

Business & Environment

Annual Report 2021



**Harvard
Business
School**

The HBS Business & Environment Initiative (BEI) educates, connects, and mobilizes current and future business leaders to address climate change and other environmental challenges. 2021 was a year of changes and growth for our team: [Jennifer Nash retired as Director](#), [Lynn Schenk was appointed the new Director](#), and [Courtney Fairbrother joined as Associate Director](#). The team continues to grow in ambition, vision, and scope, as the climate problem is ever clearer to the business community. Thanks to the combined efforts of faculty, alumni, students, and external partners, we convened hundreds of alumni, published cutting edge research, and offered robust student programming and career support. We hope that the addition of some new means of communication, such as our [BEI blog](#) and the alumni [LinkedIn group](#), helps raise awareness of the School's and its extended community's efforts to address climate change.

We are delighted to share highlights from the year and welcome your feedback, which you can share with us by emailing bei@hbs.edu.

The Business & Environment Initiative Team



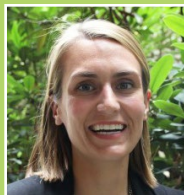
Mike Toffel

Faculty
Chair



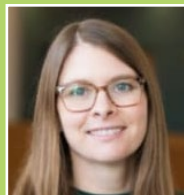
Lynn Schenk

Director



Courtney Fairbrother

Associate
Director



Elise Clarkson

Community
Manager

INITIATIVES focus on societal challenges that are too complex for any one discipline or industry to solve alone.

The Snapshot

In 2021 we took steps to inspire leadership in addressing pressing environmental challenges such as climate change by convening faculty for shared learning, engaging student leadership and offering career support, hosting webinars, and creating new tools to disseminate business and environment insights.



Convened hundreds of alumni for webinars led by BEI faculty affiliates on the different approaches to confronting the climate change challenge, with topics ranging from climate adaptation to water access, to policy and strategy.



BEI served as a gateway for MBA students seeking to access the School's business and environment resources. We collaborated to host or co-host over 25 programs and events, including weekly career coffee chats, networking events, entrepreneurial support, and a **series of sustainability career events** in partnership with the Career and Professional Development department.



Faculty authored **22 scholarly articles, 16 working papers, and 3 books and book chapters** on topics such as ESG and how to account for climate change, the transition to clean energy, and the role of shareholder activism. A complete list of 2021 publications appears in the appendix (beginning on page 19).



Faculty wrote **25 teaching cases and over 25 teaching notes** and other supplemental teaching materials on business and environment topics. **More than 450,000 cases** on business and environment topics were sold for use in classrooms around the world.



Over 850 MBA students enrolled in **environment-related elective courses** addressing the energy transition, tough tech, food and agriculture, sustainable cities, and risks and opportunities in investing.



In 2021, faculty offered **three new EC courses** focused on environmental issues and a new Short Intensive Program (SIP) on Climate Finance, developed from the 2020 alumni conference "Risks, Opportunities, and Investment in the Era of Climate Change".

Business & Environment

Highlights

Objective 1

Engage and promote a faculty community on business and environment topics

Objective 2

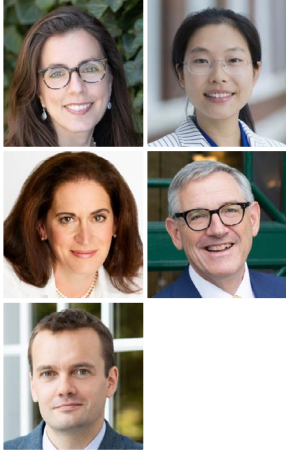
Educate students to transform organizations to become environmentally sustainable

Objective 3

Disseminate insights from research and foster alumni engagement on critical environmental topics

1

Engage and promote a faculty community on business and environment topics



New BEI Faculty Affiliates

The Business and Environment Initiative welcomed five new faculty affiliates in 2021. **Eleanor Laurans** (Strategy Unit), Senior Lecturer of Business Administration, whose career has spanned the for-profit, nonprofit and public sectors; **Shirley Lu** (Accounting & Management), Assistant Professor of Business Administration, whose research focuses on CSR disclosure with a focus on climate change; **Debora L. Spar** (General Management), Jaime and Josefina Chua Tiampo Professor of Business Administration & Senior Associate Dean of Business in Global Society, who researches the interplay between technological change and broader social structures; **Peter Tufano** (Finance), Visiting Professor of Business Administration, who studies the corporate adoption of ESG practices; and **Boris Vallee** (Finance), Torstein Hagen Associate Professor of Business Administration, whose research traces the motives behind and the effects of financial innovation.

Faculty Discussion Series

As an increasing number of faculty are expanding research and teaching efforts to include business and environment topics (climate change specifically), a series of research and teaching roundtables among BEI faculty affiliates has illuminated the range of work being done on climate change at HBS and has allowed for deep dives and support across faculty in the development of new content.

- Research Roundtable: An opportunity for faculty share updates on research-in-progress and research plans.
- Teaching Roundtable: A review of the growing number of new and planned courses that address climate change and sustainability.
- Martin Aares (MBA 2001), Managing Director of Closed Loop Partners - “Business Strategies and Investing in the Circular Economy”
- Teaching Roundtable: An in-depth discussion with Professors Liz Keenan and Gunnar Trumbull on their new EC courses.
- Teaching Roundtable: An in-depth discussion with Professors Max Bazerman and John Macomber about BEI-related SIPs being planned for January 2022.



Mike Toffel Named Co-Chair of Presidential Committee on Sustainability

[The Presidential Committee on Sustainability](#) (PCS) advises President Larry Bacow and the University's leadership on sustainability vision, goals, strategy, and partnerships. This academic year, it will be co-chaired by Professors Mike Toffel, BEI Faculty Chair, and Jody Freeman, Harvard Law School.



Teaching Recognition Award for Excellence in Sustainable Finance Education

Professors Shawn Cole and Vikram Gandhi were awarded in the category of quantitative rigor in a syllabus for their course "Investing: Risk, Return, and Impact" by the [Impact and Sustainable Finance Faculty Consortium and Financial Times](#). As business schools increasingly recognize the importance of embedding sustainability in their curricula, this award recognizes courses that serve as exemplars to highlight best practices.



The Crowell Prize

Professor George Serafeim and Aaron Seokhyun Yoon [won the Crowell prize](#) for their paper "Stock Price Reactions to ESG News: The Role of ESG Ratings and Disagreements." The annual Crowell Prize honors new and cutting-edge research that connects theory and practice.

2

Educate students to transform organizations to become environmentally sustainable

MBA Required Curriculum

Environmental opportunities and challenges are embedded in 8 out of 10 Required Curriculum courses, preparing MBAs to make business decisions involving sustainability issues. In 2021, 19 class sessions in the Required Curriculum featured discussions of cases in which environment was a critical consideration, on topics ranging from ESG reporting to sustainability strategy.

MBA Elective Courses

BEI-affiliated faculty offered 10 environmentally focused elective courses and 5 related courses that enrolled over 850 students:



Entrepreneurial Solutions to the World's Problems

Professor William Sahlman

The basic premise of this course is that entrepreneurs view problems as opportunities, from climate change to pandemics.



Food and Agribusiness

Professor Forest Reinhardt

A survey of the global food and agribusiness system and management issues associated with changing consumer preferences, technological advances, public policy shifts, food safety, and risk management.



Global Energy in Transition

Professor Jurgen Weiss

Explores how several fundamental drivers, such as the awareness of the risks of climate change and related major technological shifts, will affect the role of incumbents and new participants in the energy system over the coming decades.



Investing - Risk, Return, and Impact

Professors Shawn Cole & Vikram Gandhi

Explores whether investors should incorporate what have traditionally been considered “non-financial” criteria in their decisions: for example, climate risk, environmental sustainability, minority representation on boards, and even the potential to create social good.



Purpose & Profit

Professor Mark Kramer

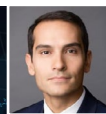
Rather than viewing social and environmental issues as a matter of corporate social responsibility, this course offers corporate leaders practical guidance in driving business results through measurable social impact.



Reimagining Capitalism: Business and Big Problems

Professors Ethan Rouen & George Serafeim

Explores the idea that problems such as environmental degradation and accelerating inequality can be effectively addressed by high performing private firms.



Risks, Opportunities, and Investments in the Era Of Climate Change (ROICC)

Professor George Serafeim

Examines holistically the climate-related risks and opportunities, under different scenarios, with an emphasis on measuring, valuing, and designing data analytics, investment processes, products, and contracts through the lens of climate change.



Strategy for Entrepreneurs Intensive: Critical Choices in Creating a Successful Enterprise

Professor John Wells

Takes an integrated view of the strategic challenges faced by entrepreneurs as they move from conceiving an idea to creating a large sustainable enterprise.



Sustainable Cities and Resilient Infrastructure

Professor John Macomber

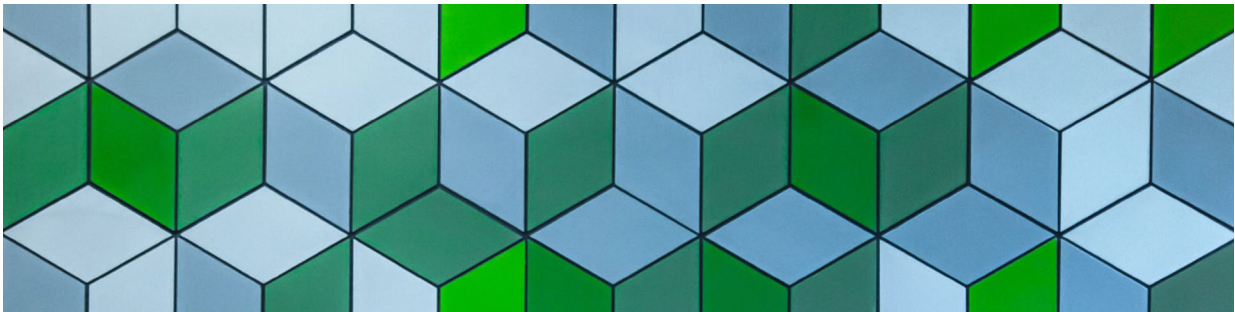
Provides students with tools to address rapid urbanization, increasing pressure on the environment and on basic resources, and the growing difficulty governments face in managing the confluence of these trends.



Tough Tech Ventures

Professors Joshua Lev Krieger & Jim Matheson

Tough technology has the potential to transform incumbent industries and tackle our most pressing societal issues and this course will dig deeply into these challenges to provide impactful and actionable frameworks to drive impact at scale.



Short Intensive Program (SIP): Climate Finance

Professors George Serafeim & Vikram Gandhi

In late January 2021, over seventy HBS MBA students gathered in a virtual classroom for four exciting days of a short intensive program (“SIP”) on [Climate Finance](#). Through a series of conversations with leading practitioners, the SIP covered a wide range of critical topics emphasizing the roles of financial institutions in addressing the risks and opportunities of climate change. Topics included climate and the economy, incorporating climate developments into business analysis and valuation, financial stability and disclosure, managing climate risk as an asset owner, measuring climate risk and using metrics in portfolio construction, incorporating physical climate risk into portfolio analysis.



“A key point that I learned from the Climate Finance SIP is that to build a more resilient economy we need to be able to understand and measure the impact of climate change on businesses. Only when we quantify physical and transition risk will we be able to engage in debate and change our collective behavior. A successful transition plan leverages technological innovation and regulation.”

Sofia Guerra MBA 2021



Providing Students with a Business & Environment Roadmap

In 2021, more than 45% of admitted students indicated interest in business and environment in their applications. BEI partnered with HBS Admissions to introduce these students to the School's business and environment offerings through Admitted Student Welcome sessions and interactive webinars. Upon arrival on campus, BEI welcomed them at the School's Business & Environment Kickoff, where they met BEI faculty affiliates, leaders of School's environmental clubs, Student Sustainability Associates, sector leads from the Career and Professional Development department, and Initiatives staff.

Supporting Student Clubs

In 2021, three student clubs dedicated to business and environment continued to increase their visibility and impact: the Energy & Environment Club; the Food, Agriculture & Water Club; and the Sustainability Club.

In collaboration with the Food, Agriculture & Water Club, BEI co-hosted "Water & Climate Change: Innovating for Access and Efficiency", an alumni panel and discussion led by Professor Forest Reinhardt that highlighted the connection between climate change and water in terms of availability, access, quality, and efficiency in a business and investment context.

With BEI, the Sustainability Club hosted several "Continuing Conversations" throughout the semester, which offer students an opportunity for further exploration of RC cases with business and environment themes.

This year, the three clubs collaborated to host a single, 2-day conference focused on climate change with support from BEI. The 2021 Climate Symposium facilitated discussion, debate, and idea-sharing on all things climate and included leaders across finance, tech, entrepreneurship, and policy. [BEI hosted one of the panels](#) which focused on climate trailblazers, including topics of environmental justice and the creation of a climate workforce.



"I think to the broader HBS population, careers today in food and agriculture seem niche. My biggest goal as co-president of the Food, Agriculture, and Water Club is to get more people excited (and empowered!) to solve climate challenges, whether as a career or in their personal lives."

Jesse Lou MBA 2022

Student Leadership

Energy & Environment Club



President
Alsey Davidson
MBA 2022

Food, Agriculture & Water Club



Co-Presidents
Remi Albouy
MBA 2022



Monika Berankyte
MBA 2022



Jesse Lou
MBA 2022

Sustainability Club



Co-Presidents
Ryan Brush
MBA 2022



Emily Golan
MBA 2022

Student Association



Vice President of Sustainability
Amrit Jalan
MBA 2022

Student Sustainability Associates

Remi Albouy MBA 2022

Samuel Deutsch MBA 2023

Elisa Djuhar MBA 2023

Maude Hoffman MBA 2023

Dhruv Pillai MBA 2023

Laura Romine MBA 2023

Kate Saulenas MBA 2023

Nikhil Shah MBA 2023

Angela Son MBA 2023

Priya Srinivasan MBA 2023

Taryn Stamper MBA 2023

Connie Zuo MBA 2023



Promoting Sustainability Career Opportunities

BEI continues to develop and build on programming that supports students interested in pursuing careers in business and environment related fields. In summer 2021, over 60 MBA students found internships at the intersection of business and the environment. Over the summer, BEI organized a series of networking events to support and connect students working with organizations in roles or on projects focused on business and the environment. Through the BEI Blog we [showcased some of these students](#), as well as a [startup journey](#) and [career advice from current alumni](#).

This year, we collaborated with the Career and Professional Development (CPD) office to organize several sustainability career events, including: Careers in Impact Investing, Careers in Energy and CleanTech, Trends in Sustainability, Careers in Consumer Products, Careers in Sustainability with Katie Kross, and Career Conversations: Renewables and Alternative Energy.



BEI Coffee Chats

In the fall of 2021, BEI began hosting weekly coffee chats as an opportunity for students to meet with our team in a small group setting to discuss business ideas, career aspirations, get advice on classes, and to help students navigate the business and environment resources at the School and beyond.



BEI Mentor Program

BEI's mentorship program has grown from 36 alumni-student matches in 2016 to 144 in 2021. The mentor program facilitates connections between students interested in using their careers to confront climate change and alumni already working in the field. Mentors and mentees share perspectives on business trends and career opportunities, sometimes fostering long-term connections.



New Venture Competition: Shelly Xu Design & Metric

The New Venture Competition is an annual student competition sponsored by Harvard Business School's Rock Center for Entrepreneurship and Social Enterprise Initiative, with a tough tech prize sponsored by the Business and Environment Initiative. Shelly Xu (MBA 2021) of [Shelly Xu Design](#) was one of eight winners of the 2021 New Venture Competition. Shelly Xu Design is a design-tech startup that makes 100% zero waste clothing. A runner up to the 2021 NVC competition was [Metric](#), a company founded by Megan Murday (MBA 2021), which has developed software to help investors measure and manage ESG performance.

Support for Entrepreneurs: NucleateEco (formerly ActivateEco)

In an effort to support entrepreneurs, BEI has partnered with NucleateEco to provide sponsorship and connections with students seeking to form companies working on solutions related to climate change. NucleateEco offers three Eco tracks: food & agriculture, chemicals & energy, and consumer products.



“BEI was instrumental in supporting nearly every effort to broaden my knowledge about environmental problems causing human harm. They sponsored the co-founding of NucleateEco (formerly ActivateEco), an entrepreneurship program that incubated five Harvard & MIT life sciences ventures solving climate change through engagement with 40+ leading professors, investors, and entrepreneurs. BEI fueled my passion to continue to investigate and address our biggest human and environmental health problems through food system transformations.”

Natalie Jackson MBA 2021



Partnering with Sustainability Operations

In partnership with Sustainability Operations, BEI co-hosted [“The Business and Societal Impacts of Drinking Water”](#) a panel moderated by Natalie Jackson (MBA 2021) featuring Harvard environmental health leaders Dr. Joseph Allen (HSPH), Dr. Elsie Sunderland (HSPH & Harvard SEAS), and Heather Henriksen (Managing Director, OFS) to discuss the film "Dark Waters" and examine the impacts of chemicals in our drinking water.

As part of the Student Sustainability Associate (SSA) program, BEI supported students pursuing a campaign on Environmental Justice, including a discussion facilitated by Khaoula Morchid (MBA 2022) and Kevin Sani (MBA 2022) about environmental justice and the role business can play in advancing more just climate outcomes for all.

Exhibit: Confronting Climate Change: From Business as Usual to Business as Vital

In 2021, coinciding with the launch of COP26, BEI revitalized our exhibit, [“Confronting Climate Change: From Business as Usual to Business as Vital”](#) in Spangler Lounge in partnership with Operations. The exhibit encourages visitors to consider the current and future impacts of climate change and the role of business in mitigating their risks and identifying ensuing opportunities, especially in the energy, agriculture, transportation, buildings, and industrial materials sectors. The exhibit includes spotlights describing the work of 50 alumni, faculty, and students who are innovating to confront this challenge. It also examines the current policy context and the role that business has played in shaping it—and can play going forward.

Educating Students Around the World

In FY 2021-22, more than 450,000 copies of cases with significant environmental content were sold for use in classrooms around the world with top sales in Europe, Japan, Australia, and the United States. The three top-selling cases (noted below) address strategic opportunities associated with environmental innovation:

- Unilever's New Global Strategy: Competing through Sustainability by Christopher A. Bartlett
- IKEA's Global Sourcing Challenge: Indian Rugs and Child Labor (A) by Christopher A. Bartlett, Vincent Dessain, Anders Sjoman
- Tesla Motors by Eric Van Den Steen



Executive Education: Agribusiness Seminar

For over 50 years, business leaders from around the world have gathered at HBS for the Agribusiness Seminar and in 2021, due to the Covid-19 pandemic, participants joined virtually. Taught by BEI affiliates Professor David Bell, Professor Forest Reinhardt, and Professor José Alvarez, the seminar explores the changing agribusiness landscape, which is both a major contributor to and heavily impacted by climate change. Each year, BEI facilitates a networking reception between participants and current MBA students interested in pursuing a career in this field.

3

Disseminate insights from research and foster alumni engagement on critical environmental topics

Alumni Events



Business Opportunities in Climate Adaptation

In this virtual program with HBS Senior Lecturer John Macomber (MBA 1983) and a panel of HBS alumni, over 300 attendees learned how business leaders are currently developing, scaling, or investing in a range of opportunities that help society adapt to climate change—and how to discover and pursue these opportunities.

Profit and Responsibility: Combating Climate Change as Part of Your Corporate Strategy

In partnership with Alumni Programs, BEI co-hosted this timely virtual program, presented by Professor George Serafeim and moderated by Professor Vikram Gandhi, in which over 500 participants explored ways to successfully measure, analyze, and drive corporate performance through the lens of climate change.



Staying Under the 1.5°C Threshold: The Role of Government, Business, and Society

On Earth Day, BEI hosted a conversation between Joan MacNaughton, Chair of the Climate Group, and Professor Richard Vietor about how governments, businesses, and society must act together fast—now— to cut global emissions in half by 2030 to keep temperature rises under 1.5°C and avoid the disastrous effects of climate change.



Sustainable Capitalism: Actually Building Things Series

In 2021, the Harvard Business School Association of Boston (HBSAB) and HBS Senior Lecturer John Macomber presented a three-part webinar series on entrepreneurship and sustainability. The series, “Sustainable Capitalism: Actually Building Things”, explored opportunities for entrepreneurs to shape the future by addressing some of the most pressing problems we face today- public health, climate change, infrastructure in the context of resilience and sustainability.

Climate Rising

Climate Rising: Season 3

Summer 2021 marked the launch of Season 3 of Climate Rising, in which we meet innovators who are launching and growing businesses that address the unprecedented challenges that climate change presents to business and society. Our guests come from a variety of sectors: venture capital, transportation, fashion, urban design, infrastructure, energy, forestry, and the new field of carbon removal. Their new investment strategies, technologies, and business models have the potential to address climate change on a large scale. The season showcases the stories of innovators who are bringing decades of experience in their effort to tackle climate change successfully and profitably.

- Episode 1: Investing in No-Sacrifice Models for Climate: Nancy Pfund, DBL Partners
- Episode 2: Bringing Scale Capital to Climate Game-Changers: David Crane, Climate Real Impact Solutions SPAC
- Episode 3: Innovation in Materials for a Better Climate: Matt Scullin, MycoWorks
- Episode 4: Ensuring a Resilient Future: Shalini Vajjhala and Jamie Rhodes, re:focus partners
- Episode 5: Critical Climate Infrastructure: Scott Jacobs, Generate Capital
- Episode 6: Electrifying Mass Mobility: Uday Khemka, SUN Mobility
- Episode 7: Investment Management for the Carbon Potential of Forests: David Brand, New Forests
- Episode 8: Making a Marketplace for Captured Carbon: Steve Oldham, Carbon Engineering

Season 4, which will focus on topics of Decarbonization and Adaptation is in production for release in 2022 with Mike Toffel as host.

Alumni Perspectives

BEI would like to extend our gratitude to these alumni who shared their valuable perspectives through alumni and student events, special features, Climate Rising, and the BEI Blog.

BEI Blog Features

- [*Alumni Spotlight: Cissy Chen \(MBA 2019\)*](#)
 - Cissy Chen (MBA 2019)
- [*Rebekah Emanuel: Host of the Climate Rising Podcast*](#)
 - Rebekah Emanuel (MBA 2015)
- [*Staying Under the 1.5C Threshold: The Role of Government, Business, and Society*](#)
 - Yulia Chekunaeva (AMP 199)
- [*Alumni Spotlight: Career Advice from Alums Working in Climate*](#)
 - Bhargavi Chevva (MBA 2016), Trevor Hill (MBA 2020), Katie Hsia-Kiung (MBA 2019), Taylor Leyden (MBA 2020), Nathan Nemon (MBA 2020), Sanchali Pal (MBA 2018), Ratnika Prasad (MBA 2020), Morgan Sheil (MBA 2021), Trey Sides (MBA 2020), Lisa Wetstone (MBA 2019)
- [*Alumni Stories: Confronting the Climate Change Challenge*](#)
 - Jacqueline Adams (MBA 1978), Jim Andrew (MBA 1986), Audrey Choi (MBA 2004), Charmian Love (MBA 2007), Kim Coupounas (MBA/MPA 1995), Carl Ferenbach (MBA 1972), Tom Ferguson (MBA 2014), Alan Horn (MBA 1971), Scott Jacobs (MBA 2007), Elizabeth Lewis (MBA 2006), Barbara Littlefield (MBA 1988), Yumiko Murakami (MBA 1994), Girish Nadkarni (MBA 1988), Richard Needham, Jr. (MBA 2002), Ronald P. O'Hanley (MBA 1986), Aris Papadopoulos (MBA 1985), Kyung-Ah Park (MBA 1998), Stephen Renter (MBA 2013), Ray A. Rothrock (MBA 1988), Guy Rubenstein (MBA 1994), Jennifer Tisdell Schorsch (MBA 1992), Michael Skelly (MBA 1991), Erik Snyder (MBA 2009), Sarah Keohane Williamson (MBA 1989)

Climate Rising Season 3

- [*Electrifying Mass Mobility*](#)
 - Uday Khemka (MBA 1995), SUN Mobility
- [*Critical Climate Infrastructure*](#)
 - Scott Jacobs (MBA 2007), Generate Capital

Climate Finance SIP

- [*MBA Short Intensive Program \(January 2021\)*](#)
 - Scott Jacobs (MBA 2007), Puja Jain (MBA 2009), Girish Nadkarni (MBA 1988)

Water & Climate Change: Innovating for Access and Efficiency

- [*BEI Alumni Event \(March 4, 2021\)*](#)
 - Nicole Neeman Brady (MBA 2008), Tom Ferguson (MBA 2014)

Business Opportunities in Climate Adaptation

- **BEI Alumni Event** (October 21, 2021)
 - Yumiko Murakami (MBA 1994), Anhad Narula (MBA 2008), Carlos Riva (MBA 1982)

Climate Symposium 2021

- **HBS Student Club Conference** (November 6–7, 2021)
 - Jacqueline Adams (MBA 1978), Christina Belsito (MBA 2019), Joseph Blair (MBA 2013), David Chan (MBA 2018), Audrey Choi (MBA 2004), PJ Deschenes (MBA 2008), Ann DeWitt (MBA 2009), Scott Jacobs (MBA 2007), Elizabeth Lewis (MBA 2006), John Macomber (MBA 1983), Jim Matheson (MBA 2001), Rick Needham (MBA 2002), Daniel Pike (MBA 2014), Steve Renter (MBA 2013), Mike Skelly (MBA 1991), Shara Ticku (MBA 2017), Eugeniu Vition (MBA 2018), Anna Marie Wagner (MBA 2017), Jurgen Weiss (PHD 1998), Ted Wiley (MBA 2009), Vijay Vaitheeswaran (GMP 30), Stefan Zlatev (MBA 2019)

Career Panels

- **Careers in Energy & Cleantech**
 - Bhargavi Chevva (MBA 2016), Mariko McDonagh Meier (MBA 2013) Kieron Stopforth (MBA 2019), Steve Renter (MBA 2013), Andrés Pérez Valenzuela (MBA 2020), Ashley Zumwalt-Forbes (MBA 2017)
- **Trends in Sustainability**
 - Jim Matheson (MBA 2001)
- **Career Conversation: Cleantech/Greentech**
 - Caroline Dunn (MBA 2019), Maria Lappas (MBA 2021), Smriti Mishra (MBA 2012), Ted Wiley (MBA 2009)

Faculty

Research & Teaching

Research, teaching & engagement by topic

At HBS, faculty research, teaching, and engagement on business and the environment is broad and deep.

We have grouped this body of work into six topical areas:

1

Energy Transition

2

Finance, ESG & Impact

- Environmental, Social & Governance (ESG) Measurement and Reporting
- Impact Investing
- Climate Finance

3

Food & Agriculture

4

Governance, Policy & Regulation

5

Sustainable Cities & Infrastructure

6

Sustainability Strategy

The School's research, teaching, and engagement about mitigating and adapting to climate change—including how to reduce risks it poses and embrace opportunities it offers for innovation—spans many of these topics.

Energy Transition

The combustion of fossil fuels to generate energy is the largest source of greenhouse gas emissions and the largest contributor to climate change ([IPCC 2014](#)). Innovations are needed to generate vast amounts of carbon free electricity and to use electricity much more efficiently. Faculty are working to address the market potential for renewable energy and nuclear energy as well as grid flexibility and improved demand response technologies. Highlights from the year appear below.

Course Materials

- “24M Technologies” by John Wells (teaching note, 721-535)
- “Acelerex” by John Wells (teaching note, 720-360)
- “Bulb 2015: Foundation” by John Wells (teaching note, 721-474)
- “Electric Car Wars, 2018” by John Wells (teaching note, 721-467)
- “FirstLight Power – Pumped Storage for the (New) Ages” by Jurgen Weiss (case, 722-029)
- “GreenFire Energy, 2020: Geothermal Innovation” by John Wells and Benjamin Weinstock (teaching note, 721-450)
- “Green Hydrogen in Chile” by Tarun Khanna, Jenyfeer Martínez Buitrago and Mariana Cal (case, 722-361)
- “Husk Power” by Benjamin Roth and Natalia Rigol (teaching note, 822-064)
- “Making UK Energy Smarter” by John Wells (teaching note, 721-469)
- “M-KOPA: Empowering Lives” by V. Kasturi Rangan, Wale Lawal, and Pippa Tubman Armerding (case, 521-085)
- “Northvolt: Making the World's Greenest Battery” by Jurgen Weiss and Emilie Billaud (case, 722-044)
- “NuScale - Commercializing the first small modular reactor in the world” by Jurgen Weiss and Richard Vietor (case, 721-047)
- “Oil: History, Present and Future” by Jurgen Weiss (background note, 722-011)
- “Project Helios: Harvesting the Sun” by Mark Egan and E. Scott Mayfield (teaching note, 221-072)
- “QuantumScape's Mission to Revolutionize Energy Storage for a Sustainable Future” by William A. Sahlman, Allison M. Ciechanover and Jeff Huizinga (case, 822-044)
- “Rechargeable Batteries, 2017: Gigawars in the Offing?” by John Wells (teaching note, 721-466)
- “Siemens Energy - Positioning an Energy Giant for the Future” by Jurgen Weiss and Tonia Labruyere (case, 722-014)
- “State of Charge: The Massachusetts Energy Storage Initiative” by John Wells and Benjamin Weinstock (teaching note, 721-448)
- “Woodside - Betting on the Future of Gas” by Jurgen Weiss (case, 722-019)

- “Wuxi Lead Intelligent Equipment Co., Ltd.” by John Wells and Benjamin Weinstock (teaching note, 721-452)
- “Yellow Digital Retailers, Ltd.: Providing Solar Electricity to Transform Rural Africa” by Lynda Applegate, Frank Cespedes and Michael Norris (case 821-041)

Courses

- “Global Energy In Transition” EC Course taught by Professor Jurgen Weiss

In the News

- “CMP corridor’s loss shows how New England’s clean-power goals will be hard to meet” feature of Jurgen Weiss by Lori Valigra, *Bangor Daily News*
- “Faculty Spotlight: Professor Jurgen Weiss” feature of Jurgen Weiss, *BEI Blog*
- “Power Play” feature of Rahul Advani (MBA 2004), Sara Graziano (MBA 2011), and Chris Smith (MBA 2001) by Maureen Harmon, *HBS Alumni Stories*
- “What’s behind the Great British Battery Bonanza?” feature of Willy Shih, *The Economist*
- “Why the Energy Transition Will Be So Complicated” feature of Hakeem Belo-Osagie by Daniel Yergin, *The Atlantic*

Scholarly Research

- “Deregulation, Market Power, and Prices: Evidence from the Electricity Sector” by Alexander MacKay and Ignacia Mercadal, HBS Working Paper, 21-095
- “Saving for a Dry Day: Coal, Dams, and the Energy Transition” by Michele Fioretti and Jorge Tamayo, HBS Working Paper, 22-016

Finance & Investing

Many businesses are investing in practices that protect natural systems while delivering business value. But despite widespread interest in sustainable business models, many barriers remain. Faculty are working to understand the conditions under which new tools—such as impact investing and environmental, social, and governance metrics—can lead to change on a wide scale. Select accomplishments from the year appear below, categorized by (1) environmental, social, and governance (ESG) measurement and reporting; (2) impact investing; (3) climate finance.

PART 1: Environmental, Social, and Governance (ESG) Measurement and Reporting

Course Materials

- “Valuing Employment Exercise” by George Serafeim and Ethan Rouen (teaching note, 121-087)
- “Valuing Employment Exercise” by George Serafeim, Ethan Rouen, and Katie Panella (case, 121-086)
- “Veracity Worldwide: Environmental, Social, and Governance (ESG) Risk” by Kristin Fabbe (case, 721-035)

In the News

- “Big data helps put numbers on sustainability” feature of George Serafeim by Oliver Balch, *Financial Times*
- “Covid-19 – Risk, Reward and Impact | Vikram Gandhi | Harvard Business School” feature of Vikram Gandhi by Elena Johansson, *investESG*
- “Crafting a Nontraditional Path to Venture Capital and Private Equity with Morgan Sheil (MBA 2021)” feature of Morgan Sheil (MBA 2021), *HBS Alumni Stories*
- “ESG And The Future Of Work: 3 Strategies Every Leader Should Know” feature of George Serafeim by Jason Wingard, *Forbes*
- “ESG: Opportunities & Challenges - With Harvard’s Vikram Gandhi” feature of Vikram Gandhi, *Bloomberg Quint*
- “Get to Know Metric, a Business Track New Venture Competition Team” feature of Megan Murday (MBA 2021), *HBS News Story*
- “Harvard's Gandhi cautions India Inc. About Greenwashing” feature of Vikram Gandhi by Menaka Doshi, *Bloomberg Quint*
- “HBS student's startup measures social impact for investors, companies” feature of Megan Murday (MBA 2021) by Emma Campbell, *The Business Journals*
- “Is there an ESG bubble?” feature of Vikram Gandhi by Vibeka Mair, *Responsible Investor*
- “Liberty Mutual Insurance Elects George Serafeim of Harvard Business School to the Company's Board of Directors” feature of George Serafeim. *PR Newswire*
- “Managing Sustainable Advantage With Key ESG Co-Founders, Anne-Marie Schoonbeek and Heleen Van Poecke” feature of Anne-Marie Schoonbeek (MBA 2017) and Heleen van Poecke (MBA 2017) by Rebecca Carnahan, *HBS Alumni Stories*
- “O'Hanley Talks ESG” feature of George Serafeim by Andrew Lusk, *The Mutual Fund Wire*

- “PanAgora Asset Management Announces Winners of 19th Annual Dr. Richard A. Crowell Memorial Prize” feature of George Serafeim, *PR Newswire*
- “Study of ESG’s role on stock prices wins Richard A. Crowell Prize” feature of George Serafeim by Rob Kozlowski, *Pensions & Investments*
- “Tapping into ‘Nontraditional’ Private Equity and Venture Capital Talent at HBS” Feature of Joshua Mbanusi (MBA 2021) and Morgan Sheil (MBA 2021) by Becca Carnahan, *HBS Voices Blog*
- “The Next Frontier of Sustainable Investing: Measuring Impact” feature of George Serafeim by Matt Orsagh, *Enterprising Investor*
- “Wall Street’s ESG Loans Charge Corporate America Little for Missed Goals” feature of George Serafeim by Michael Tobin, *Bloomberg Quint*
- “What Does an ESG Score Really Say About a Company?” feature of Anywhere Sikochi and George Serafeim by Kristen Senz, *Working Knowledge*

Practitioner-Oriented Materials

- “Accounting for Climate Change” by Robert Kaplan and Karthik Ramanna, *Harvard Business Review*
- “Opinion: ESG funds are lagging the S&P 500 — why that’s good news if you own them” by Vikram Gandhi, *MarketWatch*
- “Reimagining the Balanced Scorecard for the ESG Era” by Robert Kaplan and David McMillan, *Harvard Business Review Digital Articles*
- “Rosabeth Moss Kanter: Let Employees Take the Lead on ESG” by Rosabeth Moss Kanter, *Wall Street Journal*
- “Why ESG Funds Fail to Scale” by Gabriel Karageorgiou and George Serafeim, *Institutional Investor*

Scholarly Research

- “Accounting for Employment Impact at Scale” by Adel Fadhel, Katie Panella, Ethan Rouen and George Serafeim, HBS Working Paper, 22-018
- “ESG: Hyperboles and Reality” by George Serafeim, HBS Working Paper, 22-031
- “How to Fix ESG Reporting” by Robert Kaplan and Karthik Ramanna, HBS Working Paper, 22-005
- “Stock Price Reactions to ESG News: The Role of ESG Ratings and Disagreement” by George Serafeim and Aaron Yoon, *Review of Accounting Studies*
- “The Changing Role of Business in Society” by Michael Porter, HBS Working Paper
- “Which Corporate ESG News does the Market React to?” by George Serafeim and Aaron Yoon, HBS Working Paper, 21-115
- “Why is Corporate Virtue in the Eye of The Beholder? The Case of ESG Ratings” by Dane Christensen, George Serafeim, and Anywhere Sikochi, *Accounting Review*

PART 2: Impact Investing

Courses

- “Investing - Risk, Return, and Impact” EC Course taught by Professors Shawn Cole and Vikram Gandhi

Course Materials

- “BlackRock: Linking Purpose to Profit” by Rohit Deshpandé, Aiyasha Dey, and George Serafeim (teaching note, 120-042)
- “CPE and SUS Environmental: You've Got to Know When to Hold 'Em” by Josh Lerner and Franko Jira (case, 821-085)
- “CPE and SUS Environmental: You've Got to Know When to Hold 'Em” by Josh Lerner and Franko Jira (teaching supplement, 822-010)
- “CPE and SUS Environmental: You've Got to Know When to Hold 'Em (A) and (B)” by Josh Lerner (teaching note, 822-030)
- “Engine No.1: An Impact Investing Firm Engages with ExxonMobil” by Mark Kramer, Shawn Cole, Vikram S. Gandhi and T. Robert Zochowski (case, 222-028)
- “Making Impact Investing Markets: IFC (A)” by Shawn Cole, John Masko, and T. Robert Zochowski (case, 221-061)
- “Making Impact Investing Markets: IFC (B)” by Shawn Cole, John Masko, and T. Robert Zochowski (case, 221-081)
- “Measuring Impact at JUST Capital” by Charles Wang and Ethan Rouen (case, 121-703)
- “Public Equities Impact Investing at BlackRock” by Shawn Cole, Vikram Gandhi, Michael Norris, and John Masko (case, 221-066)
- “Prime Coalition: Catalytic Capital for Climate Innovation” by Benjamin Roth (teaching note, 822-028)
- “SPAC Space” by John Wells and Benjamin Weinstock (background note, 721-456)

In the News

- “Bank of America’s CEO has a message for governments on carbon markets: ‘Give us a price’” by Katherine Dunn, *Fortune*
- “Boston University Plans to Divest \$2.4 Billion Endowment from Fossil Fuels” by Vikram Gandhi, *FundFire*
- “Danone: ‘Societal and environmental issues are pressing and companies must transform if they intend to remain competitive’” feature of George Serafeim and Ethan Rouen, *Le Monde*
- “Farrell: How an investor can try to make money and stay away from polluting companies” feature of Shirley Lu by Chris Farrell, *Star Tribune*
- “Holding Business to Account” feature of Geeta Aiyer (MBA 1985), *HBS Alumni Stories*
- “Impact Investing’s Next Challenge” feature of Vikram Gandhi by Karen Hube, *Barron’s*
- “New platform bids to provide impact management clarity, boost” by Susanna Rust, *IPE*
- “Rising impact investment shows doing good and doing well can work together: Vikram Gandhi, Harvard Business School” feature of Vikram Gandhi by Srijana Mitra Das, *Economic Times*

- “Teaching recognition award for excellence in sustainable finance education: 2021 winners in full” feature of Vikram Gandhi and Shawn Cole by Andrew Jack, *Financial Times*
- “To Fight Climate Change, Should Green Investors Reconsider Big Oil?” feature of Lauren Cohen by Kristen Senz, *Working Knowledge*
- “Vikram Gandhi - HBS Professor and Managing Partner at Asha Impact Fund” feature of Vikram Gandhi, *Doing Well by Doing Good* podcast
- “What I Wish I Had Learned About Investing At Harvard Business School: Wellbeing And Risk-Adjusted Returns” by Bhakti Mirchandani, *Forbes*
- “Why Vikram Gandhi, Creator of Harvard’s Impact Investing Course, Hopes to Stop Teaching It” feature of Vikram Gandhi by Michael Thrasher, *RIA Intel*

Scholarly Research

- “Accounting for Product Impact in the Interactive Media and Services Industry” by DG Park, George Serafeim, and Katie Trinh, HBS Working Paper, 21-134
- “Accounting for Product Impact in the Oil and Gas Industry” by Katie Panella, George Serafeim, and Katie Trinh, HBS Working Paper, 21-140
- “Accounting for Product Impact in the Pharmaceuticals Industry” by Amanda Rischbieth, George Serafeim, and Katie Trinh, HBS Working Paper, 21-139
- “Accounting for Product Impact in the Telecommunications Industry” by George Serafeim and Katie Trinh, HBS Working Paper, 21-105
- “Accounting for Product Impact in the Water Utilities Industry” by George Serafeim and Katie Trinh, HBS Working Paper, 21-104
- “Accounting for Workforce Impact at Scale” by Katie Panella, Ethan Rouen, and Georgios Serafeim, HBS Working Paper, 22-018
- “Impact Accounting for Product Use: A Framework and Industry-specific Models” by George Serafeim and Katie Trinh, HBS Working Paper, 21-141
- “Impact-Weighted Financial Accounts: A Paradigm Shift” by George Serafeim and Ethan Rouen, CESifo Network
- “Studying the U.S.-Based Portfolio Companies of U.S. Impact Investors” by M. Diane Burton, Gurveen Chadha, Shawn Cole, Abhishek Dev, Christina Jarymowycz, Leslie Jeng, Laura Kelley, Josh Lerner, Jaime Diaz Palacios, Yue (Cynthia) Xu, and T. Robert Zochowski, HBS Working Paper, 21-130

PART 3: Climate Finance

Courses

- “Climate Finance” January SIP (Short Intensive Program) taught by Professors Vikram Gandhi & George Serafeim
- “Entrepreneurial Finance” EC Course taught by Professor Shai Bernstein, Professor Jim Matheson, and Professor Paul Gompers
- “Entrepreneurial Solutions to the World's Problems” EC Course taught by Professor William Sahlman
- “Risks, Opportunities, and Investments in the Era of Climate Change” EC Course taught by Professor George Serafeim
- “Tough Tech Ventures” EC Course taught by Professors Joshua Lev Krieger and Jim Matheson

In the News

- “Climate Finance SIP” by Lynn Schenk, *BEI Blog*
- “Climate Finance Takeaways” by Vikram Gandhi, *LinkedIn*
- “SIPS in 2021” by Shona Simkin, *HBS Newsroom*

Scholarly Research

- “Decarbonizing Everything” by Alex Cheema-Fox, Bridget LaPerla, George Serafeim, David Turkington and Hui (Stacie) Wang, *Financial Analysts Journal*
- “Pricing of Climate Risk Insurance: Regulatory Frictions and Cross-Subsidies” by Ishita Sen and Ana-Maria Tenekedjieva, HBS Working Paper

Food & Agriculture

Food and agriculture is the second largest sector contributing to climate change after energy generation ([IPCC 2014](#)). This sector is particularly vulnerable to climate change as higher temperatures require shifts in agricultural practices and supply chains are increasingly disrupted by more frequent and severe storms. At the same time, consumer demand for organic and sustainably sourced food is growing. This changing landscape is creating opportunities for companies that can recognize emerging trends, innovate, and evolve strategies quickly. The following list includes select notable accomplishments of the year.

Course Materials

- “ALDDN: Advancing Local Dairy Development in Nigeria” by Meg Rithmire and Debora Spar (case, 721-026)
- “Bespoken Spirits: Disrupting Distilling” by Benjamin Esty and Daniel Fisher (case, 721-419)
- “Bespoken Spirits: Disrupting Distilling” by Benjamin Esty and Daniel Fisher (teaching supplement, 721-852)
- “Danone S.A.: Becoming a Mission-Driven Company (A)” by Benjamin Esty and Emilie Billaud (teaching supplement, 722-354)
- “Danone S.A.: Becoming a Mission-Driven Company (B)” by Benjamin Esty and Emilie Billaud (teaching supplement, 722-355)
- “Danone S.A.: Becoming a Mission-Driven Company (C)” by Benjamin Esty and Emilie Billaud (teaching supplement, 722-356)

Courses

- “Agribusiness Seminar” Executive Education course
- “Food and Agribusiness” EC course taught by Professor Forest Reinhardt

In the News

- “New Menu” feature of Andrew D. Ive (MBA 1997), *HBS Alumni Story*
- “Tackling Food Waste Through ‘Ugly’ Produce: Summer Fellow Lucia Cuneo (MBA 2022)” by Lucia Cuneo, *SEI Blog*
- “Student Spotlight: Jesse Lou (2022) - Working to Change the Food System” by Jesse Lou, *BEI Blog*

Scholarly Research

- “Does Cash Really Mean Trash? An Empirical Investigation into the Effect of Retailer Price Promotions on Household Food Waste” by Arjen van Lin, Aylin Aydinli, Marco Bertini, Erica van Herpen, and Julia von Schuckmann, *HBS Working Paper*
- “Making Small Farms More Sustainable—and Profitable” by Lino Dias, Robert S. Kaplan and Harmanpreet Singh, *Harvard Business Review Digital Articles*
- “Mobile’izing Agricultural Advice: Technology Adoption, Diffusion and Sustainability” by Shawn Cole and A. Niles Fernando, *Economic Journal (Royal Economic Society)*

Governance, Policy & Regulation

Businesses cannot drive societal-level change toward sustainability by working on their own. Industry collectives, public-private partnerships, and government regulatory agencies all play important roles in fostering change. Faculty are working to identify the most effective governance mechanisms, including industry self-regulation, government policy, and hybrid approaches. Examples from the past year are noted below.

Books

- "Sostenibilidad y negocios verdes en América Latina" by Geoffrey Jones, *Historia empresarial en América Latina: temas, debates y problemas* (chapter)

Course Materials

- "Australia: Commodities, Competitiveness, Climate and China" by Richard Vietor (teaching note, 721-050)
- "Overview - Research Summary" by Rebecca Henderson
- "Phillips 66 and the Washington State Carbon Tax" by Rebecca Henderson, Mariana Oseguera, and Christopher Musser (case, 321-142)

Courses

- "Corporate Governance and Boards of Directors" EC Course taught by Lynn Paine
- "Making Corporate Boards More Effective" Executive Education Course taught by Professor Lynn Paine and Professor Suraj Srinivasan
- "Reimagining Capitalism: Business and Big Problems" EC Course taught by Professor Ethan Rouen and Professor George Serafeim
- "Reimagining Capitalism: Business and Big Problems" *Harvard Business Publishing Education* Course by George Serafeim and Rebecca Henderson

In the News

- "Aftermovie: Rebecca Henderson - Reimagining Capitalism in a World on Fire" feature of Rebecca Henderson, *YouTube*
- "An entrepreneurial approach to 'possibility government'" feature of Mitchell Weiss by John Laidler, *Harvard Gazette*
- "California's Push for Climate Disclosure" feature of Lynn Schenk, *FinReg Podcast*
- "Confronting Climate Change: Diverse Perspectives on the Path Forward" event featuring Rebecca Henderson, Peter Huybers, Jennifer Leaning, and Jim Stock
- "Eyes on tomorrow, voices of today" feature of Lucy Shaw (MBA 2021) by Alvin Powell, *Harvard Gazette*
- "Finding a way forward on climate change" feature of Rebecca Henderson by Clea Simon, *Harvard Gazette*
- "How Thinking Like a Startup Helps Governments Solve More Problems" feature of Mitchell Weiss by Martha Lagace, *Working Knowledge*

- “How to measure the impact of natural and social capital on a company’s accounts?” feature of Rebecca Henderson, *The Asset*
- “Keeping the Coast Clear” feature of Jonathan Stone (MBA 1984), *HBS Alumni Story*
- “Latinx on Boards; High-Tech Reforestation” feature of Monica Dodi (MBA 1984), *HBS Alumni Stories*
- “Leadership Advice for Biden: Restore a Sense of Calm” Feature of Rosabeth Moss Kanter by Dina Gerdeman, *Working Knowledge*
- “Mission possible: How start-up thinking can help public projects” feature of Mitchell Weiss by Frank Dillon, *The Irish Times*
- “Talk Green, Play Dirty: Corporate America's Mixed Record” feature of Mike Toffel, *Climate One* podcast
- “Will a Maine ballot question drive a spike in Massachusetts' climate efforts?” feature of Jurgen Weiss by Sabrina Shankman, *The Boston Globe*

Practitioner-Oriented Materials

- “Business Leaders Must Take Action on Climate and Voting Rights” by Michael Porter and Daniella Ballou-Aares, *Harvard Business Review*
- “Developing Climate Risk Disclosure Practices for the State of California” feature of Lynn Schenk as a member of *The California Climate-Related Risk Disclosure Advisory Group*

Scholarly Research

- “Shareholder Activism and Firms' Voluntary Disclosure of Climate Change Risks” by Caroline Flammer, Michael Toffel, and Kala Viswanathan, *Strategic Management Journal*
- “Shareholders Are Pressing for Climate Risk Disclosures. That's Good for Everyone” by Caroline Flammer, Michael Toffel, and Kala Viswanathan, *Harvard Business Review Digital Articles*
- “The Sustainable Corporate Governance Initiative in Europe” by Mark Roe, Holger Spamann, Jesse Fried, and Charles Wang, *Yale Journal on Regulation Bulletin*

Sustainable Cities & Infrastructure

The world is currently undergoing the largest wave of urban growth in human history. More than half of the global population is now concentrated in urban areas, a proportion that is expected to increase to nearly 70% by 2050 ([UN 2018](#)). Cities provide opportunities to innovate to address development needs and to reduce greenhouse gases. Below are examples of faculty work in this critical area.

Course Materials

- “Dream: Impact Through Real Estate” by Michael Chu and John Masko (case, 322-041)

Courses

- “Sustainable Cities and Resilient Infrastructure” EC Course taught by Professor John Macomber

In the News

- “A Clean Start” feature of Todd Brix (MBA 1997, Baker Scholar), *HBS Alumni Stories*
- “Analysts in economics, public policy give Biden infrastructure plan high marks” feature of John Macomber by Christina Pazzanese, *Harvard Gazette*
- “Can a Green-Economy Boom Town Be Built to Last?” feature of Willy Shih by Noam Scheiber, *New York Times*
- “Get The Message: Reduce Water Use” feature of Jillian Jordan by Klaus Reichardt, *Facility Executive*
- “Green House” feature of Betsy Harper (MBA 1984), *HBS Alumni Stories*
- “Healthier by Design” feature of John Macomber by Patrick Kiger, *UrbanLand*
- “Joseph Allen and John Macomber on Health” feature of John Macomber and Joseph Allen by Pernille Berg, *Bloxhub*
- “Keyed in on Climate Change” by Mikal Lewis (MBA 2020), *The Fifth Wall*
- “Our Favorite Books in 2021 for Healthy Living” feature of John Macomber by Tara Parker-Pope, *The New York Times*
- “The uneven rise of the healthy workplace” feature of John Macomber by Courtney Humphries, *The Boston Globe*
- “This scientist says cleaning indoor air could make us healthier—and smarter” feature of John Macomber by Douglas Starr, *Science Magazine*
- “When the hospital emergency room is inundated with knee-deep water” feature of John Macomber by Laura Santhanam, *PBS*
- “Who Pays For Wildfire and Hurricane Damage? Everyone.” feature of Ishita Sen by Kristen Senz, *Working Knowledge*

Practitioner-Oriented Materials

- “Employers Must Ensure the Safety of Home Workspaces” by Joseph Allen and John Macomber, *Harvard Business Review*

Sustainability Strategy

Over the past several decades a growing number of firms have incorporated a range of sustainability practices. For some firms, sustainability has been a differentiation strategy, while for others it has become a strategic necessity to ensure survival. Research, teaching, and engagement at HBS has explored the conditions under which sustainability strategy can lead to superior performance.

Books

- “Taking Leadership to a New Place: Outside-the-Building Thinking to Improve the World” by Rosabeth Kanter, *The Business of Building a Better World: The Leadership Revolution That Is Changing Everything* (chapter)

Course Materials

- “Allbirds: Decarbonizing Fashion” by Michael Toffel, Ken Pucker, and Eren Kuzucu (case, 622-024)
- “Andre Hoffmann: Beyond Philanthropy” by Lauren Cohen, Hao Gao, Jiawei Ye, and Spencer Hagist (case, 221-093)
- “AptDeco: Circular Economy Furniture Marketplace” by Ayelet Israeli and Jamie Merkrebs (case, 521-069)
- “Cedar Environmental: Innovation vs. Corruption in Lebanon?” by Nien-hê Hsieh and Youssef Abdel Aal (case, 321-114)
- “Chia Network: Reimagining Programmable Money” by William A. Sahlman and George Gonzalez (case, 822-039)
- “Coca-Cola: Preparing for the Next 100 Years” by Cynthia Montgomery and James Weber (case 721-359)
- “DeepGreen - the Metals Company and Polymetallic Nodules” by Richard Vietor (teaching note, 721-051)
- “Digital Transformation 2.0: CEO Elie Girard at Atos” by Tsedal Neeley and James Barnett (case, 421-024)
- “Digital Transformation 2.0: CEO Elie Girard at Atos” by Tsedal Neeley (teaching note, 422-006)
- “Patch Technology: Making it Easy to do the Right Thing” by Tomomichi Amano, Robert Dolan, and Carol Zhang (case, 522-037)
- “Project Maji: Pricing Water in Sub-Saharan Africa” by Elie Ofek, Marco Bertini, Esel Çekin, and Dilyana Karadzhova Botha (case, 522-043)
- “Rio Tinto Aluminum: Can Purpose Lead to Profit?” by David Fubini and Agastya Muthanna (case, 421-055)
- “Shorefast: A Strange and Familiar Way to Reimagine Capitalism” by Brian Trelstad, Wendy Smith and Natalie Slawinski (teaching plan, 322-001)

- “Shorefast: A Strange and Familiar Way to Reimagine Capitalism: Zita Cobb, Founder and CEO” by Brian Trelstad (teaching supplement, 322-701)
- “Social Entrepreneurship and Systems Change” by Brian Trelstad and Preeti Varma (teaching plan, 322-029)

Courses

- “Business at the Base of the Pyramid” EC Course taught by Professor Michael Chu
- “Purpose & Profit” EC Course taught by Professor Mark Kramer
- “Retailing” EC Course taught by Professor Jose Alvarez
- “Strategy for Entrepreneurs Intensive: Critical Choices in Creating a Successful Enterprise” EC Course taught by Professor John Wells

In the News

- “Announcing the Inaugural Harvard Climate Entrepreneurs Circle and a New Season of Climate Rising Podcast focused on Entrepreneurship” *Harvard Innovation Labs*
- “A Q+A with Syrup, the Company Striving to Transform Retail Inventory Management” feature of Ferdinand Stockmann (MBA 2021) and James Theuerkauf (MBA 2021) by Dorian Salinas, *HBS News Story*
- “Building a More Sustainable Economy: The Role of Business” presentation by Lynn Paine
- “Businesses by nature are problem solvers — industry leaders hold the best climate crisis solutions: Nancy F. Koehn” feature of Nancy Koehn by Srijana Mitra Das, *Economic Times*
- “Business schools lag behind Europe’s executives on ESG” by Colin Mayer, *Financial Times*
- “Can Fabric Waste Become Fashion’s Resource?” by Geoffrey Jones and Shelly Xu (MBA 2021), *Working Knowledge*
- “Cold Calculations” feature of Steve Payne (MBA 1985), *HBS Alumni Stories*
- “Disrupting the Waste Industry with Technology” feature of Shai Bernstein, *Cold Call* podcast
- “Focus on health and equity to meet 2026 climate goal, advises Sustainability Committee” feature of Mike Toffel by Artur Zudin, *Harvard Gazette*
- “Getting Serious About Sustainability: Corporate Governance for a New Era” presentation by Lynn Paine
- “Get to Know Shelly Xu Design, a Social Enterprise Track New Venture Competition Team” feature of Shelly Xu (MBA 2021), *HBS News Story*
- “In My Humble Opinion: A Timely Tension” feature of Beth Thoren (MBA 1992) by April White, *HBS Alumni Stories*
- “Perspectives - Rob Self (MBA 2021)” feature of Rob Self (MBA 2021), *HBS MBA Perspectives*
- “Robert Kaplan: The essence of long-term strategy” feature of Robert Kaplan by Michael Costello, *Management Today*
- “Searching For Purpose, Episode Two: Navigating Trade-Offs” feature of Ranjay Gulati, *YouTube*
- “The truth behind companies' 'net zero' climate commitments” by Alice Hill and Jennifer Nash, *The Hill*
- “Trends in Consumer Products” by Lauren Murphy, *MBA Voices*

- “Vanguard companies tap their firm’s collective intelligence to achieve social impact and financial success: Rosabeth Moss Kanter” feature of Rosabeth Moss Kanter by Srijana Mitra Das, *Economic Times*
- “What’s the Role of Business in Confronting Climate Change” by Lynn Schenk and Dina Gerdeman, *Working Knowledge*
- “Why Rosabeth Moss Kanter Says Leaders Must ‘Think Outside The Building’ To Address Complex Problems” feature of Rosabeth Moss Kanter by David Benjamin and David Komlos, *Forbes*

Practitioner-Oriented Materials

- “Creating a Meaningful Corporate Purpose” by Hubert Joly, *Harvard Business Review*
- “How to Lead in the Stakeholder Era” by Hubert Joly, *Harvard Business Review*
- “Opinion: How the COVID-19 pandemic can be the push forward that the planet needs” by Vikram Gandhi, *MarketWatch*

Scholarly Research

- “Can We Afford Sustainable Business? Taking a Creative Approach to Pricing Can Benefit Society, the Environment—and Your Company” by Marco Bertini, John Pineda, Amadeus Petzke, and Jean-Manuel Izaret, *MIT Sloan Management Review*
- “Carbon Footprinting and Pricing under Climate Concerns” by Marco Bertini, Stefan Buehler, Daniel Halbheer, and Don Lehmann, *Journal of Marketing*
- “Innovation in the 21st Century: Architectural Change, Purpose, and the Challenges of Our Time” by Rebecca Henderson, *Management Science*
- “Look ‘Outside the Building’ for the Future of Leadership” by Rosabeth Moss Kanter, *Leader to Leader*
- “Science-Based Carbon Emissions Targets” by David Freiberg, Jody Grewal, and George Serafeim, HBS Working Paper, 21-108

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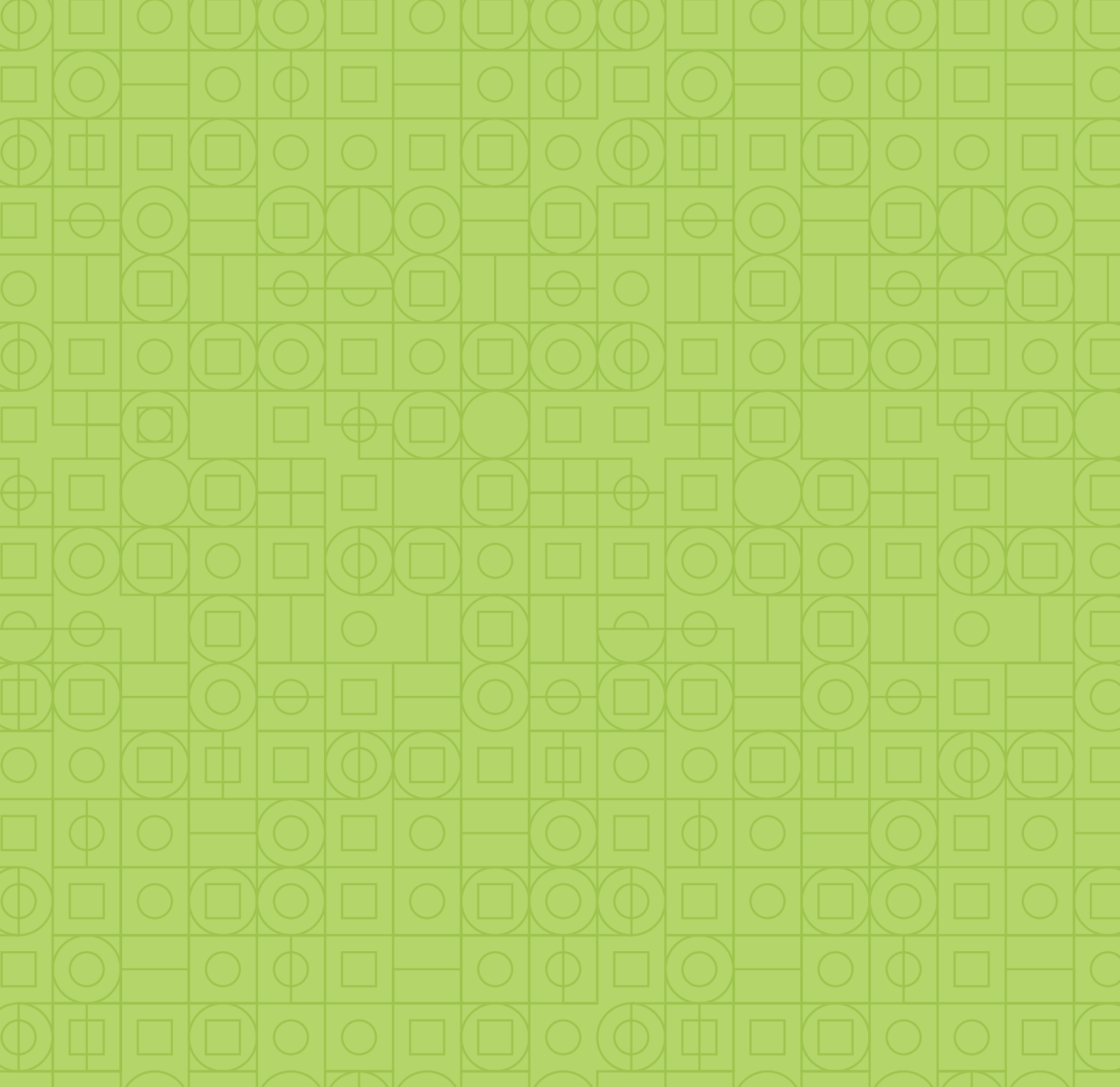
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