viability**

WHAT: Food companies including Danone, General Mills, Nestlé, and other established corporations have begun launching pilot projects to ensure long-term soil health. The focus on soil health serves several purposes: In addition to serving as a carbon sink that reduces emissions on the farm, healthy soil also helps protect against droughts, floods, and other weather events. As these companies pursue soil health, they are developing and disseminating new knowledge about growing practices and adopting new financing models to pay for them.

SO WHAT: By focusing on a specific element of the production process—soil health—these companies target a stewardship-based approach for their operations. Recognizing that soil health is simultaneously critical to tackling the climate crisis and their long-term viability, this example points toward how climate-positive organizations can identify how and where to begin making a shift toward a stewardship-oriented approach.



Signal:
**Integrating stewardship
unlocks new business
model innovation**

WHAT: Stewardship approaches are increasingly driving more traditional business innovation. For example, Ikea has increasingly taken on an active role in managing forest land to improve the composition of its supply chain for lumber and create industry-level standards that others can use. Under an agenda that the company describes as “forest positive,” they are also, in some cases, buying forest lands with explicit commitments to protect, rather than develop, the land.

SO WHAT: As one of the world’s largest furniture producers with an increasingly ambitious strategy of becoming climate-positive, Ikea has begun to experiment with new business model innovation that will allow the company to continue to grow its profitability, even as it radically reduces its environmental footprint. The company believes its forest stewardship efforts will create “savings of money, time, energy, and resources” for consumers to “create an emotional connection that will last.”

Ikea bought 11,000 acres of forest in Georgia to protect it from development

By Alaa Elassar, CNN

Toward Climate- Positive Organizations: Overcoming the Information- Action Gap

The climate crisis will demand that organizations set ambitious, long-term goals—and begin acting on those goals today. To help you take action within your organization, IFTF Vantage has developed a toolkit process for you and your team to leverage as a companion to the 2021–2031 Map of the Decade, *Building Climate-Positive Organizations*.

The companion toolkit materials include:

- **Future Visions of climate-positive organizations** bring the opportunities for transformation to life by providing six scenarios of emerging kinds of climate-positive organizations.
- **Blueprint for action** offers a guided process for using backcasting with your team to create a roadmap for transformation within your organization, working back from future transformation to actions that you can begin implementing today.

What's Next: A Decade of Transitions and Transformation

In the second half of 2021 we explored what's next in the New Operating Environment, diving into the changing realities of the collaboration, security, belonging, ownership, evidence, justice, and meaning-making that define our work and personal lives.

To ground future foresight in present-day action, we offer an ongoing calendar of capacity-building activities, including facilitated online workshops and events, action-oriented toolkits, and Vantage's foresight-focused digital platforms like Future Factors.

Vantage Point is the digital hub for IFTF Vantage partners, featuring research curated specifically for your organization, online foresight discussions, and regular digital events.

Future Factors is IFTF's proprietary, easy-to-use platform for sharing and synthesizing the signals from today that will underpin the transformation of tomorrow.



Institute for the Future (IFF) is the world's leading futures organization. Its signature program, IFTF Vantage, is a unique partnership of innovative global leaders that harnesses over 50 years of IFTF global forecasts and pioneering research to navigate volatility, identify emerging imperatives and opportunities, and develop world-ready strategies. IFTF Vantage partners represent businesses, governments, and social impact organizations from around the world that require the most comprehensive view of future forces directly affecting their organizations. To learn more about how IFTF Vantage generates organizational readiness for a world in flux, visit www.iftf.org/vantage.

Do you have questions about partnering with IFTF Vantage?

Please reach out to Sean Ness at

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