In 2007, the Global Environmental Management Initiative (GEMI) asked the Institute for the Future (IFTF) to create a ten-year forecast of forces affecting sustainability. In the decade since, the business of sustainability has sometimes eclipsed the objective of business sustainability. While that original map of the future served as a guiding document in the past, the global changes that have since taken place demand an updated outlook and business attention.

This Executive Summary describes IFTF’s forecast of four external drivers of change with the power to upend today’s business models over the coming ten years. As you read this summary, we ask that you grapple with these future forces, and consider how each might disrupt your industry, as well as open up new opportunities for your company or organization.

These four future forces will have different effects—and in different proportions—on different companies and organizations, but together they will shape the world we live in. We aim to describe how these forces may impact various spheres of sustainable business, and let the forecasts help build clarity on the scope of possible futures without holding us unduly to false certainty. Each force has “signals of change”—existing initiatives that provide examples from today and hints as to how these forces may play out.

This report is built on the idea of full-spectrum thinking, a concept pioneered by IFTF distinguished fellow Bob Johansen. Full-spectrum thinking is a way to adapt to volatile, fast-paced, and uncertain futures. It describes the need for a shift away from categorical thinking towards a noisy, complex world by learning to view issues along spectrums. In Johansen’s words, it is “the ability to seek clarity and understanding across gradients of possibility—outside, across, beyond, or maybe even without any boxes or categories.” Looking at the future forces presented here as spectrums, rather than stark categories, will help illustrate their complex implications.

How to use this Executive Summary:

Dive in by reading this summary in one sitting to understand the four future forces.

Get comfortable with the concept of full-spectrum thinking to help unlock a range of possible approaches that each bring value.

Learn to communicate the four future forces and explain how they will affect your organization in the coming 10–20 years.

Scout for additional signals of change that bring to life the effects these forces will have on your organization.

Explore more of this forecast in the accompanying annotated presentation deck.
**NEW SPECTRUMS OF MEANING**

*Full-spectrum natives will lead shifts toward more inclusive, diverse, and unusual values*

Hyper-connected young people are experimenting with navigating their world, often by looking towards more diverse, inclusive, or unusual ways of making meaning. They will be adept at learning and unlearning, and their shifting roles will reflect that. This population doesn’t see a meaningful separation between the operation of a company and the social stance it takes, and as such will drive organizations to take strong stances on social issues that they may have never considered.

**NEW SPECTRUMS OF RESOURCES**

*Materials and infrastructure will evolve through deep technology*

Urbanization, human movement, and infrastructure are factors that contribute to demands for food, resources, materials, and more. While this demand is opening up new kinds of business opportunities, we should not assume that growth will mirror the ways we’ve historically deployed resources. The speed at which new technologies are developed and regulated means that this new spectrum of resources will provide a range of novel materials that organizations can harness to reinvent the ways we develop, distribute, and manage infrastructure and goods.

**NEW SPECTRUMS OF TIME**

*Organizations will adapt to future back-strategy to navigate competing pressures*

When looking ahead, we often carry an assumption that the future will be a continuation of what we experience today. This bias can blind us from spotting disruptions. As the information ecosystem continues to get more complex, organizations will find that practicing a future-back strategy will become advantageous. The future will reward clarity, but punish certainty.

**NEW SPECTRUMS OF VALUE CREATION**

*Businesses will operate in a world of distributed ecosystems*

The future realm of value creation won’t just be comprised of companies. Increasingly there are individuals, communities, and, possibly soon, autonomous digital agents that are empowered to create value outside of traditional networks. These actors will make up the oncoming spectrum of value creation, and not only will they be organized and operate in a spectrum of ways, they will bring a spectrum of motivations to their work, beyond simply financial gain.

**FOUR FUTURE FORCES IMPACTING SUSTAINABLE BUSINESS**

**WhatsApp as an education and income platform**

One young woman in Lagos turned to the mobile chat platform WhatsApp to offer classes in makeup and hair design, using a mobile payment app to accept tuition from students all around the world. Students find her classes through Instagram posts. Start-up ventures like this will be the classrooms of the future, operating as business platforms to large corporations.

**Twitch streamers broadcast their vital signs**

Game streamers broadcasted their vital signs and emotional state to their audiences of millions in real time. Experiments in what it means to identify as a gamer will lead to similar shifts in identity elsewhere—as those groups enter the workforce, they will have no qualms with retaining what it means to work at a company or to be employed.

**Automotive company posts their 10-year Master Plan on their website**

Tesla motors publicly released their 10-year plan. By demonstrating comfort with both navigating pressures to maintain a competitive edge long term, and operating within the tight margins of today, the company helps stakeholders understand their current actions in light of their future vision.

**SEC approves Long Term Stock Exchange (LTSE)**

The LTSE will list only companies and investors that focus on long-term growth and innovation. This decreases the power that time holds in business planning while maintaining regulatory transparency.

**Biotechnology advances to create leather in a lab**

Bolt Threads is taking advantage of new biotechnology capabilities to create materials that exist in nature, but are too expensive to use for commercial purposes. This points to the possibility of engineering raw inputs from scratch. Biomimicry engineering will become an on-demand service, with designers and scientists responding to RFPs. Requests for Engineered Materials.

**Orkney Cloud is creating community-led local cloud services**

The remote Scottish community of Orkney is creating a data services body distributed over several local organizations. Technology tools that are more accessible and powerful will allow more communities like Orkney to fulfill more of their needs through community-led comprehensive and specialized networks.

**Dash cryptocurrency operates as a DAO**

Dash is a Decentralized Autonomous Organization (DAO)—a value-creating group that operates without centralized control. The organization is an open protocol, more akin to email than to a company. While it is currently limited to specific domains, a fully-realized concept of a DAO would mean that “self-driving companies” might soon become viable as an organizational structure.

**The rise of wooden skyscrapers**

A Japanese timber company announced plans to build a 70-story skyscraper from a new wood-based material. The invention of the material, favorable regulation, and new computer-aided design tools coalesced to make this possible. Similarly complex interactions of factors could easily turn up competitive alternatives, or kill the viability of this material virtually overnight.
About GEMI
The Global Environmental Management Initiative (GEMI) is a global leader in developing insights, networking, and creating collaborative sustainability solutions for business. For over 25 years, GEMI has captured the vision and experience of global corporate environmental, health and safety, and sustainability leaders from diverse business sectors through the development of a wide range of publicly-available, solutions-based tools designed to help companies improve the environment and their operations, and add business value. 
www.gemi.org

About IFTF
The Institute for the Future (IFTF) is the world’s leading futures thinking organization. For over 50 years, businesses, governments, and social impact organizations have depended on IFTF’s global forecasts, custom research, and foresight training to navigate complex change and develop world-ready strategies. IFTF methodologies and toolsets yield uncommonly coherent views of transformative possibilities across all sectors that together support a more sustainable future. The Institute for the Future is a registered 501(c)(3) nonprofit organization based in Palo Alto, California. 
www.iftf.org

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